# TEAFLEX TX

industrial cable protection

**Ochrona kabli**
**System metalowy**
*Cable protection*
*Industrial system*

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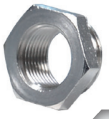

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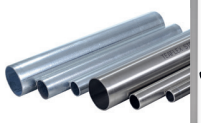

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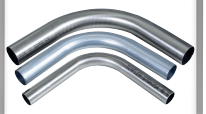
**C - CX**



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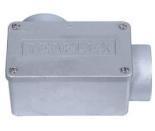

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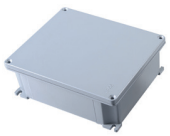

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# Certyfikaty / Approvals

## Nasze Certyfikaty
## Our Approvals

CERTIFICATO

Nr. 50 100 7752 Rev.007

Certificati co-titolari collegati / Connected to the sub-certificates:
50 100 7752/1 Rev.004

SI ATTESTA CHE / THIS IS TO CERTIFY THAT

IL SISTEMA DI GESTIONE PER LA QUALITÀ DI
THE QUALITY MANAGEMENT SYSTEM OF

TEAFLEX S.p.A.

SEDE LEGALE E OPERATIVA:
REGISTERED OFFICE AND OPERATIONAL SITE:

VIA DELLE VIGNE 28
IT - 20853 BIASSONO (MB)

È CONFORME AI REQUISITI DELLA NORMA
HAS BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF

UNI EN ISO 9001:2015

QUESTO CERTIFICATO È VALIDO PER IL SEGUENTE CAMPO DI APPLICAZIONE
THIS CERTIFICATE IS VALID FOR THE FOLLOWING SCOPE OF APPLICATION

Progettazione e fabbricazione di raccordi, pressa cavi e guaine per la protezione meccanica di cavi elettrici e cavi-dati nel settore industriale. Commercializzazione di tubi in acciaio zincato e inox per la protezione meccanica di cavi elettrici e di segnale per il settore industriale (IAF 14, 17, 29)

*Design and manufacture of fittings, cable glands and conduits for mechanical protection of electrical wires and data-cables in the industrial field. Trade of galvanized steel and stainless-steel pipes for mechanical protection of electrical wires and data-cables in the industrial field (IAF 14, 17, 29)*

ACCREDIA
SGQ N° 049A

Per l'Organismo di Certificazione
For the Certification Body
TÜV Italia S.r.l.

Validità / Validity
Dal / From: 2021-06-18
Al / To: 2024-06-15

Data emissione / Issuing Date
2021-06-18

Andrea Coscia
Direttore Divisione Business Assurance
Business Assurance Division Manager

PRIMA CERTIFICAZIONE / FIRST CERTIFICATION: 2008-05-28

"LA VALIDITÀ DEL PRESENTE CERTIFICATO È SUBORDINATA A SORVEGLIANZA PERIODICA A 12 MESI E AL RIESAME COMPLETO DEL SISTEMA DI GESTIONE AZIENDALE CON PERIODICITÀ TRIENNALE"
"THE VALIDITY OF THE PRESENT CERTIFICATE DEPENDS ON THE ANNUAL SURVEILLANCE EVERY 12 MONTHS AND ON THE COMPLETE REVIEW OF COMPANY'S MANAGEMENT SYSTEM AFTER THREE YEARS"

TÜV Italia • Gruppo TÜV SÜD • Via Carducci 125, Pal. 23 • 20099 Sesto San Giovanni (MI) • Italia • www.tuvsud.com/it

CERTIFICATE

awarded to

TEAFLEX S.p.a.
Via Delle Vigne 28
20853 BIASSONO
Italy

TÜV SÜD Management Service GmbH

confirms, as an IRIS Certification® approved certification body, that the Management System of the above organization has been assessed and found to be in accordance with the

IRIS Certification® Conformity assessment:2020
and based on
ISO/TS 22163:2017

for the activities of Design and Development and Manufacturing
for the scopes of certification: 19 (Single railway components)
Design and manufacture of conduits, cable glands and fittings
for protection of electrical cables

Certificate valid from: 16/06/2021 Certificate valid until: 15/06/2024*

Current date: 27/05/2021
Certificate-Register-No.: 12 113 36670

* Providing that the subsequent surveillance audits are successful before the validity date of the previous audit.
Certification body address: Ridlerstr. 57, 80339 München, Germany

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1/1

TÜV SÜD Management Service GmbH • Zertifizierungsstelle • Ridlerstrasse 57 • 80339 München • Germany
www.tuvsud.com/de-certificate-validity-check

NOTIFICATION

[1] PRODUCT QUALITY ASSURANCE NOTIFICATION

[2] Equipment or Protective System or Component intended for use in potentially explosive atmospheres
Directive 94/9/EC

[3] Notification number:

TÜV IT 13 ATEX 065 Q

[4] Equipment or Component as listed:
CABLE GLANDS
THREAD FITTINGS

Protection concepts: see schedule

[5] Applicant: Teaflex S.p.a.
Via delle vigne, 28
I-20853 Biassono (MB)- ITALY

[6] Manufacturer: Teaflex S.p.a.
Via delle vigne, 28
I-20853 Biassono (MB)- ITALY

[7] TÜV Italia, notified body no. 0948 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, notifies to the applicant that the actual manufacturer has a production quality system which complies to Annex IV of the Directive.

[8] This notification is based on audit report no. R 13 EX 036 issued on 2013.09.27.

This notification can be withdrawn if the manufacturer no longer satisfies the requirement of Annex VII.

Results of periodical re-assessment of the quality system are a part of this notification.

[9] This notification is valid until al 2016.09.29 and can be withdrawn if the Manufacturer does not satisfy the production quality assurance re-assessment.

[10] According to Article 10 paragraph 1 of the Directive 94/9/EC the CE marking shall be followed by the identification no. 0948 identifying the notified body involved in the production control stage.

This notification may only be reproduced in its entirety and without any change, schedule included.

Date of first issue: 30th of September, 2013

TÜV Italia Srl Industrial Service
09 48
Notified Body
Gennaro Oliva
Industrial Service Director

TÜV Italia has been authorized by Italian government to operate as notified body for the certification of equipment or protective system intended for use in potentially explosive atmospheres with D.D. prot. N. 0215696 dated 19/10/2012.
This notification without signature and official stamp shall not be valid.
In case of mistake, Italian text shall prevail.
This document is internally administrated under no. 236839.

page 1 of 2

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TÜV SÜD ISO 9001

IRIS Certification

IK INSTYTUT KOLEJNICTWA

DNV

RINA

CSI Certificazione e Testing

APPROVED ABS PRODUCT

c UL us

Добровольная сертификация

BASF The Chemical Company

LAPI SPA Certificazione, Ispezione e Prova

SAFRAN AEROSPACE · DEFENCE · SECURITY

Exova

# OPLOT POLIESTROWY

## DO ORGANIZACJI I IZOLACJI KABLI

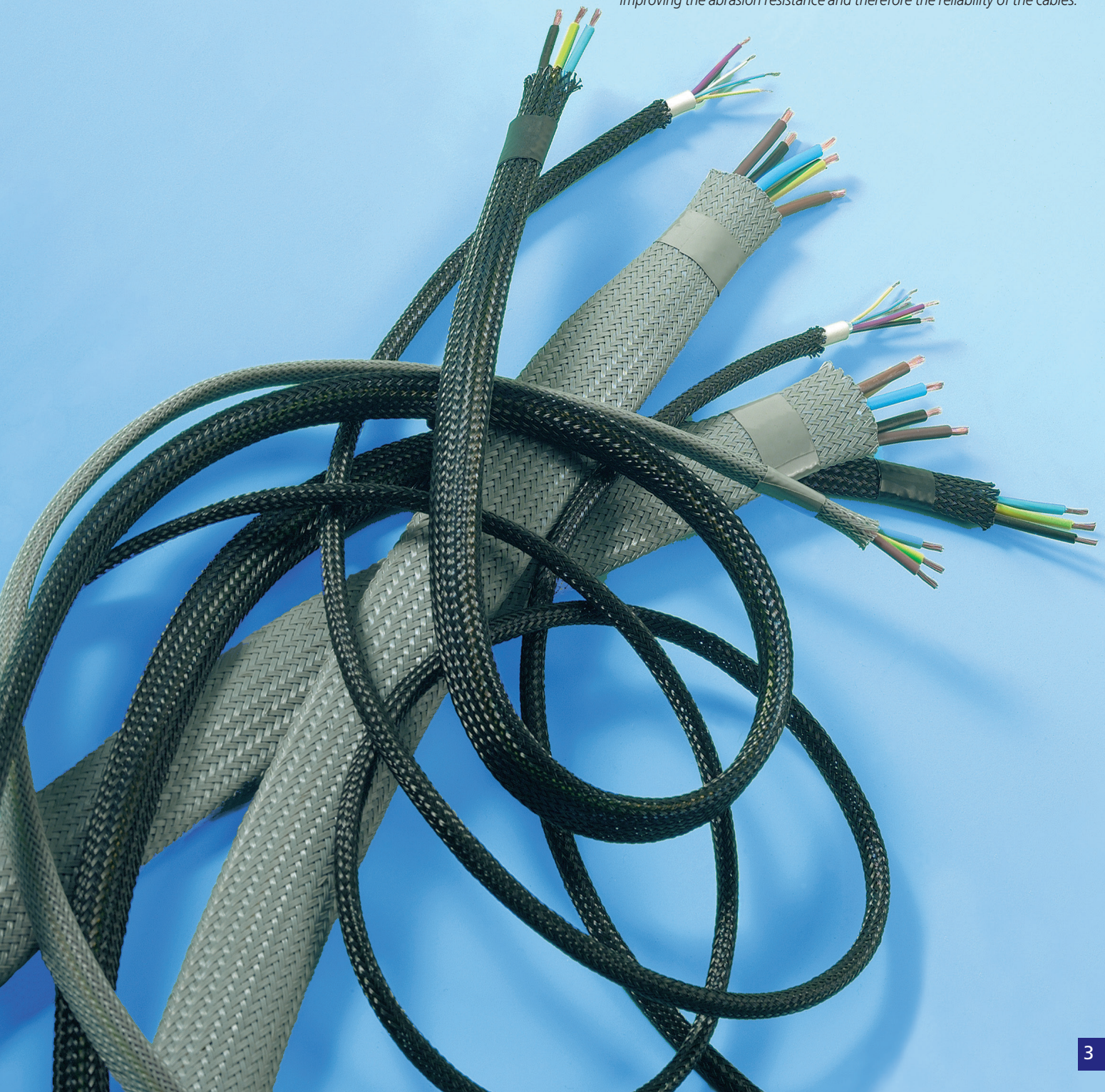
Oplot poliestrowy stosowany jest do prowadzenia kabli elektrycznych oraz ich ochrony przed ścieraniem wewnątrz szaf elektrycznych, gdzie istnieje konieczność ograniczenia do minimum zajmowanej przestrzeni przy równoczesnym zapewnieniu bezpieczeństwa okablowania.
Firma TEAFLEX S.p.A. opracowała i produkuje oplot z najwyższej jakości poliestrowej przędzy jednowłóknowej (monofilament). Produkt jest odporny na działanie czynników chemicznych, nie zawiera halogenów i kadmu, odporny na wysokie temperatury, sąmogasnący według norm UL94-HB i UL94-V0.
Główną cechą oplotu jest rozszerzalność - jego średnica może zwiększyć się nawet dwukrotnie w stosunku do wartości nominalnej dla ułatwienia wkładania kabli. Ten wynik można uzyskać poprzez ściśnięcie wzdłużne oplotu. Pokrycie wynosi 80%, gwarantujac w ten sposób wysoki stopień bezpieczeństwa i linearności kabli.

# *POLYESTER BRAIDED SLEEVING*

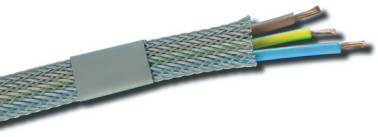
## *FOR CABLES INSERTION AND INSULATION*

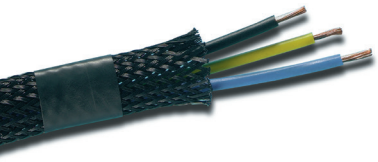
*Polyester braided sleeves have been manufactured to allow wiring and abrasion protection of the cables inside switchboards where available space is always limited.*

*TEAFLEX S.p.A. develop and manufactures polyester braided sleeves with high quality Monofilament. The products are resistant against chemical agents, free of halogen and cadmium, high temperature resistant, and available according to fire characteristic categories of UL94-HB and UL94-V0.*
*The braided sleeves are expandable up to the double the size of the nominal diameter allowing easy insertion of the cables and wires. By expanding the braid even cables with pre-adapted connectors can be passed through the hose.*
*The special braid made guarantee conductors cover up to 80%, decisively improving the abrasion resistance and therefore the reliability of the cables.*



# PE





## Zastosowanie *Application*

Oplot poliestrowy PEHB i PEV0 jest bardzo giętki umożliwiając ochronę dowolnego przewodu lub wiązki przewodów nawet na bardzo małej przestrzeni.
Oplot PEV0 wyróżnia się lepszą odpornością ogniową w porównaniu z oplotem PEHB.

*The polyester braided sleeve PEHB and PEV0 features great flexibility. They allows the protection and wrapping of every cable or cable set even in narrow spaces.*
*The PEV0 braided sleeve has an even better fire resistance than PEHB braided sleeves.*

## Materiał *Material*

Poliester nie zawierający halogenów, kadmu i fosforu.

*Polyester, free of halogens, phosphor and cadmium*

## Właściwości produktu *Product characteristics*

Bardzo wysoka giętkość
Doskonała odporność mechaniczna
Dobra odporność termiczna

*Extreme flexibility*
*Excellent mechanical resistance*
*Good thermal resistance*

## Certyfikaty *Approvals*

UNI CEI 11170-3 (LR4)
NF F16 101 (F1/I2)
RINA
**EN 45545-2 (HL3) (PEV0)**

*UNI CEI 11170-3 (LR4)*
*NF F16 101 (F1/I2)*
*RINA*
**EN 45545-2 (HL3) (PEV0)**

## Kolory *Colors*

Czarny (standard), szary

*Black (standard), Grey*

| Kod produktu | | Średnica rury NW | Średnica min-max mm | Opakowanie m | Certyfikaty | Kod produktu | |
|---|---|---|---|---|---|---|---|
| czarny | szary | | | | | czarny | szary |
| **PEHB04N** | **PEHB04G** | 4 | 2-7 | 100 | CSI LAPI RINA | **PEV004N** | **PEV004G** |
| **PEHB05N** | **PEHB05G** | 5 | 4-11 | 100 | CSI LAPI RINA | **PEV005N** | **PEV005G** |
| **PEHB06N** | **PEHB06G** | 6 | 4-11 | 100 | CSI LAPI RINA | **PEV006N** | **PEV006G** |
| **PEHB08N** | **PEHB08G** | 8 | 5-12 | 100 | CSI LAPI RINA | **PEV008N** | **PEV008G** |
| **PEHB10N** | **PEHB10G** | 10 | 7-15 | 100 | CSI LAPI RINA | **PEV010N** | **PEV010G** |
| **PEHB12N** | **PEHB12G** | 12 | 8-17 | 50 | CSI LAPI RINA | **PEV012N** | **PEV012G** |
| **PEHB16N** | **PEHB16G** | 16 | 10-20 | 50 | CSI LAPI RINA | **PEV016N** | **PEV016G** |
| **PEHB20N** | **PEHB20G** | 20 | 14-26 | 50 | CSI LAPI RINA | **PEV020N** | **PEV020G** |
| **PEHB25N** | **PEHB25G** | 25 | 18-34 | 50 | CSI LAPI RINA | **PEV025N** | **PEV025G** |
| **PEHB30N** | **PEHB30G** | 30 | 20-40 | 25 | CSI LAPI RINA | **PEV030N** | **PEV030G** |
| **PEHB40N** | **PEHB40G** | 40 | 30-40 | 25 | CSI LAPI RINA | **PEV040N** | **PEV040G** |
| **PEHB50N** | **PEHB50G** | 50 | 40-60 | 25 | CSI LAPI RINA | **PEV050N** | **PEV050G** |
| *black* | *grey* | | | | | *black* | *grey* |
| ***Reference Number*** | | ***Nominal width NW*** | ***Min-Max width mm*** | ***Packing Unit m*** | ***Approvals*** | ***Reference Number*** | |

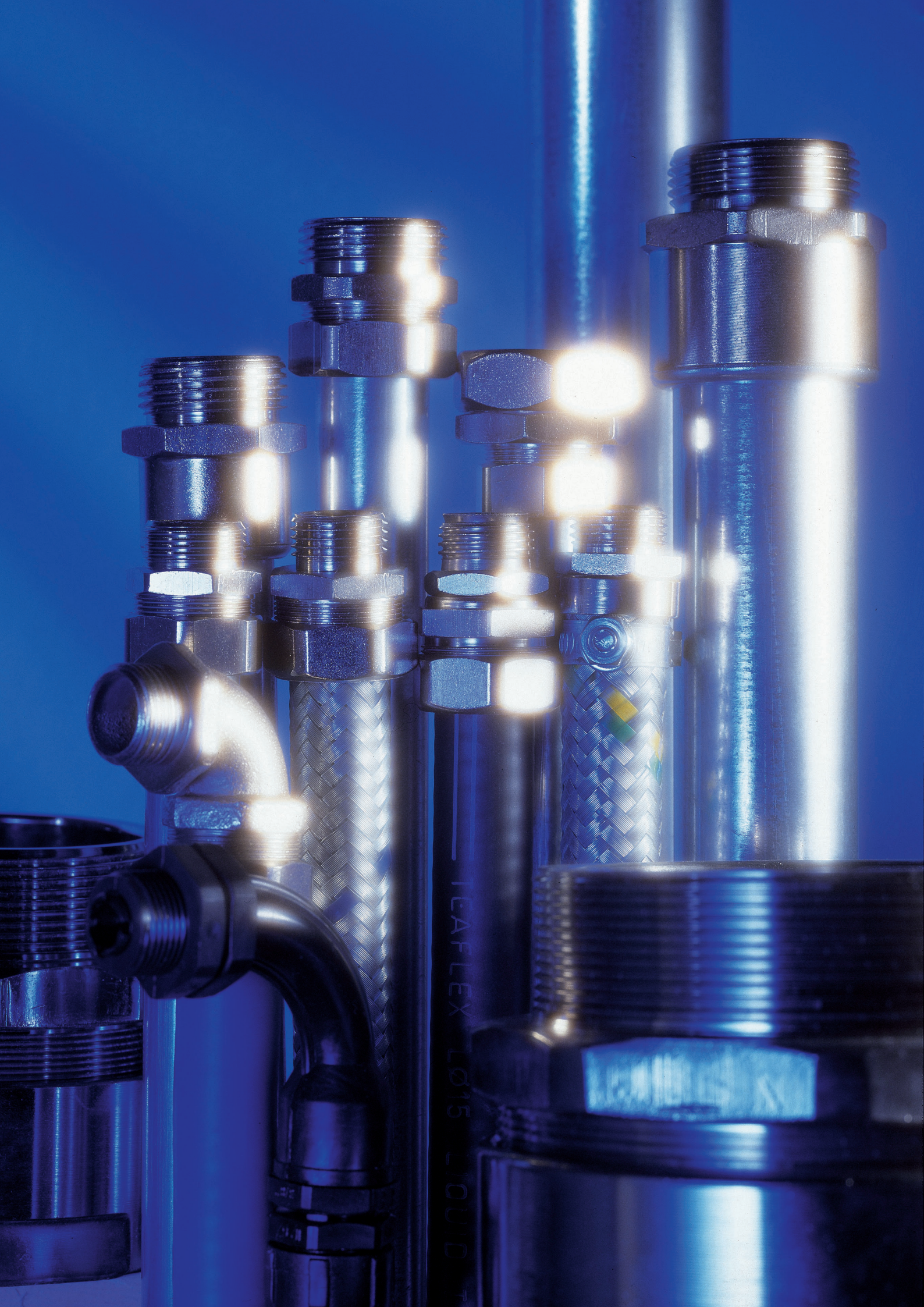
# Oplot poliesterowy - *Polyester braided sleeving for cables insertion and insulation*

Przykładowe zamówienie / *Order example:* **PEHB 20 N**

| | |
|---|---|
| **PEHB** | Kod / *Code* |
| **20** | Średnica nominalna / *Nominal width* |
| **N** | Kolor / *Colour* |

## DANE TECHNICZNE *TECHNICAL DATA*

| **Charakterystyka** | ***Characteristics*** | **Wartości *Value*** | | **Jednostka miary *Unit's (Measures)*** | **Normy odniesienia *Reference standards*** |
|---|---|---|---|---|---|
| **Właściwości mechaniczne** | ***Mechanical characteristics*** | **PEHB** | **PEV0** | | |
| Gęstość | *Specific weight* | 1,39 | 1,41 | gr/cm3 | ISO 1183 |
| Wytrzymałość na rozciąganie | *Traction resistance* | 2,5 | 2,5 | Kg/m2 | ISO 37 |
| Wydłużenie przy zerwaniu | *Breaking elongation* | 33 | 34 | % | UNI ISO527 |
| **Właściwości cieplne** | ***Thermal characteristics*** | **PEHB** | **PEV0** | | |
| Zakres temperatury | *Operating temperature* | -50°C/150°C | -50°C/150°C | °C | |
| Temperatura maksymalna | *Max temperature* | 160°C | 180°C | °C | |
| Temperatura mięknienia | *Softening temperature* | 200°C | 200°C | °C | |
| Temperatura topnienia | *Melting temperature* | 250°C | 260°C | °C | |
| **Klasyfikacja palności** | ***Fire characteristic*** | **PEHB** | **PEV0** | | |
| Indeks tlenowy | *Oxygen Index* | / | ≥ 43,9 | % | NF EN ISO 4589 1/2 |
| Zawartość halogenów | *Contents of halogens* | brak / *free* | brak / *free* | | DIN 53474 |
| Odporność na ogień | Flame class | HB | V0 | | UL94 |
| Klasyfikacja dymów | *Classification smokes* | / | F1 | | UNI CEI 11170-3 |
| Reakcja na ogień | *Fire reaction* | / | I2 | | NF F 16-101 e102 |
| Klasa ochrony ogniowej | *Fire Protection Category* | / | HL3 | | EN 45545-2 |
| **Odporność na działanie czynników atmosferycznych** | | **PEHB** | **PEV0** | | |
| Promieniowanie UV / deszcz | *Weathering UV/rain cycle* | Dobra / *Good* | Dobra / *Good* | | |
| Absorbcja wody w temp. 23°C | *Water absorption at 23°C* | 0,6…0,7 | 0,6…0,7 | % | ISO62 |
| **Właściwości chemiczne** | ***Chemical properties*** | **PEHB** | **PEV0** | | |
| Odporność na paliwa, oleje mineralne, smary, związki alkaliczne, słabe kwasy | *Resistance against fuels, mineral based oils and grease alkalis, weak acids* | Doskonała *Excellent* | Doskonała *Excellent* | | |
| **Właściwości środowiskowe** | ***Environmental properties*** | **PEHB** | **PEV0** | | |
| Norma ROHS | *ROHS compliant* | Tak / *Yes* | Tak / *Yes* | | Dyrektywa 2002/95/EC |
| Recykling | *Recyclable* | Tak / *Yes* | Tak / *Yes* | | |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# INSTALACJE PRZEMYSŁOWE - SYSTEM METALOWY

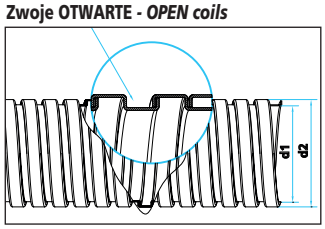
## *Metal Industrial Application*

# DAN - NZ - NDX

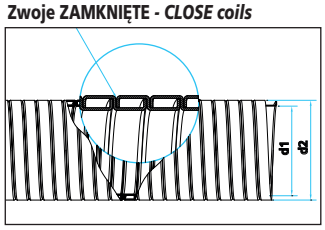
# Rura giętka metalowa
## *Flexible metal conduit*

NZ pojedynczy szew / single seam

**Zwoje OTWARTE - *OPEN coils***

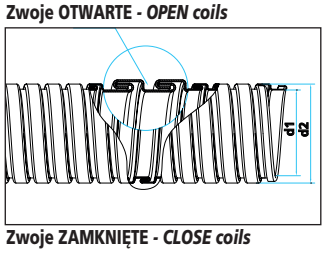



**Zwoje ZAMKNIĘTE - *CLOSE coils***

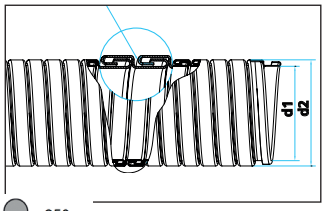


DAN podwójny szew / double seam

**Zwoje OTWARTE - *OPEN coils***




**Zwoje ZAMKNIĘTE - *CLOSE coils***




### DAN - Rura giętka ze stali ocynkowanej z podwójnym szwem

+ 250 °C - 50

| Kod | d1 mm (Toll. ± 2 mm) | | d2 | Promień min. zgięcia mm Tol. ± 15% | Opakowanie standard |
|---|---|---|---|---|---|
| **DAN010** | 10 | x | 13 | 35 | 50 |
| **DAN012** | 12 | x | 15 | 40 | 50 |
| **DAN013** | 13 | x | 16 | 44 | 50 |
| **DAN015** | 15.5 | x | 18.5 | 51 | 50 |
| **DAN018** | 18 | x | 21 | 78 | 50 |
| **DAN020** | 20.5 | x | 24.1 | 88 | 50 |
| **DAN025** | 25 | x | 28 | 107 | 50 |
| **DAN027** | 26.5 | x | 29.5 | 113 | 50 |
| **DAN033** | 33 | x | 36.6 | 105 | 25 |
| **DAN035** | 35 | x | 38.6 | 110 | 25 |
| **DAN040** | 40 | x | 43.6 | 126 | 25 |
| **DAN050** | 50.5 | x | 54.1 | 157 | 25 |
| **DAN065** | 65 | x | 70 | 259 | 25 |
| **DAN075** | 75 | x | 80 | 298 | 25 |
| **DAN100** | 100 | x | 105 | 393 | 25 |
| ***REF. Part N.*** | ***d. int. mm (Toll. ± 2 mm)*** | | ***d. out.*** | ***Minimum bending radius mm Toll. ± 15%*** | ***Packing Unit*** |

***DAN - galvanized carbon steel flexible conduit with double seam***

+ 250 °C - 50

### NZ - Rura metalowa

Rura giętka ze stali ocynkowanej z pojedynczym szwem.
❖ ★ Na zamówienie minimalne ilości

| Kod Stal ocynkowana | ∅ d1 ∅ d2 mm | Promień min. zgięcia mm Tol. ± 15% | Opakowanie Standard |
|---|---|---|---|
| | | | |
| **NZ05** ❖ | 5,0 - 7,0 | 23 | 100 |
| **NZ06** | 6,0 - 8,0 | 14 | 100 |
| **NZ07** | 7,0 - 9,0 | 16 | 100 |
| **NZ08** | 8,5 - 11,0 | 16 | 50 |
| **NZ09** ❖ | 9,0 - 11,5 | 18 | 50 |
| **NZ10** | 10,0 - 13,0 | 19 | 50 |
| **NZ11** ❖ | 11,0 - 14,0 | 20 | 50 |
| **NZ12** | 12,0 - 15,0 | 22 | 50 |
| **NZ13** | 13,0 - 16,0 | 24 | 50 |
| **NZ14** ❖ | 14,0 - 17,0 | 25 | 50 |
| **NZ15** | 15,5 - 18,5 | 27 | 50 |
| **NZ16** ❖ | 16,0 - 19,0 | 29 | 50 |
| **NZ17** ❖ | 17,0 - 20,0 | 30 | 50 |
| **NZ18** | 18,0 - 21,5 | 30 | 50 |
| **NZ20** | 20,5 - 24,0 | 34 | 50 |
| **NZ21** | 21,0 - 24,5 | 35 | 50 |
| **NZ23** ❖ | 23,0 - 26,5 | 38 | 50 |
| **NZ25** | 25,0 - 28,5 | 41 | 50 |
| **NZ27** | 26,5 - 30,0 | 43 | 50 |
| **NZ28** ❖ | 28,0 - 31,5 | 45 | 50 |
| **NZ30** ❖ | 30,0 - 33,5 | 49 | 25 |
| **NZ33** | 33,0 - 37,3 | 120 | 25 |
| **NZ35** | 35,0 - 39,5 | 127 | 25 |
| **NZ37** | 37,0 - 41,3 | 134 | 25 |
| **NZ40** | 40,0 - 44,3 | 144 | 25 |
| **NZ45** | 45,0 - 49,3 | 161 | 25 |
| **NZ50** | 50,5 - 54,8 | 180 | 25 |
| **NZ52** | 52,0 - 56,3 | 185 | 25 |
| | | | |
| | | | |
| ***REF. Part N. Zinc Plated*** | ***∅ int. ∅ out. mm*** | ***Min. bending radius mm Toll. ± 15%*** | ***Packing Unit*** |

### VCM - Metalowa końcówka do rur ochronnych metalowych

Końcówka metalowa śrubowa do umieszczenia wewnątrz rury ochronnej NZ-NDX-DAN. Chroni przewody przed możliwością przetarcia w trakcie ich wkładania.

| Kod | Materiał | Rura ∅ |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| **VCM09** | Ocynkowany stop/Galvanised alloyl | 8,5 |
| | | |
| **VCM10** | Ocynkowany stop/Galvanised alloyl | 10 |
| | | |
| **VCM12** | Ocynkowany stop/Galvanised alloyl | 12 |
| **VCM13** | Ocynkowany stop/Galvanised alloyl | 13 |
| | | |
| **VCM15** | Ocynkowany stop/Galvanised alloyl | 15,5 |
| | | |
| | | |
| **VCM18** | Ocynkowany stop/Galvanised alloyl | 18 |
| **VCM20** | Ocynkowany stop/Galvanised alloyl | 20,5 |
| | | |
| | | |
| **VCM25** | Ocynkowany stop/Galvanised alloyl | 25 |
| **VCM27** | Ocynkowany stop/Galvanised alloyl | 26,5 |
| | | |
| | | |
| **VCM33** | Ocynkowany stop/Galvanised alloyl | 33 |
| **VCM35** | Ocynkowany stop/Galvanised alloyl | 35 |
| | | |
| **VCM40** | Ocynkowany stop/Galvanised alloyl | 40 |
| | | |
| **VCM50** | Ocynkowany stop/Galvanised alloyl | 50,5 |
| | | |
| **VCM65** | Ocynkowany stop/Galvanised alloyl I | 65 |
| **VCM75** | Ocynkowany stop/Galvanised alloyl | 75 |
| **VCM100** | Stal węglowa ocynkowana/Galvan. steel | 100 |
| ***REF. Part N.*** | ***Material*** | ***∅ conduit*** |

### NDX - Rura metalowa INOX

Rura giętka ze stali INOX AISI 304 z podwójnym szwem
❖ ★ Na zamówienie minimalne ilości

+ 600 °C - 50

| Kod Stal Inox AISI 304 | ∅ d1 ∅ d2 mm | Promień min. zgięcia mm Tol. ± 15% | Opakowanie Standard |
|---|---|---|---|
| **NDX04** ❖ | 4,0 - 6,0 | 21 | 50 |
| **NDX05** ❖ | 5,0 - 7,0 | 25 | 50 |
| **NDX06** ❖ | 6,0 - 8,4 | 22 | 50 |
| **NDX07** ❖ | 7,0 - 9,4 | 25 | 50 |
| **NDX08** ❖ | 8,0 - 11,0 | 43 | 50 |
| | | | |
| **NDX10** ❖ | 10,0 - 13,0 | 34 | 50 |
| | | | |
| **NDX12** ❖ | 12,0 - 15,0 | 40 | 50 |
| **NDX13** ❖ | 13,0 - 16,0 | 43 | 50 |
| | | | |
| **NDX15** | 15,0 - 18,0 | 55 | 50 |
| | | | |
| | | | |
| **NDX18** ❖ | 18,0 - 21,0 | 65 | 50 |
| **NDX20** | 20,0 - 24,8 | 75 | 50 |
| | | | |
| | | | |
| **NDX25** | 25,0 - 29,8 | 91 | 50 |
| **NDX27** ❖ | 26,5 - 29,1 | 93 | 50 |
| | | | |
| | | | |
| **NDX33** ❖ | 33,0 - 37,5 | 122 | 25 |
| **NDX35** ❖ | 35,0 - 39,5 | 129 | 25 |
| | | | |
| **NDX40** | 40,0 - 44,5 | 146 | 25 |
| | | | |
| **NDX50** | 50,5 - 55,0 | 182 | 25 |
| | | | |
| **NDX65** ❖ | 65,0 - 70,0 | 232 | 25 |
| **NDX75** ❖ | 75,0 - 80,0 | 268 | 25 |
| **NDX0100**❖ | 100,0 - 105,0 | 353 | 13,2 |
| ***REF. Part N. Stainless steel AISI 304*** | ***∅ int. ∅ out. mm*** | ***Min. bending radius mm Toll. ± 15%*** | ***Packing Unit*** |

### *NZ - Flexible metal conduit*

*Galvanized carbon steel flexible conduit with single seam.*
❖ *On demand minimum quantity.*

### *VCM - Metal end bush for flexible metal conduit*

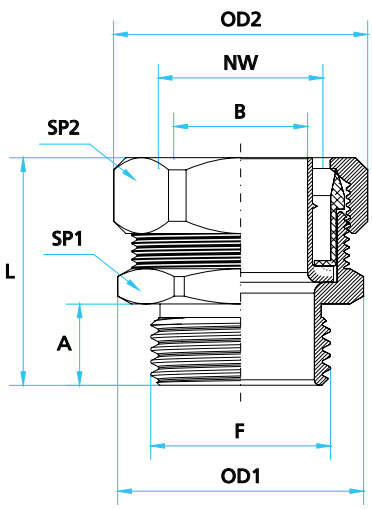
*End bush self screwed into the end of flexible metal conduit NZ-NDX-DAN. Protects wires against possible abrasion when inserted into the conduit.*

### NDX - *Flexible metal conduit*

*Stainless steel AISI 304 flexible conduit with double seam.*
❖ *On demand minimum quantity.*

# NMF

## Złączka mosiężna prosta gwint męski (do metalowych rur giętkich)
## *Male fittings for naked conduits*




**SERIA NM**
***NM SERIES***

### Zastosowanie
### *Application*

Połączenie złączka-rura wykonywane jest przy użyciu krućca i nylonowego pierścienia.
Specjalna budowa krućca gwarantuje połączenia o doskonałej odporności na rozciąganie i drgania.
Uzupełnieniem złączki jest nylonowy pierścień blokujący rurę.

*Connection of fitting and conduit are assured by a metal ferrule and a nylon ring.*
*The special construction and threading of the metal ferrule allows internal screw connection with the metal conduit offering excellent resistance to traction and vibration.*
*The connection is complemented by the nylon ring which blocks the flexible conduit in place.*

### Materiał
### *Material*

Mosiądz niklowany

*Male fittings nickel plated brass*

### Kompatybilność
### *Suitable for*

Dla rur typu: NZ - DAN - SV - SVPEVA

*For conduits type: NZ - DAN - SV - SVPEVA*

Kod QR: instrukcja montażu
*QR CODE: assembly instructions*

**NMF - Złączka mosiężna prosta gwint męski calowy (do metalowych rur giętkich)**

| Kod | F Gwint calowy | Dla rury NW | ∅ rury mm wew. zew. | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NMF10** | 1/4" | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 23 | 25 | 20 | 22 | 20 |
| **NMF10A** | 3/8" | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 23 | 25 | 20 | 22 | 20 |
| **NMF10B** | 1/2" | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 23 | 25 | 22 | 22 | 20 |
| **NMF12** | 3/8" | 12 | 12,0 - 15,0 | 10 | 10,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| **NMF12A** | 1/2" | 12 | 12,0 - 15,0 | 10 | 10,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| **NMF13** | 3/8" | 13 | 13,0 - 16,0 | 10 | 11,5 | 33 | 27,5 | 29 | 24 | 26 | 20 |
| **NMF13A** | 1/2" | 13 | 13,0 - 16,0 | 10 | 11,5 | 33 | 27,5 | 29 | 24 | 26 | 20 |
| **NMF15** | 1/2" | 15 | 15,5 - 18,5 | 10 | 13,8 | 34 | 30 | 30,5 | 26 | 28 | 20 |
| **NMF18** | 3/4" | 18 | 18,0 - 21,5 | 11 | 16,5 | 34 | 32 | 33 | 28 | 30 | 10 |
| **NMF20** | 3/4" | 20 | 20,5 - 24,0 | 11 | 18,1 | 35 | 37 | 37 | 32 | 34 | 10 |
| **NMF27** | 1" | 27 | 26,5 - 30,0 | 15 | 24,5 | 42 | 45 | 46,5 | 40 | 42 | 10 |
| **NMF35** | 1"1/4 | 35 | 35,0 - 39,5 | 15 | 32,8 | 46 | 55 | 58 | 50 | 53 | 5 |
| **NMF40** | 1"1/2 | 40 | 40,0 - 44,5 | 18 | 37,5 | 50 | 64 | 66,5 | 58 | 61 | 5 |
| **NMF50** | 2" | 50 | 50,5-54,8 | 18 | 47,8 | 59 | 76 | 80,5 | 70 | 74 | 2 |
| ***REF. Part N.*** | ***F GAS Thread*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***Packing unit*** |

***NMF GAS Thread** - Brass fittings for naked conduits with metallic continuity*

**NMF** - Złączka mosiężna prosta **gwint męski metryczny ISO** (do metalowych rur giętkich)

| Kod | F Gwint Metr. ISO | Dla rury NW | ∅ rura mm wew. zew. | A mm | B Przelot użytk. mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NMF10M12** | M 12x1,5 | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 23 | 25 | 20 | 22 | 20 |
| **NMF10M16** | M 16x1,5 | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 23 | 25 | 20 | 22 | 20 |
| **NMF10M20** | M 20X1,5 | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 25 | 25 | 22 | 22 | 20 |
| **NMF12M16** | M 16x1,5 | 12 | 12,0 - 15,0 | 10 | 10,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| **NMF12M20** | M 20X1,5 | 12 | 12,0 - 15,0 | 10 | 10,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| **NMF13M16** | M 16x1,5 | 13 | 13,0 - 16,0 | 10 | 11,5 | 33 | 27,5 | 29 | 24 | 26 | 20 |
| **NMF13M20** | M 20X1,5 | 13 | 13,0 - 16,0 | 10 | 11,5 | 33 | 27,5 | 29 | 24 | 26 | 20 |
| **NMF15M20** | M 20X1,5 | 15 | 15,5 - 18,5 | 10 | 13,8 | 34 | 30 | 30,5 | 26 | 28 | 20 |
| **NMF18M25** | M 25x1,5 | 18 | 18,0 - 21,5 | 10 | 16 | 34 | 32 | 33 | 28 | 30 | 10 |
| **NMF20M25** | M 25x1,5 | 20 | 20,5 - 24,0 | 11 | 18,1 | 34 | 37 | 37 | 32 | 34 | 10 |
| **NMF27M32** | M 32x1,5 | 27 | 26.5 - 30,0 | 12 | 24,5 | 40 | 45 | 46,5 | 40 | 42 | 10 |
| **NMF35M40** | M 40x1,5 | 35 | 35,0 - 39,5 | 12 | 32,8 | 42 | 55 | 58 | 50 | 53 | 5 |
| **NMF40M50** | M 50x1,5 | 40 | 40,0 - 44,5 | 13 | 37,5 | 48 | 64 | 66,5 | 58 | 61 | 5 |
| **NMF50M63** | M 63x1,5 | 50 | 50,5 - 54,8 | 16 | 47,8 | 55 | 76 | 80,5 | 70 | 74 | 2 |
| ***REF. Part N.*** | ***F ISO Metric Thread*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***Packing unit*** |

***NMF ISO Metric Thread*** - *Brass fittings for naked conduits with metallic continuity*

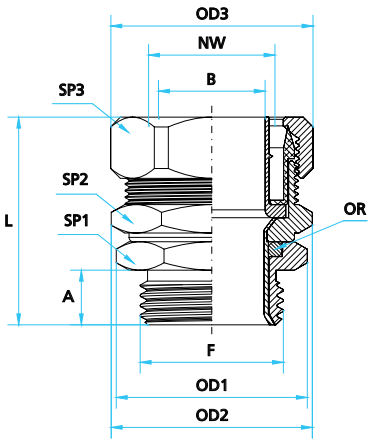
**NMF** - Złączka mosiężna prosta **gwint męski PG** (do metalowych rur giętkich)

| Kod | F Gwint PG | Dla rury NW | ∅ rura mm wew. zew. | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NMF1009** | 9 | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 23 | 25 | 20 | 22 | 20 |
| **NMF1011** | 11 | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 23 | 25 | 20 | 22 | 20 |
| **NMF1013** | 13,5 | 10 | 10,0 - 13,0 | 10 | 8,5 | 32 | 25 | 25 | 22 | 22 | 20 |
| **NMF1209** | 9 | 12 | 12,0 - 15,0 | 10 | 10,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| **NMF1211** | 11 | 12 | 12,0 - 15,0 | 10 | 10,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| **NMF1213** | 13,5 | 12 | 12,0 - 15,0 | 10 | 10,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| **NMF1311** | 11 | 13 | 13,0 - 16,0 | 10 | 11,5 | 33 | 27,5 | 29 | 24 | 26 | 20 |
| **NMF1313** | 13,5 | 13 | 13,0 - 16,0 | 10 | 11,5 | 33 | 27,5 | 29 | 24 | 26 | 20 |
| **NMF1316** | 16 | 13 | 13,0 - 16,0 | 10 | 11,5 | 33 | 27,5 | 29 | 24 | 26 | 20 |
| **NMF1513** | 13,5 | 15 | 15,5 - 18,5 | 10 | 13,8 | 34 | 30 | 30,5 | 26 | 28 | 20 |
| **NMF1516** | 16 | 15 | 15,5 - 18,5 | 10 | 13,8 | 34 | 30 | 30,5 | 26 | 28 | 20 |
| **NMF1816** | 16 | 18 | 18,0 - 21,5 | 10 | 16 | 34 | 32 | 33 | 28 | 30 | 10 |
| **NMF2021** | 21 | 20 | 20,5 - 24,0 | 11 | 18,1 | 34 | 37 | 37 | 32 | 34 | 10 |
| **NMF2729** | 29 | 27 | 26.5 - 30,0 | 12 | 24,5 | 40 | 45 | 46,5 | 40 | 42 | 10 |
| **NMF3536** | 36 | 35 | 35,0 - 39,5 | 12 | 32,8 | 42 | 55 | 58 | 50 | 53 | 5 |
| **NMF4036** | 36 | 40 | 40,0 - 44,5 | 17 | 37,5 | 50 | 64 | 66,5 | 58 | 61 | 5 |
| **NMF4042** | 42 | 40 | 40,0 - 44,5 | 13 | 37,5 | 48 | 64 | 66,5 | 58 | 61 | 5 |
| **NMF5048** | 48 | 50 | 50,5 - 54,8 | 18 | 47,8 | 59 | 76 | 80,5 | 70 | 74 | 2 |
| ***REF. Part N.*** | ***F PG Thread*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***Packing unit*** |

***NMF PG Thread*** - *Brass fittings for naked conduits with metallic continuity*

# NMG

## Złączka mosiężna prosta obrotowy gwint męski (do metalowych rur giętkich)
## *Revolving male fittings for naked conduits*




**SERIA NM**
***NM SERIES***

### Zastosowanie *Application*

Połączenie złączka-rura wykonywane jest przy użyciu krućca i nylonowego pierścienia.
Specjalna budowa krućca gwarantuje połączenie o doskonałej odporności na rozciąganie i drgania.
Uzupełnieniem złączki jest nylonowy pierścień blokujący rurę.

*Connection of fitting and conduit are assured by a metal ferrule and a nylon ring.*
*The special construction and threading of the metal ferrule allows internal screw connection with the metal conduit offering excellent resistance to traction and vibration.*
*The connection is complemented by the nylon ring which blocks the flexible conduit in place.*

### Materiał *Material*

Mosiądz niklowany.

*Revolving male fittings nickel plated brass.*

### Kompatybilność *Suitable for*

Dla rur typu: NZ - DAN - SV - SVPEVA

*For conduits type: NZ - DAN - SV - SVPEVA*

Kod QR: instrukcja montażu
*QR CODE: assembly instructions*

**NMG - Złączka mosiężna prosta obrotowy gwint męski calowy (do metalowych rur giętkich)**

| Kod | F Gwint calowy | Kod Rury NW | ∅ rury mm wew. zew. | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NMG10** | 1/4" | 10 | 10,0 - 13,0 | 10 | 7 | 40 | 17 | 23 | 25 | 15 | 20 | 22 | 20 |
| **NMG10A** | 3/8" | 10 | 10,0 - 13,0 | 10 | 7 | 40 | 22 | 23 | 25 | 19 | 20 | 22 | 20 |
| **NMG10B** | 1/2" | 10 | 10,0 - 13,0 | 10 | 7 | 40 | 27,5 | 23 | 25 | 24 | 20 | 22 | 20 |
| **NMG12** | 3/8" | 12 | 12,0 - 15,0 | 10 | 10 | 40 | 22 | 25 | 26 | 19 | 22 | 24 | 20 |
| **NMG12A** | 1/2" | 12 | 12,0 - 15,0 | 10 | 10 | 40 | 27,5 | 25 | 26 | 24 | 22 | 24 | 20 |
| **NMG13** | 3/8" | 13 | 13,0 - 16,0 | 10 | 10 | 40 | 22 | 27,5 | 29 | 19 | 24 | 26 | 20 |
| **NMG13A** | 1/2" | 13 | 13,0 - 16,0 | 10 | 10 | 40 | 27,5 | 27,5 | 29 | 24 | 24 | 26 | 20 |
| **NMG15** | 1/2" | 15 | 15,5 - 18,5 | 10 | 10 | 40 | 27,5 | 30 | 30,5 | 24 | 26 | 28 | 20 |
| **NMG18** | 3/4" | 18 | 18,0 - 21,5 | 11 | 16,5 | 44 | 34 | 32 | 33 | 30 | 28 | 30 | 10 |
| **NMG20** | 3/4" | 20 | 20,5 - 24,0 | 11 | 18,1 | 45 | 34 | 37 | 37 | 30 | 32 | 34 | 10 |
| **NMG27** | 1" | 27 | 26.5 - 30,0 | 15 | 24,5 | 49 | 43,5 | 45 | 46,5 | 38 | 40 | 42 | 10 |
| **NMG35** | 1"1/4 | 35 | 35,0 - 39,5 | 15 | 32,8 | 60 | 49,5 | 55 | 58 | 45 | 50 | 53 | 5 |
| **NMG40** | 1"1/2 | 40 | 40,0 - 44,5 | 18 | 37,5 | 59,5 | 56 | 64 | 66,5 | 52 | 58 | 61 | 5 |
| **NMG50** | 2" | 50 | 50,5 - 54,8 | 18 | 47,8 | 76 | 72 | 76 | 80,5 | 66 | 70 | 74 | 2 |
| ***REF. Part N.*** | ***F GAS Thread*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***OD3 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***SP3 mm*** | ***Packing unit*** |

***NMG GAS Thread** - Revolving male brass fittings for naked conduits with metallic continuity*

**NMG** - Złączka mosiężna prosta obrotowy gwint męski metryczny ISO (do metalowych rur giętkich)

| Kod | F Gwint ISO Metrico | Kod Rury NW | ∅ rury mm wew. zew. | A mm | B Przelot użytk. mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NMG10M12** | M 12x1,5 | 10 | 10,0 - 13,0 | 9 | 7 | 39 | 17 | 23 | 25 | 15 | 20 | 22 | 20 |
| **NMG10M16** | M 16x1,5 | 10 | 10,0 - 13,0 | 10 | 7 | 39 | 22 | 23 | 25 | 19 | 20 | 22 | 20 |
| **NMG10M20** | M 20X1,5 | 10 | 10,0 - 13,0 | 9 | 7 | 39 | 25 | 23 | 25 | 22 | 20 | 22 | 20 |
| **NMG12M16** | M 16x1,5 | 12 | 12,0 - 15,0 | 10 | 9 | 39 | 22 | 25 | 26 | 19 | 22 | 24 | 20 |
| **NMG12M20** | M 20X1,5 | 12 | 12,0 - 15,0 | 10 | 9 | 39.5 | 27,5 | 25 | 26 | 24 | 22 | 24 | 20 |
| **NMG13M16** | M 16x1,5 | 13 | 13,0 - 16,0 | 10 | 10 | 39.5 | 22 | 27,5 | 29 | 19 | 24 | 26 | 20 |
| **NMG13M20** | M 20X1,5 | 13 | 13,0 - 16,0 | 10 | 10 | 39.5 | 27,5 | 27,5 | 29 | 24 | 24 | 26 | 20 |
| **NMG15M20** | M 20X1,5 | 15 | 15,5 - 18,5 | 9.5 | 10 | 38 | 27,5 | 30 | 30,5 | 24 | 26 | 28 | 20 |
| **NMG18M25** | M 25x1,5 | 18 | 18,0 - 21,5 | 10 | 16.5 | 40 | 34,5 | 32 | 33 | 30 | 28 | 30 | 10 |
| **NMG20M25** | M 25x1,5 | 20 | 20,5 - 24,0 | 9.5 | 18,1 | 40 | 34,5 | 37 | 37 | 30 | 32 | 34 | 10 |
| **NMG27M32** | M 32x1,5 | 27 | 26.5 - 30,0 | 13 | 24 | 48 | 43,5 | 45 | 46,5 | 38 | 40 | 42 | 10 |
| **NMG35M40** | M 40x1,5 | 35 | 35,0 - 39,5 | 20 | 32,8 | 57.5 | 52 | 55 | 58 | 45 | 50 | 53 | 5 |
| **NMG40M50** | M 50x1,5 | 40 | 40,0 - 44,5 | 20 | 37,5 | 59,5 | 56 | 64 | 66,5 | 52 | 58 | 61 | 5 |
| **NMG50M63** | M 63x1,5 | 50 | 50,5 - 54,8 | 24.5 | 47,8 | 74 | 70 | 76 | 80,5 | 64 | 70 | 74 | 2 |
| ***REF. Part N.*** | ***F ISO Metric Thread*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***OD3 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***SP3 mm*** | ***Packing unit*** |

***NMG ISO Metric Thread*** - *Revolving male brass fittings for naked conduits with metallic continuity*

**NMG** - Złączka mosiężna prosta obrotowy gwint męski PG (do metalowych rur giętkich)

| Kod | F Gwint PG | Kod Rury NW | ∅ rury mm wew. zew. | A mm | B Przelot użytk. mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NMG1009** | 9 | 10 | 10,0 - 13,0 | 7 | 7 | 37.5 | 19,5 | 23 | 25 | 17 | 20 | 22 | 20 |
| **NMG1011** | 11 | 10 | 10,0 - 13,0 | 7.5 | 7 | 35.5 | 23 | 23 | 25 | 20 | 20 | 22 | 20 |
| **NMG1013** | 13,5 | 10 | 10,0 - 13,0 | 7.5 | 7 | 37 | 25 | 23 | 25 | 22 | 20 | 22 | 20 |
| **NMG1209** | 9 | 12 | 12,0 - 15,0 | 8 | 7 | 37 | 19,5 | 25 | 26 | 19 | 22 | 24 | 20 |
| **NMG1211** | 11 | 12 | 12,0 - 15,0 | 7.5 | 10 | 39 | 23 | 25 | 26 | 20 | 22 | 24 | 20 |
| **NMG1213** | 13,5 | 12 | 12,0 - 15,0 | 7.5 | 10 | 37.5 | 25 | 25 | 26 | 22 | 22 | 24 | 20 |
| **NMG1311** | 11 | 13 | 13,0 - 16,0 | 7.5 | 10 | 37.5 | 23 | 27,5 | 29 | 20 | 24 | 26 | 20 |
| **NMG1313** | 13,5 | 13 | 13,0 - 16,0 | 7.5 | 10 | 37 | 25 | 27,5 | 29 | 22 | 24 | 26 | 20 |
| **NMG1316** | 16 | 13 | 13,0 - 16,0 | 7 | 10 | 37 | 27,5 | 27,5 | 29 | 24 | 24 | 26 | 20 |
| **NMG1513** | 13,5 | 15 | 15,5 - 18,5 | 7.5 | 10 | 37 | 25 | 30 | 30,5 | 22 | 26 | 28 | 20 |
| **NMG1516** | 16 | 15 | 15,5 - 18,5 | 7 | 10 | 37 | 27,5 | 30 | 30,5 | 24 | 26 | 28 | 20 |
| **NMG1816** | 16 | 18 | 18,0 - 21,5 | 9 | 15 | 39.5 | 27,5 | 32 | 33 | 24 | 28 | 30 | 10 |
| **NMG2021** | 21 | 20 | 20,5 - 24,0 | 9 | 18,1 | 40 | 34 | 37 | 37 | 30 | 32 | 34 | 10 |
| **NMG2729** | 29 | 27 | 26.5 - 30,0 | 12 | 24 | 48 | 43,5 | 46 | 46 | 38 | 40 | 42 | 10 |
| **NMG3536** | 36 | 35 | 35,0 - 39,5 | 20 | 32,8 | 59 | 56 | 55 | 58 | 52 | 50 | 53 | 5 |
| **NMG4036** | 36 | 40 | 40,0 - 44,5 | 20 | 37.7 | 59,5 | 56 | 64 | 66,5 | 52 | 58 | 61 | 5 |
| **NMG4042** | 42 | 40 | 40,0 - 44,5 | 20 | 37.7 | 59,5 | 63 | 64 | 66,5 | 58 | 58 | 61 | 5 |
| **NMG5048** | 48 | 50 | 50,5 - 54,8 | 25 | 47,8 | 76 | 72 | 76 | 80,5 | 66 | 70 | 74 | 2 |
| ***REF. Part N.*** | ***F PG Thread*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***OD3 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***SP3 mm*** | ***Packing unit*** |

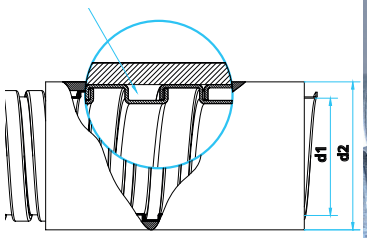
***NMG PG Thread*** - *Revolving male brass fittings for naked conduits with metallic continuity*

# RURA GIĘTKA ZE STALI OCYNKOWANEJ - *GALVANIZED CARBON STEEL FLEXIBLE CONDUIT*

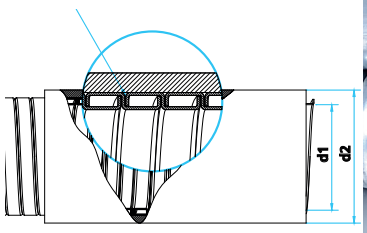
# L

## Rura metalowa giętka pokryta PVC
## *Metal conduit PVC coated*

**Zwoje OTWARTE - *OPEN coils*** **A**




**Zwoje ZAMKNIĘTE - *CLOSE coils*** **B**



### Zastosowanie *Application*

Rury metalowe L znajdują szerokie zastosowanie w instalacjach przemysłowych, instalacjach na maszynach oraz przy budowie statków..
UWAGI: Rury o średnicy wewnętrznej powyżej 40 mm produkowane są ze zwojami całkowicie zamkniętymi, zwiększając w ten sposób ochronę mechaniczną i eliminując możliwość pęknięcia zewnętrznego poszycia przewodu w przypadku ostrych zakrętów instalacji .

*L metal conduits satisfy a wide range of application areas and are suitable for standard industrial applications, machine tools and ship building.*
*REMARK: Conduits with internal diameter exceeding 40 mm are produced with internal coils completely closed, increasing mechanical protection and avoiding the risk of scratching the internal sheating in case of acute curves.*

### Materiał *Material*

Rura giętka ze stali ocynkowanej z pojedynczym szwem pokryta samogasnącym PVC.

*Flexible conduit made of galvanized carbon steel single seam, PVC self-extinguishing coated.*

### Właściwości produktu *Product characteristics*

Wysoka odporność na starzenie.
Doskonała odporność na działanie czynników atmosferycznych, olejów, zasolenia, kwasów mineralnych.
Samogasnąca V0 według UL94.

*High ageing resistance.*
*Excellent resistance to atmosferic agents, oils, salt air, mineral acids.*
*Self-extinguishing V0 according to UL94.*

### Kompatybilność *Suitable for*

Kompatybilna z całą gamą złączek z serii CM, zapewniając stopień ochrony IP67.

*Compatible with the whole CM range fittings, which provide an IP67 rating.*

### Kolory *Colors*

Czarny - Szary / *Black - Grey*

### Dane techniczne *Technical data*

Siła Zgniotu - *Compression force*: 1250N
Siła rozciągania - *Traction force*: 1000N
[CEI EN 61386-1]

| ø | ø zew. pocz. mm | ø zew. kon. mm | deform. chwilowa mm |
|---|---|---|---|
| 15 | 20,81 | 20,37 | 1,10 |
| 27 | 33,92 | 30,37 | 5,00 |
| 50 | 57,89 | 56,89 | 3,40 |
| ø | first ext. ø mm | last ext. ø mm | moment. deformation mm |

+ 70 °C - 20

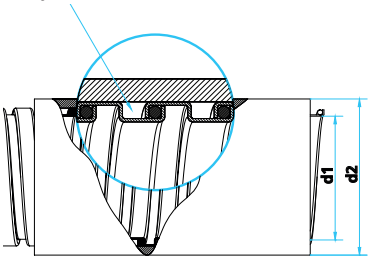
RINA

| Kod Czarny | Kod Szary | Profil | mm d1 | mm d2 | Promień min. zgięcia mm | Opakowanie standard m |
|---|---|---|---|---|---|---|
| L09N | L09G | A | 8,5 | 13 | 40 | 50 |
| L10N | L10G | A | 10 | 15 | 50 | 50 |
| L12N | L12G | A | 12 | 17 | 60 | 50 |
| L13N | L13G | A | 13 | 19 | 65 | 50 |
| L15N | L15G | A | 15,5 | 21 | 70 | 50 |
| L18N | L18G | A | 18 | 25 | 80 | 50 |
| L20N | L20G | A | 20,5 | 27 | 90 | 50 |
| L25N | L25G | A | 25 | 32 | 110 | 25 |
| L27N | L27G | A | 26,5 | 34 | 120 | 25 |
| L33N | L33G | A | 33 | 41 | 140 | 20 |
| L35N | L35G | A | 35 | 43 | 150 | 20 |
| L40N | L40G | B | 40 | 48 | 200 | 20 |
| L50N | L50G | B | 50,5 | 58,5 | 250 | 20 |
| *Black* | *Grey* | *Profile* | *d1* | *d2* | *Minimum bending radius* | *Packing unit* |
| *REF. Part N.* | | | *mm* | | *mm* | *m* |

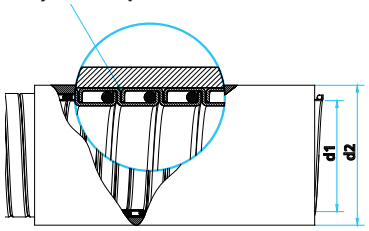
# P

## Rura metalowa giętka pokryta PVC
## *Metal conduit PVC coated*

**Zwoje OTWARTE - *OPEN coils*** **A**




**Zwoje ZAMKNIĘTE - *CLOSE coils*** **B**



### Zastosowanie *Application*

Rury metalowe P znajdują szerokie zastosowanie w instalacjach przemysłowych, instalacjach na maszynach oraz przy budowie statków..
UWAGI: Rury o średnicy wewnętrznej powyżej 40 mm produkowane są ze zwojami całkowicie zamkniętymi, zwiększając w ten sposób ochronę mechaniczną i eliminując możliwość pęknięcia zewnętrznego poszycia przewodu w przypadku ostrych zakrętów instalacji.

*P metal conduits satisfy a wide range of application areas and are suitable for standard industrials applications, machine tools and ship building.*
*REMARK: Conduits with internal diameter exceeding 40 mm are produced with internal coils completely closed, increasing mechanical protection and avoiding the risk of scratching the intrenal sheating in case of acute curves.*

### Materiał *Material*

Rura giętka ze stali ocynkowanej z pojedynczym szwem i uszczelką z przędzy bawełnianej między zwojami, pokryta samogasnącym PVC.

*Flexible conduit made of galvanized carbon steel single seam and cotton yarn gasket between coils, PVC self-extinguishing coated.*

### Właściwości produktu *Product characteristics*

Wysoka odporność na starzenie.
Doskonała odporność na działanie czynników atmosferycznych, olejów, zasolenia, kwasów mineralnych.
Samogasnąca V0 według UL94.

*High ageing resistance.*
*Excellent resistance to atmosferic agents, oils, salt air, mineral acids.*
*Self-extinguishing V0 according to UL94.*

### Kompatybilność *Suitable for*

Kompatybilna z całą gamą złączek z serii CM, zapewniając stopień ochrony IP67.

*Compatible with the whole CM range fittings, which provide an IP67 rating.*

### Kolory *Colors*

Czarny - Szary
*Black - Grey*

Sila Zgniotu -
*Compression force*: 1250N
Sila Rozciągania -
*Traction force*: 1000N
[CEI EN 61386-1]

| ø | ø zew. pocz. mm | ø zew. kon. mm | odkształ. chwilowe mm |
|---|---|---|---|
| 15 | 20,81 | 20,37 | 1,10 |
| 27 | 33,92 | 30,37 | 5,00 |
| 50 | 57,89 | 56,89 | 3,40 |
| ø | first ext. ø mm | last ext. ø mm | moment. deformation mm |

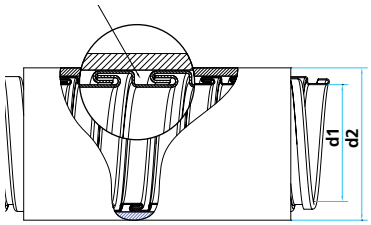
+ 70 °C - 20

| Kod Czarny | Kod Szary | Profil | mm d1 | mm d2 | Promień min. zgięcia mm | Opakowanie standard m |
|---|---|---|---|---|---|---|
| P009N | P009G | A | 8,5 | 13 | 40 | 50 |
| P010N | P010G | A | 10 | 15 | 50 | 50 |
| P012N | P012G | A | 12 | 17 | 60 | 50 |
| P013N | P013G | A | 13 | 19 | 65 | 50 |
| P015N | P015G | A | 15,5 | 21 | 70 | 50 |
| P018N | P018G | A | 18 | 25 | 80 | 50 |
| P020N | P020G | A | 20,5 | 27 | 90 | 50 |
| P025N | P025G | A | 25 | 32 | 110 | 25 |
| P027N | P027G | A | 26,5 | 34 | 120 | 25 |
| P033N | P033G | A | 33 | 41 | 140 | 20 |
| P035N | P035G | A | 35 | 43 | 150 | 20 |
| P040N | P040G | B | 40 | 48 | 200 | 20 |
| P050N | P050G | B | 50,5 | 58,5 | 250 | 20 |
| P065N | P065G | B | 65 | 74 | 400 | 20 |
| P075N | P075G | B | 75 | 84 | 450 | 20 |
| P100N | P100G | B | 100 | 109 | 700 | 10 |
| *Black* | *Grey* | *Profile* | *d1* | *d2* | *Minimum Bending Radius* | *Packing unit* |
| *REF. Part N.* | | | *mm* | | *mm* | *m* |

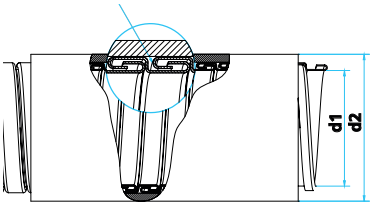
# DAR File E - 124066

## Rura metalowa giętka pokryta PVC
## *Metal conduit PVC coated*

**Zwoje OTWARTE - *OPEN coils*** **A**




**Zwoje ZAMKNIĘTE - *CLOSE coils*** **B**



Sila Zgniotu - *Compression force*: 1250N
Sila Rozciągania - *Traction force*: 1000N
[CEI EN 61386-1]

| ø | ø zew. pocz. mm | ø zew. kon. mm | odkształ. chwilowe mm |
|---|---|---|---|
| 15 | 20,99 | 20,74 | 0,90 |
| 27 | 34,23 | 33,98 | 1,50 |
| 50 | 57,11 | 56,62 | 1,90 |
| ø | first ext. ø mm | last ext. ø mm | moment. deformation mm |

### Zastosowanie *Application*

Rury metalowe DAR znajdują szerokie zastosowanie w instalacjach przemysłowych, instalacjach na maszynach oraz przy budowie statków.
UWAGI: Rury o średnicy wewnętrznej powyżej 50 mm produkowane są ze zwojami całkowicie zamkniętymi, zwiększając w ten sposób ochronę mechaniczną i eliminując możliwość pęknięcia zewnętrznego poszycia przewodu w przypadku ostrych zakrętów instalacji.

*DAR metal conduits satisfy a wide range of application areas and are suitable for standard industrials applications, machine tools and ship building.*
*REMARK: Conduits with internal diameter exceeding 50 mm are produced with internal coils completely closed, increasing mechanical protection and avoiding the risk of scratching the intrenal sheating in case of acute curves.*

### Materiał *Material*

Rura giętka ze stali ocynkowanej z podwójnym szwem pokryta samogasnącym PVC. Na zamówienie dostępna wersja ze stali INOX AISI 304.

*Flexible conduit made of galvanized carbon steel double seam, PVC self-extinguishing coated. On demand is possible to have the flexible conduit made of stainless steel.*

### Właściwości produktu *Product characteristics*

Duża odporność na zgniatanie i rozciąganie.
Wysoka odporność na starzenie.
Doskonała odporność na działanie czynników atmosferycznych, olejów, zasolenia, kwasów mineralnych.
Samogasnąca V0 według UL94.

*High compression and pull-out resistance.*
*High ageing resistance.*
*Excellent resistance to atmosferic agents, oils, salt air, mineral acids.*
*Self-extinguishing V0 according to UL94.*

### Certyfikaty *Approvals*

UL File E-124066
RINA
EN 61386-23

*UL File E-124066.*
*RINA*
*EN 61386-23*

### Kompatybilność *Suitable for*

Kompatybilna z całą gamą złączek z serii CM, zapewniając stopień ochrony IP67.

*Compatible with the whole CM range fittings, which provide an IP67 rating.*

### Kolory *Colors*

Czarny - Szary

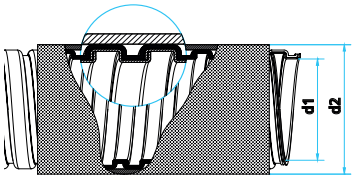
*Black - Grey*

+ 60 °C - 20

| Kod stal ocynkowana Czarny | Kod stal ocynkowana Szary | Certyfikaty | Profil | mm d1 | mm d2 | Promień min. zgięcia mm | Opakowanie standard m | Kod stal INOX AISI 304 Czarny | Kod stal INOX AISI 304 Szary |
|---|---|---|---|---|---|---|---|---|---|
| DAR010N | DAR010G | RINA | A | 10 | 15 | 60 | 50 | DARX010N | DARX010G |
| DAR012N | DAR012G | RINA | A | 12 | 17 | 70 | 50 | DARX012N | DARX012G |
| DAR013N | DAR013G | RINA | A | 13 | 19 | 80 | 50 | DARX013N | DARX013G |
| DAR015N | DAR015G | RINA | A | 15,5 | 21 | 90 | 50 | DARX015N | DARX015G |
| DAR018N | DAR018G | RINA | A | 18 | 25 | 100 | 50 | DARX018N | DARX018G |
| DAR020N | DAR020G | RINA | A | 20,5 | 27 | 120 | 50 | DARX020N | DARX020G |
| DAR025N | DAR025G | RINA | A | 25 | 32 | 130 | 25 | DARX025N | DARX025G |
| DAR027N | DAR027G | RINA | A | 26,5 | 34 | 140 | 25 | DARX027N | DARX027G |
| DAR033N | DAR033G | RINA | A | 33 | 41 | 180 | 20 | DARX033N | DARX033G |
| DAR035N | DAR035G | RINA | A | 35 | 43 | 190 | 20 | DARX035N | DARX035G |
| DAR040N | DAR040G | RINA | A | 40 | 48 | 240 | 20 | DARX040N | DARX040G |
| DAR050N | DAR050G | RINA | B | 50,5 | 58,5 | 300 | 20 | DARX050N | DARX050G |
| DAR065N | DAR065G | RINA | B | 65 | 74 | 450 | 20 | DARX065N | DARX065G |
| DAR075N | DAR075G | RINA | B | 75 | 84 | 500 | 20 | DARX075N | DARX075G |
| DAR100N | DAR100G | RINA | B | 100 | 109 | 750 | 10 | DARX100N | DARX100G |
| Black REF. Part N. galvanized carbon steel | Grey REF. Part N. galvanized carbon steel | Approvals | Profile | d1 mm | d2 mm | Minimum bending radius mm | Packing unit m | Black REF. Part N. stainless steel AISI 304 | Grey REF. Part N. stainless steel AISI 304 |

# SVT

## Rura metalowa giętka pokryta PVC w oplocie ze stali ocynkowanej
## *Metal conduit PVC vacuum coated and galvanized carbon steel braid covering*



### Zastosowanie *Application*

Rury metalowe SVT ze wzgledu na specjalną konstrukcję z dodatkowym oplotem stalowym zapewniają doskonałą ochronę przed gryzoniami, iskrami, rozżarzonymi wiórami oraz ciężkimi warunkami występującymi w układach hamulcowych, w urządzeniach spawalniczych oraz maszynach odlewniczych.
Rury metalowe SVT znajdują szerokie zastosowanie w instalacjach przemysłowych, instalacjach na maszynach oraz przy budowie statków.

*Due to its special construction with covering steel braid, this conduit provides particularly increased protection against rodents, sparks, sleg and hot chips, suitable for applications with rough conditions like breaking systems, welding equipment, die-casting machines.*
*They satisfy a wide range of application areas and are suitable for standard industrials applications, machine tools and ship building.*

### Materiał *Material*

Rura giętka ze stali ocynkowanej z pojedynczym szwem pokryta samogasnącym PVC w oplocie ze stali ocynkowanej.
**Na zamówienie dostępna jest wersja z oplotem ze stali INOX AISI 304**.

*Flexible conduit made of galvanized carbon steel single seam PVC self-extinguishing vacuum coated and covered with galvanized carbon steel braid.*
**On demand it is possible to have the flexible conduit made of stainless steel.**

### Właściwości produktu *Product characteristics*

Dobra wytrzymałość mechaniczna (zgniatanie / uderzenie).
Dobra odporność na temperaturę.
Podwyższona odporność na przetarcia i przecięcia.

*Good mechanical strenght (compression / impact).*
*Good temperature resistance.*
*Enhanced cut and abrasion resistance.*

### Kompatybilność *Suitable for*

Kompatybilna z całą gamą złączek z serii CM, zapewniając stopień ochrony IP67.

*Compatible with the whole CM range fittings, which provide an IP67 rating.*

Siła Zgniotu - *Compression force*: 1250N
Sila Rozciągania - *Traction force*: 1000N
[CEI EN 61386-1]

| ø | ø zew. pocz. mm | ø zew. kon. mm | odkształ. chwilowe mm |
|---|---|---|---|
| 15 | 21,06 | 20,12 | 1,10 |
| 27 | 32,26 | 31,79 | 1,80 |
| 50 | 58,00 | 55,77 | 4,63 |
| ø | first ext. ø mm | last ext. ø mm | moment. deformation mm |

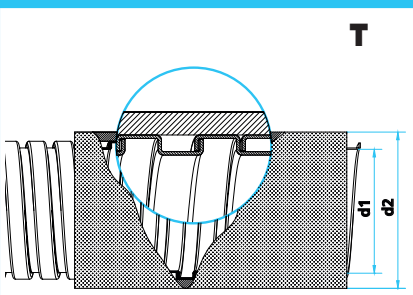
+ 70 °C - 20

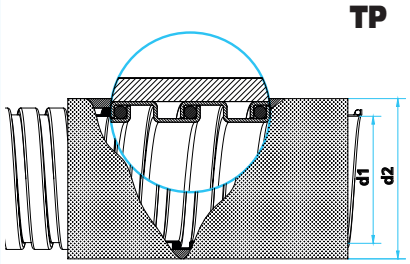
RINA

| Kod Oplot ze stali ocynkowanej | mm d1 | mm d2 | Promień min. zgięcia mm | Opakowanie standard m | Kod Oplot ze stali INOX AISI 304 |
|---|---|---|---|---|---|
| SVT09 | 8,5 | 13 | 40 | 50 | SVT09INOX |
| SVT10 | 10,0 | 15 | 40 | 50 | SVT10INOX |
| SVT12 | 12,0 | 17 | 50 | 50 | SVT12INOX |
| SVT13 | 13,0 | 19 | 50 | 50 | SVT13INOX |
| SVT15 | 15,5 | 21 | 55 | 50 | SVT15INOX |
| SVT18 | 18,0 | 25 | 60 | 50 | SVT18INOX |
| SVT20 | 20,5 | 27 | 60 | 50 | SVT20INOX |
| SVT25 | 25,0 | 32 | 75 | 50 | SVT25INOX |
| SVT27 | 26,5 | 34 | 85 | 50 | SVT27INOX |
| SVT33 | 33,0 | 41 | 130 | 25 | SVT33INOX |
| SVT35 | 35,0 | 43 | 150 | 25 | SVT35INOX |
| SVT40 | 40,0 | 48 | 180 | 25 | SVT40INOX |
| SVT50 | 50,5 | 58,5 | 250 | 25 | SVT50INOX |
| *Galvanized carbon steel braid REF. Part N.* | *d1* | *d2* | *Minimum bending radius mm* | *Packing unit m* | *Stainless steel braid AISI304 REF. Part N.* |
| | *mm* | | | | |

# T-TP

## Rura metalowa giętka w oplocie ze stali ocynkowanej
## *Metal conduit with galvanized carbon steel braid covering*



### Zastosowanie *Application*

Rury metalowe T-TP ze względu na specjalną konstrukcję z dodatkowym oplotem stalowym zapewniają doskonałą ochronę przed gryzoniami, iskrami, rozżarzonymi wiórami oraz ciężkimi warunkami występującymi w układach hamulcowych, w urządzeniach spawalniczych oraz maszynach odlewniczych.
Rury metalowe T-TP znajdują szerokie zastosowanie w instalacjach przemysłowych, instalacjach na maszynach, budowie statków oraz w przemyśle kolejowym.

*T-TP - Thanks to its special construction with covering steel braid, this conduit provides particularly increased protection against rodents, sparks, sleg and hot chips, suitable for applications with rough conditions like breaking systems, welding equipment, die-casting machines.*
*They satisfy a wide range of application areas and are suitable for standard industrials applications, machine tools, ship building and railway industry.*

### Materiał *Material*

T - rura giętka ze stali ocynkowanej z pojedynczym szwem w oplocie ze stali ocynkowanej.
TP - rura giętka ze stali ocynkowanej z pojedynczym szwem i uszczelką z przędzy bawełnianej między zwojami w oplocie ze stali ocynkowanej.
**Na zamówienie dostępne wersje z oplotem ze stali INOX AISI 304.**

*T - Flexible metal conduit with single seam and external covering in galvanized carbon steel braid.*
*TP- Flexible metal conduit with single seam and cotton yarn gasket between coils, external covering in galvanized carbon steel braid.*
**On demand external covering in stainless steel braid AISI 304.**

### Właściwości produktu *Product characteristics*

Dobra wytrzymałość mechaniczna (zgniatanie / uderzenie).
Podwyższona odporność na przetarcia i przecięcia.

*Good mechanical strenght (compression / impact).*
*Enhanced cut and abrasion resistance.*

### Kompatybilność *Suitable for*

Kompatybilna z całą gamą złączek z serii CM, zapewniając stopień ochrony IP67.

*Compatible with the whole CM range fittings, which provide an IP67 rating.*

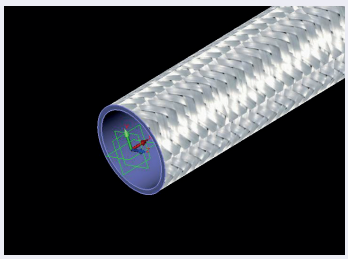
T + 250 °C - 60 TP + 150 °C - 50

RINA

| Kod ze stali ocynkowanej | Kod ze stali INOX AISI 304 | mm d1 | mm d2 | Promień min. zgięcia mm | Opakowanie Standard m | Kod ze stali ocynkowanej | Kod ze stali INOX AISI 304 |
|---|---|---|---|---|---|---|---|
| T09 | T09INOX | 8,5 | 13 | 30 | 50 | TP09 | TP09INOX |
| T10 | T10INOX | 10,0 | 14 | 40 | 50 | TP10 | TP10INOX |
| T12 | T12INOX | 12,0 | 16 | 50 | 50 | TP12 | TP12INOX |
| T13 | T13INOX | 13,0 | 18 | 60 | 50 | TP13 | TP13INOX |
| T15 | T15INOX | 15,5 | 20 | 60 | 50 | TP15 | TP15INOX |
| T18 | T18INOX | 18,0 | 24 | 65 | 50 | TP18 | TP18INOX |
| T20 | T20INOX | 20,5 | 26 | 65 | 50 | TP20 | TP20INOX |
| T25 | T25INOX | 25,0 | 31 | 70 | 50 | TP25 | TP25INOX |
| T27 | T27INOX | 26,5 | 33 | 90 | 50 | TP27 | TP27INOX |
| T33 | T33INOX | 33,0 | 40 | 140 | 25 | TP33 | TP33INOX |
| T35 | T35INOX | 35,0 | 42 | 150 | 25 | TP35 | TP35INOX |
| T40 | T40INOX | 40,0 | 47 | 170 | 25 | TP40 | TP40INOX |
| T50 | T50INOX | 50,5 | 57 | 200 | 25 | TP50 | TP50INOX |
| | | 65,0 | 73 | 270 | 27 | TP65 | TP65INOX |
| | | 75,0 | 83 | 340 | 27 | TP75 | TP75INOX |
| *Galvanised carbon steel REF. Part N.* | *Stainless steel AISI 304 REF. Part N.* | *d1* | *d2* | *Minimum bending radius mm* | *Packing unit m* | *Galvanised carbon steel REF. Part N.* | *Stainless steel AISI 304 REF. Part N.* |
| | | *mm* | | | | | |

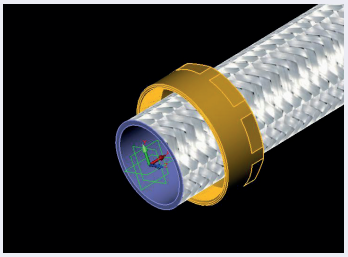
# Instrukcja montażu złączek seria CM
## *CM series assembling manual*

**1**. Rura ochronna.
*The conduit.*



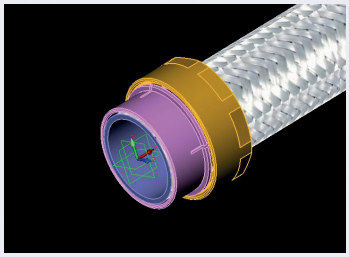
- Przygotować rurę.
  Dociąć na wymiar.
  Dokładnie uciąć oplot (tak, aby nie wystawał żaden drut).
- *Take the conduit.*
  *Cut to size.*
  *Trim the metal braid carefully (do not leave any single metal yarn spreading out the conduit).*

**2**. Montaż nakrętki dociskowej.
*Introduction of the pressure nut.*



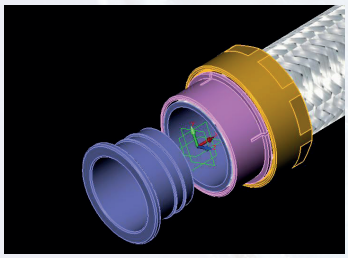
- Umieścić nakrętkę na rurze ochronnej.
- *Insert the pressure nut on the conduit.*

**3**. Montaż tulejki.
*Introduction of the ring.*



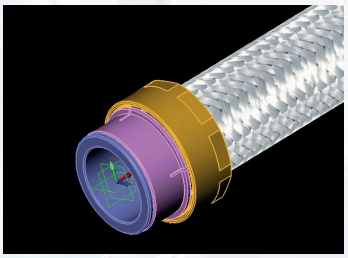
- Umieścić tulejkę poliamidową na rurze ochronnej.
- *Insert the polyamide ring on the conduit.*

**4**. Dopasowanie króćca.
*Aligning of the metal ferrule.*



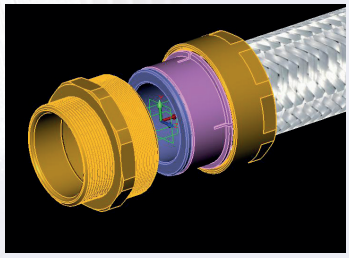
- Dopasować króciec do rury ochronnej.
- *Align the metal ferrule with the conduit.*

**5**. Montaż króćca.
*Screwing of the metal ferrule.*



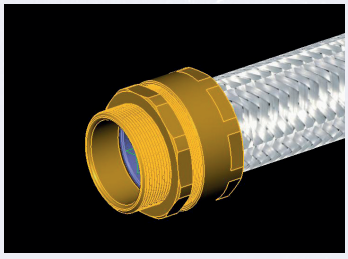
- Wkręcić króciec aż do końca skoku.
- *Screw the metal ferrule up to the shoulder.*

**6**. Montaż korpusu złączki.
*The fitting.*



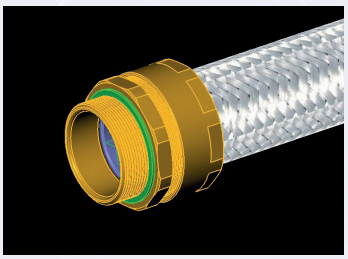
- Wsunąć wszystkie zmontowane elementy do korpusu złączki.
- *Insert all the assembled elements into the fitting.*

**7**. Dokręcenie nakrętki dociskowej.
*Screwing of the nut.*



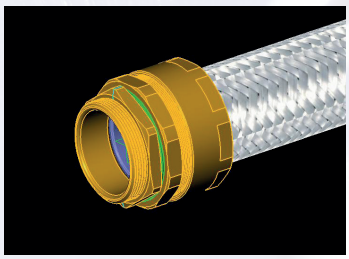
- Dokręcić nakretkę na korpusie złączki.
  Sprawdzić połączenie.
- *Screw the nut on the fitting body until locking.*
  *Check the assembling.*

**8**. Montaż uszczelki.
*Insertion of the gasket.*



- Zamocować uszczelkę na gwincie.
- *Insert the gasket over the thread up to the shoulder.*

**9**. Montaż nakrętki.
*Screwing the locknut.*



- Dokręcić nakrętkę zabezpieczającą montaż złączki w urządzeniu.
- *Screw the locknut to lock the assembling elements into the apparatus.*

# Momenty dokręcania
## *Torque values*

| Od strony gwintu | Złączka + nakrętka (Nm) - (Lb*in)[1] |
|---|---|
| **PG07** | 3 - 26,553 |
| **PG09** | 3 - 26,553 |
| **PG11** | 5 - 44,255 |
| **PG13** | 5 - 44,255 |
| **PG16** | 5 - 44,255 |
| **PG21** | 6 - 53,106 |
| **PG29** | 7 - 61,957 |
| **PG36** | 10 - 88,510 |
| **PG48** | 20 - 177,02 |
| | |
| **1/4"** | 3 - 26,553 |
| **3/8"** | 4 - 35,404 |
| **1/2"** | 5 - 44,255 |
| **3/4"** | 5 - 44,255 |
| **1"** | 6 - 53,106 |
| **1"1/4"** | 10 - 88,510 |
| **1"1/2"** | 25 - 221,275 |
| **2"** | 45 - 398,295 |
| | |
| **M12** | 3 - 26,553 |
| **M16** | 4 - 35,404 |
| **M20** | 4 - 35,404 |
| **M25** | 5 - 44,255 |
| **M32** | 8 - 70,808 |
| **M40** | 10 - 88,510 |
| **M50** | 15 - 132,765 |
| **M63** | 15 - 132,765 |
| *Thread Side* | *Fitting + Locknuts (Nm) - (Lb*in)[1]* |

| Od strony rury ochronnej | Złączka + nakrętka dociskowa (Nm) - (Lb*in)[1] |
|---|---|
| **CM Ø09** | 15 - 132,765 |
| **CM Ø10** | 15 - 132,765 |
| **CM Ø12** | 20 - 177,02 |
| **CM Ø13** | 20 - 177,02 |
| **CM Ø15** | 20 - 177,02 |
| **CM Ø18** | 20 - 177,02 |
| **CM Ø20** | 25 - 221,275 |
| **CM Ø25** | 35 - 309,785 |
| **CM Ø27** | 35 - 309,785 |
| **CM Ø33** | 35 - 309,785 |
| **CM Ø35** | 35 - 309,785 |
| **CM Ø40** | 40 - 354,04 |
| **CM Ø50** | 50 - 442,55 |
| *Conduit Side* | *Fitting + Locknuts (Nm) - (Lb*in)[1]* |

**[1] - Podane momenty dokręcania są minimalnymi zalecanymi wartościami**

***[1] - The torque values are to be considered as the minimum recommended***

# Złączki CM

Złączki z serii CM zapewniają szybkie, ekonomiczne i bezpieczne połączenie z rurami metalowymi typu L - P - DAR - SVT - T - TP - LPU - DAPU i SVPEVAT.

Połączenie złączka-rura wykonywane jest przy użyciu metalowego krućca i nylonowego pierścienia.
Specjalna budowa krućca gwarantuje połączenia o doskonałej odporności na rozciąganie i drgania, zapewniając równocześnie doskonałą ciągłość elektryczną.

Nylonowy pierścień blokujący rurę zapewnia szczelne połączenie gwarantując stopień ochrony IP67.

**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA.**

# *CM FITTINGS*

*CM fittings provide quick, economical and secure connection to metal conduits of the series L - P - DAR - SVT - T - TP - LPU - DAPU and SVPEVAT.*

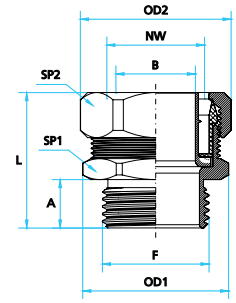
*Connections of fittings and conduits are assured by a metal ferrule and a nylon ring.*
*The special construction and threading of the metal ferrule allows internal screw connection with the metal conduits and offer excellent resistance to pull-out strenght and vibration and total electric continuity.*

*The connection is complemented by the nylon ring which locks the flexible conduit in place and guarantees IP 67 rate.*

***Protection IP67 - requires an additional GAM/GRA seal on the thread***

# CMMF

## Złączka mosiężna prosta gwint męski z ciągłością elektryczną
## *Male thread brass fittings with metallic continuity*




Kod QR: instrukcja montażu
*QR CODE: assembly instructions*

① Na zamówienie dostępne są złączki z gwintem calowym stożkowym ISO 7/1$_R$
① *ISO 7/1$_R$ Tapered Thread available on demand*

**Dla rur typu: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT**
***For conduits type: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT***

**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA**
**Protection IP67 - requires an additional GAM/GRA seal on the thread**

**File E - 124066 140F/60°C**

### CMMF - Złączka mosiężna prosta gwint męski calowy i PG

| Kod calowy | F gwint calowy | A mm | L mm | Kod PG | F Gwint PG | A mm | L mm | Certyfikaty | Dla rury NW | Ø rury mm wew. zew. | B Przelot użytk. mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CMMFG009 | 1/4" | 10 | 31 | CMMFP09PG09 | 9 | 10 | 31 | | 9 | 8,5 - 13,0 | 7 | 23 | 24,5 | 20 | 22 | 20 |
| CMMFG009A | 3/8" | 10 | 31 | CMMFP09PG11 | 11 | 10 | 31 | | 9 | 8,5 - 13,0 | 7 | 23 | 24,5 | 20 | 22 | 20 |
| CMMFG009B | 1/2" | 10 | 31,5 | CMMFP09PG13 | 13,5 | 10 | 31,5 | | 9 | 8,5 - 13,0 | 7 | 25 | 24,5 | 22 | 22 | 20 |
| CMMFG010 | 1/4" | 10 | 32 | CMMFP10PG07 | 7 | 10 | 32 | | 10 | 10,0 - 15,0 | 8,5 | 25 | 26 | 22 | 24 | 20 |
| CMMFG010A | 3/8" | 10 | 32 | CMMFP10PG09 | 9 | 10 | 32 | | 10 | 10,0 - 15,0 | 8,5 | 25 | 26 | 22 | 24 | 20 |
| CMMFG010B | 1/2" | 10 | 32 | CMMFP10PG11 | 11 | 10 | 32 | | 10 | 10,0 - 15,0 | 8,5 | 25 | 26 | 22 | 24 | 20 |
| | | | | CMMFP10PG13 | 13,5 | 10 | 32 | | 10 | 10,0 - 15,0 | 8,5 | 25 | 26 | 22 | 24 | 20 |
| CMMFG012 | 3/8" | 10 | 33 | CMMFP12PG11 | 11 | 10 | 33 | | 12 | 12,0 - 17,0 | 10,5 | 27,5 | 29 | 24 | 26 | 20 |
| CMMFG012A | 1/2" | 10 | 33 | CMMFP12PG13 | 13,5 | 10 | 33 | | 12 | 12,0 - 17,0 | 10,5 | 27,5 | 29 | 24 | 26 | 20 |
| | | | | CMMFP12PG16 | 16 | 10 | 33 | | 12 | 12,0 - 17,0 | 10,5 | 27,5 | 29 | 24 | 26 | 20 |
| CMMFG013 | 3/8" | 10 | 33 | CMMFP13PG11 | 11 | 10 | 33 | | 13 | 13,0 - 19,0 | 11,5 | 30 | 30,5 | 26 | 28 | 20 |
| CMMFG013A | 1/2" | 10 | 33,5 | CMMFP13PG13 | 13,5 | 10 | 33,5 | | 13 | 13,0 - 19,0 | 11,5 | 30 | 30,5 | 26 | 28 | 20 |
| | | | | CMMFP13PG16 | 16 | 10 | 33,5 | | 13 | 13,0 - 19,0 | 11,5 | 30 | 30,5 | 26 | 28 | 20 |
| CMMFG015 | 1/2" | 11 | 34,5 | CMMFP15PG13 | 13,5 | 10 | 33,5 | | 15 | 15,5 - 21,0 | 13,8 | 32 | 33 | 28 | 30 | 20 |
| CMMFG015A | 3/4" | 11 | 33,5 | CMMFP15PG16 | 16 | 10 | 33,5 | | 15 | 15,5 - 21,0 | 13,8 | 32 | 33 | 28 | 30 | 20 |
| CMMFG018 | 1/2" | 11 | 34 | CMMFP18PG16 | 16 | 11 | 34 | | 18 | 18,0 - 25,0 | 16,5 | 37 | 37 | 32 | 34 | 10 |
| CMMFG018A | 3/4" | 11 | 34 | CMMFP18PG21 | 21 | 11 | 34 | | 18 | 18,0 - 25,0 | 16,5 | 37 | 37 | 32 | 34 | 10 |
| CMMFG020 | 3/4" | 13 | 38 | CMMFP20PG21 | 21 | 12 | 36,5 | | 20 | 20,5 - 27,0 | 18,5 | 39 | 42,5 | 35 | 38 | 10 |
| CMMFG025 | 1" | 15 | 42 | CMMFP25PG29 | 29 | 12 | 39 | | 25 | 25,0 - 32,0 | 23 | 44,5 | 46,5 | 40 | 42 | 10 |
| CMMFG027 | 1" | 15 | 42 | CMMFP27PG29 | 29 | 12 | 40 | | 27 | 26.5 - 34,0 | 25 | 47,5 | 49,5 | 42 | 45 | 10 |
| CMMFG033 | 1"1/4 | 15 | 47 | CMMFP33PG36 | 36 | 12 | 44 | | 33 | 33,0 - 41,0 | 31 | 55 | 58 | 50 | 53 | 5 |
| CMMFG035 | 1"1/4 | 15 | 46 | CMMFP35PG36 | 36 | 12 | 42,5 | | 35 | 35,0 - 43,0 | 33 | 55 | 58 | 50 | 53 | 5 |
| CMMFG040 | 1"1/2 | 18 | 50 | CMMFP40PG36 | 36 | 17 | 49,5 | | 40 | 40,0 - 48,0 | 37,5 | 63 | 66,5 | 58 | 61 | 5 |
| | | | | CMMFP40PG42 | 42 | 13 | 46,5 | | 40 | 40,0 - 48,0 | 37,5 | 63 | 66,5 | 58 | 61 | 5 |
| CMMFG050 | 2" | 18 | 57 | CMMFP50PG48 | 48 | 18 | 57 | | 50 | 50,5 - 58,5 | 48 | 76 | 80,5 | 70 | 74 | 2 |
| CMMFG065 | 2"1/2 | 24 | 83 | | | | | | 65 | 65,0 - 74,0 | 61 | 99 | 99 | 95 | 95 | 1 |
| CMMFG075 | 3" | 24 | 89 | | | | | | 75 | 75,0 - 84,0 | 71 | 110 | 110 | 104 | 104 | 1 |
| *REF. Part N. GAS* | *F GAS Thread* | *A mm* | *L mm* | *REF. Part N. PG* | *F PG Thread* | *A mm* | *L mm* | *Approvals* | *Conduit code NW* | *iiint. ext. Ø conduit mm* | *B useful passage mm* | *OD1 mm* | *OD2 mm* | *SP1 mm* | *SP1 mm* | *Packing unit* |

***CMMF - Male GAS and PG thread - Brass fittings with metallic continuity***

RINA

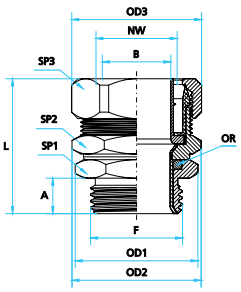
### CMMF - Złączka mosiężna prosta gwint męski metryczny ISO

| Kod metryczny ISO | Certyfikaty | F gwint metryczny ISO | Dla rury NW | Ø rury mm wew. zew. | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CMMF09M12 | | M12x1,5 | 9 | 8,5 - 13,0 | 10 | 7 | 31 | 23 | 24,5 | 20 | 22 | 20 |
| CMMF09M16 | | M16x1,5 | 9 | 8,5 - 13,0 | 10 | 7 | 31,5 | 23 | 24,5 | 20 | 22 | 20 |
| CMMF09M20 | | M20x1,5 | 9 | 8,5 - 13,0 | 10 | 7 | 31,5 | 25 | 24,5 | 22 | 22 | 20 |
| CMMF10M12 | | M12x1,5 | 10 | 10,0 - 15,0 | 10 | 8,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| CMMF10M16 | | M16x1,5 | 10 | 10,0 - 15,0 | 10 | 8,5 | 33 | 25 | 26 | 22 | 24 | 20 |
| CMMF10M20 | | M20x1,5 | 10 | 10,0 - 15,0 | 10 | 8,5 | 32,5 | 25 | 26 | 22 | 24 | 20 |
| CMMF12M16 | | M16x1,5 | 12 | 12,0 - 17,0 | 10 | 10,5 | 33 | 27,5 | 29 | 24 | 26 | 20 |
| CMMF12M20 | | M20x1,5 | 12 | 12,0 - 17,0 | 10 | 10,5 | 33,5 | 27,5 | 29 | 24 | 26 | 20 |
| CMMF13M16 | | M16x1,5 | 13 | 13,0 - 19,0 | 10 | 11,5 | 33,5 | 30 | 30,5 | 26 | 28 | 20 |
| CMMF13M20 | | M20x1,5 | 13 | 13,0 - 19,0 | 10 | 11,5 | 34 | 30 | 30,5 | 26 | 28 | 20 |
| CMMF15M20 | | M20x1,5 | 15 | 15,5 - 21,0 | 10 | 13,8 | 34,5 | 32 | 33 | 28 | 30 | 20 |
| CMMF15M25 | | M25x1,5 | 15 | 15,5 - 21,0 | 11 | 13,8 | 35 | 32 | 33 | 28 | 30 | 20 |
| CMMF18M20 | | M20x1,5 | 18 | 18,0 - 25,0 | 11 | 16,5 | 34,5 | 37 | 37 | 32 | 34 | 10 |
| CMMF18M25 | | M25x1,5 | 18 | 18,0 - 25,0 | 11 | 16,5 | 34,5 | 37 | 37 | 32 | 34 | 10 |
| CMMF20M25 | | M25x1,5 | 20 | 20,5 - 27,0 | 12 | 18,5 | 37 | 39 | 42,5 | 35 | 38 | 10 |
| CMMF25M32 | | M32x1,5 | 25 | 25,0 - 32,0 | 12 | 23 | 39,5 | 44,5 | 46,5 | 40 | 42 | 10 |
| CMMF27M32 | | M32x1,5 | 27 | 26.5 - 34,0 | 12 | 25 | 39,5 | 47,5 | 49,5 | 42 | 45 | 10 |
| CMMF33M40 | | M40x1,5 | 33 | 33,0 - 41,0 | 12 | 31 | 44 | 55 | 58 | 50 | 53 | 5 |
| CMMF35M40 | | M40x1,5 | 35 | 35,0 - 43,0 | 12 | 33 | 43 | 55 | 58 | 50 | 53 | 5 |
| CMMF40M50 | | M50x1,5 | 40 | 40,0 - 48,0 | 13 | 37,5 | 46,5 | 63 | 66,5 | 58 | 61 | 5 |
| CMMF50M63 | | M63x1,5 | 50 | 50,5 - 58,5 | 16 | 48 | 55 | 76 | 80,5 | 70 | 74 | 2 |
| *REF. Part N. ISO Metric* | *Approvals* | *F ISO Metric Thread* | *Conduit code NW* | *int. ext. Ø conduit mm* | *A mm* | *B useful passage mm* | *L mm* | *OD1 mm* | *OD2 mm* | *SP1 mm* | *SP2 mm* | *Packing unit* |

***CMMF - Male ISO Metric thread - Brass fittings with metallic continuity***

# CMMG

## Złączka mosiężna prosta obrotowy gwint męski z ciągłością elektryczną
## *Revolving male brass fittings with metallic continuity*




Kod QR: Instrukcja montażu
*QR CODE: assembly instructions*

① Na zamówienie dostepne są złączki z gwintem calowym stożkowym ISO 7/1$_R$

① *ISO 7/1$_R$ Tapered Thread available on demand*

**Dla rur typu: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT**

***For conduits type: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT***

**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA**
**Protection IP67 - requires an additional GAM/GRA seal on the thread**

### CMMG - Złączka mosiężna prosta obrotowy gwint męski calowy i PG

| Kod calowy | F gwint calowy | A mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Kod PG | F gwint PG | A mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Dla rury NW | ∅ rury mm wew. zew. | B Przelot użytkowy mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMMGG09** | 1/4" | 9 | 40 | 17 | 23 | 24,5 | 15 | 20 | 22 | **CMMGP09PG07** | 7 | 9 | 40 | 17 | 23 | 24,5 | 15 | 20 | 22 | 9 | 8,5 - 13,0 | 7 | 20 |
| **CMMGG09A** | 3/8" | 9 | 40 | 21,5 | 23 | 24,5 | 19 | 20 | 22 | **CMMGP09PG09** | 9 | 7 | 37,5 | 19,5 | 23 | 24,5 | 17 | 20 | 22 | 9 | 8,5 - 13,0 | 7 | 20 |
| **CMMGG09B** | 1/2" | 9 | 40 | 27,5 | 23 | 24,5 | 24 | 20 | 22 | **CMMGP09PG11** | 11 | 7 | 36 | 23 | 23 | 24,5 | 20 | 20 | 22 | 9 | 8,5 - 13,0 | 7 | 20 |
| | | | | | | | | | | **CMMGP09PG13** | 13,5 | 7 | 36 | 25 | 25 | 24,5 | 22 | 22 | 22 | 9 | 8,5 - 13,0 | 7 | 20 |
| **CMMGG10** | 1/4" | 9 | 40 | 17 | 25 | 26 | 15 | 22 | 24 | **CMMGP10PG07** | 7 | 9 | 39,5 | 17 | 25 | 26 | 15 | 22 | 24 | 10 | 10,0 - 15,0 | 7 | 20 |
| | | | | | | | | | | **CMMGP10PG09** | 9 | 7 | 37,5 | 19,5 | 25 | 26 | 17 | 22 | 24 | 10 | 10,0 - 15,0 | 7 | 20 |
| **CMMGG10A** | 3/8" | 9 | 40 | 21,5 | 25 | 26 | 19 | 22 | 24 | **CMMGP10PG11** | 11 | 7 | 37,5 | 23 | 25 | 26 | 20 | 22 | 24 | 10 | 10,0 - 15,0 | 8,5 | 20 |
| **CMMGG10B** | 1/2" | 9 | 40 | 27,5 | 25 | 26 | 24 | 22 | 24 | **CMMGP10PG13** | 13,5 | 7 | 37 | 25 | 25 | 26 | 22 | 22 | 24 | 10 | 10,0 - 15,0 | 8,5 | 20 |
| | | | | | | | | | | **CMMGP10PG16** | 16 | 7 | 37 | 27,5 | 25 | 26 | 24 | 22 | 24 | 10 | 10,0 - 15,0 | 8,5 | 20 |
| **CMMGG12** | 3/8" | 9 | 40 | 21,5 | 27,5 | 29 | 19 | 24 | 26 | **CMMGP12PG11** | 11 | 7 | 37,5 | 23 | 27,5 | 29 | 20 | 24 | 26 | 12 | 12,0 - 17,0 | 10 | 20 |
| **CMMGG12A** | 1/2" | 9 | 40 | 27,5 | 27,5 | 29 | 24 | 24 | 26 | **CMMGP12PG13** | 13,5 | 7 | 37 | 25 | 27,5 | 29 | 22 | 24 | 26 | 12 | 12,0 - 17,0 | 10 | 20 |
| | | | | | | | | | | **CMMGP12PG16** | 16 | 7 | 37,5 | 27,5 | 27,5 | 29 | 24 | 24 | 26 | 12 | 12,0 - 17,0 | 10 | 20 |
| **CMMGG13** | 3/8" | 9 | 40,5 | 21,5 | 30 | 30,5 | 19 | 26 | 28 | **CMMGP13PG11** | 11 | 7 | 38 | 23 | 30 | 30,5 | 20 | 26 | 28 | 13 | 13,0 - 19,0 | 10 | 20 |
| **CMMGG13A** | 1/2" | 9 | 40,5 | 27,5 | 30 | 30,5 | 24 | 26 | 28 | **CMMGP13PG13** | 13,5 | 7 | 37,5 | 25 | 30 | 30,5 | 22 | 26 | 28 | 13 | 13,0 - 19,0 | 10 | 20 |
| | | | | | | | | | | **CMMGP13PG16** | 16 | 7 | 37,5 | 27,5 | 30 | 30,5 | 24 | 26 | 28 | 13 | 13,0 - 19,0 | 10 | 20 |
| ① **CMMGG15** | 1/2" | 10 | 42 | 27,5 | 32 | 33 | 24 | 28 | 30 | **CMMGP15PG13** | 13,5 | 10 | 40 | 27,5 | 32 | 33 | 24 | 28 | 30 | 15 | 15,5 - 21,0 | 14 | 20 |
| **CMMGG15A** | 3/4" | 12,5 | 44 | 34,5 | 32 | 33 | 30 | 28 | 30 | **CMMGP15PG16** | 16 | 10 | 40 | 27,5 | 32 | 33 | 24 | 28 | 30 | 15 | 15,5 - 21,0 | 14 | 20 |
| | | | | | | | | | | **CMMGP15PG21** | 21 | 10 | 40,5 | 34,5 | 32 | 33 | 30 | 28 | 30 | 15 | 15,5 - 21,0 | 14 | 20 |
| **CMMGG18** | 1/2" | 10 | 43 | 27,5 | 37 | 37 | 24 | 32 | 34 | **CMMGP18PG13** | 13,5 | 10 | 40 | 27,5 | 37 | 37 | 24 | 32 | 34 | 18 | 18,0 - 25,0 | 14 | 10 |
| | | | | | | | | | | **CMMGP18PG16** | 16 | 10 | 40 | 27,5 | 37 | 37 | 24 | 32 | 34 | 18 | 18,0 - 25,0 | 14 | 10 |
| ① **CMMGG18A** | 3/4" | 12,5 | 45 | 34,5 | 37 | 37 | 30 | 32 | 34 | **CMMGP18PG21** | 21 | 10 | 41 | 34,5 | 37 | 37 | 30 | 32 | 34 | 18 | 18,0 - 25,0 | 16,5 | 10 |
| ① **CMMGG20** | 3/4" | 12,5 | 47 | 34,5 | 39 | 42,5 | 30 | 35 | 38 | **CMMGP20PG21** | 21 | 10 | 42,5 | 34,5 | 39 | 42,5 | 30 | 35 | 38 | 20 | 20,5 - 27,0 | 18,5 | 10 |
| **CMMGG20A** | 1" | 12,5 | 47 | 43,5 | 39 | 42,5 | 38 | 35 | 38 | | | | | | | | | | | 20 | 20,5 - 27,0 | 18,5 | 10 |
| **CMMGG25** | 1" | 12,5 | 49 | 43,5 | 45 | 46,5 | 38 | 40 | 42 | **CMMGP25PG29** | 29 | 12,5 | 48 | 43,5 | 45 | 46,5 | 38 | 40 | 42 | 25 | 25,0 - 32,0 | 23 | 10 |
| ① **CMMGG27** | 1" | 12,5 | 48,5 | 43,5 | 45 | 49,5 | 38 | 42 | 45 | **CMMGP27PG29** | 29 | 12,5 | 48,5 | 43,5 | 45 | 49,5 | 38 | 42 | 45 | 27 | 26,5 - 34,0 | 24 | 10 |
| ① **CMMGG33** | 1" 1/4 | 18,5 | 60 | 49 | 55 | 58 | 45 | 50 | 53 | **CMMGP33PG36** | 36 | 18,5 | 60 | 49 | 55 | 58 | 45 | 50 | 53 | 33 | 33,0 - 41,0 | 31 | 5 |
| ① **CMMGG35** | 1" 1/4 | 18,5 | 58 | 49 | 55 | 58 | 45 | 50 | 53 | **CMMGP35PG36** | 36 | 18,5 | 58 | 49 | 55 | 58 | 45 | 50 | 53 | 35 | 35,0 - 43,0 | 32,5 | 5 |
| ① **CMMGG40** | 1" 1/2 | 20 | 62 | 56 | 64 | 66,5 | 52 | 58 | 61 | **CMMGP40PG36** | 36 | 20 | 62 | 56 | 64 | 66,5 | 52 | 58 | 61 | 40 | 40,0 - 48,0 | 37,5 | 5 |
| | | | | | | | | | | **CMMGP40PG42** | 42 | 20 | 62 | 62 | 64 | 66,5 | 58 | 58 | 61 | 40 | 40,0 - 48,0 | 37,5 | 5 |
| ① **CMMGG50** | 2" | 24,5 | 76 | 72 | 76 | 80,5 | 65 | 70 | 74 | **CMMGP50PG48** | 48 | 24,5 | 76 | 72 | 76 | 80,5 | 65 | 70 | 74 | 50 | 50,5 - 58,5 | 48 | 2 |
| ① **CMMGG65** | 2" 1/2 | 24 | 104,5 | 90 | 99 | 99 | 82 | 95 | 95 | | | | | | | | | | | 65 | 65,0 - 74,0 | 60 | 1 |
| ① **CMMGG75** | 3" | 27 | 116 | 106 | 110 | 110 | 95 | 104 | 104 | | | | | | | | | | | 75 | 75,0 - 84,0 | 70 | 1 |
| ***REF. Part N. GAS*** | ***F GAS Thread*** | ***A mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***OD3 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***SP3 mm*** | ***REF. Part N. PG*** | ***F PG Thread*** | ***A mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***OD3 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***SP3 mm*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***B useful passage mm*** | ***Packing unit*** |

***CMMG - Revolving male GAS and PG thread - Brass fittings with metallic continuity***

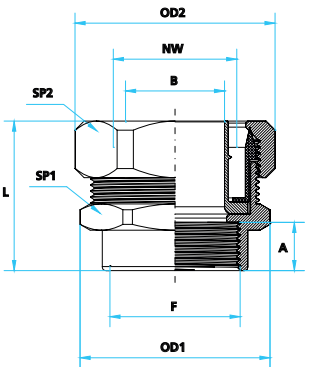
### CMMG - Złączka mosiężna prosta obrotowy gwint męski metryczny ISO

| Kod metryczny ISO | F gwint metryczny ISO | Dla rury NW | ∅ rury mm wew. zew. | A mm | B Przelot uzytk. mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMMG09M12** | M12x1,5 | 9 | 8,5 - 13,0 | 9 | 7 | 40 | 17 | 23 | 24,5 | 15 | 20 | 22 | 20 |
| **CMMG09M16** | M16x1,5 | 9 | 8,5 - 13,0 | 9 | 7 | 40 | 22 | 23 | 24,5 | 19 | 20 | 22 | 20 |
| **CMMG09M20** | M20x1,5 | 9 | 8,5 - 13,0 | 9 | 7 | 40 | 25 | 25 | 24,5 | 22 | 22 | 22 | 20 |
| **CMMG10M12** | M12x1,5 | 10 | 10,0 - 15,0 | 9 | 7 | 40 | 17 | 25 | 26 | 15 | 22 | 24 | 20 |
| **CMMG10M16** | M16x1,5 | 10 | 10,0 - 15,0 | 9 | 8,5 | 40 | 22 | 25 | 26 | 19 | 22 | 24 | 20 |
| **CMMG10M20** | M20x1,5 | 10 | 10,0 - 15,0 | 9 | 8,5 | 40 | 27,5 | 25 | 26 | 24 | 22 | 24 | 20 |
| **CMMG12M16** | M16x1,5 | 12 | 12,0 - 17,0 | 9 | 10 | 40 | 22 | 27,5 | 29 | 19 | 24 | 26 | 20 |
| **CMMG12M20** | M20x1,5 | 12 | 12,0 - 17,0 | 9 | 10 | 40 | 27,5 | 27,5 | 29 | 24 | 24 | 26 | 20 |
| **CMMG13M16** | M16x1,5 | 13 | 13,0 - 19,0 | 9 | 10 | 40 | 22 | 30 | 30,5 | 19 | 26 | 28 | 20 |
| **CMMG13M20** | M20x1,5 | 13 | 13,0 - 19,0 | 9 | 10 | 40 | 27,5 | 30 | 30,5 | 24 | 26 | 28 | 20 |
| **CMMG15M20** | M20x1,5 | 15 | 15,5 - 21,0 | 9 | 14 | 40 | 27,5 | 32 | 33 | 24 | 28 | 30 | 20 |
| **CMMG15M25** | M25x1,5 | 15 | 15,5 - 21,0 | 10 | 13,8 | 41 | 34,5 | 32 | 33 | 30 | 28 | 30 | 20 |
| **CMMG18M20** | M20x1,5 | 18 | 18,0 - 25,0 | 9 | 14 | 41 | 27,5 | 37 | 37 | 24 | 32 | 34 | 10 |
| **CMMG18M25** | M25x1,5 | 18 | 18,0 - 25,0 | 10 | 16,5 | 41 | 34,5 | 37 | 37 | 30 | 32 | 34 | 10 |
| **CMMG20M25** | M25x1,5 | 20 | 20,5 - 27,0 | 10 | 18 | 44 | 34,5 | 39 | 42,5 | 30 | 35 | 38 | 10 |
| **CMMG20M32** | M32x1,5 | 20 | 20,5 - 27,0 | 13 | 18 | 47 | 43,5 | 40 | 42,5 | 38 | 35 | 38 | 10 |
| **CMMG25M32** | M32x1,5 | 25 | 25,0 - 32,0 | 13 | 23 | 48 | 43,5 | 45 | 46,5 | 38 | 40 | 42 | 10 |
| **CMMG27M32** | M32x1,5 | 27 | 26,5 - 34,0 | 13 | 24 | 49 | 43,5 | 45 | 49,5 | 38 | 42 | 45 | 10 |
| **CMMG33M40** | M40x1,5 | 33 | 33,0 - 41,0 | 18 | 31 | 58 | 52 | 55 | 58 | 45 | 50 | 53 | 5 |
| **CMMG35M40** | M40x1,5 | 35 | 35,0 - 43,0 | 18 | 33 | 56 | 52 | 55 | 58 | 45 | 50 | 53 | 5 |
| **CMMG40M50** | M50x1,5 | 40 | 40,0 - 48,0 | 20 | 37,5 | 62 | 56 | 64 | 66,5 | 52 | 58 | 61 | 5 |
| **CMMG50M63** | M63x1,5 | 50 | 50,5 - 58,5 | 24 | 48 | 74 | 69 | 76 | 80,5 | 64 | 70 | 74 | 2 |
| ***REF. Part N. ISO Metric*** | ***F ISO Metric Thread*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***OD3 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***SP3 mm*** | ***Packing unit*** |

***CMMG - Revolving male ISO METRIC thread - Brass fittings with metallic continuity***

# CMF

## Złączka mosiężna prosta gwint żeński z ciągłością elektryczną
## *Female thread brass fittings with metallic continuity*




Kod QR: istrukcja montażu
*QR CODE: assembly instructions*

**Dla rur typu: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT**
***For conduits type: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT***

Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA
Protection IP67 - requires an additional GAM/GRA seal on the thread

### CMF - Złączka mosiężna prosta gwint żeński calowy

| Kod calowy | F gwint calowy | Dla rury NW | ∅ rury mm wew. zew. | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMF009** | 1/4" | 9 | 8,5 - 13,0 | 9 | 7 | 28,5 | 23 | 24,5 | 20 | 22 | 20 |
| **CMF010** | 1/4" | 10 | 10,0 - 15,0 | 9 | 8,5 | 27,5 | 25 | 26 | 22 | 24 | 20 |
| **CMF010A** | 3/8" | 10 | 10,0 - 15,0 | 9 | 8,5 | 27,5 | 25 | 26 | 22 | 24 | 20 |
| **CMF010B** | 1/2" | 10 | 10,0 - 15,0 | 10 | 8,5 | 30 | 25 | 26 | 22 | 24 | 20 |
| **CMF012** | 3/8" | 12 | 12,0 - 17,0 | 9 | 10,5 | 29,5 | 27,5 | 29 | 24 | 26 | 20 |
| **CMF012A** | 1/2" | 12 | 12,0 - 17,0 | 9 | 10,5 | 31 | 27,5 | 29 | 24 | 26 | 20 |
| **CMF013** | 3/8" | 13 | 13,0 - 19,0 | 9,5 | 11,5 | 28,5 | 30 | 30,5 | 26 | 28 | 20 |
| **CMF013A** | 1/2" | 13 | 13,0 - 19,0 | 9,5 | 11,5 | 29,5 | 30 | 30,5 | 26 | 28 | 20 |
| **CMF015** | 1/2" | 15 | 15,5 - 21,0 | 9,5 | 13,8 | 29 | 32 | 33 | 28 | 30 | 20 |
| **CMF015A** | 3/4" | 15 | 15,5 - 21,0 | 9,5 | 13,8 | 30 | 32 | 33 | 28 | 30 | 20 |
| **CMF018** | 1/2" | 18 | 18,0 - 25,0 | 10 | 16,5 | 30,5 | 37 | 37 | 32 | 34 | 10 |
| **CMF018A** | 3/4" | 18 | 18,0 - 25,0 | 10 | 16,5 | 30 | 37 | 37 | 32 | 34 | 10 |
| **CMF020** | 3/4" | 20 | 20,5 - 27,0 | 12 | 18,5 | 35 | 39 | 42,5 | 35 | 38 | 10 |
| **CMF025** | 1" | 25 | 25,0 - 32,0 | 1 | 23 | 38,5 | 44,5 | 46,5 | 40 | 42 | 10 |
| **CMF027** | 1" | 27 | 26.5 - 34,0 | 14 | 25 | 39,5 | 47,5 | 49,5 | 42 | 45 | 10 |
| **CMF033** | 1"1/4 | 33 | 33,0 - 41,0 | 16 | 31 | 43 | 55 | 58 | 50 | 53 | 5 |
| **CMF035** | 1"1/4 | 35 | 35,0 - 43,0 | 16 | 33 | 40,5 | 55 | 58 | 50 | 53 | 5 |
| **CMF040** | 1"1/2 | 40 | 40,0 - 48,0 | 17 | 37,5 | 47 | 63 | 66,5 | 58 | 61 | 5 |
| **CMF050** | 2" | 50 | 50,5 - 58,5 | 21 | 48 | 51,5 | 76 | 80,5 | 70 | 74 | 2 |
| **CMF065** | 2"1/2 | 65 | 65,0 - 74,0 | 22 | 61 | 86 | 99 | 99 | 95 | 95 | 1 |
| **CMF075** | 3" | 75 | 75,0 - 84,0 | 22 | 71 | 88 | 110 | 110 | 104 | 104 | 1 |
| *REF. Part N. GAS* | *F GAS Thread* | *Conduit code NW* | *int. ext. ∅ conduit mm* | *A mm* | *B useful passage mm* | *L mm* | *OD1 mm* | *OD2 mm* | *SP1 mm* | *SP2 mm* | *Packing unit* |

***CMF - Female GAS thread - Brass fittings with metallic continuity***

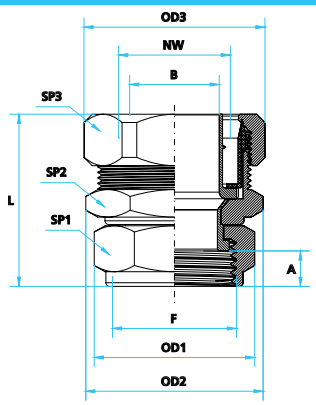
### CMF - Złączka mosiężna prosta gwint żeński metryczny ISO

| Kod metryczny ISO | F gwint metryczny ISO | Dla rury NW | ∅ rury mm wew. zew. | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMF09M12** | M12x1,5 | 9 | 8,5 - 13,0 | 8 | 7 | 27,5 | 23 | 24,5 | 20 | 22 | 20 |
| **CMF10M16** | M16x1,5 | 10 | 10,0 - 15,0 | 9 | 8,5 | 29 | 25 | 26 | 22 | 24 | 20 |
| **CMF12M16** | M16x1,5 | 12 | 12,0 - 17,0 | 9 | 10,5 | 28,5 | 27,5 | 29 | 24 | 26 | 20 |
| **CMF13M20** | M20x1,5 | 13 | 13,0 - 19,0 | 10 | 11,5 | 30,5 | 30 | 30,5 | 26 | 28 | 20 |
| **CMF15M20** | M20x1,5 | 15 | 15,5 - 21,0 | 10 | 13,8 | 30,5 | 32 | 33 | 28 | 30 | 20 |
| **CMF18M25** | M25x1,5 | 18 | 18,0 - 25,0 | 10 | 16,5 | 31 | 37 | 37 | 32 | 34 | 10 |
| **CMF20M25** | M25x1,5 | 20 | 20,5 - 27,0 | 12 | 18,5 | 35 | 39 | 42,5 | 35 | 38 | 10 |
| **CMF25M32** | M32x1,5 | 25 | 25,0 - 32,0 | 12 | 23 | 36,5 | 44,5 | 46,5 | 40 | 42 | 10 |
| **CMF27M32** | M32x1,5 | 27 | 26.5 - 34,0 | 12 | 25 | 37,5 | 47,5 | 49,5 | 42 | 45 | 10 |
| **CMF33M40** | M40x1,5 | 33 | 33,0 - 41,0 | 12 | 31 | 38,5 | 55 | 58 | 50 | 53 | 5 |
| **CMF35M40** | M40x1,5 | 35 | 35,0 - 43,0 | 12 | 33 | 37,5 | 55 | 58 | 50 | 53 | 5 |
| **CMF40M50** | M50x1,5 | 40 | 40,0 - 48,0 | 13 | 37,5 | 39,5 | 63 | 66,5 | 58 | 61 | 5 |
| **CMF50M63** | M63x1,5 | 50 | 50,5 - 58,5 | 20 | 48 | 51,5 | 76 | 80,5 | 70 | 74 | 2 |
| *REF. Part N. ISO Metric* | *F ISO Metric Thread* | *Conduit code NW* | *int. ext. ∅ conduit mm* | *A mm* | *B useful passage mm* | *L mm* | *OD1 mm* | *OD2 mm* | *SP1 mm* | *SP2 mm* | *Packing unit* |

***CMF - Female ISO Metric thread - Brass fittings with metallic continuity***

# CMFG

## Złączka mosiężna prosta obrotowy gwint żeński z ciągłością elektryczną
## *Female thread brass fittings with metallic continuity*




Kod QR: instrukcja montażu
*QR CODE: assembly instructions*

**Dla rur typu: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT**
***For conduits type: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT***

Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA
Protection IP67 - requires an additional GAM/GRA seal on the thread

## Zastosowanie
## *Application*

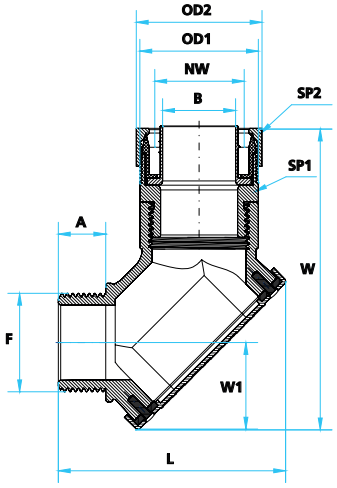
**CMFG - Złączka mosiężna prosta obrotowy gwint żeński calowy**

| Kod | F gwint calowy | Dla rury NW | ∅ rury mm wew. zew. | A mm | B Przelot użytkowy | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMFG09** | 1/4" | 9 | 8,5 - 13,0 | 6 | 7 | 34,5 | 17 | 23 | 24,5 | 15 | 20 | 22 | 20 |
| **CMFG10** | 1/4" | 10 | 10,0 - 15,0 | 6 | 8,5 | 35 | 17 | 25 | 26 | 15 | 22 | 24 | 20 |
| **CMFG10A** | 3/8" | 10 | 10,0 - 15,0 | 6,5 | 8,5 | 35 | 21,5 | 25 | 26 | 19 | 22 | 24 | 20 |
| **CMFG12** | 3/8" | 12 | 12,0 - 17,0 | 6,5 | 10,5 | 36 | 21,5 | 27,5 | 29 | 19 | 24 | 26 | 20 |
| **CMFG13** | 3/8" | 13 | 13,0 - 19,0 | 6,5 | 11 | 36 | 21,5 | 30 | 30,5 | 19 | 26 | 28 | 20 |
| **CMFG15** | 1/2" | 15 | 15,5 - 21,0 | 7,5 | 13,8 | 37 | 27,5 | 32 | 33 | 24 | 28 | 30 | 20 |
| **CMFG15A** | 3/4" | 15 | 15,5 - 21,0 | 7 | 13,8 | 38,5 | 34,5 | 32 | 33 | 30 | 28 | 30 | 20 |
| **CMFG18** | 1/2" | 18 | 18,0 - 25,0 | 7 | 15 | 39 | 27,5 | 37 | 37 | 24 | 32 | 34 | 10 |
| **CMFG18A** | 3/4" | 18 | 18,0 - 25,0 | 8 | 16,5 | 39 | 34,5 | 37 | 37 | 30 | 32 | 34 | 10 |
| **CMFG20** | 3/4" | 20 | 20,5 - 27,0 | 8 | 18,1 | 41 | 34,5 | 39 | 42,5 | 30 | 35 | 38 | 10 |
| **CMFG25** | 1" | 25 | 25,0 - 32,0 | 10 | 23 | 45,5 | 43,5 | 45 | 46,5 | 38 | 40 | 42 | 10 |
| **CMFG27** | 1" | 27 | 26.5 - 34,0 | 10 | 24 | 47 | 43,5 | 45 | 49,5 | 38 | 42 | 45 | 10 |
| **CMFG33** | 1"1/4 | 33 | 33,0 - 41,0 | 11 | 31 | 51 | 49 | 55 | 58 | 45 | 50 | 53 | 5 |
| **CMFG35** | 1"1/4 | 35 | 35,0 - 43,0 | 11 | 32 | 49 | 49 | 55 | 58 | 45 | 50 | 53 | 5 |
| **CMFG40** | 1"1/2 | 40 | 40,0 - 48,0 | 11 | 37,5 | 55 | 57 | 64 | 66,5 | 52 | 58 | 61 | 5 |
| **CMFG50** | 2" | 50 | 50,5 - 58,5 | 12 | 48 | 60,5 | 70 | 76 | 80,5 | 64 | 70 | 74 | 2 |
| **CMFG65** | 2"1/2 | 65 | 65,0 - 74,0 | 19 | 61 | 93 | 91 | 99 | 99 | 82 | 95 | 95 | 1 |
| **CMFG75** | 3" | 75 | 75,0 - 84,0 | 19 | 71 | 99 | 105 | 110 | 110 | 95 | 104 | 104 | 1 |
| ***REF. Part N. GAS*** | ***F GAS Thread*** | ***Conduit code NW*** | ***int. ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***OD3 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***SP3 mm*** | ***Packing unit*** |

***CMFG - Revolving female GAS thread - Brass fittings with metallic continuity***

# CMC

## Kolano rewizyjne 90° ze złączką mosiężną CM z ciągłością elektryczną
## *90° elbow with inspection cover and brass fittings with metallic continuity*




**Dla rur typu: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT**
***For conduits type: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT***

**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA**
**Protection IP67 - requires an additional GAM/GRA seal on the thread**

### Zastosowanie
### *Application*

Kolana rewizyjne CMC ułatwiają instalację kabli elektrycznych na zakrętach oraz umozliwiają ich kontrole i konserwacje.

*CM series fittings are compatible with a wide range of conduits and useful in several applications. This 90° elbow is recommended for the inspection and maintenance of the cables.*

**CMC - Kolano rewizyjne 90° gwint męski calowy, PG i metryczny ISO.**

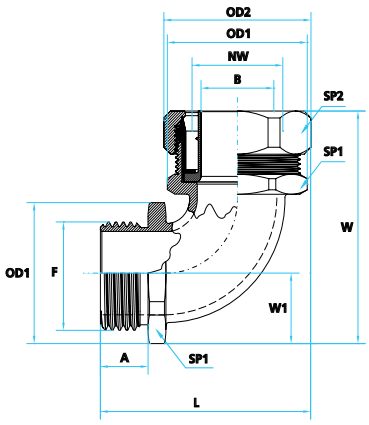
| Kod calowy | F gwint calowy | Kod PG | F gwint PG | Kod metryczny ISO | F gwint metryczny ISO | Dla rury NW | ∅ rury mm wew. | ∅ rury mm zew. | A mm | B Przelot użytk. mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | W mm | W1 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMCG09** | 1/4" | **CMCP09PG09** | 9 | | | 9 | 8,5 | 13,0 | 13 | 7 | 56 | 23 | 24,5 | 20 | 22 | 66 | 18 | 20 |
| **CMCG09A** | 3/8" | **CMCP09PG11** | 11 | **CMC09M16** | M16x1,5 | 9 | 8,5 | 13,0 | 13 | 7 | 56 | 23 | 24,5 | 20 | 22 | 66 | 18 | 20 |
| **CMCG09B** | 1/2" | **CMCP09PG13** | 13,5 | **CMC09M20** | M20x1,5 | 9 | 8,5 | 13,0 | 12 | 7 | 67 | 25 | 24,5 | 22 | 22 | 76 | 22 | 20 |
| **CMCG10** | 1/4" | **CMCP10PG09** | 9 | | | 10 | 10,0 | 15,0 | 13 | 8,5 | 56 | 25 | 26 | 22 | 24 | 65 | 18 | 20 |
| **CMCG10A** | 3/8" | **CMCP10PG11** | 11 | **CMC10M16** | M16x1,5 | 10 | 10,0 | 15,0 | 13 | 8,5 | 56 | 25 | 26 | 22 | 24 | 68 | 18 | 20 |
| **CMCG10B** | 1/2" | **CMCP10PG13** | 13,5 | **CMC10M20** | M20x1,5 | 10 | 10,0 | 15,0 | 12 | 8,5 | 67 | 25 | 26 | 22 | 24 | 78 | 22 | 20 |
| **CMCG12** | 3/8" | **CMCP12PG11** | 11 | **CMC12M16** | M16x1,5 | 12 | 12,0 | 17,0 | 13 | 10,5 | 56 | 27,5 | 29 | 24 | 26 | 68 | 18 | 20 |
| **CMCG12A** | 1/2" | **CMCP12PG13** | 13,5 | **CMC12M20** | M20x1,5 | 12 | 12,0 | 17,0 | 12 | 10,5 | 67 | 27,5 | 29 | 24 | 26 | 78 | 22 | 20 |
| | | **CMCP12PG16** | 16 | | | 12 | 12,0 | 17,0 | 12 | 10,5 | 92 | 27,5 | 29 | 24 | 26 | 96 | 29 | 20 |
| **CMCG13** | 3/8" | **CMCP13PG11** | 11 | **CMC13M16** | M16x1,5 | 13 | 13,0 | 19,0 | 13 | 11,5 | 56 | 30 | 30,5 | 26 | 28 | 68 | 18 | 20 |
| **CMCG13A** | 1/2" | **CMCP13PG13** | 13,5 | **CMC13M20** | M20x1,5 | 13 | 13,0 | 19,0 | 12 | 11,5 | 67 | 30 | 30,5 | 26 | 28 | 78 | 22 | 20 |
| | | **CMCP13PG16** | 16 | | | 13 | 13,0 | 19,0 | 12 | 11,5 | 92 | 30 | 30,5 | 26 | 28 | 29 | 29 | 20 |
| **CMCG15** | 1/2" | **CMCP15PG13** | 13,5 | **CMC15M20** | M20x1,5 | 15 | 15,5 | 21,0 | 12 | 13,8 | 67 | 32 | 33 | 28 | 30 | 78 | 22 | 20 |
| **CMCG15A** | 3/4" | **CMCP15PG16** | 16 | **CMC15M25** | M25x1,5 | 15 | 15,5 | 21,0 | 19 | 13,8 | 92 | 32 | 33 | 28 | 30 | 96 | 29 | 20 |
| **CMCG18** | 1/2" | **CMCP18PG13** | 13,5 | **CMC18M20** | M20x1,5 | 18 | 18,0 | 25,0 | 12 | 16,5 | 67 | 37 | 37 | 32 | 34 | 80 | 22 | 10 |
| **CMCG18A** | 3/4" | **CMCP18PG16** | 16 | **CMC18M25** | M25x1,5 | 18 | 18,0 | 25,0 | 19 | 16,5 | 92 | 37 | 37 | 32 | 34 | 96 | 29 | 10 |
| **CMCG20** | 3/4" | **CMCP20PG21** | 21 | **CMC20M25** | M25x1,5 | 20 | 20,5 | 27,0 | 19 | 18,5 | 92 | 39 | 42,5 | 35 | 38 | 98,5 | 29 | 10 |
| **CMCG25** | 1" | **CMCP25PG29** | 29 | **CMC25M32** | M32x1,5 | 25 | 25,0 | 32,0 | 18 | 23 | 101 | 45 | 46,5 | 40 | 42 | 109 | 36 | 10 |
| **CMCG27** | 1" | **CMCP27PG29** | 29 | **CMC27M32** | M32x1,5 | 27 | 26.5 | 34,0 | 18 | 25 | 101 | 45 | 49,5 | 42 | 45 | 109 | 36 | 10 |
| **CMCG33** | 1"1/4 | **CMCP33PG36** | 36 | **CMC33M40** | M40x1,5 | 33 | 33,0 | 41,0 | 20 | 31 | 96 | 55 | 58 | 50 | 53 | 127 | 36 | 5 |
| **CMCG35** | 1"1/4 | **CMCP35PG36** | 36 | **CMC35M40** | M40x1,5 | 35 | 35,0 | 43,0 | 20 | 33 | 96 | 55 | 58 | 50 | 53 | 127 | 36 | 5 |
| **CMCG40** | 1"1/2 | **CMCP40PG36** | 36 | **CMC40M50** | M50x1,5 | 40 | 40,0 | 48,0 | 20 | 37,5 | 110 | 64 | 66,5 | 58 | 61 | 145 | 42 | 5 |
| **CMCG50** | 2" | **CMCP50PG48** | 48 | **CMC50M63** | M63x1,5 | 50 | 50,5 | 58,5 | 22 | 48 | 128 | 76 | 80,5 | 70 | 74 | 168 | 45 | 2 |
| ***REF. Part N. GAS*** | ***F GAS Thread*** | ***REF. Part N. PG*** | ***F PG Thread*** | ***REF. Part N. ISO Metric*** | ***F ISO Metric Thread*** | ***Conduit code NW*** | ***int. ∅ conduit mm*** | ***ext. ∅ conduit mm*** | ***A mm*** | ***B useful passage*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***W mm*** | ***W1 mm*** | ***Packing unit*** |

***CMC - 90° Elbow with inspection cover GAS, PG and ISO metric thread - Brass fittings with metallic continuity***

Kod QR: instrukcja montażu
*QR CODE: assembly instructions*

# CMCC

## Kolano mosiężne 90° z ciągłością elektryczną
## *90° brass elbow with metallic continuity*



**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA**
**Protection IP67 - requires an additional GAM/GRA seal on the thread**

**Dla rur typu: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT**
***For conduits type: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT***

### Zastosowanie
### *Application*

Kolana mosiężne CMCC montowane są z giętkimi rurami metalowymi w identyczny sposób jak złączki serii CM. Kolana CMCC stosowane są w przypadkach, gdy nie jest wymagana rewizja.

*CM series fittings are compatible with a wide range of conduits and useful in several applications.*
*Particularly this 90° elbow can be used when inspection is not required.*

**CMCC - Kolano mosiężne 90° gwint męski calowy, PG i metryczny ISO.**

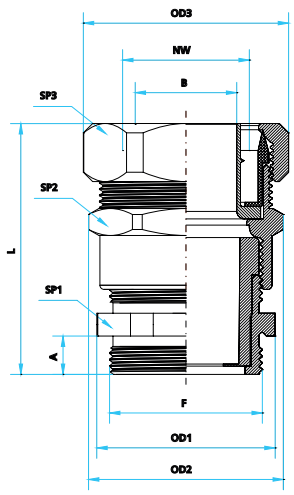
| Kod calowy | F gwint calowy | Kod PG | F gwint PG | Kod metryczny ISO | F gwint metrycz. ISO | Dla rury NW | ∅ rury mm wew. zew. | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | W mm | W1 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMCCG09** | 1/4" | **CMCCP09PG09** | 9 | **CMCC09M12** | M12x1,5 | 9 | 8,5 - 13,0 | 11 | 7 | 44 | 24 | 24,5 | 22 | 22 | 52 | 12 | 20 |
| | | | | **CMCC09M16** | M16x1,5 | 9 | 8,5 - 13,0 | 11 | 7 | 44 | 24 | 24,5 | 22 | 22 | 52 | 12 | 20 |
| **CMCCG10** | 1/4" | **CMCCP10PG09** | 9 | **CMCC10M12** | M12x1,5 | 10 | 10,0 - 15,0 | 11 | 8,5 | 44 | 24 | 26 | 22 | 24 | 52 | 12 | 20 |
| **CMCCG10A** | 3/8" | **CMCCP10PG11** | 11 | **CMCC10M16** | M16x1,5 | 10 | 10,0 - 15,0 | 11 | 8,5 | 44 | 24 | 26 | 22 | 24 | 52 | 12 | 20 |
| **CMCCG12** | 3/8" | **CMCCP12PG11** | 11 | **CMCC12M16** | M16x1,5 | 12 | 12,0 - 17,0 | 12 | 10,5 | 45 | 28 | 29 | 26 | 26 | 54 | 14 | 10 |
| **CMCCG12A** | 1/2" | **CMCCP12PG13** | 13,5 | **CMCC12M20** | M20x1,5 | 12 | 12,0 - 17,0 | 12 | 10,5 | 45 | 28 | 29 | 26 | 26 | 54 | 14 | 10 |
| **CMCCG15** | 1/2" | **CMCCP15PG13** | 13,5 | **CMCC15M20** | M20x1,5 | 15 | 15,5 - 21,0 | 12 | 13,8 | 50 | 30 | 33 | 28 | 30 | 54 | 15 | 10 |
| | | **CMCCP15PG16** | 16 | | | 15 | 15,5 - 21,0 | 12 | 13,8 | 50 | 30 | 33 | 28 | 30 | 54 | 15 | 10 |
| **CMCCG20** | 3/4" | **CMCCP20PG21** | 21 | **CMCC20M25** | M25x1,5 | 20 | 20,5 - 27,0 | 13 | 18,5 | 60 | 39 | 42,5 | 35 | 38 | 69 | 19,5 | 5 |
| **CMCCG25** | 1" | | | **CMCC25M32** | M32x1,5 | 25 | 25,0 - 32,0 | 16 | 23 | 70 | 47 | 46,5 | 42 | 42 | 79 | 23,5 | 2 |
| **CMCCG27** | 1" | | | **CMCC27M32** | M32x1,5 | 27 | 26.5 - 34,0 | 16 | 25 | 72 | 47 | 49,5 | 42 | 45 | 79 | 23,5 | 2 |
| *REF. Part N. GAS* | *F GAS Thread* | *REF. Part N. PG* | *F PG Thread* | *REF. Part N. ISO Metric* | *F ISO Metric Thread* | *Conduit code NW* | *int. ext. ∅ conduit mm* | *A mm* | *B useful passage mm* | *L mm* | *OD1 mm* | *OD2 mm* | *SP1 mm* | *SP2 mm* | *W mm* | *W1 mm* | *Packing unit* |

***CMCC - 90° Elbow GAS, PG and ISO metric thread brass fittings with metallic continuity***

Kod QR: instrukcja montażu
*QR CODE: assembly instructions*

# CMPR

## Złączka mosiężna prosta z dławnicą i ciągłością elektryczną gwint męski
## *Double locking brass fittings with metallic continuity straight with strain relief*




**Dla rur typu: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT**
***For conduits type: L-P-DAR-SVT-T-TP-LPU-DAPU-SVPEVAT***

**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA**
**Protection IP67 - requires an additional GAM/GRA seal on the thread**

### Zastosowanie
### *Application*

Złączki proste typu CMPR z gwintem metalowym posiadają uszczelkę dławiącą dobieraną do średnicy prowadzonego kabla. Złączki te oferują wysoką wytrzymałość na rozciąganie oraz zapewniają ochronę przed pyłami i cieczami (IP67) zarówno dla rury jak i dla kabla.

*As well as secure anchoring of the connector and the conduit, it is also necessary to guarantee solidity and insulation for the electric continuity of the couple (in case of traction or jerking movements) for current from sub- circuits, boxes, motors and electric switchboards etc.*
*The CMPR series answers both these needs brilliantly.*
*The secure fixing of fitment and conduit is guaranteed by the efficiency that distinguishes all the fitments in the CM range, and further by the special rubber pressure washer which renders the couple impermeable both to water and dust and provides mechanical protection against jerks and traction on the conduit itself.*

**CMPR - Złączka mosiężna prosta z dławnicą gwint męski metryczny ISO**

| Kod metryczny ISO | F Gwint Metr. ISO | Kod rury NW | ∅ rury mm wew. | ∅ rury mm zew. | ∅ kabla mm Min | ∅ kabla mm Max | Kolor wkładki gumowej | Kod elementu gumowego | A mm | B Przelot użytk. mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Opakowanie Standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CMPR1006M16** | M16x1,5 | 10 | 10,0 | 15,0 | 4 | 6,5 | Żółty - *Yellow* | **GPR00907** | 8 | 8,5 | 44 | 21 | 25 | 26 | 19 | 22 | 24 | 1 |
| **CMPR1008M16** | | | | | 5 | 8 | Szary - *Grey* | **GPR00908** | | | | | | | | | | |
| **CMPR1208M20** | M20X1,5 | 12 | 12,0 | 17,0 | 5 | 8 | Szary - *Grey* | **GPR01308** | 8 | 10,5 | 45 | 24 | 27,5 | 29 | 22 | 24 | 26 | 1 |
| **CMPR1209M20** | | | | | 6,5 | 9,5 | Czarny - *Black* | **GPR01309** | | | | | | | | | | |
| **CMPR1210M20** | | | | | 7 | 10,5 | Zielony - *Green* | **GPR01311** | | | | | | | | | | |
| **CMPR1509M20** | M20X1,5 | 15 | 15,5 | 21,0 | 6,5 | 9,5 | Czarny - *Black* | **GPR01309** | 8 | 13,8 | 45 | 24 | 32 | 33 | 22 | 28 | 30 | 1 |
| **CMPR1510M20** | | | | | 7 | 10,5 | Zielony - *Green* | **GPR01311** | | | | | | | | | | |
| **CMPR1513M20** | | | | | 9 | 13 | Czerwony - *Red* | **GPR01313** | | | | | | | | | | |
| **CMPR1509M25** | M25X1,5 | 15 | 15,5 | 21,0 | 6,5 | 9,5 | Czarny - *Black* | **GPR01609** | 9 | 13,8 | 47,5 | 30 | 32 | 33 | 28 | 28 | 30 | 1 |
| **CMPR1510M25** | | | | | 7 | 10,5 | Zielony - *Green* | **GPR01611** | | | | | | | | | | |
| **CMPR1513M25** | | | | | 9 | 13 | Czerwony - *Red* | **GPR01613** | | | | | | | | | | |
| **CMPR2018M25** | M25X1,5 | 20 | 20,5 | 27,0 | 14 | 18 | Granatowy - *Blue* | **GPA0318** | 9 | 18,5 | 52 | 33 | 39 | 42,5 | 30 | 35 | 38 | 1 |
| **CMPR2718M32** | M32X1,5 | 27 | 26,5 | 34,0 | 14 | 18 | Granatowy - *Blue* | **GPR02118** | 10 | 25 | 54,5 | 37,5 | 45 | 49,5 | 35 | 42 | 45 | 1 |
| **CMPR2720M32** | | | | | 17 | 20,5 | Brązowy - *Brown* | **GPR02120** | | | | | | | | | | |
| **CMPR2725M32** | | | | | 20 | 25 | Pomarańcz. - *Orange* | **GPA0725** | | | 57,5 | 43 | | | 40 | | | |
| **CMPR3530M40** | M40X1,5 | 35 | 35,0 | 43,0 | 26 | 30 | Biały - *White* | **GPR11430** | 10 | 33 | 65 | 48 | 55 | 58 | 45 | 50 | 53 | 1 |
| **CMPR4032M50** | M50X1,5 | 40 | 40,0 | 48,0 | 27 | 32 | Antracyt - *Anthracite* | **GPR03632** | 12 | 37,5 | 64 | 57 | 64 | 66,5 | 52 | 58 | 61 | 1 |
| **CMPR4034M50** | | | | | 29 | 34 | Niebieski - *Light blue* | **GPR03634** | | | | | | | | | | |
| **CMPR4036M50** | | | | | 32 | 36 | Różowy - *Pink* | **GPR03636** | | | | | | | | | | |
| **CMPR5045M63** | M63X1,5 | 50 | 50,5 | 58,5 | 39 | 44 | Biały - *White* | **GPR04844** | 10 | 48 | 69 | 70 | 76 | 80,5 | 64 | 70 | 74 | 1 |
| ***REF. Part N. ISO Metric*** | ***F ISO Metric Thread*** | ***Conduit Code NW*** | ***int. ∅ conduit mm*** | ***ext. ∅ conduit mm*** | ***Min ∅ cable mm*** | ***Max ∅ cable mm*** | ***Seal Colour*** | ***Seal REF. Part N.*** | ***A mm*** | ***B useful passage mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***OD3 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***SP3 mm*** | ***Packing unit*** |

***CMPR - Brass fittings with strain relief ISO metric thread - with metallic continuity***

Kod QR: instrukcja montażu
*QR CODE: assembly instructions*

## CMPR - Złączka mosiężna prosta z dławnicą gwint męski PG

| Kod PG | F Gwint PG | Dla rury NW | ∅ rury mm wew. | ∅ rury mm zew. | ∅ przewodu mm Min | ∅ przewodu mm Max | Kolor dławnicy | Kod dławnicy | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Opakowanie Standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CMPRP10PG96 | 9 | 10 | 10,0 | 15,0 | 4 | 6,5 | Żółty - *Yellow* | GPR00907 | 6 | 8,5 | 43 | 19 | 25 | 26 | 17 | 22 | 24 | 1 |
| CMPRP10PG98 | | | | | 5 | 8 | Szary - *Grey* | GPR00908 | | | | | | | | | | |
| CMPRP10PG116 | 11 | 10 | 10,0 | 15,0 | 4 | 6,5 | Żółty - *Yellow* | GPR01107 | 6 | 8,5 | 43 | 22 | 25 | 26 | 20 | 22 | 24 | 1 |
| CMPRP10PG118 | | | | | 5 | 8 | Szary - *Grey* | GPR01108 | | | | | | | | | | |
| CMPRP12PG118 | 11 | 12 | 12,0 | 17,0 | 5 | 8 | Szary - *Grey* | GPR01108 | 6 | 10,5 | 43 | 22 | 27,5 | 29 | 20 | 24 | 26 | 1 |
| CMPRP12PG119 | | | | | 6,5 | 9,5 | Czarny - *Black* | GPR01109 | | | | | | | | | | |
| CMPRP12PG1110 | | | | | 7 | 10,5 | Zielony - *Green* | GPR01111 | | | | | | | | | | |
| CMPRP12PG138 | 13,5 | 12 | 12,0 | 17,0 | 5 | 8 | Szary - *Grey* | GPR01308 | 6,5 | 10,5 | 43,5 | 24 | 27,5 | 29 | 22 | 24 | 26 | 1 |
| CMPRP12PG139 | | | | | 6,5 | 9,5 | Czarny - *Black* | GPR01309 | | | | | | | | | | |
| CMPRP12PG1310 | | | | | 7 | 10,5 | Zielony - *Green* | GPR01311 | | | | | | | | | | |
| CMPRP12PG168 | 16 | 12 | 12,0 | 17,0 | 5 | 8 | Szary - *Grey* | GPR01608 | 6,5 | 10,5 | 42,5 | 26,5 | 27,5 | 29 | 24 | 24 | 26 | 1 |
| CMPRP12PG169 | | | | | 6,5 | 9,5 | Czarny - *Black* | GPR01609 | | | | | | | | | | |
| CMPRP12PG1610 | | | | | 7 | 10,5 | Zielony - *Green* | GPR01611 | | | | | | | | | | |
| CMPRP15PG139 | 13,5 | 15 | 15,5 | 21,0 | 6,5 | 9,5 | Czarny - *Black* | GPR01309 | 6,5 | 13,8 | 43 | 24 | 32 | 33 | 22 | 28 | 30 | 1 |
| CMPRP15PG1310 | | | | | 7 | 10,5 | Zielony - *Green* | GPR01311 | | | | | | | | | | |
| CMPRP15PG1313 | | | | | 9 | 13 | Czerwony - *Red* | GPR01313 | | | | | | | | | | |
| CMPRP15PG169 | 16 | 15 | 15,5 | 21,0 | 6,5 | 9,5 | Czarny - *Black* | GPR01609 | 6,5 | 13,8 | 44,5 | 26,5 | 32 | 33 | 24 | 28 | 30 | 1 |
| CMPRP15PG1610 | | | | | 7 | 10,5 | Zielony - *Green* | GPR01611 | | | | | | | | | | |
| CMPRP15PG1613 | | | | | 9 | 13 | Czerwony - *Red* | GPR01613 | | | | | | | | | | |
| CMPRP20PG2113 | 21 | 20 | 20,5 | 27,0 | 9 | 13 | Czerwony - *Red* | GPR02113 | 7,5 | 18,5 | 50 | 32 | 39 | 42,5 | 30 | 35 | 38 | 1 |
| CMPRP20PG2115 | | | | | 11,5 | 15,5 | Biały - *White* | GPR02116 | | | | | | | | | | |
| CMPRP20PG2118 | | | | | 14 | 18 | Granatowy - *Blue* | GPR02118 | | | | | | | | | | |
| CMPRP27PG2918 | 29 | 27 | 26,5 | 34,0 | 14 | 18 | Granatowy - *Blue* | GPR02918 | 9 | 25 | 57 | 43 | 45 | 49,5 | 40 | 42 | 45 | 1 |
| CMPRP27PG2920 | | | | | 17 | 20,5 | Brązowy - *Brown* | GPR02920 | | | | | | | | | | |
| CMPRP27PG2925 | | | | | 20 | 25 | Pomarańcz. - *Orange* | GPR02925 | | | | | | | | | | |
| CMPRP35PG3632 | 36 | 35 | 35,0 | 43,0 | 27 | 32 | Antracyt - *Anthracite* | GPR03632 | 9 | 33 | 56 | 55 | 55 | 58 | 50 | 50 | 53 | 1 |
| CMPRP40PG3632 | 36 | 40 | 40,0 | 48,0 | 27 | 32 | Antracyt - *Anthracite* | GPR03632 | 9 | 37,5 | 61 | 55 | 64 | 66,5 | 50 | 58 | 61 | 1 |
| CMPRP40PG3634 | | | | | 29 | 34 | Niebieski - *Light blue* | GPR03634 | | | | | | | | | | |
| CMPRP40PG3636 | | | | | 32 | 36 | Różowy - *Pink* | GPR03636 | | | | | | | | | | |
| CMPRP50PG4845 | 48 | 50 | 50,5 | 58,5 | 39 | 44 | Biały - *White* | GPR04844 | 10 | 48 | 68,5 | 70 | 76 | 80,5 | 64 | 70 | 74 | 1 |
| *REF. Part N. PG* | *F PG Thread* | *Conduit Code NW* | *int. ∅ conduit* | *ext. ∅ conduit* | *Min ∅ cable* | *Max ∅ cable* | *Seal Colour* | *Seal REF. Part N.* | *A mm* | *B useful passage mm* | *L mm* | *OD1 mm* | *OD2 mm* | *OD3 mm* | *SP1 mm* | *SP2 mm* | *SP3 mm* | *Packing unit* |

***CMPR - Brass fittings with strain relief PG thread - with metallic continuity***

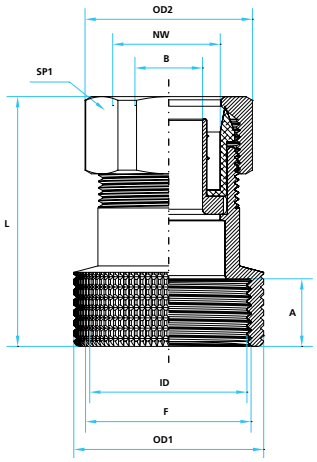
## CMPR - Złączka mosiężna prosta z dławnicą gwint męski calowy

| Kod calowy | F gwint calowy | Dla rury NW | ∅ rury mm wew. | ∅ rury mm zew. | ∅ przewodu mm Min | ∅ przewodu mm Max | Kolor dławnicy | Kod dławnicy | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | OD3 mm | SP1 mm | SP2 mm | SP3 mm | Opakowanie Standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CMPRG106 | 1/4" | 10 | 10,0 | 15,0 | 4 | 6,5 | Żółty - *Yellow* | GPR00707 | 6 | 8,5 | 9,5 | 16,5 | 25 | 26 | 15 | 22 | 24 | 1 |
| CMPRG10A6 | 3/8" | 10 | 10,0 | 15,0 | 4 | 6,5 | Żółty - *Yellow* | GPR00907 | 7 | 8,5 | 43,5 | 21 | 25 | 26 | 19 | 22 | 24 | 1 |
| CMPRG10A8 | | | | | 5 | 8 | Szary - *Grey* | GPR00908 | | | | | | | | | | |
| CMPRG128 | 3/8" | 12 | 12,0 | 17,0 | 5 | 8 | Szary - *Grey* | GPR00908 | 7 | 10,5 | 43,5 | 21 | 27,5 | 29 | 19 | 24 | 26 | 1 |
| CMPRG129 | | | | | 6,5 | 9,5 | Czarny - *Black* | GPR00909 | | | | | | | | | | |
| CMPRG12A8 | 1/2" | 12 | 12,0 | 17,0 | 5 | 8 | Szary - *Grey* | GPR01308 | 9 | 10,5 | 46 | 26 | 27,5 | 29 | 24 | 24 | 26 | 1 |
| CMPRG12A9 | | | | | 6,5 | 9,5 | Czarny - *Black* | GPR01309 | | | | | | | | | | |
| CMPRG12A10 | | | | | 7 | 10,5 | Zielony - *Green* | GPR01311 | | | | | | | | | | |
| CMPRG159 | 1/2" | 15 | 15,5 | 21,0 | 6,5 | 9,5 | Czarny - *Black* | GPR01309 | 9 | 13,8 | 46 | 26 | 32 | 33 | 24 | 28 | 30 | 1 |
| CMPRG1510 | | | | | 7 | 10,5 | Zielony - *Green* | GPR01311 | | | | | | | | | | |
| CMPRG1513 | | | | | 9 | 13 | Czerwony - *Red* | GPR01313 | | | | | | | | | | |
| CMPRG2018 | 3/4" | 20 | 20,5 | 27,0 | 14 | 18 | Granatowy - *Blue* | GPA0318 | 10 | 18,5 | 53 | 32 | 39 | 42,5 | 30 | 35 | 38 | 1 |
| CMPRG2718 | 1" | 27 | 26,5 | 34,0 | 14 | 18 | Granatowy - *Blue* | GPR02118 | 11 | 25 | 58 | 38,5 | 45 | 49,5 | 35 | 42 | 45 | 1 |
| CMPRG2720 | | | | | 17 | 20,5 | Brązowy - *Brown* | GPR02120 | | | | | | | | | | |
| CMPRG2725 | | | | | 20 | 25 | Pomarańcz. - *Orange* | GPA0725 | | | 57,5 | 43 | | | 40 | | | |
| CMPRG3530 | 1"1/4 | 35 | 35,0 | 43,0 | 26 | 30 | Biały - *White* | GPR11430 | 9 | 33 | 55,5 | 48 | 55 | 58 | 45 | 50 | 53 | 1 |
| CMPRG4032 | 1"1/2 | 40 | 40,0 | 48,0 | 27 | 32 | Antracyt - *Anthracite* | GPR03632 | 9 | 37,5 | 61,5 | 55 | 64 | 66,5 | 50 | 58 | 61 | 1 |
| CMPRG4034 | | | | | 29 | 34 | Niebieski - *Light blue* | GPR03634 | | | | | | | | | | |
| CMPRG4036 | | | | | 32 | 36 | Różowy - *Pink* | GPR03636 | | | | | | | | | | |
| CMPRG5045 | 2" | 50 | 50,5 | 58,5 | 39 | 44 | Biały - *White* | GPR04844 | 10 | 48 | 68,5 | 70 | 76 | 80,5 | 64 | 70 | 74 | 1 |
| *REF. Part N. GAS* | *F GAS Thread* | *Conduit Code NW* | *int. ∅ conduit* | *ext. ∅ conduit* | *Min ∅ cable* | *Max ∅ cable* | *Seal Colour* | *Seal REF. Part N.* | *A mm* | *B useful passage mm* | *L mm* | *OD1 mm* | *OD2 mm* | *OD3 mm* | *SP1 mm* | *SP2 mm* | *SP3 mm* | *Packing unit* |

***CMPR - Brass fittings with strain relief GAS thread - with metallic continuity***

# CMCO Złączka mosiężna prosta z ciągłością elektryczną gwint żeński (do wtyczek)

## *Brass fittings for connector with metallic continuity*




Kod QR: instrukcja montażu
*QR CODE: assembly instructions*

**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA**
**Protection IP67 - requires an additional GAM/GRA seal on the thread**

## Zastosowanie
## *Application*

Złączki CMCO umożliwiają bezpośrednie połączenie rury L - P - DAR - SVT - T - TP - LPU - DAPU - SVPEVA z wtyczkami, unikając konieczności stosowania przedłużaczy i osłon, redukując w ten sposób koszty i wymiary.
Tak jak w przypadku wszystkich złączek z serii CM, zapewniony jest stopień ochrony IP67 i ciągłość elektryczna.

*Fittings in the CM series which enable direct connection of conduits L - P - DAR - SVT - T - TP - LPU - DAPU - SVPEVAT and connectors avoiding the need for extensions and covers and consequently considerably reducing expenses and space.*
*Like all the fitting in the CM series, these fittings guarantee IP 67 protection and electrical continuity.*

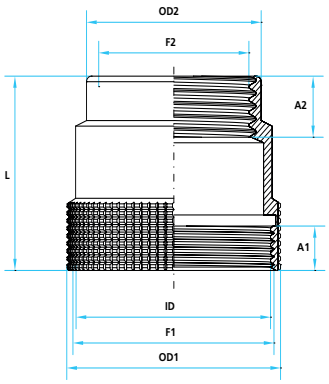
**CMCO - Złączka mosiężne prosta gwint żeński UNEF (do wtyczek)**

| Kod | F Gwint UNEF ø nom. - gw. x cal | Dla rury NW | ø rury mm wew. zew. | ID ø wew. gwintu mm | ø zew. gw. męski wtyczki mm | A mm | B Przelot użytkowy mm | L mm | OD1 mm | OD2 mm | SP1 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CMCO2110 | 5/8" - 24 f | 10 | 10,0 - 15,0 | 14,8 | 15,9 | 10,5 | 8,5 | 33 | 20 | 26 | 24 | 20 |
| CMCO2210 | 3/4" - 20 f | 10 | 10,0 - 15,0 | 17,7 | 19,1 | 10,5 | 8,5 | 33 | 23 | 26 | 24 | 20 |
| CMCO2212 | 3/4" - 20 f | 12 | 12,0 - 17,0 | 17,7 | 19,1 | 10,5 | 10,5 | 33 | 24 | 29 | 26 | 20 |
| CMCO2312 | 7/8" - 20 f | 12 | 12,0 - 17,0 | 20,9 | 22,3 | 11 | 10,5 | 34 | 24 | 29 | 26 | 20 |
| CMCO2315 | 7/8" - 20 f | 15 | 15,5 - 21,0 | 20,9 | 22,3 | 1 | 13,8 | 35,7 | 26 | 33 | 30 | 20 |
| CMCO2412 | 1" - 20 f | 12 | 12,0 - 17,0 | 24,1 | 25,4 | 9 | 10,5 | 42 | 29,5 | 29 | 26 | 20 |
| CMCO2415 | 1" - 20 f | 15 | 15,5 - 21,0 | 24,1 | 25,4 | 10,5 | 13,8 | 41,7 | 30 | 33 | 30 | 20 |
| CMCO2515 | 1"1/8 - 18 f | 15 | 15,5 - 21,0 | 27,1 | 28,6 | 10,5 | 13,8 | 42,7 | 32 | 33 | 30 | 20 |
| CMCO2520 | 1"1/8 - 18 f | 20 | 20,5 - 27,0 | 27,1 | 28,6 | 10,5 | 18,5 | 44 | 32 | 42,5 | 38 | 10 |
| CMCO2615 | 1"3/16 - 18 f | 15 | 15,5 - 21,0 | 28,7 | 30,2 | 10,5 | 13,8 | 42,7 | 33 | 33 | 30 | 20 |
| CMCO2620 | 1"3/16 - 18 f | 20 | 20,5 - 27,0 | 28,7 | 30,2 | 10,5 | 18,5 | 45 | 33 | 42,5 | 38 | 10 |
| CMCO2715 | 1"1/4 - 18 f | 15 | 15,5 - 21,0 | 30,3 | 31,8 | 10,5 | 13,8 | 42,7 | 35 | 33 | 30 | 20 |
| CMCO2720 | 1"1/4 - 18 f | 20 | 20,5 - 27,0 | 30,3 | 31,8 | 10,5 | 18,5 | 45 | 35 | 42,5 | 38 | 10 |
| CMCO2920 | 1"7/16 - 18 f | 20 | 20,5 - 27,0 | 35,0 | 36,6 | 10,5 | 18,5 | 47 | 40 | 42,5 | 38 | 10 |
| CMCO2927 | 1"7/16 - 18 f | 27 | 26.5 - 34,0 | 35,0 | 36,6 | 11 | 25 | 48 | 40 | 49,5 | 45 | 10 |
| CMCO3027 | 1"5/8 - 18 f | 27 | 26.5 - 34,0 | 39,8 | 41,3 | 10 | 25 | 50 | 44 | 49,5 | 45 | 10 |
| CMCO3135 | 1"3/4 - 18 f | 35 | 35,0 - 43,0 | 43,1 | 44,5 | 11 | 33 | 51,5 | 50 | 58 | 53 | 1 |
| CMCO3335 | 2" - 18 f | 35 | 35,0 - 43,0 | 49,3 | 50,8 | 11 | 33 | 53,5 | 55 | 58 | 53 | 1 |
| CMCO3340 | 2" - 18 f | 40 | 40,0 - 48,0 | 49,3 | 50,8 | 11 | 37,5 | 54,5 | 55 | 66,5 | 61 | 1 |
| *REF. Part N.* | *F UNEF Thread ø NW - pitch x inch* | *Conduit Code NW* | *int. ext. ø conduit mm* | *ID inside ø thread mm* | *Connector male Out. ø mm* | *A mm* | *B useful passage mm* | *L mm* | *OD1 mm* | *OD2 mm* | *SP1 mm* | *Packing unit* |

***CMCO - UNEF Female thread - Brass fittings with metallic continuity for connectors***

# RB75

## Adapter mosiężny gwint żeński calowy / gwint żeński UNEF
*Connector caps*



## Zastosowanie
*Application*

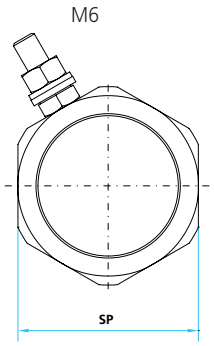
**RB75 - Adapter mosiężny gwint żeński calowy / gwint żeński UNEF do wtyczek**

| Kod | F1 Gwint UNEF ø nom. - gwint x cal | ID ø wew. gwintu mm | ø zew. wtyczki mm | F2 Gwint calowy | A1 mm | A2 mm | L mm | OD1 mm | OD2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|
| RB7521 | 5/8" - 24 f | 14,8 | 15,9 | 1/4" | 10,5 | 11 | 25 | 20 | 16 | 20 |
| RB7521A | 5/8" - 24 f | 14,8 | 15,9 | 3/8" | 10,5 | 11 | 25 | 20 | 19,5 | 20 |
| RB7522A | 3/4" - 20 f | 17,7 | 19,1 | 3/8" | 10,5 | 11 | 25 | 23 | 19,5 | 20 |
| RB7523 | 7/8" - 20 f | 20,9 | 22,3 | 3/8" | 9 | 10 | 28 | 26 | 19,5 | 20 |
| RB7523A | 7/8" - 20 f | 20,9 | 22,3 | 1/2" | 9 | 10 | 28 | 26 | 24 | 20 |
| RB7524 | 1" - 20 f | 24,1 | 25,4 | 3/8" | 9 | 8,5 | 30 | 29,5 | 20,5 | 20 |
| RB7524A | 1" - 20 f | 24,1 | 25,4 | 1/2" | 9 | 8,5 | 30 | 29,5 | 25 | 20 |
| RB7525A | 1"1/8 - 18 f | 27,1 | 28,6 | 3/4" | 10 | 10 | 32 | 32 | 31 | 10 |
| RB7526 | 1"3/16 - 18 f | 28,7 | 30,2 | 1/2" | 10 | 10 | 30 | 34 | 25 | 20 |
| RB7526A | 1"3/16 - 18 f | 28,7 | 30,2 | 3/4" | 10 | 10 | 30 | 33 | 31 | 10 |
| RB7527 | 1"1/4 - 18 f | 30,3 | 31,8 | 1/2" | 10 | 10 | 32 | 35 | 24 | 20 |
| RB7527A | 1"1/4 - 18 f | 30,3 | 31,8 | 3/4" | 10 | 10 | 32 | 33 | 29 | 10 |
| RB7528 | 1"3/8 - 18 f | 33,4 | 35,0 | 3/4" | 10 | 10 | 34 | 38 | 29,5 | 10 |
| RB7528A | 1"3/8 - 18 f | 33,4 | 35,0 | 1" | 10 | 11 | 34 | 38 | 36 | 10 |
| RB7529 | 1"7/16 - 18 f | 35,0 | 36,6 | 3/4" | 10 | 10 | 34 | 40 | 29,5 | 10 |
| RB7529A | 1"7/16 - 18 f | 35,0 | 36,6 | 1" | 10 | 11 | 34 | 40 | 36 | 10 |
| RB7530 | 1"5/8 - 18 f | 39,8 | 41,3 | 3/4" | 10 | 10 | 35 | 44 | 29,5 | 10 |
| RB7530A | 1"5/8 - 18 f | 39,8 | 41,3 | 1" | 10 | 11 | 35 | 44 | 36 | 10 |
| RB7531 | 1"3/4 - 18 f | 43,1 | 44,5 | 1" | 11 | 11 | 35 | 49,5 | 36 | 5 |
| RB7531A | 1"3/4 - 18 f | 43,1 | 44,5 | 1"1/4 | 11 | 16 | 35 | 49,5 | 45,5 | 5 |
| RB7532A | 1"7/8 - 18 f | 46,2 | 47,6 | 1"1/4 | 11 | 16 | 40 | 52 | 45 | 5 |
| RB7533A | 2" - 18 f | 49,3 | 50,8 | 1"1/4 | 11 | 12 | 40 | 55 | 45,5 | 5 |
| RB7534B | 2"1/16 - 16 f | 50,8 | 52,4 | 1"1/2 | 11 | 16 | 48 | 56 | 51,5 | 5 |
| RB7535 | 2"1/4 - 16 f | 55,6 | 57,2 | 1"1/4 | 11 | 16 | 50 | 60 | 46 | 5 |
| RB7535A | 2"1/4 - 16 f | 55,6 | 57,2 | 1"1/2 | 11 | 16 | 50 | 60 | 51,5 | 5 |
| RB7535B | 2"1/4 - 16 f | 55,6 | 57,2 | 2" | 11 | 21 | 50 | 62 | 64 | 5 |
| RB7536 | 2"5/16 - 16 f | 57,2 | 58,7 | 1"1/4 | 11 | 11 | 50 | 62 | 46 | 2 |
| RB7536A | 2"5/16 - 16 f | 57,2 | 58,7 | 1"1/2 | 11 | 16 | 50 | 62 | 51,5 | 2 |
| RB7536B | 2"5/16 - 16 f | 57,2 | 58,7 | 2" | 11 | 21 | 50 | 62 | 64 | 2 |
| *REF. Part N.* | *F1 UNEF Thread ø NW - pitch x inch* | *ID inside ø thread mm* | *Connector male Out. ø mm* | *F2 GAS Thread* | *A1 mm* | *A2 mm* | *L mm* | *OD1 mm* | *OD2 mm* | *Packing unit* |

***RB75 - UNEF Female thread - Brass caps with metallic continuity for connectors***

# CDVT

## Nakrętka dociskowa złączki CM ze śrubą uziemiającą
## *Nuts with earthing screw*

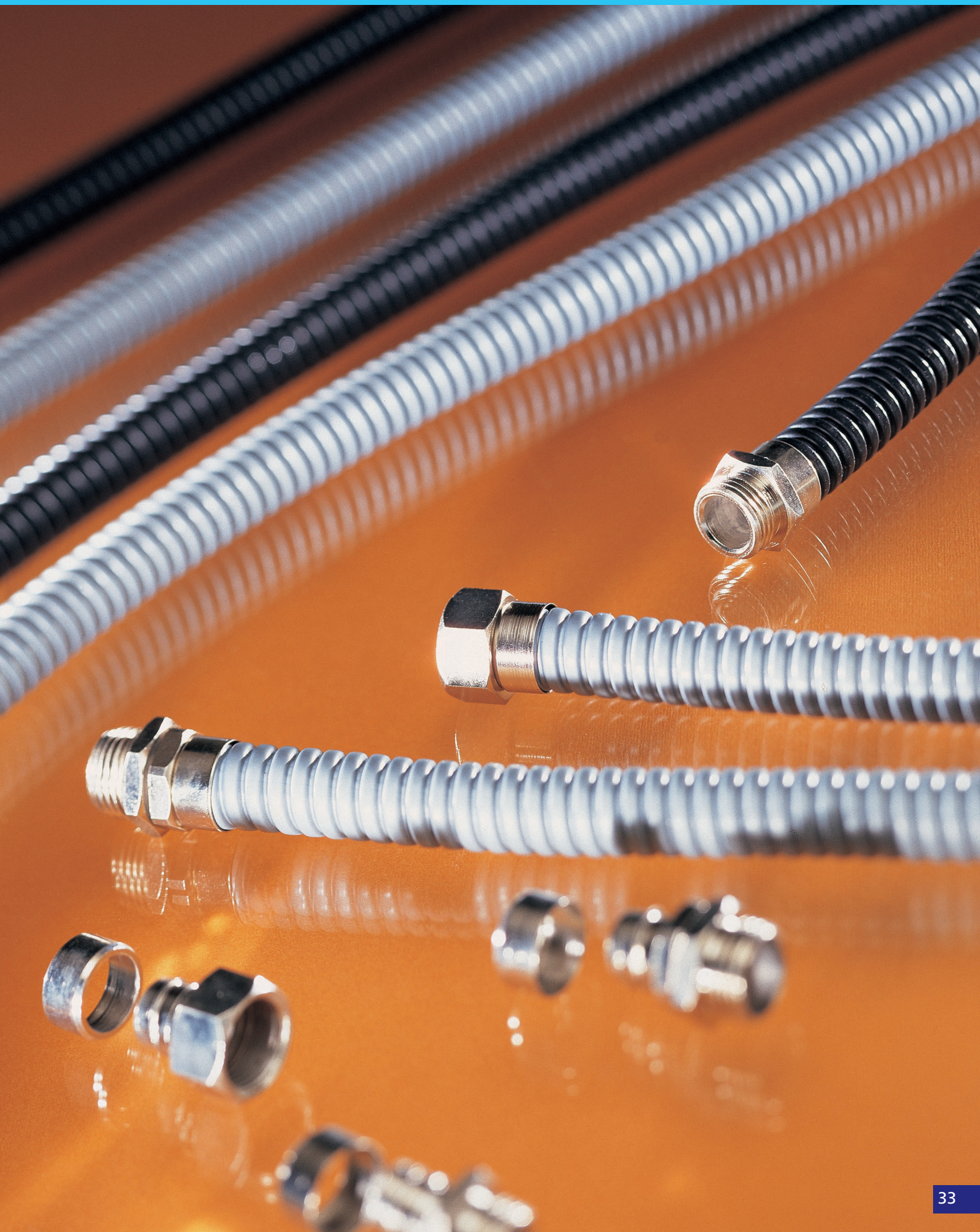


### Zastosowanie
### *Application*

Nakrętki dociskowe do złączek z serii CM ze śrubą M6 x 10 (posiadającą podkładkę sprężynującą, podkładkę płaską, nakrętkę blokującą) przyspawaną do powierzchni sześciokąta, umożliwiają instalację zewnętrznego połączenia uziemiającego.

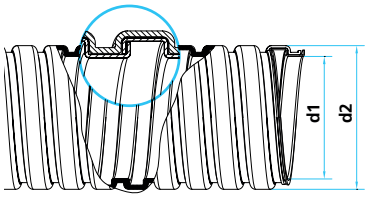
*Pressure nuts for use with CM series fittings, including M6 x 10 screws (supplied complete with elastic grover washer, flat washer, locking nut) welded onto the surface of the hexagonal cap.*
*Provide external contact for earthing.*

| Kod | Dla złączek z serii CM | SP mm | Opakowanie standard |
|---|---|---|---|
| **CDVT10** | 10 | 24 | 20 |
| **CDVT12** | 12 | 26 | 20 |
| **CDVT15** | 15 | 30 | 20 |
| **CDVT20** | 20 | 38 | 10 |
| **CDVT25** | 25 | 42 | 10 |
| **CDVT27** | 27 | 45 | 10 |
| **CDVT33** | 33 | 53 | 5 |
| **CDVT35** | 35 | 53 | 5 |
| **CDVT40** | 40 | 61 | 5 |
| **CDVT50** | 50 | 74 | 5 |
| **CDVT65** | 65 | 95 | 1 |
| **CDVT75** | 75 | 104 | 1 |
| ***REF. Part N.*** | ***for CM fittings*** | ***SP mm*** | ***Packing unit*** |



# SV

## Rura metalowa giętka pokryta PVC
## *Metal conduit vacuum PVC coated*



**Zastosowanie**
***Application***

Rury metalowe SV stosowane są w instalacjach, gdzie nie jest wymagana wysoka odporność mechaniczna.

*Its particular characteristics make SV hose suitable for use when high mechanical resistance is not required.*

**Materiał**
***Material***

Rura giętka ze stali ocynkowanej z pojedynczym szwem, pokryta PVC.

*Flexible hose in galvanised steel, single seam, with light covering in extruded vacuum PVC.*

**Kompatybilność**
***Suitable for***

Kompatybilna ze złączkami z serii SV i NM.

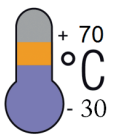
*Compatible with SV and NM series fittings.*

**Kolory**
***Colors***

Czarny - Szary

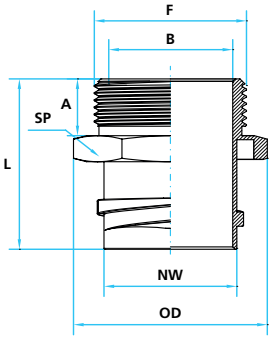
*Black - Grey*

| Kod | | mm | | Promień min. zgięcia mm | Opakowanie standard m |
|---|---|---|---|---|---|
| Czarny | Szary | d1 | d2 | | |
| SV07N | SV07G | 7,0 | 10,0 | 25 | 100 |
| SV09N | SV09G | 8,5 | 11,5 | 30 | 100 |
| SV10N | SV10G | 10,0 | 13,5 | 40 | 50 |
| SV12N | SV12G | 12,0 | 15,5 | 45 | 50 |
| SV13N | SV13G | 13,0 | 16,5 | 50 | 50 |
| SV15N | SV15G | 15,5 | 19,0 | 60 | 50 |
| SV20N | SV20G | 20,5 | 25,0 | 70 | 50 |
| SV21N | SV21G | 21,0 | 26,0 | 75 | 50 |
| SV25N | SV25G | 25,0 | 30,0 | 100 | 50 |
| SV28N | SV28G | 28,0 | 32,5 | 120 | 25 |
| SV37N | SV37G | 37,0 | 42,5 | 150 | 25 |
| SV45N | SV45G | 45,0 | 51,0 | 180 | 25 |
| SV52N | SV52G | 52,0 | 58,0 | 230 | 25 |
| *Black* | *Grey* | *d1* | *d2* | *Minimum bending radius mm* | *Packing unit m* |
| *Ref. Part N.* | | *mm* | | | |



# SVMF

## Złączka mosiężna prosta gwint męski
## *Fixed male brass fittings SV series*



Dla rur typu: SV
*For conduits type: SV*

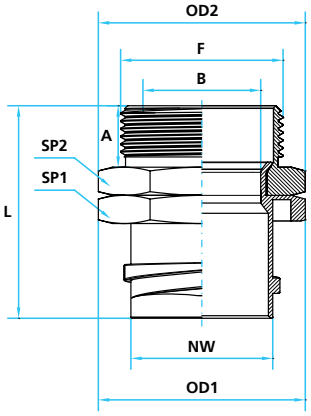
**SVMF - Złączka mosiężna prosta gwint męski calowy i metryczny ISO**

| Kod calowy | F Gwint calowy | A mm | L mm | Kod metryczny ISO | F Gwint metryczny ISO | A mm | L mm | Dla rury NW | ∅ rury mm wew. zew. | B Przelot użytkowy mm | OD mm | SP mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SVMF07** | 1/4" | 8 | 23 | | | | | 7 | 7 - 10 | 5,5 | 17,3 | 15 | 20 |
| **SVMF09** | 1/4" | 8 | 23 | | | | | 9 | 8,5 - 11,5 | 7 | 17,3 | 15 | 20 |
| **SVMF10** | 1/4" | 8 | 25 | **SVMF10M16** | M16x1,5 | 10 | 27 | 10 | 10 - 13,5 | 8,5 | 21,9 | 19 | 20 |
| **SVMF10A** | 3/8" | 8 | 25 | | | | | 10 | 10 - 13,5 | 8,5 | 21,9 | 19 | 20 |
| **SVMF12** | 3/8" | 8 | 25 | **SVMF12M16** | M16x1,5 | 10 | 27 | 12 | 12 - 15,5 | 10 | 21,9 | 19 | 20 |
| | | | | **SVMF12M20** | M20x1,5 | 10 | 27 | 12 | 12 - 15,5 | 10 | 27,7 | 24 | 20 |
| **SVMF13** | 1/2" | 10 | 27 | **SVMF13M20** | M20x1,5 | 10 | 27 | 13 | 13 - 16,5 | 11,5 | 27,7 | 24 | 20 |
| **SVMF15** | 1/2" | 10 | 29 | **SVMF15M20** | M20x1,5 | 10 | 29 | 15 | 15,5 - 19 | 14 | 27,7 | 24 | 20 |
| **SVMF20** | 3/4" | 10 | 30 | **SVMF20M25** | M25x1,5 | 10 | 30 | 20 | 20,5 - 25 | 18,5 | 32,3 | 28 | 10 |
| **SVMF21** | 3/4" | 11 | 33 | **SVMF21M25** | M25x1,5 | 11 | 33 | 21 | 21 - 26 | 19,5 | 32,3 | 28 | 10 |
| **SVMF25** | 1" | 12 | 34 | **SVMF25M32** | M32x1,5 | 12 | 34 | 25 | 25 - 30 | 23 | 41,5 | 36 | 10 |
| **SVMF28** | 1" | 12 | 36 | **SVMF28M32** | M32x1,5 | 12 | 36 | 28 | 28 - 32,5 | 26 | 41,5 | 36 | 10 |
| **SVMF37** | 1"1/4 | 12 | 36 | **SVMF37M40** | M40x1,5 | 12 | 36 | 37 | 37 - 42,5 | 35 | 49,5 | 45 | 5 |
| **SVMF45** | 1"1/2 | 12 | 36 | **SVMF45M50** | M50x1,5 | 12 | 36 | 45 | 45 - 51 | 41,5 | 60,5 | 55 | 5 |
| **SVMF52** | 2" | 15 | 39 | **SVMF52M63** | M63x1,5 | 15 | 39 | 52 | 52 - 58 | 48,5 | 70 | 64 | 5 |
| *Ref. Part N. GAS* | *F GAS Thread* | *A mm* | *L mm* | *REF. Part N. ISO Metric* | *F ISO Metric Thread* | *A mm* | *L mm* | *Conduit code NW* | *int. ext. ∅ conduit mm* | *B useful passage mm* | *OD mm* | *SP mm* | *Packing unit* |

***SVMF - Male thread GAS and ISO Metric - Brass fittings***

# SVMG

## Złączka mosiężna prosta obrotowy gwint męski
## *Revolving male thread brass fittings SV series*



**Dla rur typu: SV**
***For conduits type: SV***

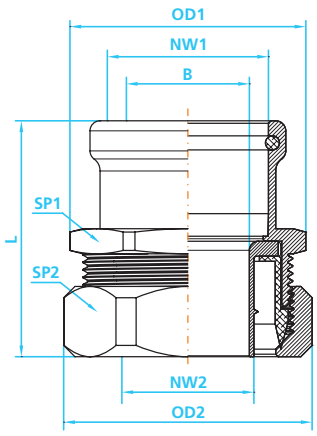
**SVMG - złączka mosiężna prosta obrotowy gwint męski calowy, PG i metryczny ISO**

| Kod calowy | F Gwint calowy | A mm | L mm | OD2 mm | SP2 mm | Kod PG | F Gwint PG mm | A mm | L mm | OD2 mm | SP2 mm | Kod metryczny ISO | F Gwint metryczny ISO | A mm | L mm | OD2 mm | SP2 mm | Dla rury NW | Ø rury mm wew. zew. | B Przelot użytkowy mm | OD1 mm | SP1 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SVMGG07** | 1/4" | 8 | 27 | 17 | 15 | **SVMGP07PG07** | 7 | 8 | 27 | 17 | 15 | **SVMG07M12** | M12x1,5 | 8 | 27 | 17 | 15 | 7 | 7 - 10 | 5 | 15 | 14 | 20 |
| | | | | | | **SVMGP07PG09** | 9 | 8 | 27 | 19,5 | 17 | | | | | | | 7 | 7 - 10 | 5 | 15 | 14 | 20 |
| **SVMGG09** | 1/4" | 8 | 27 | 17 | 15 | **SVMGP09PG07** | 7 | 8 | 27 | 17 | 15 | **SVMG09M12** | M12x1,5 | 8 | 27 | 17 | 15 | 9 | 8,5 - 11,5 | 6 | 16,5 | 15 | 20 |
| **SVMGG09A** | 3/8" | 8 | 27 | 22 | 19 | **SVMGP09PG09** | 9 | 8 | 27 | 19,5 | 17 | | | | | | | 9 | 8,5 - 11,5 | 7 | 16,5 | 15 | 20 |
| | | | | | | **SVMGP09PG11** | 11 | 8 | 27 | 23 | 20 | | | | | | | 9 | 8,5 - 11,5 | 7 | 16,5 | 15 | 20 |
| | | | | | | **SVMGP09PG13** | 13,5 | 8 | 27 | 25,5 | 22 | | | | | | | 9 | 8,5 - 11,5 | 7 | 16,5 | 15 | 20 |
| **SVMGG10** | 3/8" | 8 | 29 | 22 | 19 | **SVMGP10PG09** | 9 | 8 | 29 | 19,5 | 17 | **SVMG10M16** | M16x1,5 | 8 | 29 | 22 | 19 | 10 | 10 - 13,5 | 8,5 | 19 | 17 | 20 |
| | | | | | | **SVMGP10PG11** | 11 | 8 | 29 | 23 | 20 | | | | | | | 10 | 10 - 13,5 | 8,5 | 19 | 17 | 20 |
| **SVMGG10A** | 1/2" | 10 | 31,5 | 27,8 | 24 | **SVMGP10PG13** | 13,5 | 8 | 29 | 25,5 | 22 | | | | | | | 10 | 10 - 13,5 | 8,5 | 19 | 17 | 20 |
| **SVMGG12** | 3/8" | 8 | 29 | 22 | 19 | **SVMGP12PG11** | 11 | 8 | 29 | 23 | 20 | **SVMG12M16** | M16x1,5 | 8 | 29 | 22 | 19 | 12 | 12 - 15,5 | 10 | 19 | 17 | 20 |
| **SVMGG12A** | 1/2" | 10 | 31,5 | 27,8 | 24 | **SVMGP12PG13** | 13,5 | 8 | 29 | 25,5 | 22 | **SVMG12M20** | M20x1,5 | 10 | 31,5 | 27,8 | 24 | 12 | 12 - 15,5 | 10 | 19 | 17 | 20 |
| **SVMGG13** | 3/8" | 8 | 25 | 22 | 19 | **SVMGP13PG11** | 11 | 8 | 29 | 23 | 20 | **SVMG13M16** | M16x1,5 | 8 | 29 | 22 | 19 | 13 | 13 - 16,5 | 10 | 19 | 17 | 20 |
| **SVMGG13A** | 1/2" | 10 | 32 | 27,8 | 24 | **SVMGP13PG13** | 13,5 | 10 | 32 | 25,5 | 22 | **SVMG13M20** | M20x1,6 | 10 | 32 | 27,8 | 24 | 13 | 13 - 16,5 | 11,5 | 19 | 17 | 20 |
| **SVMGG15** | 1/2" | 10 | 34 | 27,8 | 24 | **SVMGP15PG13** | 13,5 | 10 | 34 | 25,5 | 22 | **SVMG15M20** | M20x1,5 | 10 | 34 | 27,8 | 24 | 15 | 15,5 - 19 | 14 | 24 | 22 | 20 |
| | | | | | | **SVMGP15PG16** | 16 | 10 | 34 | 27,8 | 24 | | | | | | | 15 | 15,5 - 19 | 14 | 24 | 22 | 20 |
| **SVMGG20** | 3/4" | 10 | 34,5 | 34,5 | 30 | **SVMGP20PG21** | 21 | 10 | 34,5 | 34,5 | 30 | **SVMG20M25** | M25x1,5 | 11 | 35.5 | 34,5 | 30 | 20 | 20,5 - 25 | 18,5 | 30 | 28 | 10 |
| **SVMGG21** | 3/4" | 10 | 36,5 | 34,5 | 30 | **SVMGP21PG21** | 21 | 10 | 36,5 | 34,5 | 30 | **SVMG21M25** | M25x1,5 | 11 | 37.5 | 34,5 | 30 | 21 | 21 - 26 | 18,5 | 30 | 28 | 10 |
| **SVMGG25** | 1" | 12 | 39,5 | 41,5 | 36 | **SVMGP25PG29** | 29 | 12 | 39,5 | 44 | 38 | **SVMG25M32** | M32x1,5 | 12 | 39,5 | 40,5 | 35 | 25 | 25 - 30 | 23 | 35 | 32 | 10 |
| **SVMGG28** | 1" | 12 | 41,5 | 41,5 | 36 | **SVMGP28PG29** | 29 | 12 | 41,5 | 44 | 38 | **SVMG28M32** | M32x1,5 | 12 | 41,5 | 40,5 | 35 | 28 | 28 - 32,5 | 23 | 39 | 36 | 10 |
| **SVMGG37** | 1" 1/4 | 14 | 44 | 49,5 | 45 | **SVMGP37PG36** | 36 | 14 | 44 | 54,5 | 50 | **SVMG37M40** | M40x1,5 | 14 | 44 | 49,5 | 45 | 37 | 37 - 42,5 | 31 | 49,5 | 45 | 5 |
| **SVMGG45** | 1" 1/2 | 11 | 43 | 62 | 55 | | | | | | | **SVMG45M50** | M50x1,5 | 13 | 43 | 62 | 55 | 45 | 45 - 51 | 42 | 62 | 55 | 5 |
| **SVMGG52** | 2" | 13 | 45 | 71 | 64 | | | | | | | **SVMG52M63** | M63x1,5 | 13 | 45 | 71 | 64 | 52 | 52 - 58 | 48 | 71 | 64 | 5 |
| *Ref. Part N. GAS* | *F GAS Thread* | *A mm* | *L mm* | *OD2 mm* | *SP2 mm* | *Ref. Part N. PG* | *F PG Thread* | *A mm* | *L mm* | *OD2 mm* | *SP2 mm* | *Ref. Part N. ISO Metric* | *F ISO Metric Thread* | *A mm* | *L mm* | *OD2 mm* | *SP2 mm* | *Conduit code NW* | *int. ext. ∅ conduit mm* | *B useful passage mm* | *OD1 mm* | *SP1 mm* | *Packing unit* |

***SVMG - Revolving male thread GAS, PG and ISO metric brass fittings***

# FIFR...X316

## Szybkozłączka INOX AISI 316L rura STDX - rura giętka DARX
## *Stainless steel AISI 316L pipe-conduit fittings*



**SERIA FI - Wzór opatentowany**
***FI SERIES - Design patented***

### Zastosowanie *Application*

Szybkozłączki typu FIFR służą do łączenia rur sztywnych STDX wykonanych ze stali nierdzewnej z nierdzewnymi rurami giętkimi DARX, skracając czas montażu i zapewniając wysoki stopień ochrony IP.
Dedykowane do zastosowań w trudnych warunkach środowiskowych gdzie wymagana jest wysoka odporność materiałów: autostrady, kolej, tunele, przemysł chemiczny i petrochemiczny, farmaceutyka i przemysł spożywczy.

***FIFR** fittings allow the connection between Teaflex stainless steel pipe STDX (AISI 304 and AISI 316L) to flexible metal sheated conduits (DARX).*
*Particularly suitable for harsh environment installation where a high resistance of the materials is required: highways and railways (including tunnels), chemical and petrochemical, farmaceutical, food industry sectors.*

### Materiał *Material*

Stal INOX AISI 316L

*Stainless steel AISI 316L*

### Właściwości produktu *Product characteristics*

Doskonała odporność na działanie czynników chemicznych i warunków atmosferycznych.
Doskonała wytrzymałość mechaniczna.
Doskonała odporność ogniowa.
Stopień ochrony: IP67.
Gwarancja ciągłości elektrycznej zgodnie z normą EN 50086

*Excellent resistance to chemicals and weathering*
*Excellent mechanical strenght*
*Excellent flame class*
*IP Rating: 67*
*Electrical continuity guaranted according to EN 50086 specifications*

### Kompatybilność *Suitable for*

Kompatybilność z rurami ze stali nierdzewnej STDX i DARX.

*Compatible with Teaflex stainless steel pipes STDX and flexible metal sheated conduits (DARX).*

**FIFR...X316 -** Szybkozłączka INOX AISI 316L rura STDX - rura giętka DARX (z ciągłością elektryczną)

| Kod | NW1 ∅ rury STDX | NW2 ∅ rury giętkiej DARX | ∅ rury giętkiej mm wew. zew. | B mm | L mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|
| **FIFR1615X316** | 16 | 15 | 15,5 - 21,0 | 13,8 | 39 | 31,5 | 33 | 28 | 30 | 20 |
| **FIFR2015X316** | 20 | 15 | 15,5 - 21,0 | 13,8 | 39 | 31,5 | 33 | 28 | 30 | 20 |
| **FIFR2020X316** | 20 | 20 | 20,5 - 27,0 | 18,0 | 40 | 39 | 42,5 | 35 | 38 | 10 |
| **FIFR2520X316** | 25 | 20 | 20,5 - 27,0 | 18,1 | 42 | 39 | 42,5 | 36 | 38 | 10 |
| **FIFR2525X316** | 25 | 25 | 25,0 - 32,0 | 22,5 | 44 | 45 | 46,5 | 41 | 42 | 10 |
| **FIFR3227X316** | 32 | 27 | 26.5 - 34,0 | 24,5 | 47 | 47 | 49,5 | 42 | 45 | 5 |
| **FIFR3233X316** | 32 | 33 | 33,0 - 41,0 | 30,0 | 48 | 56,5 | 58 | 50 | 53 | 5 |
| **FIFR4035X316** | 40 | 35 | 35,0 - 43,0 | 32,8 | 54 | 56,5 | 58 | 50 | 53 | 5 |
| **FIFR4040X316** | 40 | 40 | 40,0 - 48,0 | 37,5 | 57 | 66 | 66,5 | 60 | 61 | 5 |
| **FIFR5050X316** | 50 | 50 | 50,5 - 58,5 | 47,5 | 59 | 76 | 80,5 | 70 | 74 | 2 |
| ***REF. Part N.*** | ***NW1 ∅ STDX pipe*** | ***NW2 ∅ conduit*** | ***int./ext. ∅ conduit mm*** | ***B mm*** | ***L mm*** | ***OD1 mm*** | ***OD2 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***Packing unit*** |

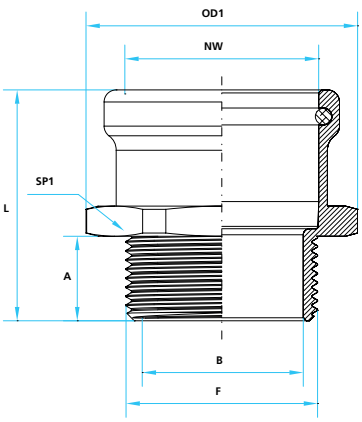
***FIFR...X316 - Stainless steel AISI 316L pipe-conduit fittings for STDX pipes with metallic continuity***

Przykładowe zamówienie / *Order example:* **FIFR2520X316**

| | |
|---|---|
| **FIFR** | Kod serii - *Family type* |
| **25** | Średnica rury - *Pipe diameter* |
| **20** | Nominalny wymiar rury DARX - *Nominal conduit width* |
| **X316** | Materiał - *Material* |

# FIM...X316

## Szybkozłączka INOX AISI 316L gwint męski
## *Stainless steel AISI 316L male thread self-locking quick fittings*




**SERIA FI - Wzór opatentowany**
***FI SERIES - Design patented***

**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA**
**Protection IP67 - requires an additional GAM/GRA seal on the thread**

### Zastosowanie *Application*

Szybkozłączki FIM służa do łączenia rur sztywnych STDX wykonanych ze stali nierdzewnej, skracając czas montażu i zapewniając wysoki stopień ochrony IP.

Dedykowane do zastosowań w trudnych warunkach środowiskowych, gdzie wymagana jest wysoka odporność materiałów: autostrady, kolej, tunele, przemysł chemiczny i petrochemiczny, farmaceutyka i przemysł spożywczy.

***FIM*** *quick fit fittings allow the connection with Teaflex stainless steel pipe STDX AISI 304 and AISI 316L, reducing time of installation and ensuring an high IP rating.*

*Particularly suitable for harsh environment installation where a high resistance of the materials is required: highways and railways (including tunnels), chemical and petrochemical, farmaceutical, food industry sectors.*

### Materiał *Material*

Stal INOX AISI 316L

*Stainless steel AISI 316L*

### Właściwości produktu *Product characteristics*

Doskonała odporność na działanie czynników chemicznych i warunków atmosferycznych.
Doskonała wytrzymałość mechaniczna.
Doskonała odporność ogniowa.
Stopień ochrony: IP67
Gwarancja ciągłości elektrycznej zgodnie z normą EN 50086

*Excellent resistance to chemicals and weathering*
*Excellent mechanical strenght*
*Excellent flame class*
*IP Rating: 67*
*Electrical continuity guaranted according to EN 50086 specifications*

### Certyfikaty *Approvals*

CEI EN 61386 - 1 2008
Patent nr °0000272245
IMQ n°*CA02.00380*

*CEI EN 61386 - 1 2008*
*Patent n°0000272245*
IMQ n°*CA02.00380*

### Kompatybilność *Suitable for*

Kompatybilność z rurami ze stali nierdzewnej STDX.

*Compatible with all Teaflex stainless steel pipes STDX.*

**FIM...X316 - Szybkozłączka INOX AISI 316L gwint męski (z ciągłością elektryczną)**

| Kod | Certyfikaty | F Gwint metryczny ISO | NW ø rury STDX | A mm | B mm | L mm | OD1 mm | SP1 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|
| FIM16M16X316 | Ⓜ | M16X1,5 | 16 | 10 | 11,5 | 32 | 27 | 24 | 20 |
| FIM20M20X316 | Ⓜ | M20X1,5 | 20 | 10 | 15,5 | 32 | 30 | 33 | 20 |
| FIM25M25X316 | Ⓜ | M25X1,5 | 25 | 10 | 20,5 | 33 | 39 | 36 | 10 |
| FIM32M32X316 | Ⓜ | M32X1,5 | 32 | 14 | 27 | 38,5 | 45 | 41 | 10 |
| FIM40M40X316 | Ⓜ | M40X1,5 | 40 | 15 | 35 | 44,5 | 56,5 | 50 | 5 |
| FIM50M50X316 | Ⓜ | M50X1,5 | 50 | 15 | 45 | 45 | 68 | 60 | 5 |
| *REF. Part N.* | *Approvals* | *F ISO Metric thread* | *NW ø STDX pipe* | *A mm* | *B mm* | *L mm* | *OD1 mm* | *SP1 mm* | *Packing unit* |

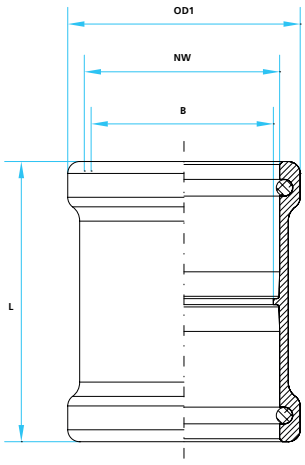
***FIM...X316 - Stainless steel AISI 316L male fittings for STDX pipes with metallic continuity -IMQ*** Ⓜ

Przykładowe zamówienie / *Order example:* **FIM16M16X316**

| | |
|---|---|
| **FIM** | Kod serii - *Family type* |
| **16** | Średnica rury - *Pipe diameter* |
| **M16** | Wymiary gwintu - *Thread dimension* |
| **X316** | Materiał - *Material* |

# FIG...X316

## Szybkozłączka INOX AISI 316L
## *Stainless steel AISI 316L self-locking quick fittings*




**SERIA FI - Wzór opatentowany**
***FI SERIES - Design patented***

### Zastosowanie *Application*

Szybkozłączki FIG służą do łączenia rur sztywnych STDX wykonanych ze stali nierdzewnej, skracając czas montażu i zapewniając wysoki stopień ochrony IP.

Dedykowane do zastosowań w trudnych warunkach środowiskowych, gdzie wymagana jest wysoka odporność materiałów: autostrady, kolej, tunele, przemysł chemiczny i petrochemiczny, farmaceutyka i przemysł spożywczy.

***FIG** quick fit sleeve-pipe fittings allow the connection with Teaflex stainless steel pipe STDX AISI 304 and AISI 316L, reducing time of installation and ensuring an high IP rating.*

*Particularly suitable for harsh environment installation where a high resistance of the materials is required: highways and railways (including tunnels), chemical and petrochemical, farmaceutical, food industry sectors.*

### Materiał *Material*

Stal INOX AISI 316L

*Stainless steel AISI 316L*

### Właściwości produktu *Product characteristics*

Doskonała odporność na działanie czynników chemicznych i warunków atmosferycznych.
Doskonała wytrzymałość mechaniczna.
Doskonała odporność ogniowa.
Stopień ochrony: IP67.
Gwarancja ciągłości elektrycznej zgodnie z normą EN 50086

*Excellent resistance to chemicals and weathering*
*Excellent mechanical strenght*
*Excellent flame class*
*IP Rating: 67*
*Electrical continuity guaranted according to EN 50086 specifications*

### Certyfikaty *Approvals*

CEI EN 61386 - 1 2008
Patent nr 0000272245
IMQ n°*CA02.00380*

*CEI EN 61386 - 1 2008*
*Patent n°0000272245*
IMQ n°*CA02.00380*

### Kompatybilność *Suitable for*

Kompatybilność z rurami ze stali nierdzewnej STDX.

*Compatible with all Teaflex stainless steel pipes STDX.*

**FIG...X316 - Szybkozłączka INOX AISI 316L ( z ciągłością elektryczną)**

| Kod | Certyfikaty | NW ø rury STDX | B mm | L mm | OD1 mm | Opakowanie standard |
|---|---|---|---|---|---|---|
| FIG16X316 | IMQ | 16 | 14 | 42 | 23 | 20 |
| FIG20X316 | IMQ | 20 | 18 | 42 | 27,6 | 20 |
| FIG25X316 | IMQ | 25 | 22,5 | 44 | 32,6 | 20 |
| FIG32X316 | IMQ | 32 | 29,5 | 47 | 39 | 10 |
| FIG40X316 | IMQ | 40 | 37,5 | 57,5 | 50 | 5 |
| FIG50X316 | IMQ | 50 | 47,5 | 57,5 | 59,7 | 2 |
| *REF. Part N.* | *Approvals* | *NW ø STDX pipe* | *B mm* | *L mm* | *OD1 mm* | *Packing unit* |

***FIG...X316 - Stainless steel AISI 316L sleeve pipe fittings for STDX pipes with metallic continuity*** - IMQ

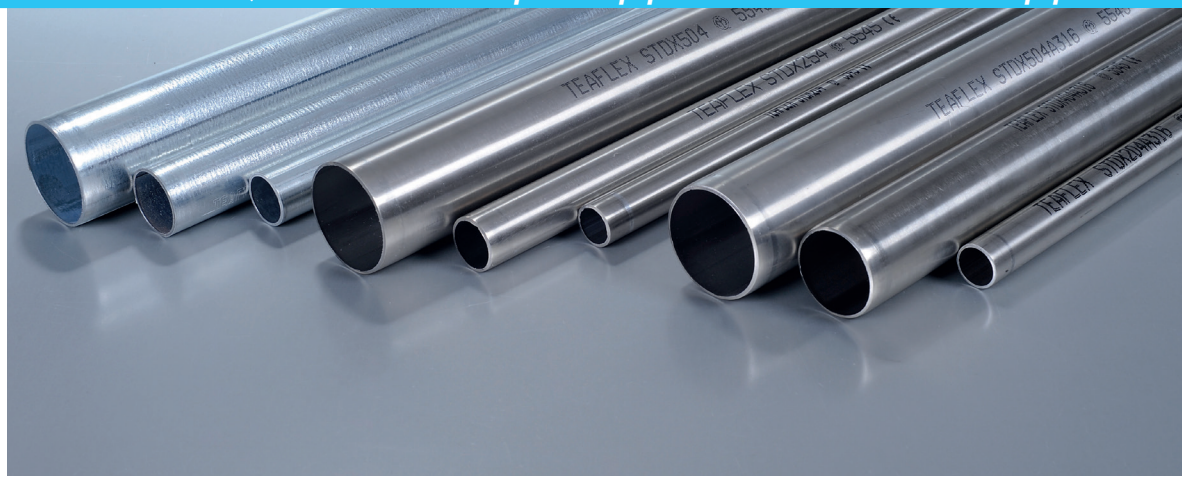
+ 250 °C - 50

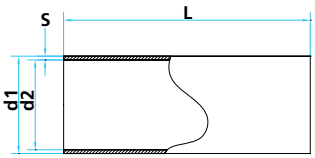
Przykładowe zamówienie / *Order example:* **FIG16X316**

| | |
|---|---|
| **FIG** | Kod serii - *Family type* |
| **16** | Średnica rury - *Pipe diameter* |
| **X316** | Materiał - *Material* |

# STD-STDX

## Rura ocynkowana STD - Rura ze stali INOX STDX
## *STD Zinc plated pipe - STDX Stainless steel pipe*






**Według normy**
**EN 61386 - 1/2008**
**- 21/2004+A11:2010**

***According to***
***EN 61386 - 1/2008***
***- 21/2004+A11:2010***

**Zastosowanie**
***Application***

Rury STD-STDX dedykowane do realizacji hermetycznych instalacji elektrycznych o dużej wytrzymałości mechanicznej.
Rury STD cynkowane metodą Sendzimira mogą być stosowane do instalacji w środowisku o wysokiej wilgotności.

*Suitable for liquid tight electrical plant with high degree of mechanical protection.*
*The Sendzimir galvanizing process makes the pipe very suitable for use in plants areas with high humidity percentage.*

**Materiał**
***Material***

**STD**: rura wykonana z ocynkowanej blachy walcowanej, elektrycznie zgrzewana, zgrzewy napylane cynkiem, może być gięta na zimno.
**STDX**: rura ze stali INOX AISI 304 i AISI 316L

***STD**: pipe made of zinc coated rolled strip, electrical welded with zinc embankment onto the welding, cold bendable.*
***STDX**: stainless steel AISI 304 and 316L*

**Certyfikaty**
***Approvals***

**STD**: IMQ nr EM575 (5555)
**STDX**: IMQ nr CA02.00380 (5555)

***STD:** IMQ n°EM575 (5555)*
***STDX:** IMQ n°CA02.00380 (5555)*

**Kompatybilność**
***Suitable for***

Kompatybilność ze złączkami z certyfikatem IMQ serii AR i FI.

*Compatible with AR and FI fittings IMQ approved.*

**STD - Rura ocynkowana niegwintowalna - IMQ**

**STDX - Rura ze stali INOX AISI 304 i AISI 316L- IMQ**

| Rura STD długość 4m | | | Rura STD długość 3m | | | | | | | Rura STDX długość 4m | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kod STD 4 m | L Długość rury m | Wiązka m | Kod STD 3 m | L Długość rury m | Wiązka m | Certyfikaty | d1 mm | d2 mm | S Grubość mm | Kod STDX AISI 304 | Kod STDX AISI 316L | L Długość rury m |
| **STD164** | 4 | 40 | **STD163** | 3 | 30 | | 16 | 14,0 | 1,0 | **STDX164** | **STDX164A316** | 4 |
| **STD204** | 4 | 40 | **STD203** | 3 | 30 | | 20 | 18,0 | 1,0 | **STDX204** | **STDX204A316** | 4 |
| **STD254** | 4 | 20 | **STD253** | 3 | 15 | | 25 | 22,5 | 1,25 | **STDX254** | **STDX254A316** | 4 |
| **STD324** | 4 | 20 | **STD323** | 3 | 15 | | 32 | 29,5 | 1,25 | **STDX324** | **STDX324A316** | 4 |
| **STD404** | 4 | 12 | **STD403** | 3 | 9 | | 40 | 37,5 | 1,25 | **STDX404** | **STDX404A316** | 4 |
| **STD504** | 4 | 8 | **STD503** | 3 | 6 | | 50 | 47,5 | 1,25 | **STDX504** | **STDX504A316** | 4 |
| **STD604** | 4 | 8 | | | | | 60 | 56,5 | 2,0 | **STDX604** | | 4 |
| *REF. Part N. STD 4 m* | *L Pipe length m* | *Set m* | *REF. Part N. STD 3 m* | *L Pipe length m* | *Set m* | *Approvals* | *d1 mm* | *d2 mm* | *S Wall thickness mm* | *REF. Part N. STDX AISI 304* | *REF. Part N. STDX AISI 316L* | *L Pipe length m* |
| *STD pipe length 4m* | | | *STD pipe length 3m* | | | | | | | *STDX pipe length 4m* | | |

***STD - Zinc plated pipe not threading - IMQ***

***STDX - Stainless steel aisi 304 and 316L pipe - IMQ***

RINA

+ 600 °C - 50

## SERIA AR Opatentowana

Szybkozłączki serii AR umożliwiają praktyczne i bezpieczne połączenia z rurami ocynkowanymi STD, skracając czas montażu.

Specjalna konstrukcja zapewnia bardzo szybki demontaż złączek, realizowany poprzez wciśnięcie pinu blokady bez użycia narzędzi.
Stopień ochrony IP67, doskonała wytrzymałość na rozciąganie, ciągłość elektryczna -3 x 10 $^{-3}$ Ω/m zgodnie z normą EN50086 (raport IMQ nr 610).

**Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA.**

## *AR SERIES* Pat. app.

*The AR Series fittings quick fit and lock provide practical, economic and secure connections with the STD zinc plated pipe reducing time of installation.*

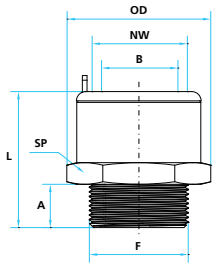
*The special construction provide very fast disconnection of the fitting just pushing the pin without need of force or tools.*

*Degree of protection IP 67, excellent mechanical hold in all conditions, electrical continuity -3 x 10^-3 W/m according to CEI EN 50086 norm as IMQ report N°610.*

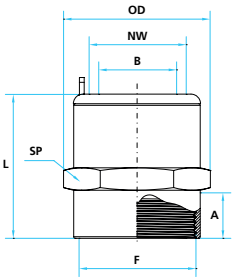
***Protection IP67 - requires an additional GAM/GRA seal on the thread***

# ARM - ARF

## Szybkozłączki mosiężne gwint męski i żeński
## *Male and female thread quick lock fittings*




ARM




ARF

Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA
Protection IP67 - requires an additional GAM/GRA seal on the thread

## Zastosowanie
## *Application*

**Stopień ochrony: IP67**
***Ingress protection: IP67***

**ARM - Szybkozłączka mosiężna gwint męski calowy i metryczny ISO**

| Kod calowy | F Gwint calowy | B Przelot użytkowy mm | Kod metryczny ISO | Certyfikaty | F Gwint metryczny ISO | B Przelot użytkowy mm | NW ∅ rury STD-STDX | A mm | L mm | OD mm | SP mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ARM16** | 1/2" | 14 | **ARM16M** | | M16X1,5 | 11 | 16 | 10 | 38 | 27,8 | 24 | 20 |
| **ARM20** | 1/2" | 15 | **ARM20M** | | M20X1,5 | 15,5 | 20 | 10 | 38 | 32 | 28 | 20 |
| **ARM20A** | 3/4" | 18 | | | | | 20 | 10 | 38 | 32 | 28 | 20 |
| **ARM25** | 3/4" | 20 | **ARM25M** | | M25X1,5 | 20 | 25 | 10 | 39 | 38 | 33 | 10 |
| **ARM25A** | 1" | 23 | | | | | 25 | 12 | 43 | 40,5 | 35 | 10 |
| **ARM32** | 1" | 26,5 | **ARM32M** | | M32X1,5 | 26,5 | 32 | 14 | 44 | 46 | 40 | 10 |
| **ARM40** | 1" 1/4 | 35 | **ARM40M** | | M40X1,5 | 35 | 40 | 15 | 51 | 55 | 50 | 5 |
| **ARM50** | 1" 1/2 | 40 | **ARM50M** | | M50X1,5 | 42 | 50 | 15 | 51 | 65 | 60 | 5 |
| **ARM50A** | 2" | 47 | | | | | 50 | 15 | 51,5 | 72 | 64 | 2 |
| ***REF. Part N. GAS*** | ***F GAS Thread*** | ***B useful passage mm*** | ***REF. Part N. ISO Metric*** | ***Approvals*** | ***F ISO Metric Thread*** | ***B useful passage mm*** | ***NW ∅ pipe STD-STDX*** | ***A mm*** | ***L mm*** | ***OD mm*** | ***SP mm*** | ***Packing unit*** |

***ARM - Brass quick lock fittings male thread***

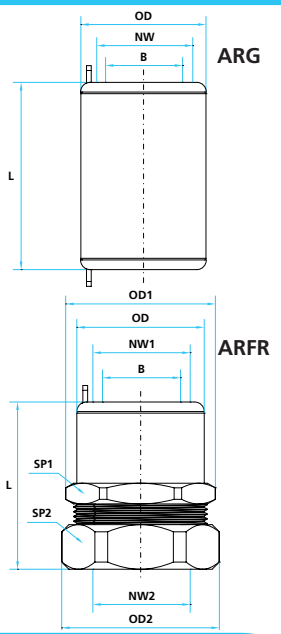
**ARF - Szybkozłączka mosiężna gwint żeński calowy i metryczny ISO**

| Kod calowy | F Gwint calowy | B Przelot użytkowy mm | Kod metryczny ISO | Certy fikaty | F Gwint metryczny ISO | B Przelot użytkowy mm | NW ∅ rury STD-STDX | A mm | L mm | OD mm | SP mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ARF16** | 1/2" | 14 | **ARF16M** | | M16X1,5 | 14 | 16 | 10 | 38 | 27,8 | 24 | 20 |
| **ARF20** | 3/4" | 18 | **ARF20M** | | M20X1,5 | 18 | 20 | 10 | 38 | 32 | 28 | 20 |
| **ARF25** | 3/4" | 22,5 | **ARF25M** | | M25X1,5 | 22,5 | 25 | 10 | 39 | 38 | 33 | 10 |
| **ARF32** | 1" | 29,5 | **ARF32M** | | M32X1,5 | 29,5 | 32 | 14 | 44 | 46 | 40 | 10 |
| **ARF40** | 1" 1/4 | 37,5 | **ARF40M** | | M40X1,5 | 37,5 | 40 | 15 | 51 | 55 | 50 | 5 |
| **ARF50** | 1" 1/2 | 43,5 | **ARF50M** | | M50X1,5 | 47,5 | 50 | 15 | 51 | 65 | 60 | 5 |
| **ARF50A** | 2" | 47,5 | | | | | 50 | 15 | 51,5 | 72 | 64 | 2 |
| ***REF. Part N. GAS*** | ***F GAS Thread*** | ***B useful passage mm*** | ***REF. Part N. ISO Metric*** | ***Appro-vals*** | ***F ISO Metric Thread*** | ***B useful passage mm*** | ***NW ∅ pipe STD-STDX*** | ***A mm*** | ***L mm*** | ***OD mm*** | ***SP mm*** | ***Packing unit*** |

***ARF - Brass quick lock fittings female thread***

# ARG - ARFR

## Szybkozłączki mosiężne
## *Quick lock fittings*



Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA
Protection IP67 - requires an additional GAM/GRA seal on the thread

## Zastosowanie
## *Application*

**Stopień ochrony: IP67**
***Ingress protection: IP67***

**ARG - Szybkozłączka mosiężna do łączenia rur STD**

| Kod | Certyfikaty | NW ∅ rury STD-STDX | B Przelot użytkowy mm | L mm | OD mm | Opakowanie standard |
|---|---|---|---|---|---|---|
| **ARG16** | | 16 | 14 | 53 | 24 | 10 |
| **ARG20** | | 20 | 18 | 53 | 28 | 10 |
| **ARG25** | | 25 | 22,5 | 55 | 33 | 10 |
| **ARG32** | | 32 | 29,5 | 56 | 40 | 5 |
| **ARG40** | | 40 | 37,5 | 69 | 60 | 5 |
| **ARG50** | | 50 | 47,5 | 69 | 50 | 2 |
| ***REF. Part N.*** | ***Approvals*** | ***NW ∅ pipe STD-STDX*** | ***B useful passage mm*** | ***L mm*** | ***OD mm*** | ***Packing unit*** |

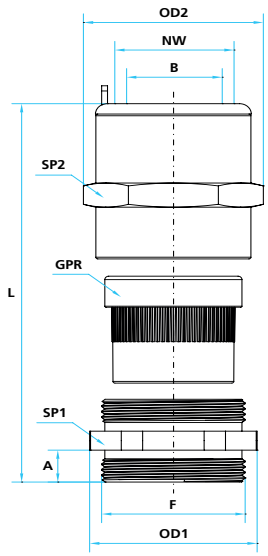
**ARFR - Szybkozłączka mosiężna do łączenia rur STD z rurami giętkimi metalowymi typu L-P-DAR-SVT-T-TP**

| Kod | Certyfikaty | NW1 Dla rury STD-STDX | NW2 Dla rury giętkiej | ∅ rury mm wew. zew. | B Przelot użytkowy mm | L mm | OD mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ARFR16** | | 16 | 15 | 15,5 - 21,0 | 13,8 | 45 | 24 | 32 | 33 | 28 | 30 | 20 |
| **ARFR163** | | 16 | 12 | 12,0 - 17,0 | 10,5 | 45 | 24 | 27,8 | 29 | 24 | 26 | 20 |
| **ARFR20** | | 20 | 15 | 15,5 - 21,0 | 13,8 | 45 | 28 | 32 | 33 | 28 | 30 | 20 |
| **ARFR20A** | | 20 | 20 | 20,5 - 27,0 | 18,0 | 48,5 | 28 | 40,5 | 42,5 | 35 | 38 | 10 |
| **ARFR25** | | 25 | 20 | 20,5 - 27,0 | 18,1 | 49,5 | 33 | 40,5 | 42,5 | 35 | 38 | 10 |
| **ARFR25A** | | 25 | 25 | 25,0 - 32,0 | 22,5 | 51 | 33 | 46 | 46,5 | 40 | 42 | 10 |
| **ARFR25B** | | 25 | 27 | 26.5 - 34,0 | 22,5 | 51 | 33 | 48,5 | 49,5 | 42 | 45 | 10 |
| **ARFR32** | | 32 | 27 | 26.5 - 34,0 | 24,5 | 51,5 | 40 | 48,5 | 49,5 | 42 | 45 | 5 |
| **ARFR32A** | | 32 | 33 | 33,0 - 41,0 | 29,5 | 53,5 | 40 | 55 | 58 | 50 | 53 | 5 |
| **ARFR32B** | | 32 | 35 | 35,0 - 43,0 | 29,5 | 53,5 | 40 | 55 | 58 | 50 | 53 | 5 |
| **ARFR40** | | 40 | 33 | 33,0 - 41,0 | 30,8 | 60 | 50 | 56 | 58 | 50 | 53 | 5 |
| **ARFR40A** | | 40 | 35 | 35,0 - 43,0 | 32,8 | 60 | 50 | 56 | 58 | 50 | 53 | 5 |
| **ARFR40B** | | 40 | 40 | 40,0 - 48,0 | 37,5 | 63,5 | 50 | 64 | 66,5 | 58 | 61 | 5 |
| **ARFR50** | | 50 | 50 | 50,5 - 58,5 | 47,5 | 64 | 60 | 76 | 80,5 | 70 | 74 | 2 |
| **ARFR50A** | | 50 | 40 | 40,0 - 48,0 | 37,5 | 63,5 | 60 | 66 | 66,5 | 60 | 61 | 2 |
| ***REF. Part N.*** | ***Approvals*** | ***NW1 ∅ pipe STD-STDX*** | ***NW2 Conduit code*** | ***int. ext. ∅ conduit mm*** | ***B useful passage mm*** | ***L mm*** | ***OD mm*** | ***OD1 mm*** | ***OD2 mm*** | ***SP1 mm*** | ***SP2 mm*** | ***Packing unit*** |

***ARFR - Brass quick lock STD pipe metal conduit type L-P-DAR-SVT-T-TP splice connectors***

# ARPR

## Szybkozłączka mosiężna z dławnicą
## *Quick lock fittings with strain relief*



Stopień ochrony IP67 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA
Protection IP67 - requires an additional GAM/GRA seal on the thread

## Zastosowanie
## *Application*

Szybkozłączki mosiężne ARPR z gwintem metalowym posiadają uszczelkę dławiącą dobieraną do średnicy prowadzonego kabla. Złączki te oferują wysoką wytrzymałość na rozciąganie oraz zapewniają ochronę przed pyłami i cieczami (IP67) zarówno dla rury jak i dla kabla.
Stopień ochrony: IP 67

*As well as secure anchoring of the connector and the pipe, it is also necessary to guarantee solidity and insulation for the electric continuity of the couple (in case of traction or jerking movements) for current from sub-circuits, boxes, motors, electric switchboards, etc.*
*The ARPR series fit both these needs brilliantly. The secure fixing of fitment and pipe is guaranteed by the efficiency that distinguishes all the fitments in the AR range and further by the special plasticised pressure washer which assure the couple impermeable both to water and dust and provides mechanical protection against jerks and traction on the pipe itself.*
*IP rating: IP 67*

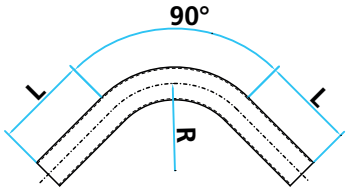
**ARPR - Szybkozłączka mosiężna z dławnicą**

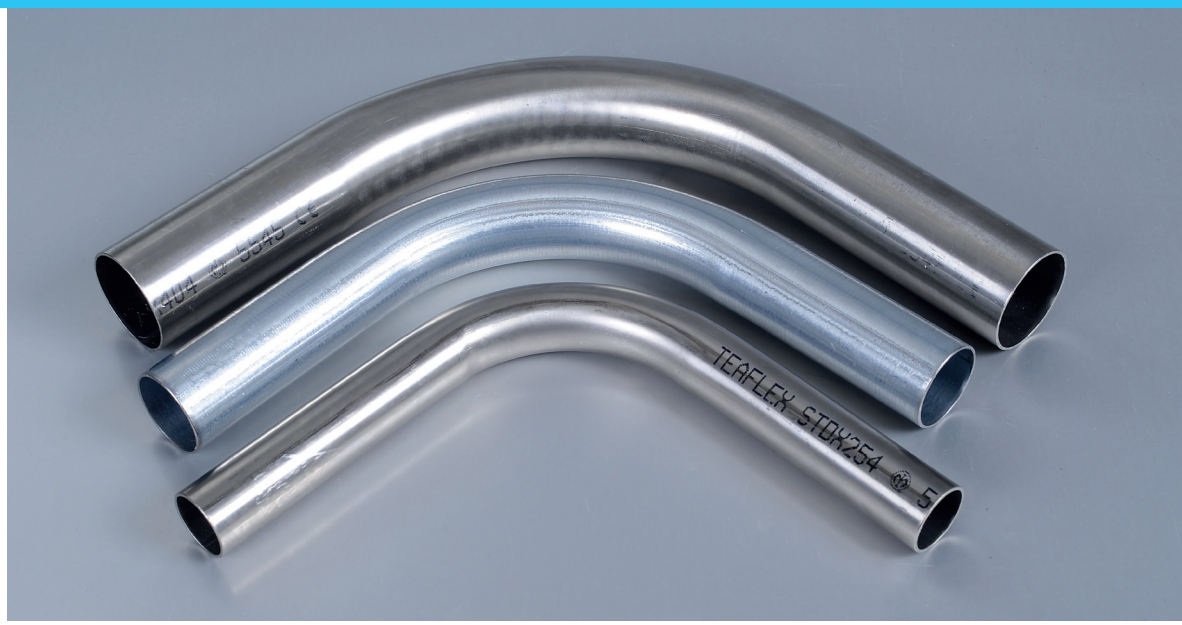
| Kod metryczny ISO | Certyfikaty | F Gwint metryczny ISO | A mm | L mm | OD1 mm | SP1 mm | Kod PG | F Gwint PG | A mm | L mm | OD1 mm | SP1 mm | Dla rury STD NW | ∅ przewodu mm Min Max | Kolor Dławnicy | Kod dławnicy | B Przelot użytkowy mm | OD2 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ARPR1607M16** | | | | | | | **ARPR1607P09** | | | | | | | 4 - 6,5 | Żółty - *Yellow* | **GPR00907** | | | | |
| **ARPR1608M16** | | M16X1,5 | 8 | 54 | 21 | 19 | **ARPR1608P09** | PG09 | 6 | 52 | 19 | 17 | 16 | 5 - 8 | Szary - *Grey* | **GPR00908** | 10,5 | 17,8 | 24 | 1 |
| **ARPR1609M16** | | | | | | | **ARPR1609P09** | | | | | | | 6,5 - 9,5 | Czarny - *Black* | **GPR00909** | | | | |
| **ARPR2007M20** | | | | | | | **ARPR2007P13** | | | | | | | 4 - 6,5 | Żółty - *Yellow* | **GPR01307** | | | | |
| **ARPR2008M20** | | | | | | | **ARPR2008P13** | | | | | | | 5 - 8 | Szary - *Grey* | **GPR01308** | | | | |
| **ARPR2009M20** | | M20X1,5 | 8 | 54,5 | 24 | 22 | **ARPR2009P13** | PG13,5 | 6,5 | 53 | 24 | 22 | 20 | 6,5 - 9,5 | Czarny - *Black* | **GPR01309** | 14,5 | 32 | 28 | 1 |
| **ARPR2011M20** | | | | | | | **ARPR2011P13** | | | | | | | 7 - 10,5 | Zielony - *Green* | **GPR01311** | | | | |
| **ARPR2013M20** | | | | | | | **ARPR2013P13** | | | | | | | 9 - 13 | Czerwony - *Red* | **GPR01313** | | | | |
| **ARPR2518M25** | | | | | | | **ARPR2518P21** | | | | | | | 14 - 18 | Granatowy - *Blue* | **GPA0318 - GPR02128** | | | | |
| **ARPR2520M25** | | M25X1,5 | 9 | 61,5 | 33 | 30 | **ARPR2520P21** | PG21 | 7,5 | 60 | 32 | 30 | 25 | 17 - 20,5 | Brązowy - *Brown* | **GPA0320 - GPR02120** | 20,5 | 38 | 33 | 1 |
| **ARPR3225M32** | | M32X1,5 | 10 | 66,25 | 43 | 40 | **ARPR3225P29** | PG29 | 9,25 | 65 | 43 | 40 | 32 | 20 - 25 | Pomaran. - *Orange* | **GPA0725 - GPR02925** | 26 | 44 | 40 | 1 |
| | | | | | | | **ARPR3228P29** | | | | | | | 24 - 28 | ***Jasny Żółty - Light Yellow*** | **GPR02928** | | | | |
| **ARPR4030M40** | | M40X1,5 | 10 | 71,5 | 48 | 45 | | | | | | | 40 | 26 - 30 | Biały - *White* | **GPR11430** | 32 | 55 | 50 | 1 |
| **ARPR5034M50** | | | | | | | **ARPR5034P36** | | | | | | | 29 - 34 | Niebieski - *Light blue* | **GPR03634** | | | | |
| **ARPR5036M50** | | M50X1,5 | 12 | 74,5 | 57 | 52 | **ARPR5036P36** | PG36 | 9 | 71,5 | 55 | 50 | 50 | 32 - 36 | Różowy - *Pink* | **GPR03636** | 37,5 | 66 | 60 | 1 |
| *REF. Part N. ISO metric* | *Approvals* | *F ISO Metric Thread* | *A mm* | *L mm* | *OD1 mm* | *SP1 mm* | *REF. Part N. PG* | *F PG Thread* | *A mm* | *L mm* | *OD1 mm* | *SP1 mm* | *NW ∅ pipe STD* | *Min Max ∅ cable mm* | *Seal Colour* | *Seal REF. Part N.* | *B useful passage mm* | *OD2 mm* | *SP2 mm* | *Packing unit* |

***ARPR - Brass quick lock fittings with strain relief ISO metric thread***

# C - CX

## Łuki 90°
## *90° Elbows*




### Zastosowanie
### *Application*

**C**

Łuki 90° wykonane z rury ocynkowanej STD stosowane do omijania słupów i wykonywania zakrętów instalacji. Kompatybilne ze złączkami serii AR lub ES.

**CX**

Łuki 90° wykonane z rury STDX ze stali INOX AISI 304.

**C**

*90° Elbows made of zinc plated pipe, used for passing columns, angles, inserting down pipes using pipe-splice connectors.*

**CX**

*90° Elbows made of stainless steel pipe AISI 304.*

**C-CX - Łuki 90°**

| Kod C | Kod AISI 304 CX | Certyfikaty | ∅ rury STD-STDX | R Promień mm | L mm | Opakowanie standard |
|---|---|---|---|---|---|---|
| C01 | CX01 | ⓂⓉ | 16 | 45 | 100 | 25 |
| C04 | CX04 | ⓂⓉ | 32 | 85 | 90 | 10 |
| C06 | CX06 | ⓂⓉ | 50 | 100 | 115 | 5 |
| C07 | CX07 | | 60 | 150 | 140 | 1 |
| C08 | CX08 | ⓂⓉ | 20 | 60 | 90 | 25 |
| C09 | CX09 | ⓂⓉ | 25 | 70 | 100 | 10 |
| C10 | CX10 | ⓂⓉ | 40 | 95 | 100 | 5 |
| *C REF. Part N.* | *CX AISI 304 REF. Part N.* | *Approvals* | *∅ pipe STD-STDX* | *R Radius mm* | *L mm* | *Packing unit* |

***C-CX - 90° Elbows***

+ 600 °C - 50

RINA

# Akcesoria do rur STD i STDX
## *Accessories for STD and STDX pipe*

**TT1360** - Obcinak do rur o średnicy zewnętrznej od 13 do Ø 60 mm z zapasowym kółkiem tnącym wewnątrz uchwytu.

**TTL1360** - Zapasowe kółko tnące do obcinaka TT1360

***TT1360*** - *Pipe cutting tool for external diameter from 13 to 60 mm with spare wheel inside handle.*

***TTL1360*** - *Spare wheel for cutting tool TT1360*

**BC** - Zakończenie ochronne krawędzi rur STD.
Chroni przewody przed uszkodzeniem podczas ich wkładania.

| Kod | Dla rury STD | Opakowanie standard |
|---|---|---|
| **BC16** | 16 | 50 |
| **BC20** | 20 | 50 |
| **BC25** | 25 | 50 |
| **BC32** | 32 | 50 |
| **BC40** | 40 | 25 |
| **BC50** | 50 | 25 |
| **BC60** | 60 | 25 |
| *REF. Part N.* | *∅ pipe STD* | *Packing unit* |

***BC*** - *End bush to be pressed into the end of STD pipes. Protects wires against possible abrasion when they are inserted into the pipe.*

**COLFS** - Uchwyt mocujący ze stali ocynkowanej do rur STD i STDX ze śrubami zabezpieczającymi.

| Kod dla rury STD | Dla rury STD-STDX | Opakowanie standard |
|---|---|---|
| **COLFS16** | 16 | 100 |
| **COLFS22** | 20 | 50 |
| **COLFS28** | 25 | 50 |
| **COLFS32** | 32 | 25 |
| **COLFS38** | 40 | 25 |
| **COLFS50** | 50 | 25 |
| **COLFS63** | 60 | 20 |
| *STD pipe REF. Part N.* | *∅ pipe STD-STDX* | *Packing unit* |

***COLFS*** - *Galvanised steel clamps for STD and STDX pipes with locking screws.*

**FAR** - Uchwyt mocujący ze stali ocynkowanej do rur STD z klipsem zabezpieczającym.

| Kod | Dla rury STD - STDX | Opakowanie standard |
|---|---|---|
| **FAR16** | 16 | 100 |
| **FAR20** | 20 | 100 |
| **FAR25** | 25 | 75 |
| **FAR32** | 32 | 50 |
| **FAR40** | 40 | 25 |
| **FAR50** | 50 | 25 |
| *REF. Part N.* | *∅ pipe STD - STDX* | *Packing unit* |

***FAR*** - *Quick fit galvanized steel clamps for STD pipes with safety clip.*

**FARX** - Uchwyt mocujący ze stali INOX AISI 304 do rur STDX z klipsem zabezpieczającym.

| Kod |
|---|
| **FARX16** |
| **FARX20** |
| **FARX25** |
| **FARX32** |
| **FARX40** |
| **FARX50** |
| *REF. Part N.* |

***FARX*** - *Quick fit AISI 304 stainless steel clamps for STDX pipes with safety clip.*

# GIĘTARKI DO RUR

# *PIPE BENDING MACHINES*

KPIEG50

UNI 50

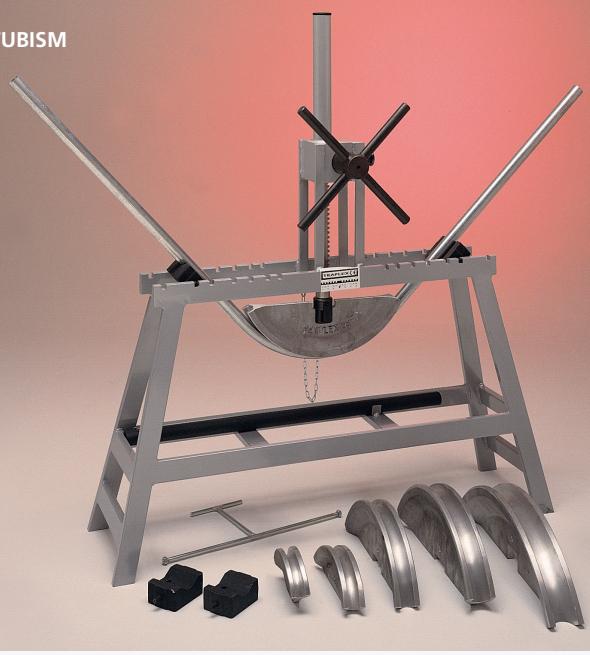
KPIEG42

UNI 42

KPIEG60

UNI 60

PIEGATUBISM



# KPIEG

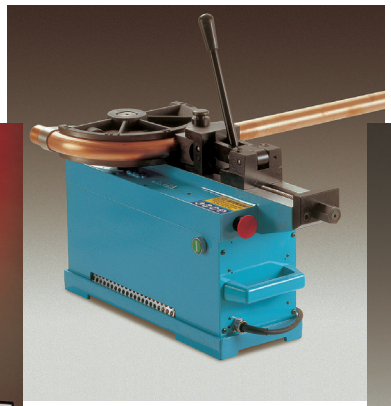
## Giętarka uniwersalna
## *Universal pipe Bending Machine*

**KLS1**

**KLS1 - Smar w sprayu do matryc (1 pojemnik 600 ml)**

***KLS1 - Lubricant Spray for shape-die (1 cylinder spray 600 ml)***

**KPIEG50**



**KPIEG42**

**KPIEG60**

## Zastosowanie
## *Application*

**KPIEG50** - Uniwersalna giętarka ręczna ze stojakiem do rur Ø16 - Ø50.
**KPIEG42** - Uniwersalna giętarka elektryczna do rur Ø16 - Ø40.
**KPIEG60** - Uniwersalna giętarka elektryczna do rur Ø16 - Ø60.
Profesjonalna giętarka gwarantująca precyzję, prostotę obsługi oraz stały promień gięcia bez deformacji.

***KPIEG50*** *- Universal manual pipe bending machine with trestle for pipes Ø16 - Ø50.*
***KPIEG42*** *- Universal electrical pipe bending machine for pipes Ø16 - Ø40.*
***KPIEG60*** *- Universal electrical pipe bending machine for pipes Ø16 - Ø60.*
*Professional pipe bending machine produces precision work with easy use.*
*This tool offers a constant bending radius of pipe without deformation, from big to small diameter pipes.*

## Właściwości produktu
## *Product features*

**KPIEG50**
Aluminiowy korpus
Przekładnia z hartowanej stali na łożyskach kulowych
Dokładna regulacja kontrmatrycy
**KPIEG42-KPIEG60**
Aluminiowy korpus
Silnik z podwójną izolacją CEI 220 V 1000 W
Sterowania niskonapięciowe (24 V)
Pierścień regulujący kąt zgięcia
Hamulec elektryczny
Automatyczny powrót na końcu skoku
Dokładna regulacja kontrmatrycy

***KPIEG50***
*Aluminium body*
*Tempered steel gear on ball bearing*
*Exact adjustment of the counter-mould*
**KPIEG42-KPIEG60**
*Aluminium body*
*Double insulation motor CEI 220 V 1000 W*
*Low tension control (24 V)*
*Adjustment bending corner ring*
*Electrobrake*
*Stroke end self acting return*
*Exact adjustment of the counter-mould*

## Komponenty i akcesoria
## *Components and accessories*

**KCL50** drewniana skrzynka na KPIEG50-KPIEG42
**KCL60** drewniana skrzynka na KPIEG60.
**KPIEG50** - kompatybilna z matrycami i przeciwmatrycami od Ø16 - Ø50 dla rur ocynkowanych STD i żeliwnymi matrycami i przeciwmatrycami od Ø16 - Ø32 dla rur INOX STDX
**KPIEG42** - kompatybilna z matrycami i przeciwmatrycami od Ø16 - Ø40 dla rur ocynkowanych STD i żeliwnymi matrycami i przeciwmatrycami od Ø16 - Ø32 dla rur INOX STDX
**KPIEG60** - kompatybilna z matrycami i przeciwmatrycami od Ø16 - Ø60 dla rur ocynkowanych STD i żeliwnymi matrycami i przeciwmatrycami od Ø16 - Ø50 dla rur INOX STDX. W przypadku rur Ø50 i Ø60 należy użyć cięgna K000744, aby nie dopuścić do uszkodzenia giętarki.

***KCL50*** *wood tool-box for* KPIEG50-KPIEG42
***KCL60*** *wood tool-box for KPIEG60.*
**KPIEG50** *use for STD pipes die and shape-die from Ø16 - Ø50 and cast iron die and shape die from Ø16 - Ø32 for stainless steel pipes*
**KPIEG42** *use for STD pipes die and shape-die from Ø16 - Ø40 and cast iron die and shape die from Ø16 - Ø32 for stainless steel pipes*
**KPIEG60** *use for STD pipes die and shape-die from Ø16 - Ø60 and cast iron die and shape die from Ø16 - Ø50 for stainless steel pipes. To avoid pipe bending machine breakage it is recommended the brace K000744 to be used.*

**KMAT**
Matryca z pierścieniem.
**KMAT..GHISa**
Matryca żeliwna z pierścieniem do rur INOX

| Kod dla rury STD | Kod dla rury STDX | ∅ rury | Promień zgięcia mm |
|---|---|---|---|
| **KMAT16** | **KMAT16GHISa** | 16 | 64 |
| **KMAT20** | **KMAT20GHISa** | 20 | 80 |
| **KMAT25** | **KMAT25GHISa** | 25 | 100 |
| **KMAT32** | **KMAT32GHISa** | 32 | 128 |
| **KMAT40** | **KMAT40GHISa** | 40 | 160 |
| **KMAT50** | **KMAT50GHISa** | 50 | 200 |
| **KMAT60** | | 60 | 240 |
| *REF. Part N. for STD pipe* | *REF. Part N. for STDX pipe* | *∅ pipe* | *Min. bending radius mm* |

***KMAT*** *Die with ring*
***KMAT..GHISa*** *Cast iron die with ring for stainless steel pipe*

**KMAT - KMAT..GHISa**

**KAN**
Pierścień

| Kod |
|---|
| **KAN16** |
| **KAN20** |
| **KAN25** |
| **KAN32** |
| **KAN40** |
| **KAN50** |
| **KAN60** |
| *REF. Part N.* |

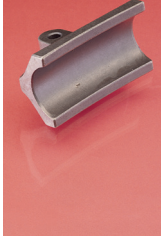
***KAN*** *Ring*

**KCONT**
Przeciwmatryca

| Kod | ∅ rury |
|---|---|
| **KCONT16** | 16-18 |
| **KCONT20** | 20-25 |
| | |
| **KCONT32** | 32-38 |
| **KCONT40** | 40 |
| **KCONT50** | 50 |
| **KCONT60** | 60 |
| *REF. Part N.* | *pipe ∅* |

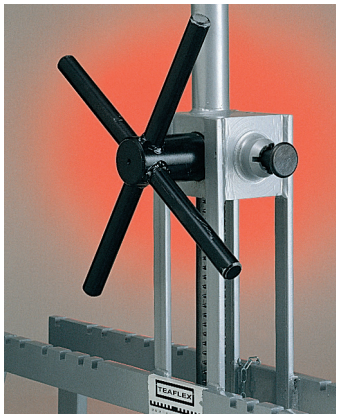
***KCONT*** *Shape-die*

**KCONT**



# PIEGATUBISM

## Giętarka ręczna
## *Manual pipe bending machine*



**Uwaga: Nie stosować do rur ze stali INOX**
***P.S. Not to be used for stainless steel pipe.***

### Zastosowanie
### *Application*

**PIEGATUBISM**
Giętarka ze stojakiem odpowiednia do gięcia w praktyczny i szybki sposób rur ocynkowanych STD do średnicy Ø32 mm.

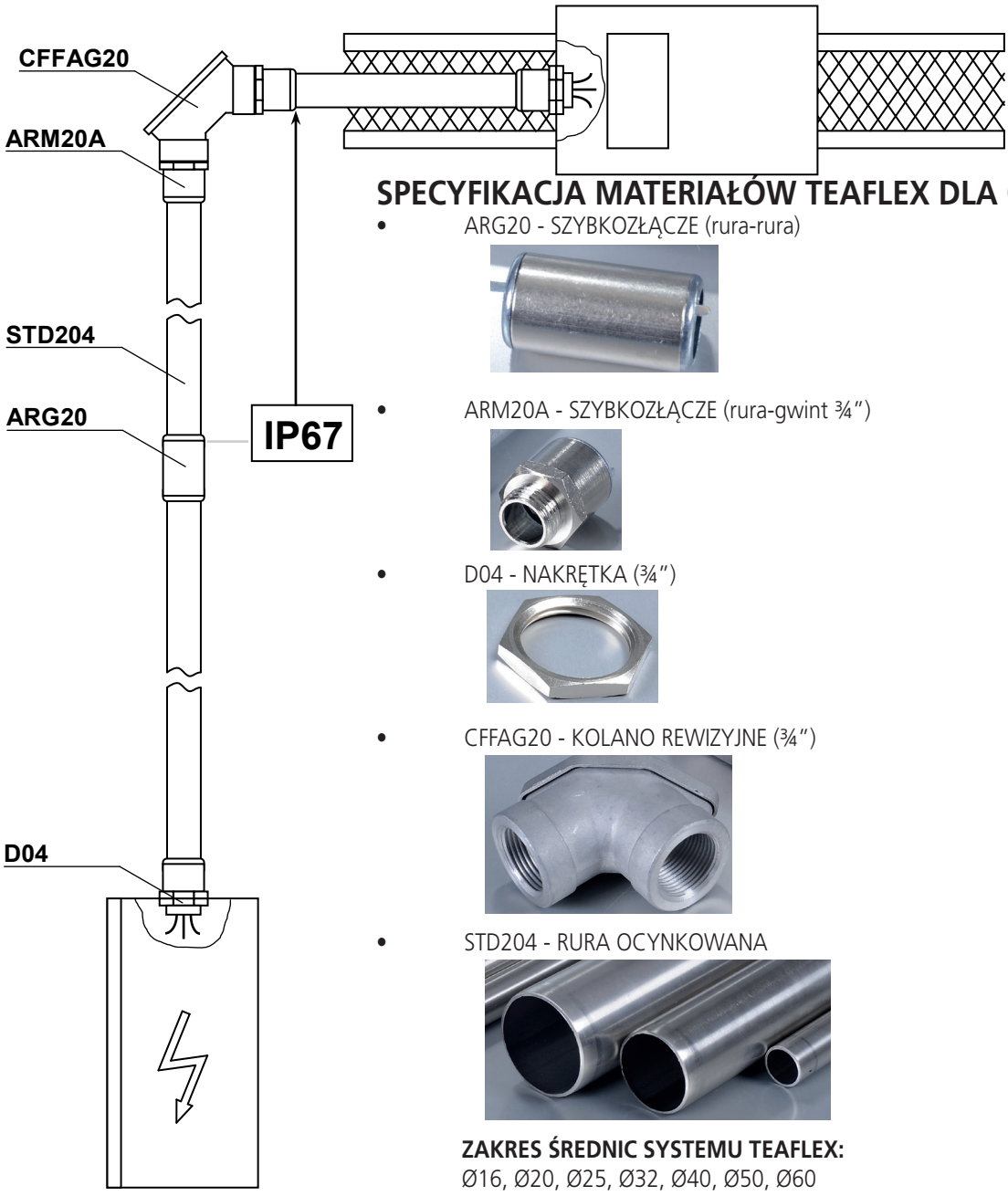
**Lunetta16** - Matryca do rur STD średnica 16
**Lunetta20** - Matryca do rur STD średnica 20
**Lunetta25** - Matryca do rur STD średnica 25
**Lunetta32** - Matryca do rur STD średnica 32

***PIEGATUBISM***
*Stand mounted pipe curving apparatus for quick and easy curving of zinc plated STD pipes up to 32 mm.*

***Lunetta16*** *- Crescent guide for STD pipe diameter 16*
***Lunetta20*** *- Crescent guide for STD pipe diameter 20*
***Lunetta25*** *- Crescent guide for STD pipe diameter 25*
***Lunetta32*** *- Crescent guide for STD pipe diameter 32*

# PRZYKŁAD PODŁĄCZENIA ELEKTRYCZNEGO
# SZAFA-SZYNOPRZEWÓD W OSŁONACH RUROWYCH TEAFLEX

TEAFLEX®
INDUSTRIAL CABLE PROTECTION




## SPECYFIKACJA MATERIAŁÓW TEAFLEX DLA Ø20:

- ARG20 - SZYBKOZŁĄCZE (rura-rura)



- ARM20A - SZYBKOZŁĄCZE (rura-gwint ¾")



- D04 - NAKRĘTKA (¾")



- CFFAG20 - KOLANO REWIZYJNE (¾")

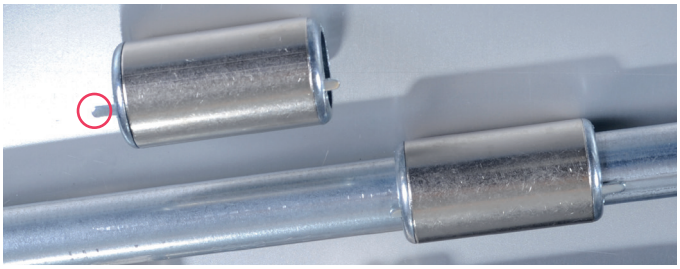


- STD204 - RURA OCYNKOWANA



**ZAKRES ŚREDNIC SYSTEMU TEAFLEX:**
Ø16, Ø20, Ø25, Ø32, Ø40, Ø50, Ø60

**SZYBKI MONTAŻ:**
1. WCIŚNIJ RURĘ DO ZŁĄCZKI.
2. POCIĄGNIJ RURĘ UPEWNIAJĄC SIĘ, ŻE JEST PRAWIDŁOWO OSADZONA.



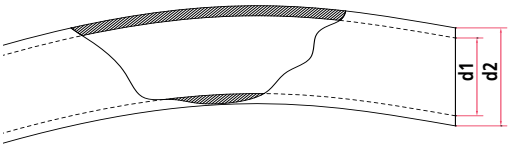
TEAFLEX

# INSTALACJE PRZEMYSŁOWE - SYSTEM PVC

*Plastic Industrial Application*

# GF

## Rura giętka PVC
## *PVC flexible conduit*

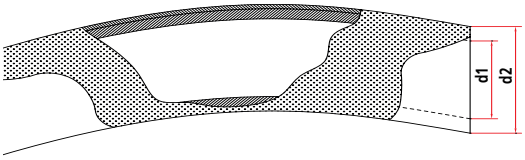


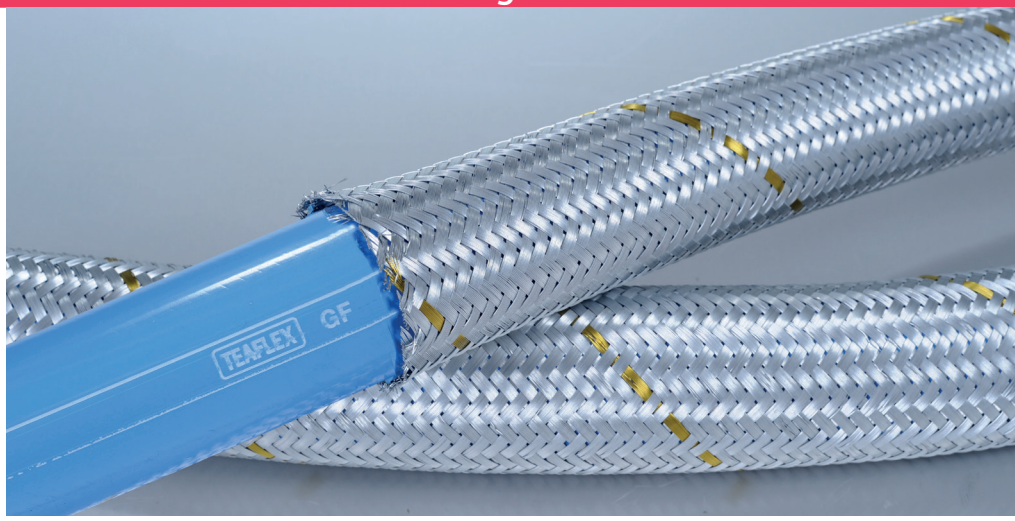
| | | |
|---|---|---|
| **Zastosowanie** ***Application*** | Rura PVC o wysokiej giętkości. | *PVC hose with high degree of flexibility.* |
| **Materiał** ***Material*** | PVC samogasnący zgodnie z UL94 V0.<br><br>Produkt nie zawiera żadnych dodatków na bazie kadmu ani ołowiu. | *PVC material self-extinguishing according to UL94V0.*<br><br>*The product contains no cadmium or lead based additives.* |
| **Właściwości produktu** ***Product characteristics*** | Wysoka odporność na starzenie.<br>Doskonała odporność na działanie czynników atmosferycznych, olejów, soli.<br>Zakres temperatur: -15°C +70C°. | *Long aging resistance.*<br>*Excellent against oils, salt, air.*<br><br>*Temperature range: -15°C +70°C.* |
| **Certyfikaty** ***Approvals*** | EN 61386-23 | *EN 61386-23* |
| **Kompatybilność** ***Suitable for*** | Kompatybilna z całą gamą złączek serii GFMF, GFM i GLM | *Compatible with the whole GFMF, GFM and GLM range fittings.* |
| **Kolory** ***Colors*** | Standardowe kolory: szary RAL 7001 (**GF..G**), niebieski RAL 5015 (**GF..B**), czarny RAL 9011 (**GF..N**) | *Standard colours: Grey RAL 7001 (**GF..G**), Blue RAL 5015 (**GF..B**), Black RAL 9011 (**GF..N**)* |

| Kod SZARY | Kod NIEBIESKI | Kod CZARNY | d1 mm | d2 mm | Opakowanie standard m |
|---|---|---|---|---|---|
| GF10G | GF10B | GF10N | 10 | 14 | 50 |
| GF12G | GF12B | GF12N | 12 | 16 | 50 |
| GF15G | GF15B | GF15N | 15 | 20,5 | 50 |
| GF20G | GF20B | GF20N | 20 | 26 | 50 |
| GF27G | GF27B | GF27N | 27 | 34 | 25 |
| GF36G | GF36B | GF36N | 36 | 43 | 25 |
| GF40G | GF40B | GF40N | 40 | 48 | 25 |
| GF47G | GF47B | GF47N | 47 | 55 | 25 |
| | GF58B | | 58 | 68 | 25 |
| *REF. Part N. GREY* | *REF. Part N. BLUE* | *REF. Part N. BLACK* | *d1 mm* | *d2 mm* | *Packing unit m* |

# GFT

## Rura gietka PVC w oplocie ze stali ocynkowanej
## *PVC conduit coated with galvanized carbon steel braid*




**Zastosowanie**
***Application***

Rura giętkie GFT ze względu na specjalną konstrukcję z dodatkowym oplotem stalowym zapewniają doskonałą ochrone przed gryzoniami, iskrami, rozżarzonymi wiórami oraz ciężkimi warunkami występującymi w układach hamulcowych, w urządzeniach spawalniczych oraz maszynach odlewniczych.

*GF type hose with external covering in galvanised steel braid.*
*Due to its special construction with covering steel braid, this conduit provides particularly increased protection against rodents, sparks, sleg and hot chips, suitable for applications with rough conditions like breaking systems, welding equipment, die-casting machines.*

**Materiał**
***Material***

PVC samogasnący zgodnie z UL94 V0 w oplocie ze stali ocynkowanej.
Na zamówienie dostepna warsja z oplotem ze stali INOX AISI 304.

*PVC material self-extinguishing according to UL94V0 coated with galvanized carbon steel braid.*
*On request the conduit can be coated with stainless steel braid AISI 304.*

**Właściwości produktu**
***Product characteristics***

Wysoka odporność na starzenie.
Doskonała odporność na działanie czynników atmosferycznych, olejów, soli.
Zakres temperatur: -15°C +70C°.

*Long aging resistance.*
*Excellent against oils, salt, air.*

*Temperature range: -15°C +70°C.*

**Certyfikaty**
***Approvals***

IMQ EN 61386-23
RINA

*IMQ EN 61386-23*
*RINA*

**Kompatybilność**
***Suitable for***

Kompatybilna z całą gamą złączek serii GFMF , GFM i GLM.

*Compatible with the whole GFMF and GFM range fittings.*

**Kolory**
***Colors***

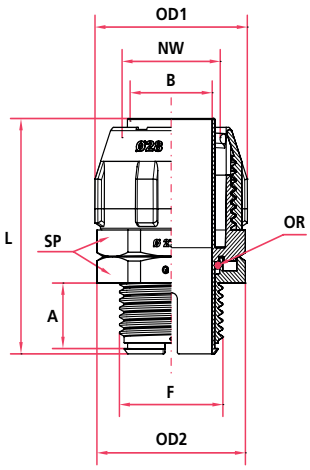
Rura PVC niebieska w oplocie ze stali ocynkowanej

*Blue PVC conduit coated with galvanized carbon steel braid*

| Kod oplot ze stali ocynkowanej | Certyfikaty | d1 mm | d2 mm | Opakowanie standard m | Kod oplot ze stali INOX AISI 304 |
|---|---|---|---|---|---|
| GFT10 | RINA IMQ | 10 | 15 | 50 | GFT10INOX |
| GFT12 | RINA IMQ | 12 | 17 | 50 | GFT12INOX |
| GFT15 | RINA IMQ | 15 | 21 | 50 | GFT15INOX |
| GFT20 | RINA IMQ | 20 | 27 | 50 | GFT20INOX |
| GFT27 | RINA IMQ | 27 | 35 | 25 | GFT27INOX |
| GFT36 | RINA IMQ | 36 | 45 | 25 | GFT36INOX |
| GFT40 | RINA IMQ | 40 | 50 | 25 | GFT40INOX |
| GFT47 | RINA IMQ | 47 | 57 | 25 | GFT47INOX |
| GFT58 | RINA IMQ | 58 | 70 | 25 | GFT58INOX |
| *Galvanized carbon steel braid REF. Part N.* | *Approvals* | *d1 mm* | *d2 mm* | *Packing unit m* | *Stainless steel braid AISI304 REF. Part N.* |

# GLM

## Złączka obrotowa PVC prosta IP65 do rur PVC gładkich i karbowanych
## *IP65 PVC revolving self-locking fittingi*



## Zastosowanie *Application*

Złączki składają się z dwóch osobnych cześci połączonych ze sobą mechanicznie.
Pierwszą część mocuje się do stałej konstrukcji (skrzynka elektryczna, silnik) bezpośrednio lub za pomocą nakrętki kontrującej.
Druga cześć służy do połączenia z rurą ochronną. W normalnych warunkach obie cześci obracają się swobodnie wokół wspólnej osi, eliminując skręcanie rury.
Złączki mogą być obrotowe lub stałe w zależności od nastawu blokady.
Zastosowanie uszczelki OR w sześciokącie części gwintowanej zapewnia szczelność złączki IP65.

**Złączki z gwintem calowym i metrycznym ISO są wyposażone w nakrętkę kontrującą.**

*This fitting is composed of two specific parts but mechanically joint.*
*The first part can be bound to the fixed structure (derivation box, engine) either directly or through a lock-nut. The second part is oriented to the connection with the sheath. In average conditions the two parts are free to rotate around the axle, preventing from sheath torsion.*
*If necessary, through proper joint surfaces and a mutual translation movement it is possible to lock the rotation related to the two parts of the pipe fitting, obtaining a fixed configuration. The pipe-fitting can be, according to the user's needs, either revolving or fixed.*
*The insert of OR in the hexagon of the threaded part yields the fittings perfectly liquid-tight.*
***The fittings with GAS and ISO METRIC thread are equipped with locknut.***

## Materiał *Material*

PVC samogasnący zgodnie z UL94 V0.

*PVC material self-extinguishing according to UL94V0.*

## Certyfikaty *Approvals*

*CEI EN 61386 -1 2008.*

*CEI EN 61386 -1 2008.*

## Kolory *Colors*

Kolory: szary RAL 7001 (GLM), szary RAL 7035 (GLMG), czarny RAL 9011 (**GLMN**).

*Colors: Gray RAL 7001 (**GLM**), Gray RAL 7035 (GLMG), Black RAL 9011 (**GLMN**).*

+ 60 °C - 6

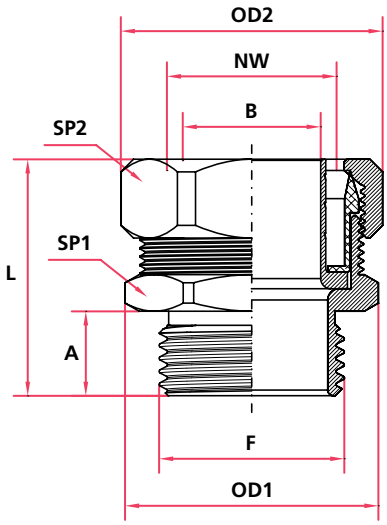
**GLM - Złączka obrotowa PVC prosta IP65**

| Kod calowy | F Gwint calowy | Kod PG | F Gwint PG | Kod metryczny ISO | F Gwint metr. ISO | Dostepne kolory | Dla rury NW | Odpowiednia do rur | A mm | B mm | L mm | OD1 mm | OD2 mm | SP mm | Opako-wanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GLM*08 | 1/4" | GLM*0807 | 7 | | | G7035-9011 | 8 | GL | 11 | 6 | 46,5 | 22,2 | 21 | 19 | 50 |
| GLM*10 | 1/4" | GLM*1007 | 7 | GLM*10M12 | M12x1,5 | G7035-G7011-9011 | 10 | GF-GL-GP | 11 | 8 | 46,5 | 25,2 | 24,2 | 22 | 50 |
| GLM*10A | 3/8" | GLM*1009 | 9 | | | | | | | | | | | | |
| | | GLM*1011 | 11 | | | | | | | | | | | | |
| GLM*10B | 1/2" | GLM*1013 | 13,5 | | | | | | | | | | | | |
| GLM*12 | 3/8" | GLM*1209 | 9 | GLM*12M16 | M16x1,5 | G7035-G7011-9011 | 12 | GF-GL-GP | 11 | 10 | 46,5 | 27 | 26,5 | 24 | 50 |
| | | GLM*1211 | 11 | | | | | | | | | | | | |
| GLM*12A | 1/2" | GLM*1213 | 13,5 | | | | | | | | | | | | |
| | | GLM*1411 | 11 | | | G7035-9011 | 14 | GL-GP | 13,5 | 12 | 54 | 30,2 | 29,6 | 27 | 50 |
| GLM*14 | 1/2" | GLM*1413 | 13,5 | | | | | | | | | | | | |
| GLM*16 | 1/2" | GLM*1613 | 13,5 | GLM*16M20 | M20x1,5 | G7035-G7011-9011 | 15-16 | GF-GL-GP | 13,5 | 13 | 54 | 32,6 | 31,8 | 29 | 50 |
| | | GLM*1616 | 16 | | | | | | | | | | | | |
| | | GLM*1816 | 16 | | | 9011 | 18 | GL | 13,5 | 16 | 57 | 35,3 | 36,5 | 33 | 50 |
| GLM*20 | 3/4" | GLM*2021 | 21 | GLM*20M25 | M25x1,5 | G7035-G7011-9011 | 20 | GF-GL-GP | 13,5 | 18 | 57 | 37,6 | 36,5 | 33 | 50 |
| GLM*22 | 3/4" | GLM*2221 | 21 | GLM*22M25 | M25x1,5 | G7035-9011 | 22 | GL-GP | 13,5 | 20 | 57 | 40,7 | 39,6 | 36 | 50 |
| GLM*25A | 3/4" | GLM*2521 | 21 | | | G7035-G7011-9011 | 25 | GF-GL-GP | 13,5 | 20 | 62 | | 39,6-44 | 36-40 | 25 |
| GLM*25 | 1" | GLM*2529 | 29 | GLM*25M32 | M32x1,5 | | | | 17 | 23 | 66,5 | 45,4 | 44 | 40 | |
| GLM*28 | 1" | GLM*2829 | 29 | GLM*28M32 | M32x1,5 | G7035-G7011-9011 | 27-28 | GF-GL-GP | 17 | 25 | 66,5 | 48,6 | 47,2 | 43 | 25 |
| GLM*32 | 1"1/4 | GLM*3229 | 29 | GLM*32M40 | M40x1,5 | G7035-9011 | 32 | GL-GP | 18 | 30 | 71 | 54,1 | 52,8 | 48 | 25 |
| GLM*35 | 1"1/4 | GLM*3536 | 36 | GLM*35M40 | M40x1,5 | G7035-G7011-9011 | 35-36 | GF-GL-GP | 18 | 33 | 72 | 58,2 | 57 | 52 | 20 |
| GLM*40 | 1"1/2 | GLM*4036 | 36 | GLM*40M50 | M50x1,5 | G7035-G7011-9011 | 40 | GF-GL-GP | 19 | 38 | 76,5 | 64,5 | 63,4 | 58 | 15 |
| GLM*50 | 2" | GLM*5048 | 48 | GLM*50M63 | M63x1,5 | G7035-9011 | 50 | GL-GP | 19,5 | 48 | 79 | 76,8 | 76,7 | 70 | 10 |
| *REF. Part N. GAS* | *F GAS thread* | *REF. Part N. PG* | *F PG thread* | *REF. Part N. ISO Metric* | *F ISO Metric thread* | *Available colors* | *Conduit Code NW* | *Fits to conduit type* | *A mm* | *B mm* | *L mm* | *OD1 mm* | *OD2 mm* | *SP mm* | *Packing unit* |

***GLM - Revolving self-locking fitting made of PVC with IP rating IP65***

# GFMF

## Złączka mosiężna prosta do rury gładkiej
## *Brass self-locking fittings*



### Zastosowanie *Application*

Złączki GFMF zapewniają szybkie, ekonomiczne i bezpieczne połączenie z rurami GF i GFT.
Połączenie złączka - rura wykonywane jest przy użyciu metalowego krućca i nylonowego pierścienia.
Specjalna budowa krućca gwarantuje połączenia o doskonałej odporności na rozciąganie i drgania.
Nylonowy pierścień blokujący rurę zapewnia szczelne połączenie gwarantując stopień ochrony IP67.

*GFMF fittings provide quick, economical and secure connections with GF and GFT conduits.*
*Connection of fitting and conduit is assured by a metal ferrule and a nylon ring.*
*The special construction of the metal ferrule permit internal connection with the conduit and offer excellent resistance to traction and vibration.*
*The connection is complemented by the nylon ring which blocks the conduit in place and guarantees IP 67 rating.*

### Materiał *Material*

Mosiądz niklowany.

*Brass nickel plated.*

### Certyfikaty *Approvals*

IMQ EN 61386-21: CA02.03963

*IMQ EN 61386-21: CA02.03963*

### Kompatybilność *Suitable for*

Kompatybilna z rurami GF i GFT.

*Suitable with GF and GFT conduits.*

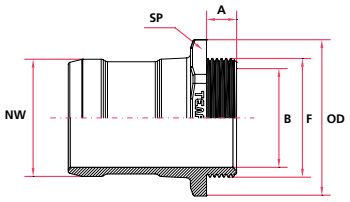
**GFMF - Złączka mosiężna prosta gwint męski calowy, PG i metryczny ISO**

| Kod calowy | F Gwint calowy | A mm | L mm | Kod PG | F Gwint PG | A mm | L mm | Kod ISO | F Gwint ISO | Certyfikaty | A mm | L mm | Odpowiedni do rur | Dla rury NW | Ø rury GF mm wew. zew. | Ø rury GFT mm wew. zew. | B mm | OD1 mm | OD2 mm | SP1 mm | SP2 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GFMF10G01 | 1/4" | 10 | 32 | GFMF10P07 | 7 | 10 | 32 | GFMF10M12 | M12x1,5 | | 10 | 33 | GF - GFT | 10 | 10,0 - 14,0 | 10,0 - 15,0 | 8,5 | 25 | 26 | 22 | 24 | 20 |
| GFMF10G02 | 3/8" | | | GFMF10P09 | 9 | | | GFMF10M16 | M16x1,5 | | | | | | | | | | | | | |
| GFMF10G03 | 1/2" | | | GFMF10P11 | 11 | | | GFMF10M20 | M20x1,5 | | | 32,5 | | | | | | | | | | |
| | | | | GFMF10P13 | 13,5 | | | | | | | | | | | | | | | | | |
| GFMF12G02 | 3/8" | 10 | 33 | GFMF12P11 | 11 | 10 | 33 | GFMF12M16 | M16x1,5 | | 10 | 33 | GF - GFT | 12 | 12,0 - 16,0 | 12,0 - 17,0 | 10,5 | 27,5 | 29 | 24 | 26 | 20 |
| GFMF12G03 | 1/2" | | | GFMF12P13 | 13,5 | | | GFMF12M20 | M20x1,5 | | | 33,5 | | | | | | | | | | |
| GFMF15G03 | 1/2" | 11 | 34,5 | GFMF15P13 | 13,5 | 10 | 33,5 | GFMF15M20 | M20x1,5 | | 10 | 34,5 | GF - GFT | 15 | 15,0 - 20,5 | 15,0 - 21,0 | 13,5 | 32 | 33 | 28 | 30 | 20 |
| | | | | GFMF15P16 | 16 | | | | | | | | | | | | | | | | | |
| GFMF20G04 | 3/4" | 13 | 38 | GFMF20P21 | 21 | 12 | 36,5 | GFMF20M25 | M25x1,5 | | 12 | 37 | GF - GFT | 20 | 20,0 - 26,0 | 20,0 - 27,0 | 18,5 | 39 | 42,5 | 35 | 38 | 10 |
| GFMF27G05 | 1" | 15 | 42 | GFMF27P29 | 29 | 12 | 40 | GFMF27M32 | M32x1,5 | | 12 | 39,5 | GF - GFT | 27 | 27,0 - 34,0 | 27,0 - 35,0 | 25 | 47,5 | 49,5 | 42 | 45 | 10 |
| GFMF36G06 | 1"1/4 | 15 | 46 | GFMF36P36 | 36 | 12 | 42,5 | GFMF36M40 | M40x1,5 | | 12 | 43 | GF - GFT | 36 | 36,0 - 43,0 | 36,0 - 45,0 | 34 | 55 | 58 | 50 | 53 | 5 |
| GFMF40G07 | 1"1/2 | 18 | 50 | GFMF40P36 | 36 | 17 | 49,5 | | | | | | GF - GFT | 40 | 40,0 - 48,0 | 40,0 - 50,0 | 37,5 | 63 | 66,5 | 58 | 61 | 5 |
| | | | | GFMF40P42 | 42 | 13 | 46,5 | GFMF40M50 | M50x1,5 | | 13 | 36,5 | | | | | | | | | | |
| GFMF47G08 | 2" | 15 | 50 | GFMF47P48 | 48 | 13 | 48 | GFMF47M63 | M63x1,5 | | 13 | 48 | GF | 47 | 47,0 - 55,0 | - | 44 | 70,5 | 76 | 64 | 70 | 2 |
| *REF. Part N. GAS* | *F GAS Thread* | *A mm* | *L mm* | *REF. Part N. PG* | *F PG Thread* | *A mm* | *L mm* | *REF. Part N. ISO* | *F ISO Thread* | | *A mm* | *L mm* | *Fits to conduit type* | *Conduit code NW* | *int. ext. Ø GF conduit mm* | *int. ext. Ø GFT conduit mm* | *B mm* | *OD1 mm* | *OD2 mm* | *SP1 mm* | *SP2 mm* | *Packing unit* |

***GFMF - Brass fittings fixed male thread GAS, PG and ISO Metric***

# GFM

## Złączka mosiężna prosta blokowana za pomocą opaski
## *Brass fittings to be locked with hose clamp*



**Dla rur:**
**GF blokowane opaską**
**GFT blokowane opaską i pierścieniem ochronnym AP**

***For conduit:***
***GF to be locked with hose clamp***
***GFT to be locked with hose clamp plus protection ring AP***

## Zastosowanie
## *Application*

**GFM - Złączka mosiężna prosta (blokowana za pomocą opaski) gwint męski calowy, PG i metryczny ISO**

| Kod calowy | F Gwint calowy | A mm | B mm | Kod PG | F Gwint PG | A mm | B mm | Kod metryczny ISO | F Gwint metryczny ISO | Certyfikaty | A mm | B mm | Odpowiednia do rur | Dla rury NW | Ø rury GF mm wew. | Ø rury GF mm zew. | Ø rury GFT mm wew. | Ø rury GFT mm zew. | OD mm | SP mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GFMG10 | 1/4" | 7 | 8 | GFMP10PG07 | 7 | 7 | 8 | GFM10M12 | M12x1,5 | | 7 | 8 | GF - GFT | 10 | 10,0 - 14,0 | | 10,0 - 15,0 | | 22 | 19 | 20 |
| GFMG10A | 3/8" | 7 | 8 | GFMP10PG09 | 9 | 7 | 8 | GFM10M16 | M16x1,5 | | 7 | 8 | | | | | | | 22 | 19 | |
| | | | | GFMP10PG11 | 11 | 7 | | | | | | | | | | | | | 25,4 | 22 | |
| GFMG12 | 3/8" | 10 | 10 | GFMP12PG11 | 11 | 7 | 10 | GFM12M16 | M16x1,5 | | 10 | 10 | GF - GFT | 12 | 12,0 - 16,0 | | 12,0 - 17,0 | | 25,4 | 22 | 20 |
| GFMG12A | 1/2" | 10 | 10 | GFMP12PG13 | 13,5 | 7 | 10 | GFM12M20 | M20x1,5 | | 10 | 10 | | | | | | | 27,5 | 24 | |
| | | | | GFMP12PG16 | 16 | 7 | 10 | | | | | | | | | | | | 27,5 | 24 | |
| GFMG15 | 1/2" | 10 | 13 | GFMP15PG13 | 13,5 | 7 | 13 | GFM15M20 | M20x1,5 | | 10 | 13 | GF - GFT | 15 | 15,0 - 20,5 | | 15,0 - 21,0 | | 27,5 | 24 | 20 |
| | | | | GFMP15PG16 | 16 | 7 | 13 | | | | | | | | | | | | 27,5 | 24 | |
| GFMG15A | 3/4" | 12 | 13 | | | | | | | | | | | | | | | | 34,5 | 30 | |
| GFMG20 | 1/2" | 10 | 16 | GFMP20PG13 | 13,5 | 7 | 16 | GFM20M20 | M20x1,5 | | 10 | 16 | GF - GFT | 20 | 20,0 - 26,0 | | 20,0 - 27,0 | | 31 | 27 | 10 |
| | | | | GFMP20PG16 | 16 | 7 | 17 | | | | | | | | | | | | 31 | 27 | |
| GFMG20A | 3/4" | 12 | 17 | GFMP20PG21 | 21 | 10 | 17 | GFM20M25 | M25x1,5 | | 12 | 17 | | | | | | | 34,5 | 30 | |
| GFMG27 | 3/4" | 12 | 21 | GFMP27PG21 | 21 | 10 | 23 | GFM27M25 | M25x1,5 | | 12 | 21 | GF - GFT | 27 | 27,0 - 34,0 | | 27,0 - 35,0 | | 41,5 | 36 | 10 |
| | | | | | | | | GFM27M32 | M32x1,5 | | 12 | 23 | | | | | | 41,5 | 36 | |
| GFMG27A | 1" | 12 | 23 | GFMP27PG29 | 29 | 10 | 23 | | | | | | | | | | | | 46 | 40 | |
| GFMG36 | 1" | 12 | 26 | | | | | GFM36M32 | M32x1,5 | | 12 | 26 | GF - GFT | 36 | 36,0 - 43,0 | | 36,0 - 45,0 | | 50,8 | 44 | 5 |
| | | | | GFMP36PG29 | 29 | 11 | 30 | | | | | | | | | | | | 52 | 45 | |
| GFMG40 | 1"1/4 | 13 | 36 | GFMP40PG36 | 36 | 13 | 36 | GFM40M40 | M40x1,5 | | 13 | 35 | GF - GFT | 40 | 40,0 - 48,0 | | 40,0 - 50,0 | | 57,5 | 50 | 5 |
| GFMG47 | 1"1/2 | 15 | 40 | GFMP47PG36 | 36 | 15 | 40 | | | | | | GF - GFT | 47 | 47,0 - 55,0 | | 47,0 - 57,0 | | 67 | 58 | 5 |
| | | | | GFMP47PG42 | 42 | 15 | 42 | GFM47M50 | M50x1,5 | | 15 | 42 | | | | | | | | | |
| GFMG58 | 2" | 15 | 51 | GFMP58PG48 | 48 | 15 | 51 | GFM58M63 | M63x1,5 | | 15 | 51 | GF - GFT | 58 | 58,0 - 68,0 | | 58,0 - 70,0 | | 78 | 70 | 2 |
| *REF. Part N. GAS* | *F GAS thread* | *A mm* | *B mm* | *REF. Part N. PG* | *F PG thread* | *A mm* | *B mm* | *REF. Part N. ISO* | *F ISO thread* | *Approvals* | *A mm* | *B mm* | *Fits to conduit type* | *Conduit code NW* | *int. ∅ GF conduit mm* | *ext. ∅ GF conduit mm* | *int. ∅ GFT conduit mm* | *ext. ∅ GFT conduit mm* | *OD mm* | *SP mm* | *Packing unit* |

***GFM - Brass fittings to be locked with hose clamps thread male GAS, PG and ISO Metric***

# AP-FAN-FAVT

## Opaski zaciskowe i pierścienie do rur giętkich GF i GFT
## *Rings and hose clamps for GF and GFT hoses*

## Zastosowanie *Application*

### AP - Pierścień ochronny

Pierścienie ochronne AP stosuje się przy montażu złączek GFM na rurach GFT. Gwarantują one ciągłość elektryczną między rurą a złączką obejmując druty metalowego oplotu.

| Kod | Certyfikaty | Ø rury mm min. | Ø rury mm max. | Opakowanie standard |
|---|---|---|---|---|
| AP10 | | 10 | 15 | 20 |
| AP12 | | 12 | 18 | 20 |
| AP15 | | 15 | 21 | 20 |
| AP20 | | 20 | 27 | 10 |
| AP27 | | 27 | 35 | 10 |
| AP36 | | 36 | 45 | 5 |
| AP40 | | 40 | 50 | 5 |
| AP47 | | 47 | 57 | 5 |
| AP58 | | 58 | 70 | 2 |
| *REF. Part N.* | *Approvals* | *min. ∅ conduit mm* | *max. ∅ conduit mm* | *Packing unit* |

### *AP - Protection ring*

*Protection ring for use with GFM fittings on GFT hoses. It guarantees electrical continuity between hose and fitting, retaining steel wires.*

### FAN - Opaska zaciskowa ze stali INOX AISI 430

Opaski zacikowe ze śrubą sześciokątną.
Powierzchnia zewnętrzna frezowana, wewnętrzna gładka z podniesionymi krawędziami.

| Kod | Ø rury mm min. | Ø rury mm max. | Szerokość opaski mm | Opakowanie standard |
|---|---|---|---|---|
| FAN1 | 8 | 16 | 9 | 100 |
| FAN2 | 12 | 20 | 9 | 100 |
| FAN3 | 16 | 27 | 9 | 50 |
| FAN4 | 25 | 40 | 9 | 25 |
| FAN5 | 32 | 44 | 9 | 25 |
| FAN6 | 32 | 50 | 9 | 25 |
| FAN7 | 40 | 60 | 9 | 25 |
| FAN8 | 60 | 80 | 9 | 10 |
| *REF. Part N.* | *min. ∅ conduit mm* | *max. ∅ conduit mm* | *Band width mm* | *Packing unit* |

### *FAN - Stainless steel AISI 430 hose clamp*

*Normal type hose clamp, single block with hexagonal screw.*
*Milled outer surface, smooth inner surface with raised edges.*

### FAVT - Opaska zaciskowa ze stali INOX AISI 430 ze śrubą uziemiającą

Opaski zaciskowe ze śrubą sześciokątną oraz ze śrubą uziemiającą. Śruba uziemiająca, nakrętka i podkładka ze stali ocynkowanej. Powierzchnia zewnętrzna frezowana, wewnętrzna gładka z podniesionymi krawędziami.

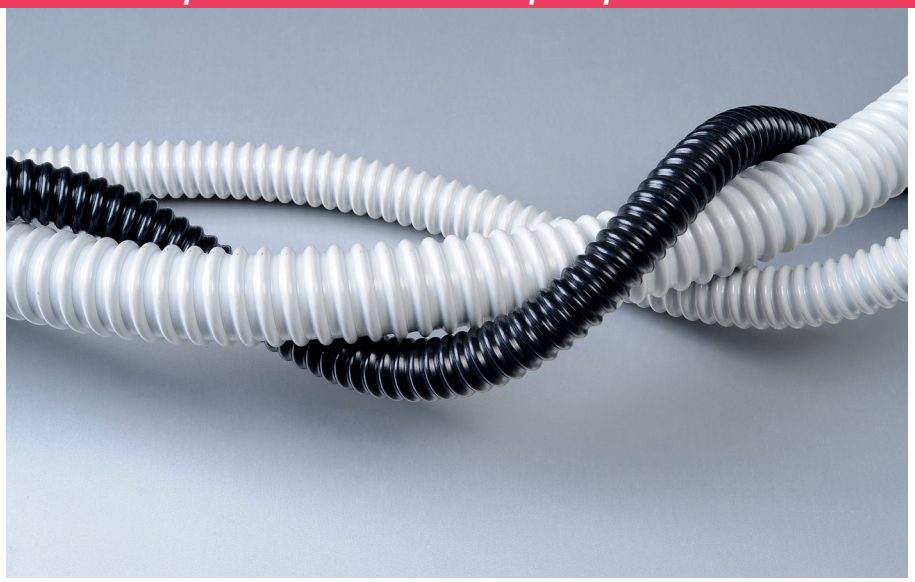
| Kod | Ø rury mm min. | Ø rury mm max. | Szerokość opaski mm | Opakowanie standard |
|---|---|---|---|---|
| FAVT01 | 12 | 20 | 9 | 100 |
| FAVT02 | 16 | 27 | 9 | 50 |
| FAVT03 | 30 | 45 | 9 | 25 |
| FAVT04 | 40 | 60 | 9 | 25 |
| FAVT05 | 60 | 80 | 9 | 10 |
| *REF. Part N.* | *min. ∅ conduit mm* | *max. ∅ conduit mm* | *Band width mm* | *Packing unit* |

### *FAVT - Stainless steel AISI 430 hose clamp with earthing screw*

*Hose clamp with earthing screw, single block with hexagonal screw.*
*Screw, bolt and washer are made of zink plated steel.*
*Milled outer surface, smooth inner surface with raised edges.*

# GL

## Rura PVC ze spiralą PVC chroniącą przed uderzeniami
## *Spiral PVC conduit with pvc spiral shock-resistant*



+ 60 °C - 6

**Zastosowanie**
***Application***

Rura PVC ze sztywną spiralą PVC chroniącą przed uderzeniami, gwarantująca dobrą wytrzymałość na rozciąganie i zgniecenia.

*Spiral PVC flexible wall conduit, with PVC stiff spiral shock-resistant with good resistance to tensile and compression strength.*

**Materiał**
***Material***

Materiał PVC .

*PVC material.*

**Właściwości produktu**
***Product characteristics***

Wysoka odporność na starzenie, doskonała odporność na działanie czynników atmosferycznych, olejów i soli.
Zakres tempereatur: -6°C +60°C
Odporność na zgniecenie: D ≤ 25 % przy 350N w 20°C
Giętkość - promień gięcia równy własnej średnicy bez zgniecenia i deformacji.
Gładka powierzchnia wewnętrzna.

*It will resist years of use without wearing, excellent resistance to atmospheric agents, oils and salt air.*
*Temperature range: -6°C +60°C*
*Compression strength: D ≤ 25% with 350N at 20°C.*
*Flexibility: bending radius equal to its own diameter is achieved without squeezing and deforming.*
*Smooth internal surface.*

**Kompatybilność**
***Suitable for***

Kompatybilna z całą gamą złączek serii GLM

*Compatible with the whole GLM range fittings.*

**Kolory**
***Colors***

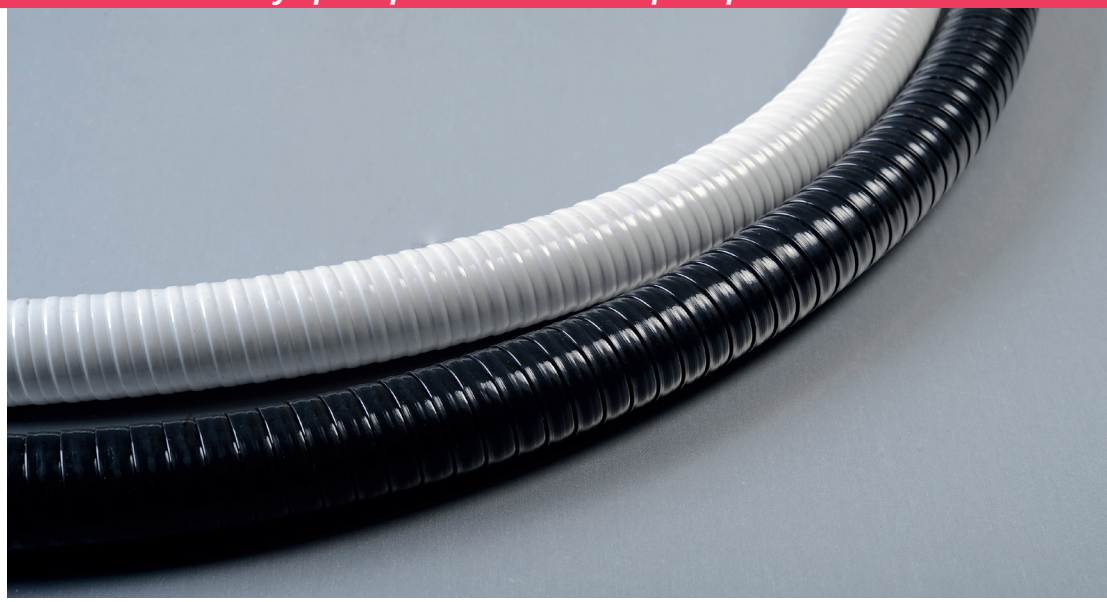
Standardowe kolory: szary RAL 7035 (GL..G), czarny RAL 9011 (**GL..N**).

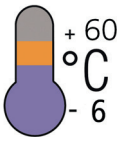
*Standard Colours: Grey RAL 7035 (GL..G), Black RAL 9011 (**GL..N**)*

| Kod GL SZARY | Kod GL CZARNY | Ø rury mm wew. | Ø rury mm zew. | Ciężar g/m | Długość rolki m | Minimum zamówieniowe MOQ m |
|---|---|---|---|---|---|---|
| GL08G | GL08N | 8 | 12,1 | 50 | 30 | 240 |
| GL10G | GL10N | 10 | 14,7 | 70 | 30 | 180 |
| GL12G | GL12N | 12 | 16,4 | 80 | 30 | 180 |
| GL14G | GL14N | 14 | 18,9 | 95 | 30 | 180 |
| GL16G | GL16N | 16 | 20,7 | 105 | 30 | 180 |
| GL18G | GL18N | 18 | 22,7 | 115 | 30 | 180 |
| GL20G | GL20N | 20 | 24,7 | 130 | 30 | 180 |
| GL22G | GL22N | 22 | 27,7 | 160 | 30 | 120 |
| GL25G | GL25N | 25 | 30,6 | 185 | 30 | 30 |
| GL28G | GL28N | 28 | 33,5 | 210 | 30 | 30 |
| GL32G | GL32N | 32 | 38,0 | 250 | 30 | 30 |
| GL35G | GL35N | 35 | 41,0 | 275 | 30 | 30 |
| GL40G | GL40N | 40 | 46,4 | 335 | 30 | 30 |
| GL50G | GL50N | 50 | 57,2 | 450 | 30 | 30 |
| GL60G | GL60N | 60 | 68,0 | 550 | 30 | 30 |
| *REF. Part N. GL GREY* | *REF. Part N. GL BLACK* | *int. ∅ conduit mm* | *ext. ∅ conduit mm* | *Weight g/m* | *Packing unit m* | *Packing MOQ m* |

# GP

## Rura ciężka PVC ze spiralą PVC chroniacą przed uderzeniami
## *Heavy spiral pvc conduit with pvc spiral shock-resistant*





### Zastosowanie / *Application*

Rura ciężka PVC ze sztywną spiralą PVC chroniącą przed uderzeniami, gwarantującą wysoką wytrzymałość mechaniczną na zgniecenia.

*Heavy spiral PVC flexible wall conduit, with PVC stiff spiral shock-resistant suitable to guarantee high mechanical resistance to compression strength.*

### Materiał / *Material*

PVC samogasnący zgodnie z UL 94 V0.

*PVC material self-extinguishing according to UL94V0.*

### Właściwości produktu / *Product characteristics*

Wysoka odporność na starzenie, doskonała odporność na działanie czynników atmosferycznych, olejów i soli..

Zakres temperatur: -6°C +60°C
Odporność na zgniecenie: D ≤ 25 % przy 700N w 20°C
Giętkość = 2,5 D
Gładka powierzchnia wewnętrzna i zewnętrzna.

*It will resist years of use without wearing, excellent resistance to atmospheric agents, oils and salt air.*

*Temperature range: -6°C +60°C*
*Compression strength: D ≤ 25% with 700N at 20°C.*
*Flexibility = 2,5 D*
*Smooth internal and external surface.*

### Kompatybilność / *Suitable for*

Kompatybilna z całą gamą złączek serii GLM

*Compatible with the whole GLM range fittings.*

### Kolory / *Colors*

Kolory standardowe: szary RAL 7035 (GP..G), szary RAL 7001 (GP), czarny RAL 9011 (**GP..N**).

*Standard Colours: Grey RAL 7035 (GP..G), Grey RAL 7001 (GP), Black RAL 9011 (**GP..N**).*

| Kod SZARY 7035 | Kod CZARNY | Kod SZARY 7001 | Ø rury mm wew. | Ø rury mm zew. | Ciężar g/m | Opakowanie standard m |
|---|---|---|---|---|---|---|
| GP10G | GP10N | GP10 | 10 | 14,0 | 100 | 30 |
| GP12G | GP12N | GP12 | 12 | 16,0 | 115 | 30 |
| GP14G | GP14N | GP14 | 14 | 18,6 | 150 | 30 |
| GP16G | GP16N | GP16 | 16 | 20,6 | 170 | 30 |
| GP20G | GP20N | GP20 | 20 | 25,0 | 230 | 30 |
| GP22G | GP22N | GP22 | 22 | 27,2 | 260 | 30 |
| GP25G | GP25N | GP25 | 25 | 30,2 | 290 | 30 |
| GP28G | GP28N | GP28 | 28 | 33,5 | 335 | 30 |
| GP35G | GP35N | GP35 | 35 | 41,3 | 420 | 30 |
| GP40G | GP40N | GP40 | 40 | 46,0 | 510 | 30 |
| GL50G | GP50N | GL50 | 50 | 56,2 | 670 | 30 |
| *REF. Part N. GREY 7035* | *REF. Part N. BLACK* | *REF. Part N. GREY 7001* | *int.* | *ext.* | *Weight g/m* | *Packing unit m* |
| | | | *Ø conduit mm* | | | |

# Z23..N

## Rękaw ochronny PVC
## *PVC sleeve*

**Zastosowanie**
***Application***

Rękaw PVC stosowany do ochrony przewodów i kabli elektrycznych głównie w tablicach elektrycznych, maszynach i urządzeniach w przypadkach w których standardowa rura nie może być użyta ze względu na brak miejsca oraz ciasne zakręty instalacji.

*This PVC conduit is suitable to hold electric cables. Usual application is on switchboards, machineries and equipments, useful to protect the cables when a standard conduit could not be used, because of crushing problems and narrow bending radius.*

**Materiał**
***Material***

PVC samogasnący zgodnie z UL94 V0

*PVC self-extinguishing V0 UL94*

**Właściwości produktu**
***Product characteristics***

Wytrzymałość na rozciąganie: 16 N/mm2
Wydłużenie przy zerwaniu: 280 %
Temperatura usztywnienia: -20° C
Indeks tlenowy: 22,5 %

*Tensile strenght: 16 N/mm2*
*Elongation at break: 280 %*
*Cold Flex: -20° C*
*Oxygen index: 22,5 %*

**Kompatybilność**
***Suitable for***

Niekompatybilna ze złączkami.

*Unconnectable.*

**Kolory**
***Colours***

Czarny

*Black*

| Kod | Średnica wewnętrzna mm | Ciężar opakowania kg | Opakowanie m |
|---|---|---|---|
| Z2302N | 2 | 0,6 | 200 |
| Z2303N | 3 | 0,8 | 200 |
| Z2304N | 4 | 1,4 | 200 |
| Z2305N | 5 | 1,65 | 200 |
| Z2306N | 6 | 1,0 | 100 |
| Z2307N | 7 | 1,3 | 100 |
| Z2308N | 8 | 1,9 | 100 |
| Z2309N | 9 | 2,15 | 100 |
| Z2310N | 10 | 2,2 | 100 |
| Z2312N | 12 | 2,5 | 100 |
| Z2314N | 14 | 2,9 | 100 |
| Z2316N | 16 | 3,3 | 100 |
| Z2318N | 18 | 4,0 | 100 |
| Z2320N | 20 | 2,3 | 50 |
| Z2322N | 22 | 2,95 | 50 |
| Z2324N | 24 | 3,2 | 50 |
| Z2326N | 26 | 3,55 | 50 |
| Z2328N | 28 | 3,75 | 50 |
| Z2330N | 30 | 4,35 | 50 |
| Z2335N | 35 | 2,65 | 25 |
| Z2340N | 40 | 2,85 | 25 |
| Z2350N | 50 | 3,25 | 25 |
| *REF. Part N.* | *Cross section mm* | *Reel weight kg* | *Packing unit m* |

TEAFLEX

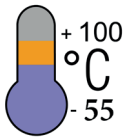
# ALUMINIOWE PUSZKI I AKCESORIA

## *Boxes & Accessories*

# C1-C2A-C3

## Puszki rozgałęźne prostokątne
## *Rectangular connecting boxes*

Stopień ochrony: IP65
*IP Rating: IP65*



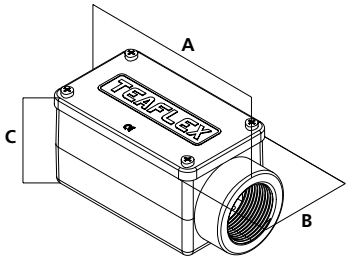
## Zastosowanie
## *Application*

Prostokątne puszki rozgałęźne z odlewanego aluminium z wewnętrzną śrubą uziemiającą, pokrywą rewizyjną z uszczelką oraz śrubami mocującymi ze stali INOX AISI 304.

*Rectangular **cast** aluminium connecting box with internal earthing screw.*
*Inspection cover with splash protector and relative gasket, **stainless steel AISI 304** locking screws.*

| Kod calowy | Gwint calowy | Kod metryczny ISO | Gwint metryczny ISO | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|
| **C101101** | 1/2" | **C1110M20** | M20X1,5 | 115 | 45 | 44 | 10 |
| **C101102** | 3/4" | **C1110M25** | M25X1,5 | 115 | 45 | 44 | 10 |
| **C10120** | 1" | **C1120M32** | M32X1,5 | 128 | 55 | 54 | 5 |
| **C101301** | 1"1/4 | **C1130M40** | M40X1,5 | 146 | 70 | 70 | 5 |
| **C101302** | 1"1/2 | **C1130M50** | M50X1,5 | 146 | 70 | 70 | 5 |
| **C101402** | 2" | | | 160 | 80 | 80 | 2 |
| *REF. Part N. GAS* | *GAS Thread* | *REF. Part N. ISO Metric* | *ISO Metric Thread* | *A mm* | *B mm* | *C mm* | *Packing unit* |

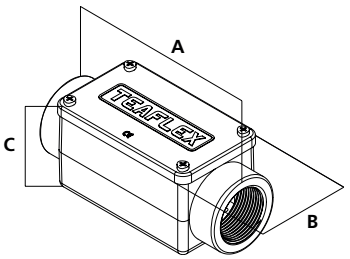
**C1 - puszka jednootworowa**




***C1 - 1 way***

| Kod calowy | Gwint calowy | Kod metryczny ISO | Gwint metryczny ISO | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|
| **C2A02101** | 1/2" | **C2A210M20** | M20X1,5 | 130 | 45 | 44 | 10 |
| **C2A02102** | 3/4" | **C2A210M25** | M25X1,5 | 130 | 45 | 44 | 10 |
| **C2A0220** | 1" | **C2A220M32** | M32X1,5 | 150 | 55 | 54 | 5 |
| **C2A02301** | 1"1/4 | **C2A230M40** | M40X1,5 | 170 | 70 | 70 | 5 |
| **C2A02302** | 1"1/2 | **C2A230M50** | M50X1,5 | 170 | 70 | 70 | 5 |
| **C2A02402** | 2" | | | 190 | 80 | 80 | 2 |
| *REF. Part N. GAS* | *GAS Thread* | *REF. Part N. ISO Metric* | *ISO Metric Thread* | *A mm* | *B mm* | *C mm* | *Packing unit* |

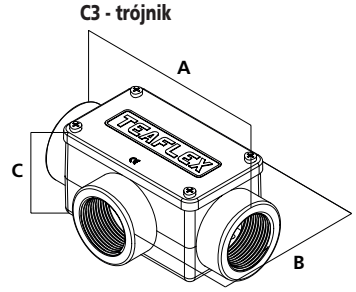
**C2A - dwójnik liniowy**




***C2A - 2 way to the straight***

| Kod calowy | Gwint calowy | Kod metryczny ISO | Gwint metryczny ISO | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|
| **C305101** | 1/2" | **C3510M20** | M20X1,5 | 130 | 59 | 44 | 10 |
| **C305102** | 3/4" | **C3510M25** | M25X1,5 | 130 | 59 | 44 | 10 |
| **C30520** | 1" | **C3520M32** | M32X1,5 | 150 | 76 | 54 | 5 |
| **C305301** | 1"1/4 | **C3530M40** | M40X1,5 | 170 | 95 | 70 | 5 |
| **C305302** | 1"1/2 | **C3530M50** | M50X1,5 | 170 | 95 | 70 | 5 |
| **C305402** | 2" | | | 190 | 110 | 80 | 2 |
| *REF. Part N. GAS* | *GAS Thread* | *REF. Part N. ISO Metric* | *ISO Metric Thread* | *A mm* | *B mm* | *C mm* | *Packing unit* |

**C3 - trójnik**




***C3 - 3 way***

# C2-C2D-C2S

## Puszki rozgałęźne prostokątne
## *Rectangular connecting boxes*

Stopień ochrony: IP65
*IP Rating: IP65*

+ 100 °C - 55

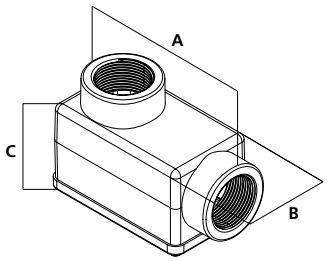
Prostokątne puszki rozgałęźne z odlewanego aluminium z wewnętrzną śrubą uziemiającą, pokrywą rewizyjną z uszczelką oraz śrubami mocującymi ze stali INOX AISI 304

*Rectangular **cast** aluminium connecting box with internal earthing screw.*
*Inspection cover with splash protector and relative gasket, **stainless steel AISI 304** locking screws.*

## Zastosowanie
## *Application*

| Kod calowy | Gwint calowy | Kod metryczny ISO | Gwint metryczny ISO | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|
| C204101 | 1/2" | C2410M20 | M20X1,5 | 115 | 45 | 59 | 10 |
| C204102 | 3/4" | C2410M25 | M25X1,5 | 115 | 45 | 59 | 10 |
| C20420 | 1" | C2420M32 | M32X1,5 | 128 | 55 | 76 | 5 |
| C204301 | 1"1/4 | C2430M40 | M40X1,5 | 146 | 70 | 95 | 5 |
| C204302 | 1"1/2 | C2430M50 | M50X1,5 | 146 | 70 | 95 | 5 |
| C204402 | 2" | | | 160 | 80 | 110 | 2 |
| *REF. Part N. GAS* | *GAS Thread* | *REF. Part N. ISO Metric* | *ISO Metric Thread* | *A mm* | *B mm* | *C mm* | *Packing unit* |

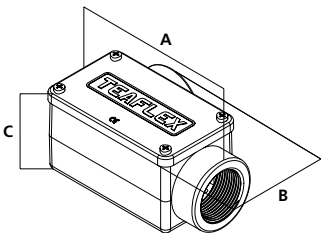
**C2 - dwójnik 90°**




***C2 - 2 way 90°***

| Kod calowy | Gwint calowy | Kod metryczny ISO | Gwint metryczny ISO | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|
| C2D09101 | 1/2" | C2D910M20 | M20X1,5 | 115 | 59 | 44 | 10 |
| C2D09102 | 3/4" | C2D910M25 | M25X1,5 | 115 | 59 | 44 | 10 |
| C2D0920 | 1" | C2D920M32 | M32X1,5 | 128 | 76 | 54 | 5 |
| C2D09301 | 1"1/4 | C2D930M40 | M40X1,5 | 146 | 95 | 70 | 5 |
| C2D09302 | 1"1/2 | C2D930M50 | M50X1,5 | 146 | 95 | 70 | 5 |
| C2D09402 | 2" | | | 160 | 110 | 80 | 2 |
| *REF. Part N. GAS* | *GAS Thread* | *REF. Part N. ISO Metric* | *ISO Metric Thread* | *A mm* | *B mm* | *C mm* | *Packing unit* |

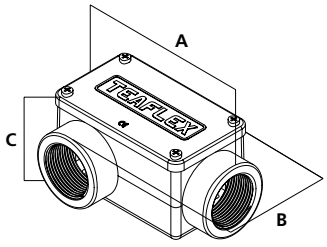
**C2D - dwójnik prawy**




***C2D - 2 way to the right***

| Kod calowy | Gwint calowy | Kod metryczny ISO | Gwint metryczny ISO | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|
| C2S010101 | 1/2" | C2S1010M20 | M20X1,5 | 115 | 59 | 44 | 10 |
| C2S010102 | 3/4" | C2S1010M25 | M25X1,5 | 115 | 59 | 44 | 10 |
| C2S01020 | 1" | C2S1020M32 | M32X1,5 | 128 | 76 | 54 | 5 |
| C2S010301 | 1"1/4 | C2S1030M40 | M40X1,5 | 146 | 95 | 70 | 5 |
| C2S010302 | 1"1/2 | C2S1030M50 | M50X1,5 | 146 | 95 | 70 | 5 |
| C2S010402 | 2" | | | 160 | 100 | 80 | 2 |
| *REF. Part N. GAS* | *GAS Thread* | *REF. Part N. ISO Metric* | *ISO Metric Thread* | | | | |

**C2S - dwójnik lewy**




***C2S - 2 way to the left***

# C4

## Puszki rozgałęźne prostokątne
## *Rectangular connecting boxes*

Stopień ochrony: IP65
*IP Rating: IP65*

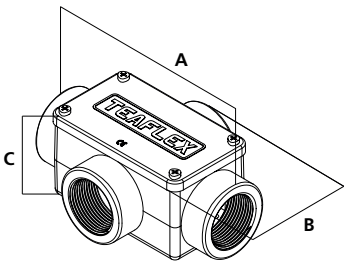
Prostokątne puszki rozgałęźne z odlewanego aluminium z wewnętrzną śrubą uziemiającą, pokrywą rewizyjną z uszczelką oraz śrubami mocującymi ze stali INOX AISI 304.

*Rectangular **cast** aluminium connecting box with internal earthing screw.*
*Inspection cover with splash protector and relative gasket, **stainless steel AISI 304** locking screws.*

### Zastosowanie
### *Application*

| Kod calowy | Gwint calowy | Kod metryczny ISO | Gwint metryczny ISO | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|
| **C406101** | 1/2" | **C4610M20** | M20X1,5 | 130 | 74 | 44 | 10 |
| **C406102** | 3/4" | **C4610M25** | M25X1,5 | 130 | 74 | 44 | 10 |
| **C40620** | 1" | **C4620M32** | M32X1,5 | 150 | 97 | 54 | 5 |
| **C406301** | 1"1/4 | **C4630M40** | M40X1,5 | 170 | 120 | 70 | 5 |
| **C406302** | 1"1/2 | **C4630M50** | M50X1,5 | 170 | 120 | 70 | 5 |
| **C406402** | 2" | | | 190 | 140 | 80 | 2 |
| ***REF. Part N. GAS*** | ***GAS Thread*** | ***REF. Part N. ISO Metric*** | ***ISO Metric Thread*** | ***A mm*** | ***B mm*** | ***C mm*** | ***Packing unit*** |

**C4 - czwórnik**




***C4 - 4 way***

# WCL

## Puszki kwadratowe
## *Square connecting boxes*

Stopień ochrony: IP65
*IP Rating: IP65*

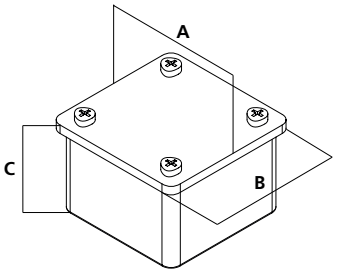
+ 100 °C - 55

Kwadratowe puszki z odlewanego aluminium z wewnętrzną śrubą uziemiającą, pokrywą rewizyjną z uszczelką oraz śrubami mocującymi.

*Square connecting box with internal earthing screw, in **cast aluminium**.*
***Cast aluminium** inspection cover with splash protector and relative gasket.*

### Zastosowanie
### *Application*

| Kod | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|
| WCL1 | 40 | 40 | 33,5 | 10 |
| WCL2 | 50 | 50 | 38 | 10 |
| WCL3 | 60 | 60 | 45 | 10 |
| WCL4 | 70 | 70 | 51 | 10 |
| WCL5 | 85 | 85 | 68 | 5 |
| WCL6 | 100 | 100 | 83 | 5 |
| *REF. Part N.* | *A mm* | *B mm* | *C mm* | *Packing unit* |




# 900

## Puszki prostokątne serii 900
## *Rectangular connecting boxes 900 series*

Stopień ochrony: IP40
*IP Rating: IP40*

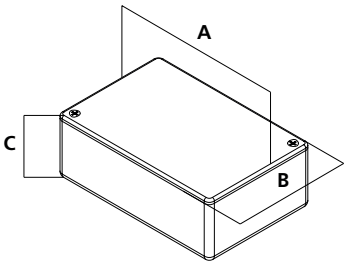
+ 100 °C - 55

Prostokątne puszki z odlewanego aluminium z wewnętrzną śrubą uziemiającą.

*Rectangular connecting box with internal earthing screw, in **cast aluminium**.*

### Zastosowanie
### *Application*

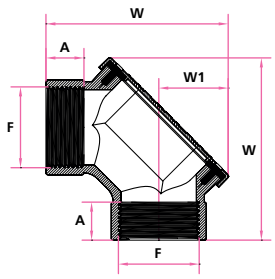
| Kod | A mm | B mm | C mm | Opakowanie standard |
|---|---|---|---|---|
| 9001000 | 72 | 55 | 49 | 10 |
| 900999 | 70 | 70 | 45 | 10 |
| 9001001 | 100 | 55 | 56 | 10 |
| 900996 | 100 | 90 | 60 | 5 |
| 900997 | 150 | 100 | 52 | 2 |
| 900995 | 150 | 100 | 67 | 2 |
| 900998 | 150 | 100 | 83 | 2 |
| *REF. Part N.* | *A mm* | *B mm* | *C mm* | *Packing unit* |



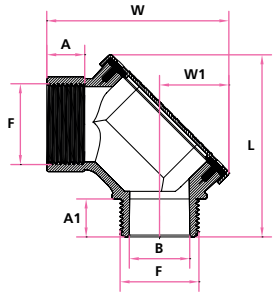
# CFFA-CFMA

## Kolana aluminiowe 90°
## *90° aluminium elbow*

CFFA




CFMA



## Zastosowanie
## *Application*

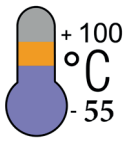
**CFFA-CFMA**
Kolana 90° z odlewanego aluminium z pokrywą rewizyjną z uszczelką oraz śrubami mocującymi ze **stali INOX AISI 304**. Pokrywa rewizyjna ułatwia instalację i kontrole kabli.

***CFFA-CFMA***
*90° elbow connecting box in cast aluminium with inspection cover, splash protector and relative gasket, **stainless steel AISI 304** locking screws, female - female thread, made to allow the insertion, slipping and inspection of cables.*

**CFFA - Kolano 90° gwint żeński - żeński**

| Kod calowy | F Gwint calowy | Kod metryczny ISO | F Gwint metryczny ISO | Kod PG | F Gwint PG | A mm | W mm | W1 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|
| CFFAG09 | 1/4" | | | CFFAP09PG09 | 9 | 10 | 45 | 18,5 | 20 |
| CFFAG12 | 3/8" | CFFAM16 | M16X1,5 | CFFAP12PG11 | 11 | 10 | 45 | 18,5 | 20 |
| CFFAG15 | 1/2" | CFFAM20 | M20X1,5 | CFFAP15PG13 | 13,5 | 12 | 55 | 24 | 10 |
| | | | | CFFAP15PG16 | 16 | 12 | 55 | 24 | 10 |
| CFFAG20 | 3/4" | CFFAM25 | M25X1,5 | CFFAP20PG21 | 21 | 20 | 71,5 | 28 | 10 |
| CFFAG25 | 1" | CFFAM32 | M32X1,5 | CFFAP25PG29 | 29 | 20 | 80,5 | 36,5 | 5 |
| CFFAG30A | 1"1/4 | CFFAM40 | M40X1,5 | | | 20 | 111,5 | 37 | 5 |
| CFFAG35 | 1"1/2 | CFFAM50 | M50X1,5 | CFFAP35PG36 | 36 | 20 | 117,5 | 41 | 5 |
| CFFAG50 | 2" | | | CFFAP50PG48 | 48 | 23 | 128,5 | 47 | 2 |
| *REF. Part N. GAS* | *F GAS Thread* | *REF. Part N. ISO Metric* | *F ISO Metric Thread* | *REF. Part N. PG* | *F PG Thread* | *L mm* | *W mm* | *W1 mm* | *Packing unit* |

***CFFA - 90° Elbows with inspection cover female - female thread***



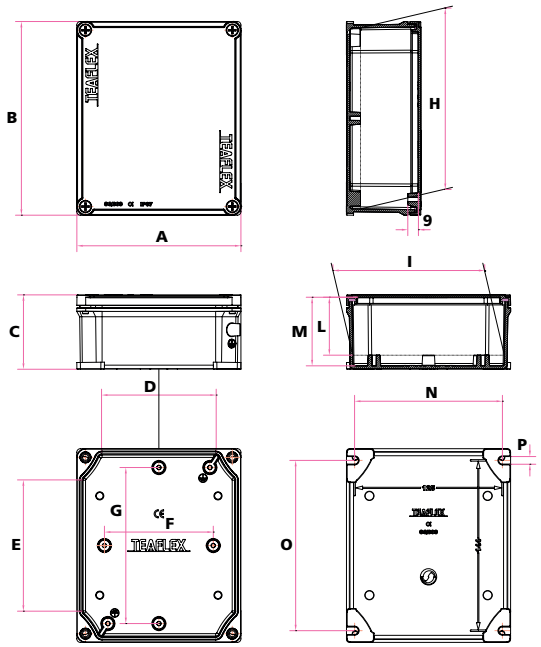
**CFMA - Kolano 90° gwint męski-żeński**

| Kod calowy | F Gwint calowy | B Przelot użytkowy mm | Kod metryczny ISO | F Gwint metryczny ISO | B Przelot użytkowy mm | Kod PG | F Gwint PG | B Przelot użytkowy mm | A mm | A1 mm | L mm | W mm | W1 mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CFMAG09 | 1/4" | 8 | | | | CFMAP09PG09 | 9 | 9 | 10 | 13 | 58 | 45 | 18,5 | 20 |
| CFMAG12 | 3/8" | 11 | CFMAM16 | M16X1,5 | 11 | CFMAP12PG11 | 11 | 11 | 10 | 13 | 58 | 45 | 18,5 | 20 |
| CFMAG15 | 1/2" | 15,5 | CFMAM20 | M20X1,5 | 15,5 | CFMAP15PG13 | 13,5 | 15,5 | 12 | 12 | 67 | 55 | 24 | 10 |
| | | | | | | CFMAP15PG16 | 16 | 15,5 | 12 | 12 | 67 | 55 | 24 | 10 |
| CFMAG20 | 3/4" | 19 | CFMAM25 | M25X1,5 | 19 | CFMAP20PG21 | 21 | 20 | 20 | 18,5 | 90 | 71,5 | 28 | 10 |
| CFMAG25 | 1" | 24 | CFMAM32 | M32X1,5 | 24 | CFMAP25PG29 | 29 | 28 | 20 | 18 | 98,5 | 80,5 | 36,5 | 5 |
| CFMAG30A | 1"1/4 | 32 | CFMAM40 | M40X1,5 | 32 | | | | 20 | 20 | 96 | 111,5 | 37 | 5 |
| CFMAG35 | 1"1/2 | 39 | CFMAM50 | M50X1,5 | 39 | CFMAP35PG36 | 36 | 40 | 20 | 20 | 111,5 | 111,5 | 41 | 5 |
| CFMAG50 | 2" | 50 | | | | CFMAP50PG48 | 48 | 50 | 23 | 22 | 129 | 128,5 | 47 | 2 |
| *REF. Part N. GAS* | *F GAS Thread* | *B useful passage mm* | *REF. Part N. ISO Metric* | *F ISO Metric Thread* | *B useful passage mm* | *REF. Part N. PG* | *F PG Thread* | *B useful passage mm* | *A mm* | *A1 mm* | *L mm* | *W mm* | *W1 mm* | *Packing unit* |

***CFMA - 90° Elbows with inspection cover male - female thread***

# SQB

## Puszki prostokątne
## *Die-cast aluminium alloy boxes*



### Zastosowanie *Application*

Aluminiowe puszki prostokątne do samodzielnego wiercenia otworów, odpowiednie do instalacji i podłączeń urządzeń elektrycznych i elektronicznych. Powszechnie stosowane w instalacjach przemysłowych, obrabiarkach, motoryzacji i tunelach.
Gwarantują wysoką odporność na uderzenia, drgania oraz starzenie.
Dostarczane z dodatkowymi śrubami uziemiającymi do korpusu i pokrywy.
Wewnątrz można mocować prowadnice DIN umożliwiające montaż listw zaciskowych, bezpieczników, wyłączników, elektronicznych urzadzeń sterujących, itp.

*Rectangular boxes to be drilled suitable for installation and the connection of electric and electronic appliances. Commonly used in the industry field, machine tools, automotive and tunnels.*
*High mechanical and vibration resistance.*
*High anti aging resistance.*
*Additional earthing screw supplied for the body and the cover.*
*Inside the box extra accessories as Din rails or metal plates can be fastened for mounting terminal blocks, circuit breakers, fuse holders, electronic control devices, etc.*

### Materiał *Material*

Odlew ze stopu aluminium.
Uszczelka gwarantująca stopień ochrony IP66.
Zakres temperatur: - 40C° +125 C°
Pomalowane farbą proszkową epoksydowo-poliestrową.

*Die cast aluminum alloy*
*Pre assembled anti aging sealing, rating IP66*
*Temperature range - 40C° +125 C°*
*Oven painted with epoxy polyester powder.*

### Kolory *Colors*

Szary RAL 9006

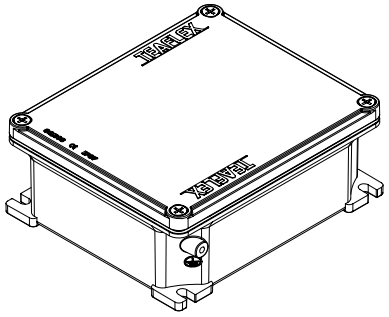
*Grey RAL 9006*

**SQB - Puszka prostokątna aluminiowa**

| Kod | A mm | B mm | C mm | D mm | E mm | F mm | G mm | H mm | I mm | L mm | M mm | N mm | O mm | P mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SQB01** | 98,4 | 98,4 | 57,7 | 60 | 50 | - | - | 88,2 | 88,2 | 44 | 53 | 86 | 82 | 6 | 1 |
| **SQB02** | 113,6 | 138,6 | 59,8 | 72 | 86 | - | 108 | 128,2 | 103,2 | 46 | 55 | 100 | 120 | 6 | 1 |
| **SQB03** | 138,8 | 163,8 | 62,9 | 97 | 111 | 92 | 132 | 153,2 | 128,2 | 49 | 58 | 125 | 144 | 6,5 | 1 |
| **SQB04** | 166 | 185 | 81 | 118,5 | 126,5 | 124 | 122 | 173,2 | 154,2 | 67 | 76 | 149 | 168 | 6,5 | 1 |
| **SQB05** | 214,4 | 249,4 | 90,7 | 160,2 | 182,8 | 156 | 210 | 236,2 | 201,2 | 76 | 85 | 196 | 226 | 9 | 1 |
| **SQB06** | 256,8 | 305,8 | 120,1 | 192,1 | 224,4 | 201 | 240 | 292,2 | 243,2 | 105 | 114 | 236 | 275 | 9 | 1 |
| **SQB07** | 312,5 | 406,5 | 151 | 298 | 392 | 230 | 320 | - | - | 135,5 | 144 | 283 | 367 | 9 | 1 |

| *REF. Part N.* | *A mm* | *B mm* | *C mm* | *D mm* | *E mm* | *F mm* | *G mm* | *H mm* | *I mm* | *L mm* | *M mm* | *N mm* | *O mm* | *P mm* | *Packing unit* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

***SQB - Die-cast aluminium alloy boxes***

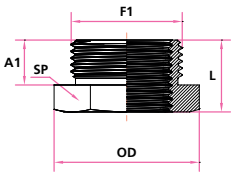



Stopień ochrony: IP66
*IP Rating: IP66*

# RGG-RSGP-RPP-RGP

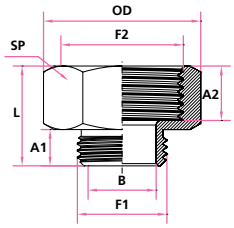
## Redukcje
## *Hexagonal reducers*

Kształt A




*Mould A*

Kształt B




*Mould B*

**RGG - Redukcja gwint męski calowy - żeński calowy**

| Kod | Kształt | F1 Gwint męski calowy | F2 Gwint żeński calowy | A1 mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|
| RGG1 | A | 1/2" | 1/4" | 8 | 13 | 27,5 | 24 | Mosiądz | 20 |
| RGG2 | A | 3/4" | 1/4" | 10 | 15 | 34,5 | 30 | Mosiądz | 10 |
| RGG3 | A | 1/2" | 3/8" | 8 | 13 | 27,5 | 24 | Mosiądz | 20 |
| RGG4 | A | 3/4" | 3/8" | 10 | 15 | 34,5 | 30 | Mosiądz | 10 |
| RGG5 | A | 3/4" | 1/2" | 10 | 15 | 34,5 | 30 | Mosiądz | 10 |
| RGG6 | A | 1" | 1/2" | 12 | 17 | 44 | 38 | Mosiądz | 10 |
| RGG7 | A | 1" | 3/4" | 12 | 17 | 44 | 38 | Mosiądz | 10 |

| REF. Part N. | Mould | F1 GAS male thread | F2 GAS female thread | A1 mm | L mm | OD mm | SP mm | Mater. | Packing unit |
|---|---|---|---|---|---|---|---|---|---|

*RGG - Hexagonal reducers male GAS thread - female GAS thread*

**RSGP - Redukcja gwint męski calowy - żeński PG**

| Kod | Kształt | F1 Gwint męski calowy | F2 Gwint żeński PG | A1 mm | L mm | OD mm | SP mm | Materiał | Opako-wanie standard |
|---|---|---|---|---|---|---|---|---|---|
| RSGP01 | A | 1/2" | 9 | 8 | 13 | 27,5 | 24 | Mosiądz | 20 |
| RSGP02 | A | 3/4" | 11 | 10 | 15 | 34,5 | 30 | Mosiądz | 10 |
| RSGP03 | A | 3/4" | 13,5 | 10 | 15 | 34,5 | 30 | Mosiądz | 10 |
| RSGP04 | A | 3/4" | 16 | 10 | 15 | 34,5 | 30 | Mosiądz | 10 |
| RSGP05 | A | 1" | 11 | 12 | 17 | 44 | 38 | Mosiądz | 10 |
| RSGP06 | A | 1" | 13,5 | 12 | 17 | 44 | 38 | Mosiądz | 10 |
| RSGP07 | A | 1" | 16 | 12 | 17 | 44 | 38 | Mosiądz | 10 |
| RSGP08 | A | 1" | 21 | 12 | 17 | 44 | 38 | Mosiądz | 10 |
| RSGP09 | A | 1"1/4 | 21 | 13 | 20 | 49 | 44 | Mosiądz | 5 |
| RSGP10 | A | 1"1/4 | 29 | 13 | 20 | 49 | 45 | Mosiądz | 5 |

| REF. Part N. | Mould | F1 GAS male thread | F2 PG female thread | A1 mm | L mm | OD mm | SP mm | Mater. | Packing unit |
|---|---|---|---|---|---|---|---|---|---|

*RSGP - Hexagonal reducers male GAS thread - female PG thread*

**RPP - Redukcja gwint męski PG - żeński PG**

| Kod | Kształt | F1 Gwint męski PG | F2 Gwint żeński PG | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RPP40 | A | 9 | 7 | 7 | - | - | 12 | 19,5 | 17 | Mosiądz | 20 |
| RPP40A | A | 11 | 7 | 7 | - | - | 12 | 23 | 20 | Mosiądz | 20 |
| RPP40B | A | 13,5 | 7 | 8 | - | - | 13 | 25,5 | 22 | Mosiądz | 20 |
| RPP41 | A | 11 | 9 | 8 | - | - | 13 | 23 | 20 | Mosiądz | 20 |
| RPP41A | A | 13,5 | 9 | 8 | - | - | 13 | 25,5 | 22 | Mosiądz | 20 |
| RPP42 | A | 13,5 | 11 | 8 | - | - | 13 | 25,5 | 22 | Mosiądz | 20 |
| RPP42A | A | 16 | 11 | 8 | - | - | 13 | 27,5 | 24 | Mosiądz | 20 |
| RPP42B | B | 13,5 | 11 | 7 | 10 | 17,3 | 18 | 25,5 | 22 | Mosiądz | 20 |
| RPP43 | A | 16 | 13,5 | 8 | - | - | 13 | 27,5 | 24 | Mosiądz | 20 |
| RPP43A | A | 21 | 13,5 | 9 | - | - | 14 | 34,5 | 30 | Mosiądz | 10 |
| RPP43B | B | 16 | 13,5 | 7 | 10 | 19 | 18 | 27,5 | 24 | Mosiądz | 20 |
| RPP44 | A | 21 | 16 | 9 | - | - | 14 | 34,5 | 30 | Mosiądz | 10 |
| RPP45 | A | 29 | 21 | 10 | - | - | 15 | 34 | 38 | Mosiądz | 10 |
| RPP46 | A | 36 | 29 | 10 | - | - | 16 | 55 | 50 | Mosiądz | 5 |
| RPP47 | A | 42 | 36 | 12 | - | - | 20 | 64 | 58 | Mosiądz | 5 |
| RPP48 | A | 48 | 42 | 12 | - | - | 20 | 66 | 60 | Mosiądz | 5 |
| RPP48A | A | 48 | 36 | 12 | - | - | 20 | 66 | 60 | Mosiądz | 5 |

| REF. Part N. | Mould | F1 PG male thread | F2 PG female thread | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Mater. | Packing unit |
|---|---|---|---|---|---|---|---|---|---|---|---|

*RPP - Hexagonal reducers male PG thread - female PG thread*

**RGP - Redukcja gwint męski PG - żeński calowy**

| Kod | Kształt | F1 Gwint męski PG | F2 Gwint żeński calowy | A1 mm | L mm | OD mm | SP mm | Materiał | Opako-wanie standard |
|---|---|---|---|---|---|---|---|---|---|
| RGP21 | A | 11 | 1/4" | 20 | 8 | 13 | 20 | Mosiądz | 20 |
| RGP22 | A | 13,5 | 1/4" | 22 | 8 | 13 | 22 | Mosiądz | 20 |
| RGP22A | A | 16 | 1/4" | 24 | 8 | 13 | 24 | Mosiądz | 20 |
| RGP23 | A | 13,5 | 3/8" | 22 | 8 | 13 | 22 | Mosiądz | 20 |
| RGP24 | A | 16 | 3/8" | 24 | 8 | 13 | 24 | Mosiądz | 20 |
| RGP24A | A | 21 | 3/8" | 30 | 9 | 14 | 30 | Mosiądz | 10 |
| RGP25 | A | 21 | 1/2" | 30 | 9 | 14 | 30 | Mosiądz | 10 |
| RGP26 | A | 29 | 1/2" | 38 | 10 | 15 | 38 | Mosiądz | 10 |
| RGP27 | A | 29 | 3/4" | 38 | 10 | 15 | 38 | Mosiądz | 10 |
| RGP27A | A | 29 | 1" | 38 | 10 | 15 | 38 | Mosiądz | 10 |
| RGP28 | A | 36 | 1" | 50 | 10 | 16 | 50 | Mosiądz | 5 |
| RGP28A | A | 36 | 1" 1/4 | 50 | 10 | 16 | 50 | Mosiądz | 5 |
| RGP29 | A | 42 | 1" 1/4 | 58 | 12 | 20 | 58 | Mosiądz | 5 |
| RGP29A | A | 42 | 1" 1/2 | 58 | 12 | 20 | 58 | Mosiądz | 5 |
| RGP30 | A | 48 | 1" 1/2 | 60 | 12 | 20 | 60 | Mosiądz | 2 |

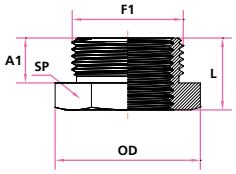
| REF. Part N. | Mould | F1 PG male thread | F2 GAS female thread | A1 mm | L mm | OD mm | SP mm | Mater. | Packing unit |
|---|---|---|---|---|---|---|---|---|---|

*RGP - Hexagonal reducers male PG thread - female GAS thread*

# RM-RFGG

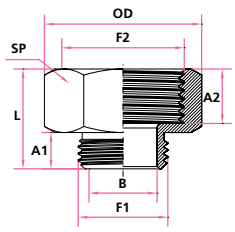
## Redukcje
## *Hexagonal reducers*

**Kształt A**




***Mould A***

**Kształt B**




***Mould B***

### RM - Redukcja gwint męski metryczny ISO - żeński calowy

| Kod | Kształt | F1 Gwint męski metrycz ISO | F2 Gwint żeński calowy | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RM16B** | A | M16x1,5 | 1/4" | 8 | - | - | 13 | 22 | 19 | Mosiądz | 20 |
| **RM20C** | A | M20x1,5 | 3/8" | 8 | - | - | 13 | 25,5 | 22 | Mosiądz | 20 |
| **RM25C** | A | M25x1,5 | 3/8" | 10 | - | - | 16 | 32 | 28 | Mosiądz | 10 |
| **RM25D** | A | M25x1,5 | 1/2" | 10 | - | - | 16 | 32 | 28 | Mosiądz | 10 |
| **RM32F** | A | M32x1,5 | 3/4" | 12 | - | - | 18 | 40,5 | 35 | Mosiądz | 10 |
| **RM40H** | A | M40x1,5 | 1" | 13 | - | - | 20 | 49 | 45 | Mosiądz | 5 |
| **RM50J** | A | M50x1,5 | 1" 1/4 | 13 | - | - | 20 | 58 | 52 | Mosiądz | 5 |
| **RM50L** | B | M50x1,5 | 1" 1/2 | 13 | 16 | 44 | 31 | 58 | 52 | Mosiądz | 5 |
| **RM63L** | A | M63x1,5 | 1" 1/2 | 15 | - | - | 23 | 70 | 64 | Mosiądz | 2 |
| **RM63N** | B | M63x1,5 | 2" | 15 | 19 | 56 | 36 | 70 | 64 | Mosiądz | 2 |

| REF. Part N. | Mould | F1 ISO Metric male thread | F2 GAS female thread | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Mater. | Packing unit |
|---|---|---|---|---|---|---|---|---|---|---|---|

***RM - Hexagonal reducers male ISO Metric thread - female GAS thread***

### RM - Redukcja gwint męski metryczny ISO - żeński metryczny ISO

| Kod | Kształt | F1 Gwint męski metrycz ISO | F2 Gwint żeński metryczny ISO | A1 mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|
| **RM1612** | A | M16x1,5 | M12x1,5 | 8 | 13 | 22 | 19 | Mosiądz | 20 |
| **RM2016** | A | M20x1,5 | M16x1,5 | 7,5 | 12,5 | 25,5 | 22 | Mosiądz | 20 |
| **RM2520** | A | M25x1,5 | M20x1,5 | 10 | 16 | 32 | 28 | Mosiądz | 10 |
| **RM3225** | A | M32x1,5 | M25x1,5 | 12 | 18 | 40,5 | 35 | Mosiądz | 10 |
| **RM4032** | A | M40x1,5 | M32x1,5 | 13 | 20 | 49 | 45 | Mosiądz | 5 |
| **RM5040** | A | M50x1,5 | M40x1,5 | 13 | 20 | 56 | 52 | Mosiądz | 5 |
| **RM6350** | A | M63x1,5 | M50x1,5 | 15 | 23 | 70 | 64 | Mosiądz | 2 |

| REF. Part N. | Mould | F1 male ISO | F2 female ISO | A1 mm | L mm | OD mm | SP mm | Mater. | Packing unit |
|---|---|---|---|---|---|---|---|---|---|

***RM - Hexagonal reducers male ISO Metric thread - female ISO Metric thread***

### RM - Redukcja gwint męski metryczny ISO - żeński PG

| Kod | Kształt | F1 Gwint męski metrycz ISO | F2 Gwint żeński PG | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RM160** | A | M16x1,5 | 7 | 8 | - | - | 13 | 22 | 19 | Mosiądz | 20 |
| **RM161** | B | M16x1,5 | 9 | 8 | 10 | 11 | 20 | 22 | 19 | Mosiądz | 20 |
| **RM201** | A | M20x1,5 | 9 | 8 | - | - | 13 | 25,5 | 22 | Mosiądz | 20 |
| **RM202** | B | M20x1,5 | 11 | 8 | 10 | 15 | 20 | 25,5 | 22 | Mosiądz | 20 |
| **RM252** | A | M25x1,5 | 11 | 10,5 | - | - | 16 | 32 | 28 | Mosiądz | 10 |
| **RM253** | A | M25x1,5 | 13,5 | 10 | - | - | 16 | 32 | 28 | Mosiądz | 10 |
| **RM254** | B | M25x1,5 | 16 | 10 | 10 | 20 | 22 | 32 | 28 | Mosiądz | 10 |
| **RM324** | A | M32x1,5 | 16 | 12 | - | - | 18 | 40,5 | 35 | Mosiądz | 10 |
| **RM325** | A | M32x1,5 | 21 | 12 | - | - | 18 | 40,5 | 35 | Mosiądz | 10 |
| **RM405** | A | M40x1,5 | 21 | 13 | - | - | 20 | 49 | 45 | Mosiądz | 5 |
| **RM406** | A | M40x1,5 | 29 | 13 | - | - | 20 | 49 | 45 | Mosiądz | 5 |
| **RM506** | A | M50x1,5 | 29 | 13 | - | - | 20 | 56 | 52 | Mosiądz | 5 |
| **RM507** | B | M50x1,5 | 36 | 13 | 15 | 44 | 30 | 56 | 52 | Mosiądz | 5 |
| **RM637** | A | M63x1,5 | 36 | 15 | - | - | 23 | 70 | 64 | Mosiądz | 2 |
| **RM638** | A | M63x1,5 | 42 | 15 | - | - | 23 | 70 | 64 | Mosiądz | 2 |
| **RM639** | B | M63x1,5 | 48 | 15 | 16 | 56 | 33 | 70 | 64 | Mosiądz | 2 |

| REF. Part N. | Mould | F1 ISO Metric male thread | F2 PG female thread | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Mater. | Packing unit |
|---|---|---|---|---|---|---|---|---|---|---|---|

***RM - Hexagonal reducers male ISO metric thread - female PG thread***

### RFGG - Redukcja gwint męski calowy - żeński calowy

| Kod | Kształt | F1 Gwint męski calowy | F2 Gwint żeński calowy | A1 mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|
| **RFGG03** | A | 3/8" | 1/4" | 10 | 14 | 19,5 | 17 | Mosiądz | 20 |
| **RFGG05** | A | 3/4" | 1/4" | 11,5 | 17 | 34,5 | 30 | Mosiądz | 10 |
| **RFGG09** | A | 1" | 3/8" | 14 | 20 | 39 | 34 | Mosiądz | 10 |
| **RFGG11A** | A | 1" 1/4 | 1/2" | 16 | 22 | 48,5 | 42 | Mosiądz | 5 |
| **RFGG11B** | A | 1" 1/2 | 1/2" | 16 | 23 | 57,5 | 50 | Mosiądz | 5 |
| **RFGG11C** | A | 2" | 1/2" | 18 | 26 | 69 | 60 | Mosiądz | 2 |
| **RFGG13** | A | 1" 1/4 | 3/4" | 13 | 19 | 51 | 44 | Mosiądz | 5 |
| **RFGG14** | A | 1" 1/2 | 3/4" | 14 | 20 | 55 | 50 | Mosiądz | 5 |
| **RFGG14A** | A | 2" | 3/4" | 18 | 26 | 69 | 60 | Mosiądz | 2 |
| **RFGG15** | A | 1" 1/4 | 1" | 13 | 19 | 49 | 45 | Mosiądz | 5 |
| **RFGG16** | A | 1" 1/2 | 1" | 15 | 21 | 55 | 50 | Mosiądz | 5 |
| **RFGG17** | A | 2" | 1" | 18 | 26 | 69 | 60 | Mosiądz | 2 |
| **RFGG18** | A | 1" 1/2 | 1" 1/4 | 15 | 21 | 55 | 50 | Mosiądz | 5 |
| **RFGG18A** | A | 2" | 1" 1/4 | 18 | 26 | 69 | 60 | Mosiądz | 2 |
| **RFGG19** | A | 2" | 1" 1/2 | 18 | 26 | 69 | 60 | Mosiądz | 2 |
| **RFGG20** | A | 2" 1/2 | 2" | 19 | 28 | 80 | 75 | Stal - *Steel* | 2 |

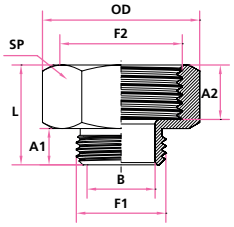
| REF. Part N. | Mould | F1 GAS male thread | F2 GAS female thread | A1 mm | L mm | OD mm | SP mm | Mater. | Packing unit |
|---|---|---|---|---|---|---|---|---|---|

***RFGG - Hexagonal reducers male GAS thread - female GAS thread***

# RBM-RBPP

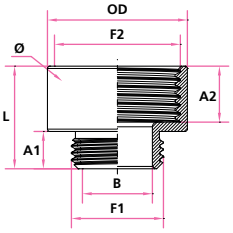
## Redukcje
## *Sleeve reducers*

**Kształt B**

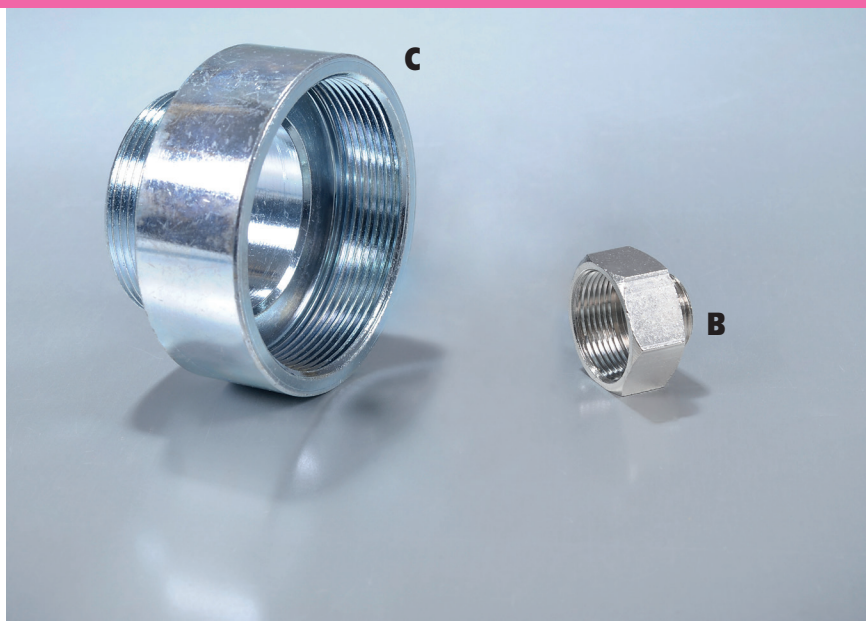



***Mould B***

**Kształt C**




***Mould C***




**RBM - Redukcja gwint męski metryczny ISO - żeński calowy**

| Kod | Kształt | F1 Gwint męski metrycz ISO | F2 Gwint żeński calowy | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RBM12B** | B | M12X1,5 | 1/4" | 8 | 10 | 7 | 20 | 17,3 | 15 | Mosiądz | 20 |
| **RBM16C** | B | M16X1,5 | 3/8" | 8 | 10 | 11 | 20 | 22 | 19 | Mosiądz | 20 |
| **RBM16D** | B | M16X1,5 | 1/2" | 8 | 10 | 11 | 20 | 27,5 | 24 | Mosiądz | 20 |
| **RBM20D** | B | M20X1,5 | 1/2" | 8 | 10 | 15 | 20 | 27,5 | 24 | Mosiądz | 20 |
| **RBM20F** | B | M20X1,5 | 3/4" | 8 | 12 | 15 | 22 | 34,5 | 30 | Mosiądz | 20 |
| **RBM25F** | B | M25X1,5 | 3/4" | 10 | 12 | 20 | 24 | 34,5 | 30 | Mosiądz | 10 |
| **RBM25H** | B | M25X1,5 | 1" | 10 | 15 | 20 | 27 | 44 | 38 | Mosiądz | 10 |
| **RBM32H** | B | M32X1,5 | 1" | 12 | 15 | 26,5 | 29 | 44 | 38 | Mosiądz | 10 |
| **RBM32J** | B | M32X1,5 | 1"1/4 | 12 | 15 | 26,5 | 29 | 49 | 45 | Mosiądz | 10 |
| **RBM40J** | B | M40X1,5 | 1"1/4 | 13 | 15 | 35 | 30 | 49 | 45 | Mosiądz | 5 |
| **RBM40L** | B | M40X1,5 | 1"1/2 | 13 | 16 | 35 | 31 | 54 | 50 | Mosiądz | 5 |
| **RBM50N** | B | M50X1,5 | 2" | 13 | 19 | 44 | 36 | 70 | 64 | Mosiądz | 2 |
| ***REF. Part N.*** | ***Mould*** | ***F1 ISO Metric male thread*** | ***F2 GAS female thread*** | ***A1 mm*** | ***A2 mm*** | ***B mm*** | ***L mm*** | ***OD mm*** | ***SP mm*** | ***Mater.*** | ***Packing unit*** |

***RBM - Sleeve reducers male ISO Metric thread - female GAS thread***

**RBM - Redukcja gwint męski metryczny ISO - żeński PG**

| Kod | Kształt | F1 Gwint męski metrycz ISO | F2 Gwint żeński PG | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opako-wanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RBM121** | B | M12X1,5 | 9 | 8 | 10 | 7 | 20 | 19,5 | 17 | Mosiądz | 20 |
| **RBM162** | B | M16X1,5 | 11 | 8 | 10 | 11 | 20 | 25,5 | 22 | Mosiądz | 20 |
| **RBM203** | B | M20X1,5 | 13,5 | 8 | 10 | 15 | 20 | 25,5 | 22 | Mosiądz | 20 |
| **RBM204** | B | M20X1,5 | 16 | 8 | 10 | 15 | 20 | 27,5 | 24 | Mosiądz | 20 |
| **RBM255** | B | M25X1,5 | 21 | 10 | 14 | 20,3 | 26 | 38 | 33 | Mosiądz | 10 |
| **RBM326** | B | M32X1,5 | 29 | 12 | 14 | 26,5 | 28 | 46 | 40 | Mosiądz | 10 |
| **RBM407** | B | M40X1,5 | 36 | 13 | 15 | 35,2 | 30 | 55 | 50 | Mosiądz | 5 |
| **RBM408** | B | M40X1,5 | 42 | 13 | 15 | 35,2 | 30 | 63 | 58 | Mosiądz | 5 |
| **RBM508** | B | M50X1,5 | 42 | 13 | 15 | 44 | 32 | 64 | 58 | Mosiądz | 5 |
| **RBM509** | B | M50X1,5 | 48 | 13 | 16 | 44 | 33 | 70 | 64 | Mosiądz | 2 |
| ***REF. Part N.*** | ***Mould*** | ***F1 ISO Metric male thread*** | ***F2 PG female thread*** | ***A1 mm*** | ***A2 mm*** | ***B mm*** | ***L mm*** | ***OD mm*** | ***SP mm*** | ***Mater.*** | ***Packing unit*** |

***RBM - Sleeve reducers male ISO Metric thread - female PG thread***

**RBM - Redukcja gwint męski metryczny ISO - żeński metryczny ISO**

| Kod | Kształt | F1 Gwint męski metrycz. ISO | F2 Gwint żeński metrycz. ISO | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RBM1216** | B | M12X1,5 | M16X1,5 | 8 | 10 | 7 | 20 | 22 | 17 | Mosiądz | 20 |
| **RBM1620** | B | M16X1,5 | M20X1,5 | 8 | 10 | 11 | 20 | 25,5 | 22 | Mosiądz | 20 |
| **RBM2025** | B | M20X1,5 | M25X1,5 | 8 | 12 | 15 | 22 | 32 | 28 | Mosiądz | 20 |
| **RBM2532** | B | M25X1,5 | M32X1,5 | 10 | 15 | 20 | 27 | 40,5 | 35 | Mosiądz | 10 |
| **RBM3240** | B | M32X1,5 | M40X1,5 | 12 | 15 | 26,5 | 29 | 49 | 45 | Mosiądz | 5 |
| **RBM4050** | B | M40X1,5 | M50X1,5 | 13 | 16 | 35 | 31 | 58 | 52 | Mosiądz | 5 |
| **RBM5063** | B | M50X1,5 | M63X1,5 | 13 | 19 | 44 | 36 | 72,5 | 64 | Mosiądz | 2 |
| ***REF. Part N.*** | ***Mould*** | ***F1 ISO Metric male thread*** | ***F2 ISO Metric female thread*** | ***A1 mm*** | ***A2 mm*** | ***B mm*** | ***L mm*** | ***OD mm*** | ***SP mm*** | ***Mater.*** | ***Packing unit*** |

***RBM - Sleeve reducers: male ISO Metric thread - female ISO Metric thread***

**RBPP - Redukcja gwint męski PG - żeński PG**

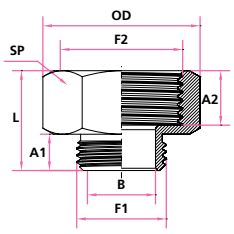
| Kod | Kształt | F1 Gwint męski PG | F2 Gwint żeński PG | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opako-wanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RBPP021** | B | 7 | 9 | 7 | 10 | 9 | 18 | 22 | 17 | Mosiądz | 20 |
| **RBPP022** | B | 9 | 11 | 7 | 10 | 11,4 | 18 | 25,5 | 22 | Mosiądz | 20 |
| **RBPP023** | B | 9 | 13,5 | 7 | 10 | 11,4 | 18 | 25,5 | 22 | Mosiądz | 20 |
| **RBPP024** | B | 9 | 16 | 7 | 10 | 11,4 | 18 | 27,5 | 24 | Mosiądz | 20 |
| **RBPP025** | B | 11 | 13,5 | 7 | 10 | 15 | 18 | 25,5 | 22 | Mosiądz | 20 |
| **RBPP025A** | B | 11 | 16 | 7 | 10 | 15 | 18 | 27,5 | 24 | Mosiądz | 20 |
| **RBPP026** | B | 13,5 | 16 | 7 | 10 | 16,3 | 18 | 27,5 | 24 | Mosiądz | 20 |
| **RBPP027** | B | 13,5 | 21 | 7 | 14 | 16.3 | 22 | 37 | 32 | Mosiądz | 10 |
| **RBPP028** | B | 16 | 21 | 7 | 14 | 19 | 22 | 37 | 32 | Mosiądz | 10 |
| **RBPP029** | B | 21 | 29 | 9 | 14 | 24 | 24 | 46 | 40 | Mosiądz | 10 |
| **RBPP030** | C | 29 | 36 | 12 | 15 | 30 | 30 | 50 | - | Mosiądz | 2 |
| ***REF. Part N.*** | ***Mould*** | ***F1 PG male thread*** | ***F2 PG female thread*** | ***A1 mm*** | ***A2 mm*** | ***B mm*** | ***L mm*** | ***OD mm*** | ***SP mm*** | ***Mater.*** | ***Packing unit*** |

***RBPP - Sleeve reducers male PG thread - female PG thread***

# RBGG-RBGP-RBPG

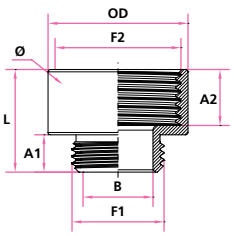
## Redukcje
## *Sleeve reducers*

Kształt B



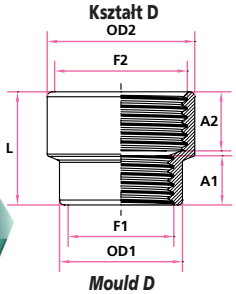

*Mould B*

Kształt C

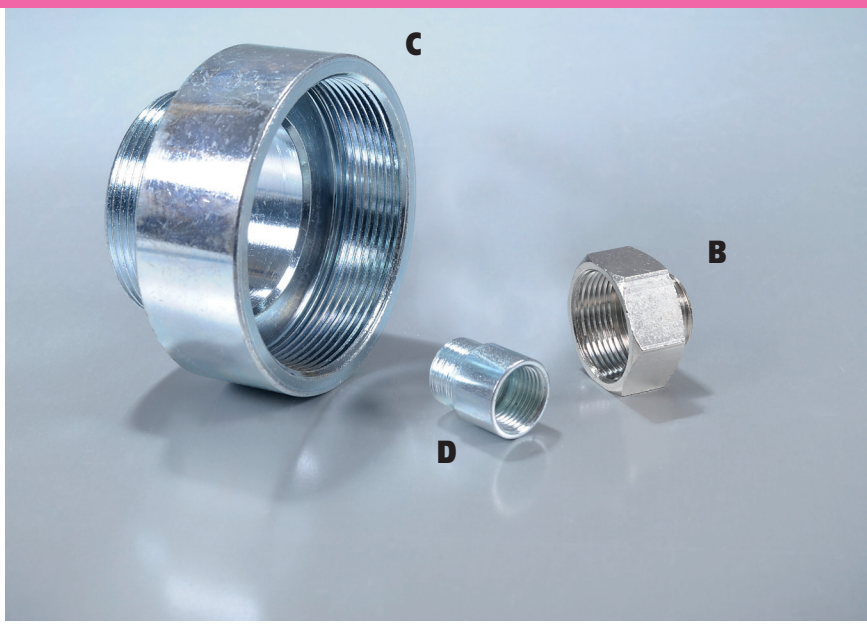



*Mould C*

Kształt D




*Mould D*




**RBGG - Redukcja gwint męski calowy - żeński calowy**

| Kod | Kształt | F1 Gwint męski calowy | F2 Gwint żeński calowy | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RBGG03 | B | 1/4" | 3/8" | 7 | 9 | 9 | 17 | 22 | 19 | Mosiądz | 20 |
| RBGG04 | B | 1/4" | 1/2" | 7 | 13 | 9 | 21 | 27,5 | 24 | Mosiądz | 20 |
| RBGG05 | B | 1/4" | 3/4" | 7 | 13 | 9 | 21 | 34,5 | 30 | Mosiądz | 10 |
| RBGG06 | B | 3/8" | 1/2" | 9 | 13 | 12 | 23 | 27,5 | 24 | Mosiądz | 20 |
| RBGG07 | B | 3/8" | 3/4" | 9 | 13 | 12 | 23 | 34,5 | 30 | Mosiądz | 10 |
| RBGG08 | B | 3/8" | 1" | 9 | 15 | 12 | 26 | 44 | 38 | Mosiądz | 10 |
| RBGG09 | B | 1/2" | 3/4" | 10 | 13 | 15 | 24,5 | 34,5 | 30 | Mosiądz | 10 |
| RBGG10 | B | 1/2" | 1" | 10 | 15 | 15 | 27 | 44 | 38 | Mosiądz | 10 |
| RBGG11 | B | 3/4" | 1" | 11 | 15 | 20,5 | 28 | 44 | 38 | Mosiądz | 10 |
| RBGG12 | B | 1" | 1"1/4 | 14 | 16 | 29 | 32 | 49 | 45 | Mosiądz | 5 |
| RBGG12A | B | 3/4" | 1"1/4 | 14 | 16 | 21 | 32 | 49 | 46 | Mosiądz | 5 |
| RBGG13 | C | 1" | 1"1/2 | 14 | 16 | 26,5 | 32 | 50 | - | Stal/*Steel* | 5 |
| RBGG14 | C | 1" | 2" | 16 | 18 | 26,5 | 37 | 64 | - | Stal/*Steel* | 2 |
| RBGG14A | C | 1"1/4 | 2" | 16 | 18 | 35 | 37 | 64 | - | Stal/*Steel* | 2 |
| RBGG15 | B | 1"1/4 | 1"1/2 | 16 | 16 | 35 | 34 | 54 | 50 | Mosiądz | 5 |
| RBGG16 | B | 1"1/2 | 2" | 16 | 18 | 42 | 37 | 70 | 64 | Mosiądz | 2 |
| RBGG17 | C | 2" | 2"1/2 | 20 | 22 | 50 | 49 | 85 | - | Stal/*Steel* | 2 |
| *REF. Part N.* | *Mould* | *F1 GAS male Thread* | *F2 GAS female thread* | *A1 mm* | *A2 mm* | *B mm* | *L mm* | *OD mm* | *SP mm* | *Mater.* | *Packing unit* |

***RBGG - Sleeve reducers male GAS thread - female GAS thread***

**RBGP - Redukcja gwint męski calowy - żeński PG**

| Kod | Kształt | F1 Gwint męski calowy | F2 Gwint żeński PG | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opako-wanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RBGP001 | B | 1/4" | 9 | 7 | 10 | 9 | 18 | 22 | 17 | Mosiądz | 20 |
| RBGP002 | B | 1/4" | 11 | 7 | 10 | 9 | 18 | 25,5 | 22 | Mosiądz | 20 |
| RBGP003 | B | 1/4" | 13,5 | 7 | 10 | 9 | 18 | 25,5 | 22 | Mosiądz | 20 |
| RBGP005 | B | 3/8" | 9 | 9 | 10 | 12 | 20 | 22 | 19 | Mosiądz | 20 |
| RBGP006 | B | 3/8" | 11 | 9 | 10 | 12 | 20 | 25,5 | 22 | Mosiądz | 20 |
| RBGP007 | B | 3/8" | 13,5 | 9 | 10 | 12 | 20 | 25,5 | 22 | Mosiądz | 20 |
| RBGP008 | B | 3/8" | 16 | 9 | 10 | 12 | 20 | 27,5 | 24 | Mosiądz | 20 |
| RBGP009 | B | 1/2" | 11 | 9 | 10 | 15 | 20 | 25,5 | 22 | Mosiądz | 20 |
| RBGP010 | B | 1/2" | 13,5 | 9 | 10 | 15 | 20 | 25,5 | 22 | Mosiądz | 20 |
| RBGP011 | B | 1/2" | 16 | 9 | 10 | 15 | 20 | 27,5 | 24 | Mosiądz | 20 |
| RBGP012 | B | 1/2" | 21 | 10 | 14 | 15 | 25 | 37 | 32 | Mosiądz | 10 |
| RBGP013 | B | 3/4" | 21 | 11 | 14 | 21 | 26 | 37 | 33 | Mosiądz | 10 |
| RBGP014 | B | 3/4" | 29 | 11 | 14 | 21 | 26 | 46 | 40 | Mosiądz | 10 |
| RBGP015 | B | 1" | 29 | 13 | 14 | 25 | 28 | 46 | 40 | Mosiądz | 10 |
| RBGP016 | B | 1"1/4 | 36 | 14 | 15 | 35 | 31 | 54 | 50 | Mosiądz | 5 |
| RBGP017 | B | 1"1/2 | 36 | 15 | 15 | 40 | 32 | 54 | 50 | Mosiądz | 5 |
| RBGP018 | B | 1"1/2 | 42 | 15 | 15 | 40 | 33 | 63 | 58 | Mosiądz | 5 |
| *REF. Part N.* | *Mould* | *F1 GAS male thread* | *F2 PG female thread* | *A1 mm* | *A2 mm* | *B mm* | *L mm* | *OD mm* | *SP mm* | *Mater.* | *Packing unit* |

***RBGP - Sleeve reducers male GAS thread - female PG thread***

**RBGG - Redukcja gwint żeński calowy- żeński calowy**

| Kod | Kształt | F1 Gwint żeński calowy | F2 Gwint żeński calowy | A1 mm | A2 mm | L mm | OD1 mm | OD2 mm | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|
| RBGG53 | D | 1/4" | 3/8" | 10 | 10 | 22 | 17 | 20 | Mosiądz | 10 |
| RBGG54 | D | 1/4" | 1/2" | 10 | 12 | 23 | 17 | 24 | Mosiądz | 10 |
| RBGG56 | D | 3/8" | 1/2" | 10 | 12 | 23 | 20 | 24 | Mosiądz | 10 |
| RBGG57 | D | 3/8" | 3/4" | 10 | 12 | 23 | 20 | 30 | Mosiądz | 10 |
| RBGG59 | D | 1/2" | 3/4" | 10 | 12 | 23 | 25 | 30 | Mosiądz | 10 |
| RBGG60 | D | 1/2" | 1" | 10 | 15 | 26 | 25 | 38 | Mosiądz | 10 |
| RBGG61 | D | 3/4" | 1" | 12 | 15 | 28 | 32 | 38 | Mosiądz | 10 |
| RBGG62 | D | 1" | 1"1/4 | 15 | 16 | 32 | 38 | 47 | Mosiądz | 5 |
| RBGG63 | D | 1" | 1"1/2 | 15 | 18 | 34 | 38 | 52 | Mosiądz | 5 |
| RBGG64 | D | 1" | 2" | 15 | 18 | 35 | 38 | 64 | Stal/*Steel* | 2 |
| RBGG65 | D | 1"1/4 | 1"1/2 | 16 | 18 | 36 | 47 | 52 | Mosiądz | 5 |
| RBGG66 | D | 1"1/2 | 2" | 16 | 18 | 40 | 55 | 65 | Mosiądz | 2 |
| RBGG67 | D | 2" | 2"1/2 | 20 | 22 | 46 | 70 | 89 | Stal/*Steel* | 2 |
| *REF. Part N.* | *Mould* | *F1 GAS female thread* | *F2 GAS female thread* | *A1 mm* | *A2 mm* | *L mm* | *OD1 mm* | *OD2 mm* | *Mater.* | *Packing unit* |

***RBGG - Sleeve reducers female GAS thread - female GAS thread***

**RBPG - Redukcja gwint męski PG - żeński calowy**

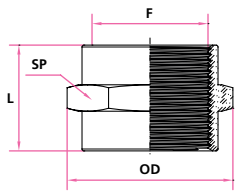
| Kod | Forma | F1 Gwint męski PG | F2 Gwint żeński calowy | A1 mm | A2 mm | B mm | L mm | OD mm | SP mm | Materiał | Opako-wanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RBPG31 | B | 7 | 1/4" | 7 | 9 | 9 | 17 | 17,3 | 15 | Mosiądz | 20 |
| RBPG32 | B | 9 | 1/4" | 7 | 9 | 11,4 | 17 | 17,3 | 15 | Mosiądz | 20 |
| RBPG32A | B | 7 | 3/8" | 7 | 9 | 9 | 17 | 22 | 19 | Mosiądz | 20 |
| RBPG33 | B | 9 | 3/8" | 7 | 9 | 11,4 | 17 | 22 | 19 | Mosiądz | 20 |
| RBPG34 | B | 11 | 3/8" | 7 | 9 | 15 | 17 | 22 | 19 | Mosiądz | 20 |
| RBPG34A | B | 9 | 1/2" | 7 | 12 | 11.4 | 21 | 27,5 | 24 | Mosiądz | 20 |
| RBPG35 | B | 11 | 1/2" | 7 | 12 | 15 | 21 | 27,5 | 24 | Mosiądz | 20 |
| RBPG36 | B | 13,5 | 1/2" | 7 | 12 | 16,3 | 21 | 27,5 | 24 | Mosiądz | 20 |
| RBPG37 | B | 16 | 1/2" | 7 | 12 | 19 | 21 | 27,5 | 24 | Mosiądz | 20 |
| RBPG37A | B | 13,5 | 3/4" | 7 | 13 | 16,3 | 21 | 34,5 | 30 | Mosiądz | 10 |
| RBPG37B | B | 16 | 3/4" | 7 | 13 | 19 | 21 | 34,5 | 30 | Mosiądz | 10 |
| RBPG38 | B | 21 | 3/4" | 9 | 13 | 24 | 23 | 34,5 | 30 | Mosiądz | 10 |
| RBPG39 | B | 21 | 1" | 9 | 15 | 24 | 26 | 44 | 38 | Mosiądz | 10 |
| RBPG40 | B | 29 | 1"1/4 | 11 | 15 | 30 | 28 | 49 | 45 | Mosiądz | 5 |
| RBPG40A | B | 21 | 1"1/4 | 9 | 15 | 24 | 26 | 50,5 | 44 | Mosiądz | 5 |
| RBPG41 | B | 29 | 1"1/2 | 11 | 16 | 32 | 29 | 54 | 50 | Mosiądz | 5 |
| RBPG42 | B | 36 | 1"1/2 | 14 | 16 | 43,5 | 32 | 54 | 50 | Mosiądz | 5 |
| RBPG43 | B | 48 | 2" | 14 | 19 | 53 | 35 | 70 | 64 | Mosiądz | 2 |
| RBPG43A | B | 36 | 2" | 14 | 19 | 42 | 35 | 70 | 64 | Mosiądz | 2 |
| RBPG44 | C | 48 | 2"1/2 | 18 | 22 | 50 | 43 | 82 | - | Stal/Steel | 2 |
| *REF. Part N.* | *Mould* | *F1 PG male thread* | *F2 GAS female thread* | *A1 mm* | *A2 mm* | *B mm* | *L mm* | *OD mm* | *SP mm* | *Mater.* | *Packing unit* |

***RBPG - Sleeve reducers male PG thread - female GAS thread***

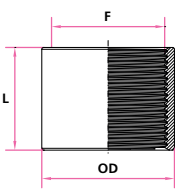
# MN

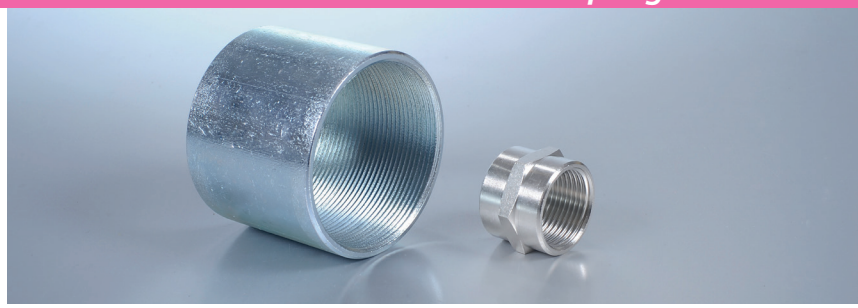
## Tuleja gwint żeński
## *Coupling sleeves*

Kształt A / *Mould A*




Kształt B / *Mould B*



### Zastosowanie
### *Application*

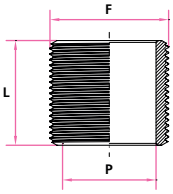
**MN - Tuleja gwint żeński calowy, PG, metryczny ISO**

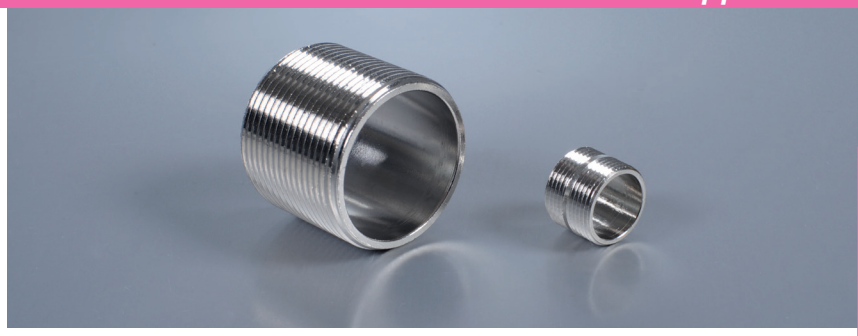
| Kod | F Gwint calowy | L mm | OD mm | SP mm | Kod | F Gwint metryczny ISO | L mm | OD mm | SP mm | Kod | F Gwint PG | L mm | OD mm | SP mm | Kształt | Materiał | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MN1E** | 1/4" | 15 | 17 | 15 | | | | | | | | | | | A | Mosiądz | 20 |
| **MN2E** | 3/8" | 18 | 22 | 19 | **MNM16E** | M16X1,5 | 18 | 22 | 19 | **MN01** | 9 | 18 | 22 | 19 | A | Mosiądz | 20 |
| | | | | | | | | | | **MN02** | 11 | 22 | 25,5 | 22 | A | Mosiądz | 20 |
| **MN3E** | 1/2" | 22 | 27,5 | 24 | **MNM20E** | M20X1,5 | 22 | 25,4 | 22 | **MN03** | 13,5 | 22 | 27,5 | 24 | A | Mosiądz | 20 |
| | | | | | | | | | | **MN04** | 16 | 24 | 30 | 26 | A | Mosiądz | 20 |
| **MN4E** | 3/4" | 24 | 34,5 | 30 | **MNM25E** | M25X1,5 | 24 | 32 | 28 | **MN05** | 21 | 24 | 38 | 33 | A | Mosiądz | 10 |
| **MN5E** | 1" | 30 | 44 | 38 | **MNM32E** | M32X1,5 | 30 | 40,5 | 35 | **MN06** | 29 | 30 | 48,5 | 42 | A | Mosiądz | 10 |
| **MN6E** | 1" 1/4 | 37 | 49,5 | 45 | **MNM40E** | M40X1,5 | 37 | 49,5 | 45 | | | | | | A | Mosiądz | 5 |
| | | | | | **MNM50E** | M50X1,5 | 37 | 56 | 52 | **MN07** | 36 | 34 | 55 | 50 | A | Mosiądz | 5 |
| | | | | | | | | | | **MN08** | 42 | 35 | 64 | 58 | A | Mosiądz | 5 |
| | | | | | | | | | | **MN09** | 48 | 45 | 70 | 64 | A | Mosiądz | 5 |
| **MN3T** | 1/2" | 34 | 25 | - | | | | | | | | | | | B | Stal/*Steel* | 20 |
| **MN4T** | 3/4" | 36 | 32 | - | | | | | | | | | | | B | Stal/*Steel* | 10 |
| **MN5T** | 1" | 43 | 38 | - | | | | | | | | | | | B | Stal/*Steel* | 10 |
| **MN6T** | 1" 1/4 | 48 | 48 | - | | | | | | | | | | | B | Stal/*Steel* | 5 |
| **MN7T** | 1" 1/2 | 48 | 55 | - | | | | | | | | | | | B | Stal/*Steel* | 2 |
| **MN8T** | 2" | 56 | 67 | - | | | | | | | | | | | B | Stal/*Steel* | 2 |
| **MN9T** | 2" 1/2 | 66 | 82 | - | | | | | | | | | | | B | Stal/*Steel* | 2 |
| **MN10T** | 3" | 72 | 95 | - | | | | | | | | | | | B | Stal/*Steel* | 2 |
| **MN11T** | 4" | 82 | 122 | - | | | | | | | | | | | B | Stal/*Steel* | Na zamów. */On demand* |
| *REF. Part N.* | *F GAS thread* | *L mm* | *OD mm* | *SP mm* | *REF. Part N.* | *F ISO Metric thread* | *L mm* | *OD mm* | *SP mm* | *REF. Part N.* | *F PG thread* | *L mm* | *OD mm* | *SP mm* | *Mould* | *Mater.* | *Packing unit* |

***MN - All thread coupling sleeves***

# NG-NM-NP

## Nypel gwint męski
## *Nipples*



### Zastosowanie
### *Application*

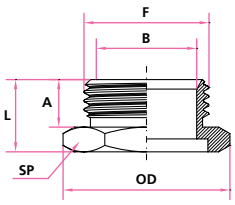
**N - Nypel gwint męski calowy, PG, metryczny ISO**

| Kod | F gwint GAZ. | L mm | P mm | Mater. | Kod | F Gwint metryczny ISO | Mater. | L mm | P mm | Opakowanie standard | Kod | F gwint PG | L mm | P mm | Mater. | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **NG02** | 1/4" | 19 | 9,5 | Mosiądz | | | | | | 20 | **NP001** | 7 | 16 | 9 | Mosiądz | 20 |
| **NG03** | 3/8" | 22 | 13 | Mosiądz | **NM16** | M16X1,5 | Mosiądz | 22 | 12 | 20 | **NP002** | 9 | 17 | 12 | Mosiądz | 20 |
| **NG04** | 1/2" | 22 | 15 | Mosiądz | **NM20** | M20X1,5 | Mosiądz | 22 | 15 | 20 | **NP003** | 11 | 17 | 15 | Mosiądz | 20 |
| **NG05** | 3/4" | 25 | 21 | Mosiądz | **NM25** | M25X1,5 | Mosiądz | 25 | 21 | 20 | **NP004** | 13,5 | 17 | 16 | Mosiądz | 20 |
| **NG06** | 1" | 28 | 26,8 | Mosiądz | **NM32** | M32X1,5 | Mosiądz | 28 | 27 | 10 | **NP005** | 16 | 17 | 18 | Mosiądz | 20 |
| **NG07** | 1" 1/4 | 38 | 35 | Mosiądz | **NM40** | M40X1,5 | Mosiądz | 38 | 35 | 5 | **NP006** | 21 | 21 | 24 | Mosiądz | 10 |
| **NG08** | 1" 1/2 | 40 | 41 | Mosiądz | **NM50** | M50X1,5 | Mosiądz | 40 | 45 | 5 | **NP007** | 29 | 23 | 32 | Mosiądz | 10 |
| **NG10** | 2" | 44 | 53 | Mosiądz | | | | | | 2 | **NP008** | 36 | 25 | 41 | Mosiądz | 5 |
| | | | | | | | | | | | **NP009** | 42 | 28 | 49 | Mosiądz | 2 |
| | | | | | | | | | | | **NP010** | 48 | 31 | 54 | Mosiądz | 2 |
| *REF. Part N.* | *F GAS thread* | *L mm* | *P mm* | *Mater.* | *REF. Part N.* | *F ISO Metric thread* | *Mater.* | *L mm* | *P mm* | *Packing unit* | *REF. Part N.* | *F PG thread* | *L mm* | *P mm* | *Mater.* | *Packing unit* |

***N - All thread nipples***

# AD

## Adapter z uszczelką
## *Adapters with gaskets*



Adaptery są stosowane w połączeniu z gwintami żeńskimi.

*To be used in combination with female threads where space saving is required.*

### Zastosowanie *Application*

**AD - Adapter z uszczelką**

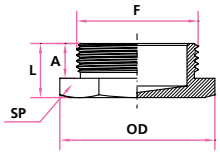
| Kod Calowy | F gwint calowy | A mm | B mm | L mm | OD mm | SP mm | Kod Metryczny | F Gwint metrycz. ISO | A mm | B mm | L mm | OD mm | SP mm | Kod PG | F gwint PG | A mm | B mm | L mm | OD mm | SP mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AD01** | 1/4" | 8 | 8,2 | 12 | 17 | 15 | **AD12M** | M12x1,5 | 8 | 7,2 | 7,2 | 17 | 15 | **AD001** | 7 | 8 | 8,2 | 12 | 17 | 15 | 20 |
| **AD02** | 3/8" | 8 | 11,2 | 12 | 22 | 19 | **AD16M** | M16x1,5 | 8 | 11,2 | 11,2 | 22 | 19 | **AD002** | 9 | 8 | 9,8 | 12 | 19,5 | 17 | 20 |
| | | | | | | | | | | | | | | **AD003** | 11 | 8 | 11,2 | 12 | 23 | 20 | 20 |
| **AD03** | 1/2" | 10 | 15,2 | 15 | 27,5 | 24 | **AD20M** | M20x1,5 | 10 | 15,2 | 15,2 | 27,5 | 24 | **AD004** | 13,5 | 10 | 15,2 | 15 | 25,5 | 22 | 20 |
| | | | | | | | | | | | | | | **AD005** | 16 | 10 | 15,2 | 15 | 27,5 | 24 | 20 |
| **AD04** | 3/4" | 10 | 20,5 | 15 | 34,5 | 30 | **AD25M** | M25X1,5 | 11 | 20,2 | 20,2 | 34,5 | 30 | **AD006** | 21 | 10 | 20,5 | 15 | 34,5 | 30 | 10 |
| **AD05** | 1" | 12 | 25,5 | 17,5 | 41,5 | 36 | **AD32M** | M32X1,5 | 12 | 25,5 | 25,5 | 51 | 35 | **AD007** | 29 | 12 | 25,5 | 17,5 | 44 | 38 | 10 |
| **AD06** | 1"1/4 | 14 | 33,2 | 20 | 49,5 | 45 | **AD40M** | M40X1,5 | 14 | 34 | 34 | 49,5 | 45 | | | | | | | | 1 |
| **AD07** | 1"1/2 | 20 | 40,5 | 27,5 | 56 | 52 | **AD50M** | M50X1,5 | 20 | 40,5 | 40,5 | 56 | 52 | **AD008** | 36 | 20 | 40,5 | 27,5 | 56 | 52 | 1 |
| | | | | | | | | | | | | | | **AD009** | 42 | 19,5 | 40,5 | 27 | 62 | 58 | 1 |
| **AD08** | 2" | 24,5 | 52,5 | 34 | 72 | 65 | **AD63M** | M63X1,5 | 24,5 | 52,5 | 52,5 | 70 | 64 | **AD010** | 48 | 24,5 | 52,5 | 34 | 72 | 65 | 1 |
| **AD09** | 2"1/2 | 24 | 67,5 | 34 | 90 | 82 | | | | | | | | | | | | | | | 1 |
| **AD10** | 3" | 27 | 77,5 | 39 | 106 | 95 | | | | | | | | | | | | | | | 1 |
| *REF. Part N.* | *F GAS thread* | *A mm* | *B mm* | *L mm* | *OD mm* | *SP mm* | *REF. Part N.* | *F ISO Metric thread* | *A mm* | *B mm* | *L mm* | *OD mm* | *SP mm* | *REF. Part N.* | *F PG thread* | *A mm* | *B mm* | *L mm* | *OD mm* | *SP mm* | *Packing unit* |

***AD - Adapters with gaskets***

# TPE

## Zaślepka sześciokątna
## *Hexagonal caps*

**Stopień ochrony IP68 - wymaga zastosowania po stronie gwintu uszczelki GAM/GRA**
**Protection IP68 - requires an additional GAM/GRA seal on the thread**




### Zastosowanie *Application*

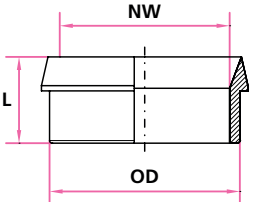
**TPE - Zaślepka sześciokątna**

| Kod Calowy | F Gwint calowy | Materiał | A mm | L mm | OD mm | SP mm | Kod Metryczny | F Gwint metrycz. ISO | Materiał | A mm | L mm | OD mm | SP mm | Kod PG | F Gwint PG | Materiał | A mm | L mm | OD mm | SP mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TPE1** | 1/4" | Mosiądz | 8 | 12 | 17 | 15 | | | | | | | | **TPE01** | 7 | Mosiądz | 8 | 12 | 16 | 14 | 20 |
| **TPE2** | 3/8" | Mosiądz | 8 | 13 | 22 | 19 | **TPEM16** | M16x1,5 | Mosiądz | 8 | 13 | 22 | 19 | **TPE02** | 9 | Mosiądz | 8 | 12 | 19,5 | 17 | 20 |
| | | | | | | | | | | | | | | **TPE03** | 11 | Mosiądz | 8 | 13 | 23 | 20 | 20 |
| **TPE3** | 1/2" | Mosiądz | 9 | 14 | 27,5 | 24 | **TPEM20** | M20x1,5 | Mosiądz | 8 | 13 | 25,5 | 22 | **TPE04** | 13,5 | Mosiądz | 8 | 13 | 25,5 | 22 | 20 |
| | | | | | | | | | | | | | | **TPE05** | 16 | Mosiądz | 9 | 14 | 27,5 | 24 | 20 |
| **TPE4** | 3/4" | Mosiądz | 9 | 14 | 34,5 | 30 | **TPEM25** | M25X1,5 | Mosiądz | 9 | 14 | 34,5 | 30 | **TPE06** | 21 | Mosiądz | 10 | 15 | 34,5 | 30 | 10 |
| **TPE5** | 1" | Mosiądz | 10 | 15,5 | 44 | 38 | **TPEM32** | M32X1,5 | Mosiądz | 9 | 14 | 40,5 | 35 | **TPE07** | 29 | Mosiądz | 10 | 15 | 44 | 38 | 10 |
| **TPE6** | 1"1/4 | Stal/*Steel* | 15 | 22 | 48,5 | 42 | **TPEM40** | M40X1,5 | Mosiądz | 9 | 17 | 48,5 | 42 | | | | | | | | 5 |
| **TPE7** | 1"1/2 | Mosiądz | 15 | 22 | 57,5 | 50 | **TPEM50** | M50X1,5 | Mosiądz | 13 | 23 | 63,5 | 55 | **TPE08** | 36 | Stal/*Steel* | 13 | 20 | 57,5 | 50 | 5 |
| | | | | | | | | | | | | | | **TPE09** | 42 | Stal/*Steel* | 14 | 21 | 63,5 | 55 | 5 |
| **TPE8** | 2" | Mosiądz | 16 | 24 | 69 | 60 | **TPEM63** | M63X1,5 | Mosiądz | 16 | 24 | 87 | 81 | **TPE010** | 48 | Stal/*Steel* | 15 | 23 | 69 | 60 | 2 |
| **TPE9** | 2"1/2 | Stal/*Steel* | 19 | 29 | 86,5 | 75 | | | | | | | | | | | | | | | 2 |
| *REF. Part N.* | *F GAS thread* | *Mater.* | *A mm* | *L mm* | *OD mm* | *SP mm* | *REF. Part N.* | *F ISO Metric thread* | *Mater.* | *A mm* | *L mm* | *OD mm* | *SP mm* | *REF. Part N.* | *F PG thread* | *Mater.* | *A mm* | *L mm* | *OD mm* | *SP mm* | *Packing unit* |

***TPE - Hexagonal caps***

# BCM

## Pierścień mosiężny EMC
## *EMC brass ring*



### Zastosowanie *Application*

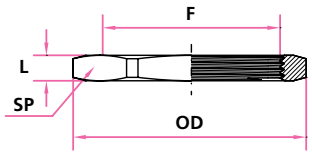
**BCM - Pierścień mosiężn EMC**

| Kod | NW dla rur z oplotem metalowym | NW dla rur giętkich stalowych | L mm | OD mm | Opakowanie standard |
|---|---|---|---|---|---|
| **BCM10M** | SVT10 - T10 - TP10 | NZ12 - NDX12 | 14 | 20,5 | 20 |
| **BCM15M** | SVT15 - T15 - TP15 | NZ18 - NDX18 | 14 | 26,5 | 20 |
| **BCM20M** | SVT20 - T20 - TP20 | | 17 | 33 | 20 |
| **BCM27M** | SVT27 - T27 - TP27 | | 18,5 | 40 | 20 |
| **BCM40M** | SVT40 - T40 - TP40 | NZ40 - NDX40 | 22,5 | 56 | 5 |
| **BCM50M** | SVT50 - T50 - TP50 | NZ50 - NDX50 | 23 | 67,5 | 5 |
| *REF. Part N.* | *NW suitable for metal braided conduits* | *NW suitable for naked conduits* | *L mm* | *OD mm* | *Packing unit* |

***BCM - EMC brass rings***

# D - DM

## Nakrętka mosiężna
## *Brass locknuts*



### Zastosowanie *Application*

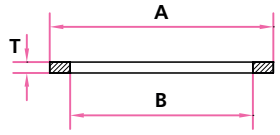
**D - DM - Nakrętka mosiężna**

| Kod Calowy | F gwint calowy | L mm | OD mm | SP mm | Kod Metryczny | F gwint metryczny ISO | L mm | OD mm | SP mm | Kod PG | F gwint PG | L mm | OD mm | SP mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **D01** | 1/4" | 4 | 17 | 15 | **DM12** | M12x1,5 | 3 | 16,5 | 15 | **D20** | 7 | 4 | 17 | 15 | 100 |
| **D02** | 3/8" | 4 | 22 | 19 | **DM16** | M16x1,5 | 4 | 22 | 19 | **D21** | 9 | 4 | 22 | 19 | 100 |
| | | | | | | | | | | **D22** | 11 | 4 | 25.5 | 22 | 100 |
| **D03** | 1/2" | 5 | 27,5 | 24 | **DM20** | M20x1,5 | 5 | 27,5 | 24 | **D23** | 13,5 | 4 | 27,5 | 24 | 100 |
| | | | | | | | | | | **D24** | 16 | 4 | 31 | 27 | 50 |
| **D04** | 3/4" | 5 | 34,5 | 30 | **DM25** | M25x1,5 | 5 | 33,5 | 29 | **D25** | 21 | 5 | 37 | 32 | 50 |
| **D05** | 1" | 5,5 | 44 | 38 | **DM32** | M32x1,5 | 5 | 41,5 | 36 | **D26** | 29 | 5,5 | 48,5 | 42 | 50 |
| **D07** | 1"1/4 | 6 | 49,5 | 45 | **DM40** | M40x1,5 | 6 | 49,5 | 45 | | | | | | 25 |
| **D08** | 1"1/2 | 6 | 56 | 52 | **DM50** | M50x1,5 | 5 | 60 | 55 | **D27** | 36 | 5,5 | 56 | 52 | 25 |
| | | | | | | | | | | **D28** | 42 | 5,5 | 65 | 60 | 10 |
| **D09** | 2" | 10 | 74 | 66 | **DM63** | M63x1,5 | 6 | 78 | 70 | **D29** | 48 | 10 | 74 | 66 | 10 |
| **D10** | 2"1/2 | 10 | 93 | 83 | | | | | | | | | | | 5 |
| **D11** | 3" | 10 | 105,5 | 100 | | | | | | | | | | | 5 |
| **D12** | 4" | 10 | 133 | 128 | | | | | | | | | | | 2 |
| *REF. Part N.* | *F GAS thread* | *L mm* | *OD mm* | *SP mm* | *REF. Part N.* | *F ISO Metric thread* | *L mm* | *OD mm* | *SP mm* | *REF. Part N.* | *F PG thread* | *L mm* | *OD mm* | *SP mm* | *Packing unit* |

***D - DM - Brass locknuts***

# G-GAM-GRA

## Uszczelki
## *Sealing gaskets*



### G - Uszczelka z guarnitalu

Gwarantują dobrą odporność mechaniczną oraz na działanie olejów

*Guarantee good mechanical and oil resistance.*

| Kod calowy | F Gwint calowy | A mm | B mm | T mm | Opakowanie standard | Kod metryczny ISO | F gwint metryczny ISO | A mm | B mm | T mm | Opakowanie standard | Kod PG | F Gwint PG | A mm | B mm | T mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G01 | 1/4" | 18 | 13,3 | 2 | 100 | G01 | M12X1,5 | 18 | 13,3 | 2 | 100 | G01 | 7 | 18 | 13,3 | 2 | 100 |
| G02 | 3/8" | 23 | 17 | 2 | 100 | GMG16 | M16X1,5 | 22 | 16,3 | 2 | 100 | G22 | 9 | 20 | 15,2 | 2 | 100 |
| | | | | | | | | | | | | G23 | 11 | 23 | 19 | 2 | 100 |
| G03 | 1/2" | 27 | 21 | 2,5 | 100 | G24 | M20X1,5 | 26 | 20,3 | 2 | 100 | G24 | 13,5 | 26 | 20,5 | 2 | 100 |
| | | | | | | | | | | | | G25 | 16 | 28 | 22,7 | 2 | 50 |
| G04 | 3/4" | 34 | 26,5 | 2,5 | 50 | GMG25 | M25X1,5 | 32 | 25,3 | 2 | 50 | G26 | 21 | 35 | 28,5 | 2,5 | 50 |
| G05 | 1" | 41 | 33,5 | 2,5 | 50 | GMG32 | M32X1,5 | 39 | 32,3 | 2 | 50 | G27 | 29 | 44,5 | 37,2 | 2,5 | 50 |
| G06 | 1"1/4 | 52 | 42 | 2,5 | 25 | GMG40 | M40X1,5 | 50 | 40,3 | 2 | 20 | | | | | | |
| G07 | 1"1/2 | 58 | 48 | 2,5 | 25 | GMG50 | M50X1,5 | 60 | 50,3 | 2 | 20 | G07 | 36 | 58 | 48 | 2,5 | 25 |
| | | | | | | | | | | | | G29 | 42 | 63 | 54,3 | 2,5 | 10 |
| G08 | 2" | 70 | 60 | 2,5 | 10 | GMG63 | M63X1,5 | 73 | 63,3 | 2 | 10 | G08 | 48 | 70 | 60 | 2,5 | 10 |
| G09 | 2"1/2 | 86 | 76 | 2,5 | 5 | | | | | | | | | | | | |
| G10 | 3" | 98 | 88 | 2,5 | 5 | | | | | | | | | | | | |
| G11 | 4" | 125,5 | 113,5 | 2,5 | 1 | | | | | | | | | | | | |
| *GAS REF. Part N.* | *F GAS thread* | *A mm* | *B mm* | *T mm* | *Packing unit* | *ISO Metric REF. Part N.* | *F ISO Metric thread* | *A mm* | *B mm* | *T mm* | *Packing unit* | *PG REF. Part N.* | *F PG thread* | *A mm* | *B mm* | *T mm* | *Packing unit* |

***G - Sealing gaskets made of guarnital***

### GAM - Uszczelka z włókna mineralnego

Gwarantują dobrą wytrzymałość mechaniczną i odporność na działanie olejów i temperatury (-45°C + 150°C).

*Guarantee good mechanical, oil and temperature resistance. Temperature Range: -45°C +150°C.*

| Kod calowy | F Gwint calowy | A mm | B mm | T mm | Opakowanie standard | Kod metryczny ISO | F Gwint metryczny ISO | A mm | B mm | T mm | Opakowanie standard | Kod PG | F Gwint PG | A mm | B mm | T mm | Opakowanie standard | Kod NPT | F Gwint NPT | A mm | B mm | T mm | Opako-wanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GAM01 | 1/4" | 18 | 13,3 | 2 | 100 | GAM01 | M12X1,5 | 18 | 13,3 | 2 | 100 | GAM01 | 7 | 18 | 13,3 | 2 | 100 | | | | | | |
| GAM02 | 3/8" | 23 | 17 | 2 | 100 | GMA16 | M16X1,5 | 22 | 16,3 | 2 | 100 | GAM22 | 9 | 20 | 15,2 | 2 | 100 | | | | | | |
| | | | | | | | | | | | | GAM23 | 11 | 23 | 19 | 2 | 100 | | | | | | |
| GAM03 | 1/2" | 27 | 21 | 2 | 100 | GAM24 | M20X1,5 | 26 | 20,3 | 2 | 100 | GAM24 | 13,5 | 26 | 20,5 | 2 | 100 | GAM03N | 1/2" | 28 | 21,5 | 2 | 50 |
| | | | | | | | | | | | | GAM25 | 16 | 28 | 22,7 | 2 | 50 | | | | | | |
| GAM04 | 3/4" | 34 | 26,5 | 2 | 50 | GMA25 | M25X1,5 | 32 | 25,3 | 2 | 50 | GAM26 | 21 | 35 | 28,5 | 2 | 50 | GAM04N | 3/4" | 37 | 27 | 2 | 30 |
| GAM05 | 1" | 41 | 33,5 | 2 | 50 | GMA32 | M32X1,5 | 39 | 32,3 | 2 | 50 | GAM27 | 29 | 44,5 | 37,2 | 2 | 50 | GAM05N | 1" | 44 | 33,5 | 2 | 20 |
| GAM06 | 1"1/4 | 52 | 42 | 2 | 25 | GMA40 | M40X1,5 | 50 | 40,3 | 2 | 20 | | | | | | | GAM06N | 1"1/4 | 53 | 42,5 | 2 | 20 |
| GAM07 | 1"1/2 | 58 | 48 | 2 | 25 | GMA50 | M50X1,5 | 60 | 50,3 | 2 | 20 | GAM07 | 36 | 58 | 48 | 2 | 25 | | | | | | |
| | | | | | | | | | | | | GAM29 | 42 | 63 | 54,3 | 2 | 10 | | | | | | |
| GAM08 | 2" | 70 | 60 | 2 | 10 | GMA63 | M63X1,5 | 73 | 63,3 | 2 | 10 | GAM08 | 48 | 70 | 60 | 2 | 10 | GAM08N | 2" | 70 | 60,5 | 2 | 10 |
| GAM09 | 2"1/2 | 86 | 76 | 2 | 5 | | | | | | | | | | | | | | | | | | |
| GAM10 | 3" | 98 | 88 | 2 | 5 | | | | | | | | | | | | | | | | | | |
| GAM11 | 4" | 125,5 | 113,5 | 2 | 1 | | | | | | | | | | | | | | | | | | |
| *GAS REF. Part N.* | *F GAS thread* | *A mm* | *B mm* | *T mm* | *Packing unit* | *ISO Metric REF. Part N.* | *F ISO Metric thread* | *A mm* | *B mm* | *T mm* | *Packing unit* | *PG REF. Part N.* | *F PG thread* | *A mm* | *B mm* | *T mm* | *Packing unit* | *NPT REF. Part N.* | *F NPT thread* | *A mm* | *B mm* | *T mm* | *Packing unit* |

***GAM - Sealing gaskets made of mineral fiber***

### GRA - Uszczelka miedziana

| Kod calowy | F Gwint calowy | A mm | B mm | T mm | Opakowanie standard | Kod metryczny ISO | F Gwint metryczny ISO | A mm | B mm | T mm | Opakowanie standard | Kod PG | F Gwint PG | A mm | B mm | T mm | Opakowanie standard |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRA01 | 1/4" | 18 | 13,2 | 1,5 | 100 | GRA01 | M12X1,5 | 18 | 13,2 | 1,5 | 100 | GRA01 | 7 | 18 | 13,2 | 1,5 | 100 |
| GRA02 | 3/8" | 23 | 17 | 1,5 | 100 | GRM16 | M16X1,5 | 22 | 16,2 | 1,5 | 100 | GRA22 | 9 | 21,5 | 15,4 | 1,5 | 100 |
| | | | | | | | | | | | | GRA23 | 11 | 24,2 | 18,7 | 1,5 | 100 |
| GRA03 | 1/2" | 27 | 21 | 1,5 | 100 | GRA24 | M20X1,5 | 26 | 20,3 | 1,5 | 100 | GRA24 | 13,5 | 26 | 20,3 | 1,5 | 100 |
| | | | | | | | | | | | | GRA25 | 16 | 30 | 22,7 | 1,5 | 50 |
| GRA04 | 3/4" | 32,5 | 26,6 | 1,5 | 50 | GRM25 | M25X1,5 | 32 | 25,1 | 1,5 | 50 | GRA26 | 21 | 34 | 28,4 | 1,5 | 50 |
| GRA05 | 1" | 41 | 33,4 | 1,5 | 50 | GRM32 | M32X1,5 | 38 | 32,3 | 1,5 | 50 | GRA27 | 29 | 43 | 36,7 | 1,5 | 50 |
| GRA06 | 1"1/4 | 50 | 42,2 | 1,5 | 25 | GRM40 | M40X1,5 | 50 | 40,3 | 1,5 | 20 | | | | | | |
| GRA07 | 1"1/2 | 55 | 48,3 | 1,5 | 25 | GRM50 | M50X1,5 | 60 | 50,1 | 1,5 | 20 | GRA28 | 36 | 56 | 47 | 1,5 | 25 |
| | | | | | | | | | | | | GRA29 | 42 | 64 | 54,2 | 1,5 | 10 |
| GRA08 | 2" | 70 | 60,3 | 1,5 | 10 | GRM63 | M63X1,5 | 73 | 63,3 | 1,5 | 10 | GRA30 | 48 | 70 | 59 | 1,5 | 10 |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| *GAS REF. Part N.* | *F GAS thread* | *A mm* | *B mm* | *T mm* | *Packing unit* | *ISO Metric REF. Part N.* | *F ISO Metric thread* | *A mm* | *B mm* | *T mm* | *Packing unit* | *PG REF. Part N.* | *F PG thread* | *A mm* | *B mm* | *T mm* | *Packing unit* |

***GRA - Sealing gaskets made of copper***

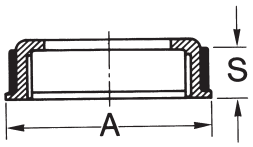
# DB-DBT

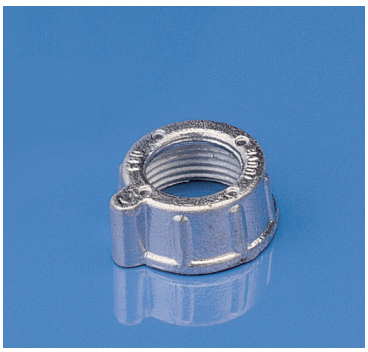
## Tuleja
## *Bushings*

### Zastosowanie
### *Application*

**DB - Tuleja aluminiowa**

| Kod | F Gwint calowy | A mm | S mm | Opakowanie standard |
|---|---|---|---|---|
| **DB01** | 1/2" | 32 | 17 | 20 |
| **DB02** | 3/4" | 37 | 17 | 20 |
| **DB03** | 1" | 41 | 19 | 20 |
| **DB04** | 1"1/4 | 51 | 19 | 10 |
| **DB05** | 1"1/2 | 57 | 20 | 10 |
| **DB06** | 2" | 70 | 20 | 5 |
| **DB07** | 2"1/2 | 88 | 20 | 5 |
| **DB08** | 3" | 100 | 21 | 5 |
| **DB10** | 4" | 124 | 23 | 2 |
| ***REF. Part N.*** | ***F GAS thread*** | ***A mm*** | ***S mm*** | ***Packing unit*** |



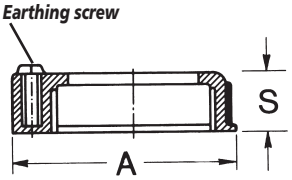



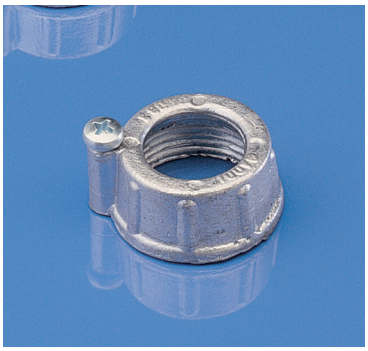
***DB - Aluminium bushings***

**DBT - Tuleja aluminiowa ze śrubą uziemiającą**

| Kod | F Gwint calowy | A mm | S mm | Opakowanie standard |
|---|---|---|---|---|
| **DBT01** | 1/2" | 32 | 17 | 20 |
| **DBT02** | 3/4" | 37 | 17 | 20 |
| **DBT03** | 1" | 41 | 19 | 20 |
| **DBT04** | 1"1/4 | 51 | 19 | 10 |
| **DBT05** | 1"1/2 | 57 | 20 | 10 |
| **DBT06** | 2" | 70 | 20 | 5 |
| **DBT07** | 2"1/2 | 88 | 20 | 5 |
| **DBT08** | 3" | 100 | 21 | 2 |
| **DBT10** | 4" | 124 | 23 | 2 |
| ***REF. Part N.*** | ***F GAS thread*** | ***A mm*** | ***S mm*** | ***Packing unit*** |

**Śruba uziemiająca**
***Earthing screw***



***DBT - Aluminium bushings with earthing screw***

# DE

## Nakrętka EMC
## *Locknuts for equipotential bonding*

*Nakrętki DE z 6 ząbkami w trakcie dokręcania "wcinają się" w pomalowany lub powlekany materiał zapewniając ciągłość elektryczną pomiędzy dławnicą a obudową. Dodatkową ich zaletą jest większa odporność na drgania.*

**Problem ...**

Malowana lub lakierowana proszkowo obudowa nie może być włączona bezpośrednio w system wyrównania potencjałów. Powierzchnia musi zostać porysowana.

**... Rozwiązanie**

Nakrętka kontrująca z 6 ząbkami tnącymi rysuje podczas dokręcania farbę, zapewniając bezpośredni trwały kontakt.

- Brak korozji powierzchniowej.
- Bardzo niska rezystancja: dławnica/obudowa.
- Nie ma potrzeby czyszczenia powierzchni styku.
- Wzrost wytrzymałości na drgania dzięki przeciwnakrętce.

*To ensure permanent bonding between the cable gland and housing in painted or coated housings, a lock nut with 6 teeth which cut into the coating automatically when tightened, thus providing equipotential bonding. Moreover, this type of attachment increases the installation's resistance to vibration.*

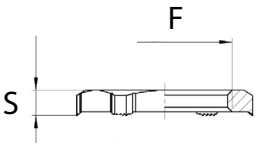
***The Problem ...***

*Painted or powder-coated housing cannot be incorporated directly in the equipotential bonding system. The contact surface must be made clean.*

***... The Solution***

*The 6 teeth of the lock nut for equipotential bonding scrape into the insulating layers of paint or powder and create a vibration-resistant contact*

- *no surface corrosion.*
- *very lowohm transition: gland/housing.*
- *no need to clean contact surface.*
- *additional increases the installed vibration-resistance through frictional connection.*




**DE - Nakrętka EMC**

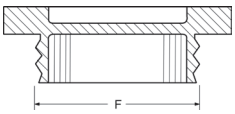
| Kod | F Gwint PG | Kod | F Gwint metr. ISO | S mm | SWxE mm | Opakowanie Standard |
|---|---|---|---|---|---|---|
| DE20 | 7 | | | 3,3 | 15x16,6 | 50 |
| | | DEM12 | M12X1,5 | 3,3 | 17x18,9 | 50 |
| DE21 | 9 | | | 3,3 | 18x19,5 | 50 |
| DE22 | 11 | DEM16 | M16X1,5 | 3,5 | 22x24,4 | 50 |
| DE23 | 13,5 | DEM20 | M20X1,5 | 3,7 | 24x26,7 | 50 |
| DE24 | 16 | | | 3,7 | 26x28,8 | 50 |
| | | DEM25 | M25X1,5 | 4,5 | 30x33,5 | 50 |
| DE25 | 21 | | | 4,5 | 32x35,5 | 50 |
| DE26 | 29 | | | 5 | 40x43,5 | 50 |
| | | DEM32 | M32X1,5 | 5,5 | 40x43,5 | 50 |
| | | DEM40 | M40X1,5 | 5,7 | 50x54 | 50 |
| DE27 | 36 | | | 6 | 50x54 | 25 |
| DE28 | 42 | DEM50 | M50X1,5 | 6,2 | 60x65 | 10 |
| DE29 | 48 | | | 6,7 | 64x69 | 10 |
| | | DEM63 | M63X1,5 | 6,7 | 81x87 | 10 |
| *REF. Part N.* | *F PG thread* | *REF. Part N* | *F ISO Metric thread* | *S mm* | *SWxE mm* | *Packing unit* |

***DE - Equipotential bonding lock nuts***

# X514

## Zaślepka poliamidowa - gwint PG
## *Polyamide plug screws - PG thread*

**Zaślepki poliamidowe** — **Polyamide plug screws**




| Kod Artykułu | F Gwint PG | A mm | Opakowanie standard |
|---|---|---|---|
| X5147 | 7 | 15 | 50 |
| X5149 | 9 | 19 | 50 |
| X51411 | 11 | 22 | 50 |
| X51413 | 13,5 | 25 | 50 |
| X51416 | 16 | 27 | 50 |
| X51421 | 21 | 33 | 50 |
| X51429 | 29 | 44,5 | 25 |
| X51436 | 36 | 55,5 | 25 |
| X51442 | 42 | 64 | 10 |
| X51448 | 48 | 69 | 10 |
| *REF. Part N.* | *F PG thread* | *A mm* | *Packing unit* |

# IP

## Stopień ochrony - *Degree of protection*

Stopień ochrony oznaczony jest dwoma cyframi poprzedzonymi symbolem IP (International Protection): pierwsza cyfra oznacza ochronę przed pyłami, druga przed cieczami.

*Degree of protection is indicated by two digits prior IP (International Protection): the first digit indicates protection against solid objects, the second against liquids.*

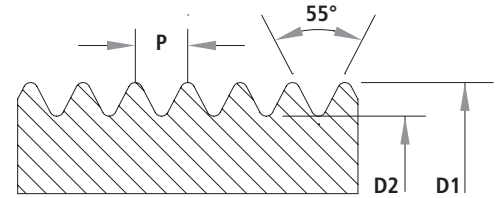
| Pierwsza cyfra *First digit* | Ochrona przed ciałami stałymi *Protection against solid objects* |
|---|---|
| 0 | Brak ochrony<br>*No protection* |
| 1 | Ochrona przed ciałami dużej wielkości (średnica powyżej 52,5 mm). Ochrona przed przypadkowym dostępem.<br>*Protection against large bodies (greater diameter than 52,5 mm). Protection against accidental contacts.* |
| 2 | Ochrona przed ciałami średniej wielkości (średnica powyżej 12,5 mm). Ochrona przed dostępem palcami.<br>*Protection against medium - size bodies (greater diameter than 12,5 mm). Protection against contact with fingers.* |
| 3 | Ochrona przed ciałami małej wielkości (średnica powyżej 2,5 mm). Ochrona przed dostępem narzędziami.<br>*Protection against small bodies (greater diameter than 2,5 mm). Protection against contact with tools.* |
| 4 | Ochrona przed ciałami bardzo małej wielkości (średnica powyżej 1 mm). Ochrona przed dostępem cienkimi narzędziami, cienkimi przewodami.<br>*Protection against very small objects (greater diameter than 1 mm). Protection against introduction of vires and pins.* |
| 5 | Ochrona przed wnikaniem pyłu; wnikanie pyłu w ilościach nie zakłócających pracy urządzenia.<br>*Protection against penetration of dust: penetration is not totally excluded, but is limited to quantities that does not put the appliances at risk.* |
| 6 | Całkowita ochrona przed wnikaniem pyłu. Wnikanie pyłu jest całkowicie wykluczone.<br>*Total protection against dust. Penetration of dust is totally excluded.* |

| Druga cyfra *Second digit* | Ochrona przed cieczami *Protection against liquids* |
|---|---|
| 0 | Brak ochrony<br>*No protection* |
| 1 | Ochrona przed kroplami wody spadającymi pionowo (z kondensacji).<br>*Protection against dripping of water and condensation (dripping vertically under gravity).* |
| 2 | Ochrona przed kroplami spadającymi pod kątem 15° od pionu.<br>*Protection against dripping, against water dripping at maximum angle of 15° to vertical plane.* |
| 3 | Ochrona przed deszczem, kroplami padającymi pod kątem 60° od pionu.<br>*Protection against rain, protection against falling drops at maximum angle of 60° to vertical plane.* |
| 4 | Ochrona przed strugami, kroplami padającymi pod dowolnym kątem ze wszystkich stron.<br>*Protection against splashes, protection against drops striking the container from all angles.* |
| 5 | Ochrona przed strumieniami wody. Strumienie wody z dowolnego kierunku z odległości 3 m nie mogą wnikać przez obudowę.<br>*Protection against sprayed water. The spray at a distance of 3 meters coming from any direction must not penetrate.* |
| 6 | Ochrona przed silnymi strumieniami wody lub zalewaniem wodą.<br>*Protection against violent waves and water jets.* |
| 7 | Ochrona przed zanurzeniem. Woda nie może wniknąć do obudowy zanurzonej w wodzie przez określony czas.<br>*Protection against immersion. Water must not penetrate the container held in immersion for a certain period of time.* |
| 8 | Ochrona przed zanurzeniem. Woda nie może wniknąć do obudowy zanurzonej w wodzie przez długi czas.<br>*Protection against immersion. Water must not penetrate the container held in immersion for an undefined period of time.* |
| 9K | Ochrona przed zalaniem strugą wody pod ciśnieniem (80-100 bar) o wysokiej temperaturze (80°C) (wysokociśnieniowe systemy myjące ).<br>*Protection against high pressure (80–100bar) and high temperature (80°C) water jets (deep cleaning applications).* |

# Gwinty / *Threads*

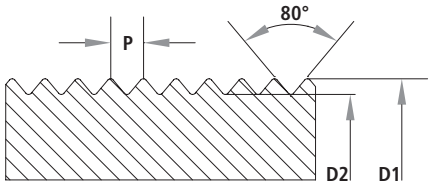
Tabele gwintów - *Thread guide*

## Calowy UNI - ISO 228



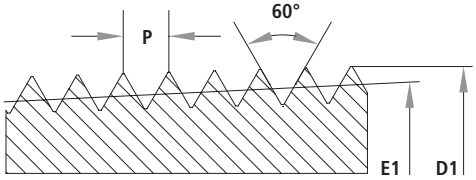

| Gwint calowy | Średnica zewnętrzna gwintu mm | Średnica na dole gwintu mm | Podziałka mm | Liczba gwintów dla 1"=25,4 mm |
|---|---|---|---|---|
| | D1 | D2 | P | |
| 1/8" | 9,728 | 8,566 | 0,907 | 28 |
| 1/4" | 13,157 | 11,445 | 1,337 | 19 |
| 3/8" | 16,652 | 14,950 | 1,337 | 19 |
| 1/2" | 20,955 | 18,631 | 1,814 | 14 |
| 5/8" | 22,911 | 20,587 | 1,814 | 14 |
| 3/4" | 26,441 | 24,117 | 1,814 | 14 |
| 7/8" | 30,201 | 27,877 | 1,814 | 14 |
| 1" | 33,249 | 30,291 | 2,309 | 11 |
| 1" 1/8 | 37,897 | 34,939 | 2,309 | 11 |
| 1" 1/4 | 41,910 | 38,952 | 2,309 | 11 |
| 1" 3/8 | 44,323 | 41,365 | 2,309 | 11 |
| 1" 1/2 | 47,803 | 44,845 | 2,309 | 11 |
| 1" 3/4 | 53,746 | 50,788 | 2,309 | 11 |
| 2" | 59,614 | 56,656 | 2,309 | 11 |
| 2" 1/4 | 65,710 | 62,752 | 2,309 | 11 |
| 2" 3/8 | 69,398 | 66,440 | 2,309 | 11 |
| 2" 1/2 | 75,184 | 72,226 | 2,309 | 11 |
| 2" 3/4 | 81,534 | 78,576 | 2,309 | 11 |
| 3" | 87,884 | 84,926 | 2,309 | 11 |
| 3" 1/2 | 100,330 | 97,372 | 2,309 | 11 |
| 3" 1/4 | 106,680 | 103,722 | 2,309 | 11 |
| 4" | 113,030 | 110,072 | 2,309 | 11 |
| 4" 1/2 | 125,730 | 122,772 | 2,309 | 11 |
| 5" | 138,430 | 135,472 | 2,309 | 11 |
| 5" 1/2 | 151,130 | 148,172 | 2,309 | 11 |
| 6" | 163,830 | 160,872 | 2,309 | 11 |
| | D1 | D2 | P | |
| *GAS thread* | *Outside diameter thread mm* | *Bottom thread diameter mm* | *Pitch mm* | *Number of pitch in 1"=25,4 mm* |

## PG DIN 40431



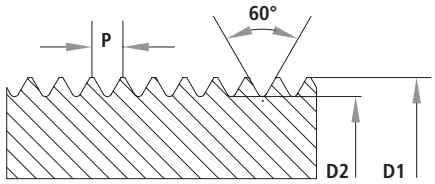

| Gwint PG | Średnica zewnętrzna gwintu mm | Średnica na dole gwintu mm | Podziałka mm | Liczba gwintów dla 1"=25,4 mm |
|---|---|---|---|---|
| | D1 | D2 | P | |
| 7 | 12,5 | 11,28 | 1,27 | 20 |
| 9 | 15,2 | 13,86 | 1,41 | 18 |
| 11 | 18,6 | 17,26 | 1,41 | 18 |
| 13,5 | 20,4 | 19,06 | 1,41 | 18 |
| 16 | 22,5 | 21,16 | 1,41 | 18 |
| 21 | 28,3 | 26,78 | 1,588 | 16 |
| 29 | 37 | 35,48 | 1,588 | 16 |
| 36 | 47 | 45,48 | 1,588 | 16 |
| 42 | 54 | 52,48 | 1,588 | 16 |
| 48 | 59,3 | 57,78 | 1,588 | 16 |
| | D1 | D2 | P | |
| *PG thread* | *Outside diameter thread mm* | *Bottom thread diameter mm* | *Pitch mm* | *Number of pitch in 1"=25,4 mm* |

## NPT ANSI/ASME B1.20.1 - 1983




| Gwint NPT | Średnica zewnętrzna gwintu mm | Średnica na dole gwintu mm | Podziałka mm | Liczba gwintów dla 1"=25,4 mm |
|---|---|---|---|---|
| | D1 | E1 | P | |
| 1/16" | 7,895 | 7,142 | 0,9407 | 27 |
| 1/8" | 10,242 | 9,489 | 0,9407 | 27 |
| 1/4" | 13,616 | 12,487 | 1,4111 | 18 |
| 3/8" | 17,055 | 15,926 | 1,4111 | 18 |
| 1/2" | 21,223 | 19,772 | 1,8143 | 14 |
| 3/4" | 26,568 | 25,117 | 1,8143 | 14 |
| 1" | 33,227 | 31,461 | 2,2087 | 11,5 |
| 1" 1/4 | 41,984 | 40,218 | 2,2087 | 11,5 |
| 1" 1/2 | 48,053 | 46,287 | 2,2087 | 11,5 |
| 2 | 60,091 | 58,325 | 2,2087 | 11,5 |
| 2" 1/2 | 72,699 | 70,159 | 3,1750 | 8 |
| 3" | 88,608 | 86,068 | 3,1750 | 8 |
| 3" 1/2 | 101,316 | 98,776 | 3,1750 | 8 |
| 4" | 113,973 | 111,433 | 3,1750 | 8 |
| 5" | 140,952 | 138,412 | 3,1750 | 8 |
| 6" | 167,792 | 165,252 | 3,1750 | 8 |
| | D1 | E1 | P | |
| *NPT thread* | *Outside diameter thread mm* | *Medium diameter thread mm* | *Pitch mm* | *Number of pitch in 1"=25,4 mm* |

## Metryczny ISO - *ISO Metric* EN 60423




| Gwint metryczny ISO | Średnica zewnętrzna gwintu mm | Średnica na dole gwintu mm | Podziałka mm |
|---|---|---|---|
| | D1 | D2 | P |
| M12 | 11,968 | 10,128 | 1,5 |
| M16 | 15,968 | 14,128 | 1,5 |
| M20 | 19,968 | 18,128 | 1,5 |
| M25 | 24,968 | 23,128 | 1,5 |
| M32 | 31,968 | 30,128 | 1,5 |
| M40 | 39,968 | 38,128 | 1,5 |
| M50 | 49,968 | 48,128 | 1,5 |
| M63 | 62,968 | 61,128 | 1,5 |
| | D1 | D2 | P |
| *ISO Metric thread* | *Outside diameter thread mm* | *Bottom thread diameter mm* | *Pitch mm* |

NOTIFICATION

[1] PRODUCT QUALITY ASSURANCE NOTIFICATION

[2] Equipment or Protective System or Component intended for use in potentially explosive atmospheres Directive 94/9/EC

[3] Notification number:

TÜV IT 13 ATEX 065 Q

[4] Equipment or Component as listed:
CABLE GLANDS
THREAD FITTINGS

Protection concepts: see schedule

[5] Applicant: Teaflex S.p.a. Via delle vigne, 28 I-20853 Biassono (MB)- ITALY

[6] Manufacturer: Teaflex S.p.a. Via delle vigne, 28 I-20853 Biassono (MB)- ITALY

[7] TÜV Italia, notified body no. 0948 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, notifies to the applicant that the actual manufacturer has a production quality system which complies to Annex IV of the Directive.

[8] This notification is based on audit report no. R 13 EX 036 issued on 2013.09.27.

This notification can be withdrawn if the manufacturer no longer satisfies the requirement of Annex VII.

Results of periodical re-assessment of the quality system are a part of this notification.

[9] This notification is valid until al 2016.09.29 and can be withdrawn if the Manufacturer does not satisfy the production quality assurance re-assessment.

[10] According to Article 10 paragraph 1 of the Directive 94/9/EC the CE marking shall be followed by the identification no. 0948 identifying the notified body involved in the production control stage.

This notification may only be reproduced in its entirety and without any change, schedule included.

Date of first issue: 30th of September, 2013

TÜV Italia Srl Industrial Service 09 48 Notified Body

Gennaro Oliva
Industrial Service Director

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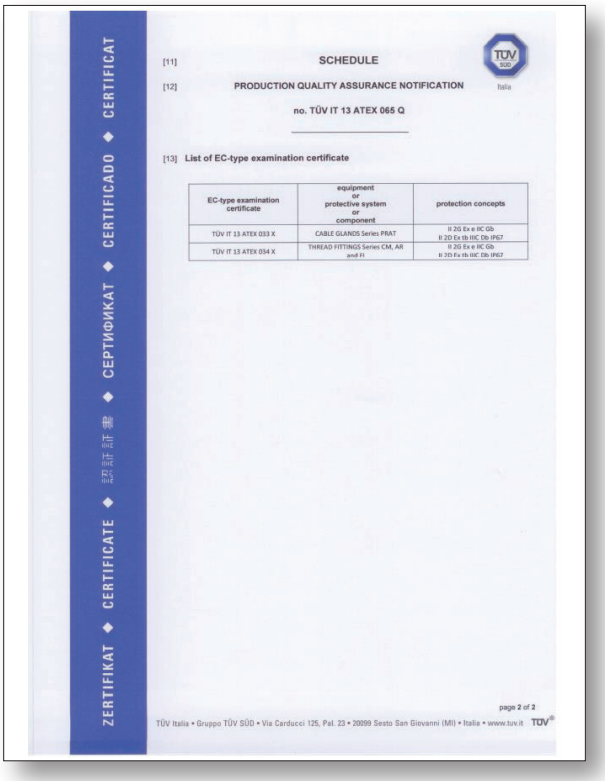
ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT



[11] SCHEDULE

[12] PRODUCTION QUALITY ASSURANCE NOTIFICATION

no. TÜV IT 13 ATEX 065 Q

[13] List of EC-type examination certificate

| EC-type examination certificate | equipment or protective system or component | protection concepts |
|---|---|---|
| TÜV IT 13 ATEX 033 X | CABLE GLANDS Series PRAT | II 2G Ex e IIC Gb<br>II 2D Ex tb IIIC Db IP67 |
| TÜV IT 13 ATEX 034 X | THREAD FITTINGS Series CM, AR and FI | II 2G Ex e IIC Gb<br>II 2D Ex tb IIIC Db IP67 |

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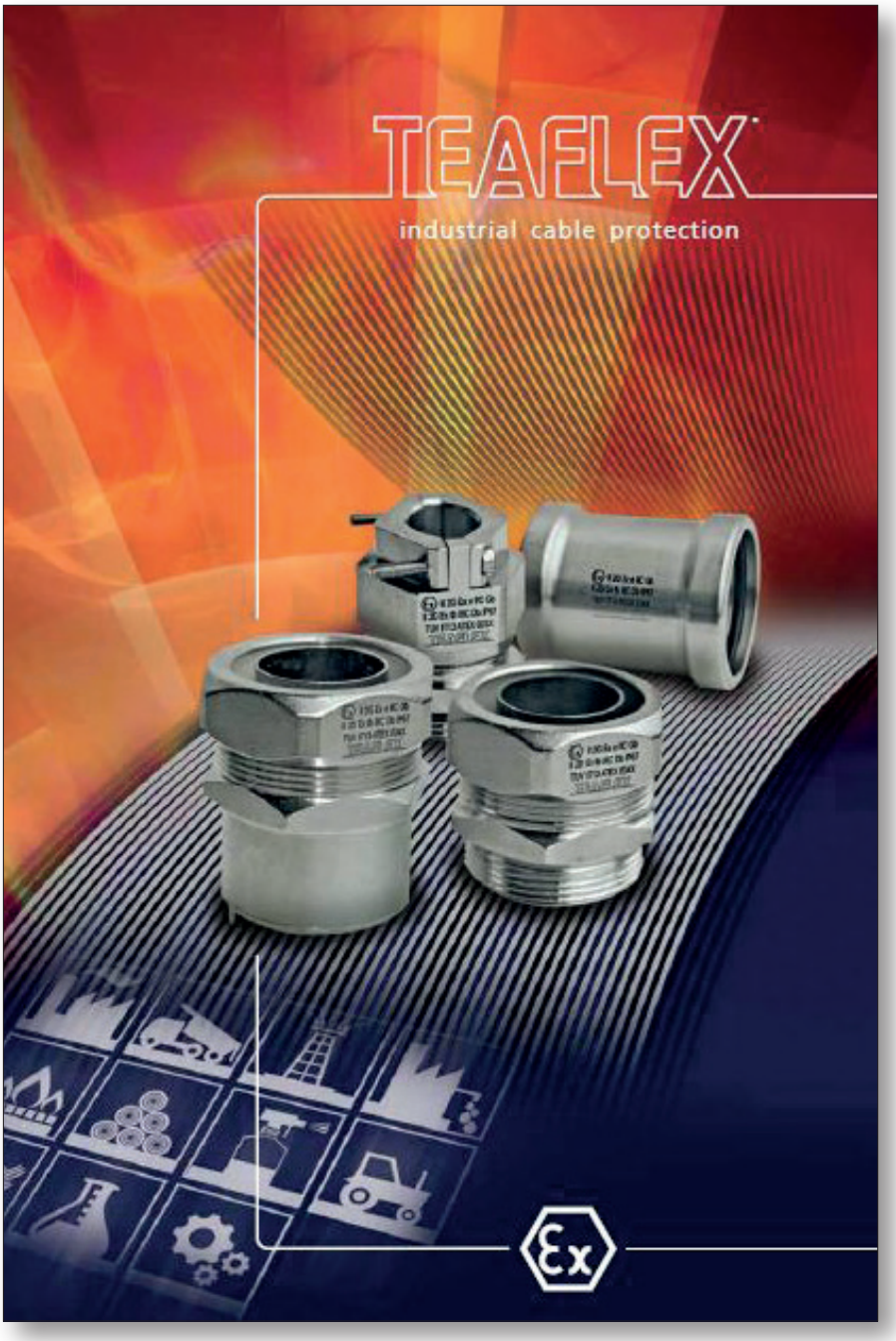
ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

## Złączki EX/ *Fittings EX*:

# EXCM
# EXAR
# EXFI

## Dławnice EX / *Cable glands EX*:

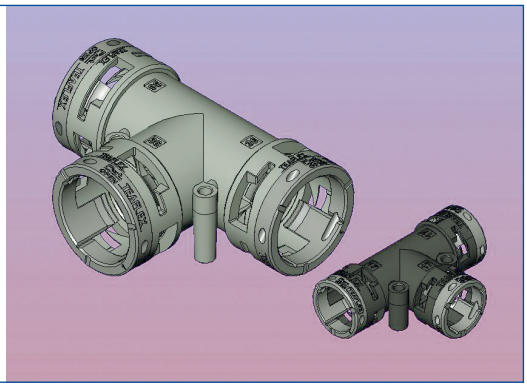
# EXPRAT



**Rysunki CAD w formacie IGES oraz STEP dostępne na stronie**

***CAD drawings in IGES and STEP format available on website***

***www.teaflex.com***



**W celu uzyskania szczegółowych informacji, skontaktuj się z naszym biurem.**

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# www.alfapoland.pl

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