## TECHNICAL DATA

**ADAPTOR TYPE** : PX789 PX784
**INGRESS PROTECTION** : IP66 when used with CMP sealing accessories
**PROCESS CONTROL SYSTEM** : ISO 9001
: ISO/IEC 80079-34:2011

## EXPLOSIVE ATMOSPHERES CLASSIFICATION

**ATEX CERTIFICATION No** : CML 18ATEX1329U
**ATEX CERTIFICATION CODE** : Ex II 2G 1D Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
: Ex IM2 Ex db I Mb / Ex eb I Mb
**UKEX CERTIFICATION No** : CML 21UKEX1242U
**UKEX CERTIFICATION CODE** : Ex II 2G 1D Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da
: Ex IM2 Ex db I Mb / Ex eb I Mb
**IECEx CERTIFICATION No** : IECEx CML 18.0186U
**IECEx CERTIFICATION CODE** : Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da IP6X, Ex db I Mb, Ex eb I Mb
**cCSAus CERTIFICATION No** : 1055233
**CODE OF PROTECTION** : Class I Div 1 & 2, Groups A,B,C,D ; Class I Zone 1, AEx de II; Ex de II

## INSTALLATION INSTRUCTIONS

1. Installation should only be performed by a competent person using the correct tools. Spanners should be used for tightening. Read all instructions before beginning installation.
2. The interface between a cable entry device and its associated enclosure / cable entry will require additional sealing to achieve ingress protection (IP) ratings higher than IP54. The minimum protection level is IP54 for explosive gas atmospheres and IP6X for explosive dust atmospheres. Parallel threads (and tapered threads when using a non-threaded entry) require a CMP sealing washer or integral O-ring face seal (where available) to maintain IP66, 67 and 68 (when applicable). It is the installer's responsibility to ensure the IP rating is maintained at the interface.
Note: When fitted to a threaded entry, all tapered threads will automatically provide an ingress protection rating of IP66.
3. A CMP earth tag should be used when it is necessary to provide an earth bond connection. CMP earth tags have been independently tested to comply with Category B rating specified in IEC 62444 (there are no ratings stated in IEC 60079-0). Ratings are shown in the associated table. CMP earth tags slip over the cable gland or accessory entry thread from inside/outside the enclosure and must be secured with a locknut (if fitted internally).

| CMP Earth Tag Size | Short Circuit Ratings Symmetrical Fault Current (kA) for 1 second |
|---|---|
| 20 | 3.06 |
| 25 | 4.06 |
| 32 | 5.40 |
| 40 | 7.20 |
| 50 | 10.40 |
| 63 | 10.40 |
| 75 | 10.40 |

## SPECIAL CONDITIONS FOR SAFE USE

Only one union is to be used with any single cable entry on the associated equipment.

## ACCESSORIES

The following accessories are available from CMP Products, as optional extras, to assist with fixing, sealing and earthing:
Locknut | Earth Tag | Serrated Washer | Entry Thread (I.P.) Sealing Washer

CMP Products Limited on its sole responsibility declares that the equipment referred to herein conforms to the requirements of the ATEX Directive 2014/34/EU and UK statutory requirements SI 2016 No. 1107 (as amended). This is shown in the following harmonised/designated standards;
EN IEC 60079-0:2018, EN 60079-1:2014, EN IEC 60079-7:2015 + A1:2018, EN 60079-31:2014

Malcolm Webber - Product Engineering Manager - (Ex Authorised Person)
CMP Products Limited, Cramlington, NE23 1WH, UK

EU Economic Operator: CMP Products Germany GmbH. Address: Lukasstraße 25a, 52070 Aachen
17th March 2020

CE 2776
UKCA 2503

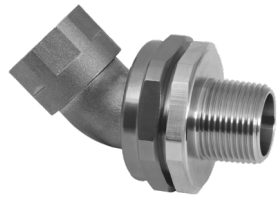
Notified Body: CML B.V., Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands

Approved Body: Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ

# INSTALLATION INSTRUCTIONS FOR UNION TYPE PX789 PX784

UNION TYPE PX FOR CONNECTING CONDUITS TO ENCLOSURES OR CONDUITS TO EACH OTHER USING BARRIER COMPOUND IN EXPLOSIVE ATMOSPHERES.

## INCORPORATING EU DECLARATION OF CONFORMITY TO DIRECTIVE 2014/34/EU AND UK STATUTORY REQUIREMENTS SI 2016 No. 1107 (AS AMENDED)



**Product Selection Table**

| METRIC | | | | NPT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering Reference (Brass, Metric) | Male Forward Thread Size | Minimum Thread Length | Female Rear Thread Size | Ordering Reference (Brass, NPT) | Male Forward NPT Thread Size | Minimum NPT Thread Length (in) | Female Rear Thread Size | Diameter over Cores | Max. number of Cores | Max Protrusion Length | Max Overhang Length | Across Flats Hex | Across Corners Ø | Installation Torque (Nm) |
| PX789DM2M2 | M20 X 1.5 | 15.0 | M20 X 1.5 | PX789DT1T1 | 1/2" | 0.79 | 1/2" | 12.6 | 21 | 62.9 | 63.8 | 46.0 | 50.6 | 7 |
| PX789DM3M3 | M25 X 1.5 | 15.0 | M25 X 1.5 | PX789DT2T2 | 3/4" | 0.80 | 3/4" | 17.5 | 30 | 70.6 | 69.5 | 50.0 | 55.0 | 10 |
| PX789DM4M4 | M32 X 1.5 | 15.0 | M32 X 1.5 | PX789DT3T3 | 1" | 0.98 | 1" | 23.6 | 38 | 75.7 | 78.0 | 60.0 | 66.0 | 15 |
| PX789DM5M5 | M40 X 1.5 | 15.0 | M40 X 1.5 | PX789DT4T4 | 1-1/4" | 1.01 | 1-1/4" | 30.0 | 59 | 83.7 | 84.8 | 65.0 | 71.5 | 25 |
| PX789DM6M6 | M50 X 1.5 | 15.0 | M50 X 1.5 | PX789DT5T5 | 1-1/2" | 1.03 | 1-1/2" | 41.0 | 115 | 95.9 | 96.3 | 75.0 | 82.5 | 30 |
| PX789DM7M7 | M63 X 1.5 | 15.0 | M63 X 1.5 | PX789DT6T6 | 2" | 1.06 | 2" | 53.7 | 115 | 108.8 | 115.1 | 90.2 | 99.2 | 45 |

*All dimensions shown are in millimetres unless otherwise stated*

*For material options please add the following suffix to the Ordering Reference; Brass (no suffix required), Nickel Plated Brass "5", 316 Grade Stainless Steel "4", Copper Free Aluminium "1"*

**Product Selection Table**

| METRIC | | | | NPT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering Reference (Brass, Metric) | Male Forward Thread Size | Minimum Thread Length | Female Rear Thread Size | Ordering Reference (Brass, NPT) | Male Forward NPT Thread Size | Minimum NPT Thread Length (in) | Female Rear Thread Size | Diameter over Cores | Max. number of Cores | Max Protrusion Length | Max Overhang Length | Across Flats Hex | Across Corners Ø | Installation Torque (Nm) |
| PX784DM2M2 | M20 X 1.5 | 15.0 | M20 X 1.5 | PX784DT1T1 | 1/2" | 0.79 | 1/2" | 12.6 | 21 | 60.6 | 55.8 | 46.0 | 50.6 | 7 |
| PX784DM3M3 | M25 X 1.5 | 15.0 | M25 X 1.5 | PX784DT2T2 | 3/4" | 0.80 | 3/4" | 17.5 | 30 | 65.9 | 61.2 | 50.0 | 55.0 | 10 |
| PX784DM4M4 | M32 X 1.5 | 15.0 | M32 X 1.5 | PX784DT3T3 | 1" | 0.98 | 1" | 23.6 | 38 | 69.5 | 70.2 | 60.0 | 66.0 | 15 |
| PX784DM5M5 | M40 X 1.5 | 15.0 | M40 X 1.5 | PX784DT4T4 | 1-1/4" | 1.01 | 1-1/4" | 30.0 | 59 | 74.9 | 76.4 | 65.0 | 71.5 | 25 |
| PX784DM6M6 | M50 X 1.5 | 15.0 | M50 X 1.5 | PX784DT5T5 | 1-1/2" | 1.03 | 1-1/2" | 41.0 | 115 | 93.5 | 88.0 | 75.0 | 82.5 | 30 |
| PX784DM7M7 | M63 X 1.5 | 15.0 | M63 X 1.5 | PX784DT6T6 | 2" | 1.06 | 2" | 53.7 | 115 | 102.7 | 103.4 | 90.2 | 99.2 | 45 |

*All dimensions shown are in millimetres unless otherwise stated*

*For material options please add the following suffix to the Ordering Reference; Brass (no suffix required), Nickel Plated Brass "5", 316 Grade Stainless Steel "4", Copper Free Aluminium "1"*

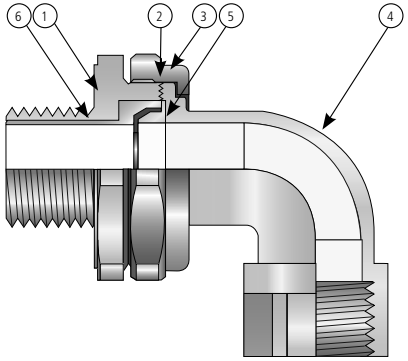
Glasshouse Street • St. Peters • Newcastle upon Tyne • NE6 1BS
Tel: +44 191 265 7411 • Fax: +44 1670 715 646
E-Mail: customerservices@cmp-products.co.uk • Web: www.cmp-products.com

| FI533 | | |
|---|---|---|
| Certificate | Revision | Date |
| UKEX | 0 | 04/21 |
| IFS | 6 | 01/25 |
| ATEX / IECEx | 1 | 04/19 |
| CSA / cCSAus | - | - |

# INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES PX789 PX784

**UNION COMPONENTS**

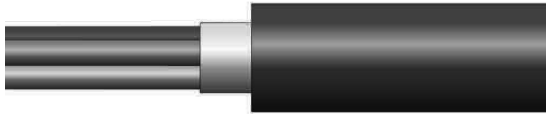
1. Entry Item
2. Serrated Flamepath
3. Nut
4. 90° (or 45°) Conduit Connector
5. Washer
6. Compound Tube




## PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION

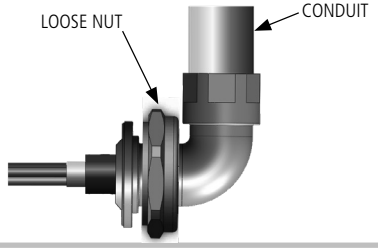
1. Slacken and remove the nut (3) to disassemble the union.

2. Prepare the cable by removing the outer sheath from the cores so that they are exposed within the Compound Tube when finally assembled.



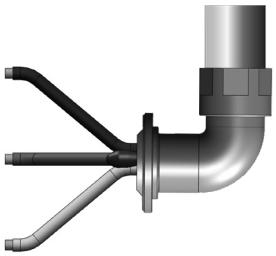
3. Feed the cables/cores through the conduit connector (4), nut (3) and washer (5), tighten the conduit connector onto the conduit.

4. Wearing the protective gloves supplied, mix all of the two-part epoxy compound until it is pliable and an even colour is achieved (Min. mixing temperature 10° / 50° F



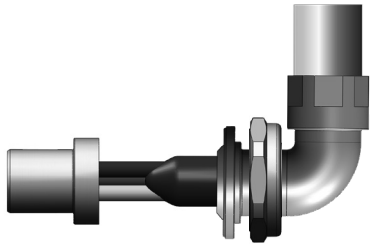

5. Seperate the cable cores and apply the compound to the crutch of the cable for a distance of about 6mm and packinto place. If the cable has individual or overall foil screens then these should be removed.

If a drain wire is present then it should be sleeved with some heat shrink tubing which is pushed into the compound before shrinking with the application of some heat. If braid screens have been twisted together they should be treated as a drain wire and sleeved.

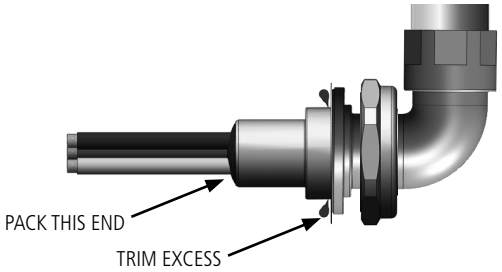




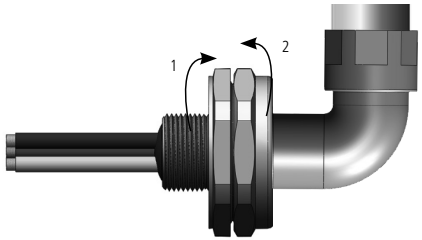
6. Bring the cores together again and pack more compound around them to a length and diameter sufficient to fill the Compound Tube (6) (ensuring compound is packed between each of the cable cores) before ending in a taper.



7. Pass the Compound Tube (6) over the conductors until the stepped end is fully located with the Washer (5). Pack more compound into place until the Compound Tube is fully fitted and trim off any excess.




8. Attach the Entry Item (1) by screwing it into place, making sure the compound is not disturbed, and loosely tighten the Nut (3). Leave until the compound has cured.




9. When the compound has cured the Entry Item (1) should be removed from the assembly and fully tightened into the apparatus. The Union can then be refitted to it and the Nut (3) fully tightened to complete the installation.