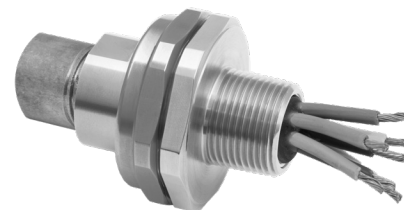# INSTALLATION INSTRUCTIONS FOR UNION TYPE PX780REX

UNION TYPE PX780REX FOR CONNECTING CONDUITS TO ENCLOSURES OR CONDUITS TO EACH OTHER USING RAPIDEX RESIN IN EXPLOSIVE ATMOSPHERES.

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

TECHNICAL DATA
PRODUCT TYPE : PX780REX
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 18ATEX1327X
ATEX CERTIFICATION CODE : Ⓔx II 2G 1D Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da IP6X
: Ⓔx IM2 Ex db I Mb / Ex eb I Mb
UKEX CERTIFICATION No : CML 21UKEX1240X
UKEX CERTIFICATION CODE : Ⓔx II 2G 1D Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da IP6X
: Ⓔx IM2 Ex db I Mb / Ex eb I Mb
IECEx CERTIFICATION No : IECEx CML 18.0190X
IECEx CERTIFICATION CODE : Ex db IIC Gb, Ex eb IIC Gb, Ex db I Mb, Ex eb I Mb, Ex ta IIIC Da IP6X
cCSAus CERTIFICATION No : 1055233
CODE OF PROTECTION : Class I, Div 1 and 2, Groups A,B,C and D; Enclosure Type 4X: Class I Zone 1, AEx de II; Ex de II
INMETRO CERTIFICATION No : TÜV 18.2088X
INMETRO CERTIFICATION CODE : Ex db IIC Gb, Ex eb IIC Gb, Ex db I Mb, Ex eb I Mb, Ex ta IIIC Da IP6X

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

SPECIFIC CONDITIONS OF USE
The following conditions relate to safe installation and/or use of the equipment.

1. The PX780 unions shall only be fitted to enclosures where the temperature, at the point of mounting, does not exceed the temperature range -60°C to +85°C.
2. The interfaces between the male thread of the Union adaptor/reducer and an associated enclosure and between the female thread of the union adaptor/reducer and the cable entry device cannot be defined. Therefore, it is the installer's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.

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

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17th March 2020

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

Product Selection Table

METRIC

Ordering Reference (Brass, Metric)	Male Forward Thread Size	Minimum Thread Length	Female Rear Thread Size	Diameter Over Cores	Max. Number of Cores	Protrusion Length	Across Flats Hex	Across Corners Ø 'D'	Installation Torque (Nm)
PX780REXDM2M2	M20 X 1.5	15.0	M20 X 1.5	12.6	21	36.1	46.0	50.3	7
PX780REXDM3M3	M25 X 1.5	15.0	M25 X 1.5	17.5	30	36.1	50.0	54.7	10
PX780REXDM4M4	M32 X 1.5	15.0	M32 X 1.5	23.6	50	35.2	60.0	65.7	15
PX780REXDM5M5	M40 X 1.5	15.0	M40 X 1.5	30.0	59	35.2	65.0	71.2	25
PX780REXDM6M6	M50 X 1.5	15.0	M50 X 1.5	41.0	115	35.3	75.0	82.2	30
PX780REXDM7M7	M63 X 1.5	15.0	M63 X 1.5	53.7	115	35.3	90.0	98.7	45
PX780REXDM8M8	M75 X 1.5	15.0	M75 X 1.5	64.2	140	38.8	100.0	109.7	45
PX780REXDM9M9	M90 X 2.0	20.0	M90 X 2.0	75.3	140	45.0	120.0	131.7	45
PX780REXDM10M10	M100 X 2.0	20.0	M100 x 2.0	83.6	200	83.9	145.0	159.2	45

NPT

Ordering Reference (Brass, NPT)	Male Forward Thread Size	Minimum Thread Length	Female Rear Thread Size	Diameter Over Cores	Max. Number of Cores	Protrusion Length	Across Flats Hex	Across Corners Ø 'D'	Installation Torque (Nm)
PX780REXDT1T1	1/2"	0.79	1/2"	12.6	21	35.4	46.0	50.3	7
PX780REXDT2T2	3/4"	0.80	3/4"	17.5	30	35.0	50.0	54.7	10
PX780REXDT3T3	1"	0.98	1"	23.6	50	33.7	60.0	65.7	15
PX780REXDT4T4	1-1/4"	1.01	1-1/4"	30.0	59	37.0	65.0	71.2	25
PX780REXDT5T5	1-1/2"	1.03	1-1/2"	36.6	115	38.2	75.0	82.2	30
PX780REXDT6T6	2"	1.06	2"	47.9	115	39.1	90.0	98.7	45
PX780REXDT7T7	2-1/2"	1.57	2-1/2"	59.9	140	54.1	100.0	109.7	45
PX780REXDT8T8	3"	1.63	3"	75.3	140	52.5	120.0	131.7	45
PX780REXDT9T9	3-1/2"	1.69	3-1/2"	83.6	200	80.0	145.0	159.2	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"

Alternate thread types available
Can be supplied with mixed thread types e.g. PX780REXDM10T10 - M100 male thread, 4"NPT female thread, please contact CMP for more information

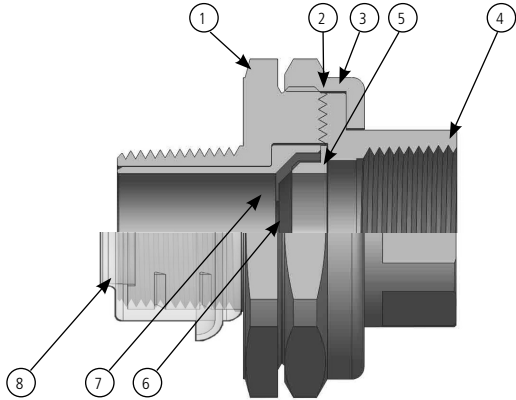| FI471		
Certificate	Revision	Date
UKEX	0	04/21
IFS	11	03/24
ATEX / IECEx	6	04/19
cCSAus	5	05/16

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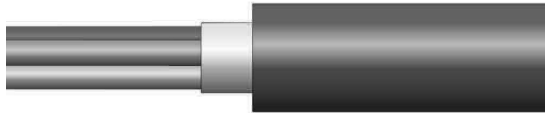
INSTALLATION INSTRUCTIONS FOR CMP CABLE UNION PX780REX

UNION COMPONENTS - It is not necessary to dismantle the union any further than illustrated below

1. Entry Item
2. Serrated Flamepath
3. Nut
4. Conduit Connector
5. Washer
6. Resin Dam
7. Compound Tube
8. Thread Shield

NOTE: THERE IS NO NEED TO DISSASSEMBLE THE UNION
PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION

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

2. Remove any bedding or fillers from around the cable cores. If the cable cores have screens, these should be unwound and then twisted together to form a single core.
This single core and/or any drain wires present should be sleeved with some heat shrink tubing.
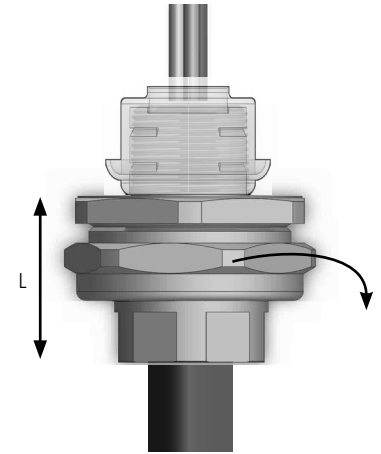
Electrical tape MUST be wrapped around the tips of the cable cores. This is to ensure the cable cores are together and also to cover any sharp edges that could potentially tear the Resin Dam during installation.

3. Feed the cables/cores through the union.

If the installation uses only cores (i.e. no cable sheath) then electrical tape must be wrapped around the cores at the position at which it will engage the resin dam.

Use the length of the union as a guide to position the tape as shown above (guide length "L")

L

4. Mix the Resin and apply as per RapidEx instructions.

RAPID Ex

5.1 When the Resin has cured the Entry Item (1) should be removed from the assembly and fully tightened into the apparatus.

5.2 Tighten the Conduit Connector (4) onto the conduit and then tighten to the Entry Item (1) using the Nut (3) to complete the installation.