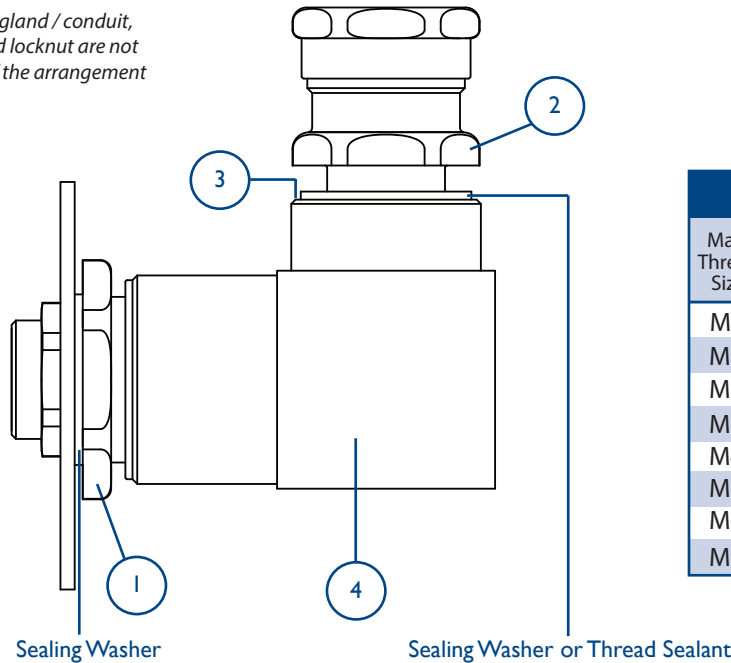


Assembly Instructions for: 493 Male to Female Swivel Inline Union 90° Elbow

Operating temperature range -60°C +100°C

Depending upon the required IP rating, an IP washer or thread sealant may be required on / between the equipment and union / union and cable gland to maintain the equipment IP rating.

Note: The Ex cable gland / conduit, sealing washer and locknut are not supplied as part of the arrangement



Certification Details

Type: 493 Swivel Inline Union 90° Elbow
 Exeb I Mb, Exdb I Mb,
 Exeb IIC Gb, Ex db IIC Gb, Ex tb IIIC Db
 Sira 11 ATEX 1347U (E) I M2 / II 2 GD IP66
 IECEx SIR11.0152U
 CSAE 21UKEX1054U
 IEx No: 15.0207U
 EAC (E) No EA3C RU C-GB.HA91.B.00265/21
 c CSA us No: 1731876
 Class I Zone 1 AEx db IIC, Ex db IIC Gb,
 AEx eb IIC, Ex eb IIC Gb
 Zone 21 AEx tb IIIC, Ex tb IIIC Db

TYPICAL DIMENSIONS

Male Thread Size	Thread Pitch (mm)	Female Thread Size	Thread Pitch (mm)	Thread Length (mm)	Typical A/F (mm)	Typical A/C (mm)
M16	1.5	M16	1.5	16	36	39.5
M20	1.5	M20	1.5	16	36	39.5
M25	1.5	M25	1.5	16	46	60.5
M32	1.5	M32	1.5	16	46	60.5
M40	1.5	M40	1.5	16	65	88.8
M50	1.5	M50	1.5	16	65	88.8
M63	1.5	M63	1.5	16	95	104.0
M75	1.5	M75	1.5	16	95	104.0

Before Assembly:

Ensure that the thread in the enclosure and on the cable gland/conduit fitting is the same size, pitch and form as the union, ensuring that for parallel threads the thread engagement is at least 5 full threads and 8mm axial engagement as a minimum.

- When aluminium versions are used, thread lubrication may be required in accordance with IEC 60079-14.

Schedule of Limitations

- These swivel unions are component certified only and must be certified as part of the associated electrical apparatus.
- These swivel unions shall not be used where the service temperature is outside the temperature range -60C to +100°C.
- Blanking elements shall not be use with these swivel unions.
- The M16 size swivel unions shall only be for Group I applications where there is low risk of impact.
- These swivel unions shall not be used for the direct inter-connection of enclosures.
- These swivel unions shall not be used with conduit in Group I installations.
- Only one swivel union shall be used with any single cable entry on the associated equipment.
- When required, the front and rear threads of these unions shall be suitably sealed to maintain the ingress protection rating of the associated equipment to which they are attached e.g. if a union is fitted into (Ex t) protection by enclosure equipment for use in explosive dust atmospheres and the front thread is not sealed using a washer, then to maintain the required IP6* rating, the enclosure shall offer a minimum of 5 full threads of contact in accordance with EN 60079-31.

Images are for illustration purposes only.

Product supplied may differ slightly from that shown.

For Increased Safety Enclosures

1. Ensure the union thread form is compatible with the enclosure thread and the equipment fitted to the union.
2. Ensure that the area around the enclosure entry thread is clean and flat and the entry thread is square to the enclosure face.
3. If the enclosure contains a clearance hole entry, the maximum clearance permitted between the enclosure entry and the union male thread nominal size is 0.7mm and a suitable sealing washer shall be fitted to the entry thread.

Step 1

Fit a suitable sealing washer to the entry thread. Screw the swivel male threaded section ① into the enclosure threaded wall or fit into clearance hole and secure with a locknut using a suitably sized spanner or wrench until tight.

Step 2

Fit the cable gland or conduit ② into the female threaded section of the union ③ and hand tighten, whilst fitting a spanner to the hexagon on the union body ④, and complete the tightening sequence with a suitably sized spanner or wrench.

Step 3

Complete the wiring

For Exd Flameproof Enclosures

1. Ensure the union thread form is compatible with the enclosure thread and the equipment fitted to the union.
2. Ensure that the area around the enclosure entry thread is clean and flat and the entry thread is square to the enclosure face.
3. Ensure that the enclosure threaded entry is the same size and thread form as the male threaded section of the union and that at least 5 full threads engagement - 8mm axial engagement will be achieved between the male and female threads.

Step 1

Screw the swivel male threaded section ① into the enclosure threaded hole using a suitably sized spanner or wrench until tight.

Step 2

Fit the cable gland or conduit ② into the female threaded section of the union ③ and hand tighten, whilst fitting a spanner to the hexagon on the union body ④, complete the tightening sequence with a suitably sized spanner or wrench.

Step 3

Complete the wiring

UK and EU Attestation of Conformity in accordance with European Directive 2014/34/EU and UK Statutory Instrument 2016/1107

Manufacturer: Hawke International, Oxford Street West, Ashton-under-Lyne, OL7 0NA, United Kingdom

Component: 493 Male to Female Swivel Union 90° Elbow (Group I and II)

Provisions of the Directive fulfilled by the Equipment: Group I Category I M2 Ex eb I Mb, Ex db I Mb / Group II Category 2GD Ex eb IIC Gb, Ex db IIC Gb, Ex tb IIIC Db – IP66

Harmonized Standards used: EN 60079-0:2018, EN60079-1:2014, EN60079-7:2015+A1:2018, EN60079-31:2014

Notified Body for EU-Type Examination: CSA Group 2813 Arnhem, Netherlands

EU-type Examination Certificate: Sira 11ATEX1347U

Notified Body for production: 0598

Approved Body for UK-Type Examination: SIRA 0518 Chester UK

UK-type Examination Certificate: CSAE 21UKEX1054U

Approved Body for production: 1180

On behalf of the above named company, I declare that on the date the equipment, accompanied by this declaration, is placed on the market the equipment conforms with all technical and regulatory requirements of the above listed directives.



Andrew Reid
Technical Manager