Assembly Instructions for:
494 Male to Female 90° Elbow

HAWKE International

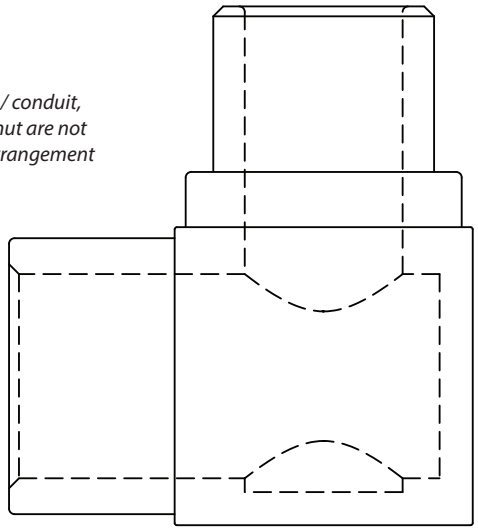
AI 428 / Issue K -12/21

Operating temperature range -60°C +200°C

Certification Details
Type: 494 Male to Female 90° Elbow
Ex eb IIC Gb, Ex db IIC Gb, Ex tb IIIC Db
Baseefa14ATEX0014U Ex II 2 GD IP66
IECEx BAS14.0002U
BAS21UKEX0055U
IEx 15.0205U
EAC Ex No EA3C RU C-GB.HA91.B.00265/21

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



TYPICAL DIMENSIONS

Male Thread Size	Thread Pitch (mm)	Female Thread Size	Thread Pitch (mm)	Male Thread Length (mm)	Female Typical (mm)	Typical Block Size (mm)
M20	1.5	M20	1.5	15	16	23.0
M25	1.5	M25	1.5	15	16	27.0
M32	1.5	M32	1.5	15	16	35.0
M40	1.5	M40	1.5	15	16	88.8
M50	1.5	M50	1.5	15	16	88.8
M63	1.5	M63	1.5	15	16	104.0
M75	1.5	M75	1.5	15	16	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 elbow, ensuring that for parallel threads the thread engagement is at least 5 full threads and 8mm axial engagement as a minimum.

Special Conditions for Safe Use

- The fittings are components and when used with flameproof enclosures they must be assessed as part of the flameproof equipment. Unless further testing is conducted, the maximum reference pressure for the enclosure to which they are fitted must not exceed 30 bar.
- Only one elbow may be used between the enclosure and the cable entry device.
- When used with increased safety and /or dust protected enclosures the threads must be sealed to provide the relevant ingress protection.
- Where elbows are fitted to enclosures with plain holes the hole size must be no greater than 0.2mm bigger in diameter than the metric parallel thread.
- Elbow adaptors must be installed in accordance with IEC 60079-14 and with the relevant protection concept.
- If used with locknuts in flameproof applications it must be ensured that the thread is 5 full threads engaged and 8mm axial engagement between the enclosure and the elbow prior to the tightening of the locknut.
- Where NPT male fittings are used these must be installed such that the NPT male thread is fully wrench tightened into the equipment.
- These fixed elbows shall not be used where the service temperature is outside the temperature range -60C to +200°C.
- Blanking elements shall not be used with these fixed elbows.
- These fixed elbows shall not be used for the direct inter-connection of enclosures.
- When required, the front and rear threads of these fixed elbows shall be suitably sealed to maintain the ingress protection rating of the associated equipment to which they are attached e.g. if a fixed elbow 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 Clauses 5.1.1 and 5.1.2.

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Images are for illustration purposes only.

Product supplied may differ slightly from that shown.

For Increased Safety Enclosures

1. Ensure the male entry thread form is compatible with the enclosure thread and the female thread is suitable for the equipment fitted to the elbow.
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 must be fitted between the elbow male thread and the equipment.

Step 1

Fit a suitable sealing washer to the entry thread. Screw the male threaded section 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 into the female threaded section of the elbow and hand tighten, whilst fitting a spanner to the square on the elbow body, and complete the tightening sequence with a suitably sized spanner or wrench.

Step 3

Complete the wiring

For Exd Flameproof Enclosures

1. Ensure the male entry thread form is compatible with the enclosure thread and the female thread is suitable for the equipment fitted to the elbow.
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 elbow and that at least 5 full threads engagement - 8mm axial engagement will be achieved between the male and female threads.

Step 1

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

Step 2

Fit the cable gland or conduit into the female threaded section of the elbow and hand tighten, whilst fitting a spanner to the square on the fixed elbow body, 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: 494 Fixed Elbow (Group II)
Provisions of the Directive fulfilled by the Equipment: Group II Category 2GD Ex db eb 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: SGS Fimko 0598 Helsinki Finland
EU-type Examination Certificate: Baseefa14ATEX0014U
Notified Body for production: 0598

Approved Body for UK-Type Examination: SGS Baseefa 1180 Buxton UK
UK-type Examination Certificate: BAS21UKEX0055U
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