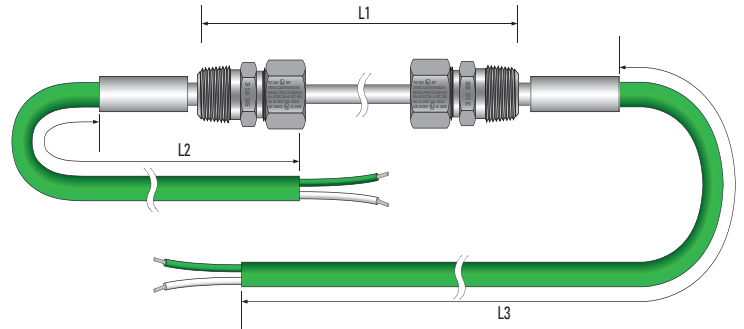


# ATEX / IECEx Thermocouple Feedthrough Assemblies

## Thermocouple Feedthrough Assemblies

Our ATEX / IECEx mineral insulated feedthrough assemblies are typically used to extend thermocouple signals over medium to long distances up to 120 metres. The seamless metal sheath allows installation in the most arduous conditions.

- Approved to II 2 GD Ex d IIC Gb (Gas) and Ex tb IIC Db (Dust)
- Also suitable for use in intrinsically safe areas to Ex II 1 G Ex ia IIC Ga, see page 19 for details
- Available in thermocouple types K, T, J, N, E, R, S and B
- High integrity construction suited to arduous operating conditions
- Sheath diameters from 1.5mm to 6.0mm in a wide choice of materials
- Simplex, duplex and triplex feedthroughs available
- PVC, PFA and fibreglass insulated extension cables. Other cables available
- A wide range of connection threads and sizes are available



SECTION 1	Thermocouple Type	Temperature Range (continuous)
<b>K</b>	Nickel Chromium vs Nickel Aluminium	0°C to +1100°C
<b>T</b>	Copper vs Constantan	-185°C to +400°C
<b>J</b>	Iron vs Constantan	+50°C to +800°C
<b>N</b>	Nicrosil vs Nisil	0°C to +1200°C
<b>E</b>	Nickel Chromium vs Constantan	0°C to +800°C
<b>R</b>	Platinum - 13% Rhodium vs Platinum	0°C to +1600°C
<b>S</b>	Platinum - 10% Rhodium vs Platinum	0°C to +1550°C
<b>B</b>	Platinum - 30% Rhodium vs Platinum - 6% Rhodium	+100°C to +1600°C

SECTION 2	Sheath Material	Maximum Temperature
<b>321</b>	321 Stainless Steel (Types K, J, T & E)	800°C
<b>310</b>	310 Stainless Steel (Type K)	1100°C
<b>600</b>	Inconel 600 (Types K, N, R, S & B)	1100°C
<b>114</b>	Nicrobell D (Types K & N)	1250°C
<b>156</b>	Hastelloy X (Type K)	1220°C
<b>446</b>	AISI 446 (Type K)	1150°C
<b>800</b>	Incoloy 800 (Type K)	1100°C

SECTION 3	Sheath Diameter (mm)	Sheath Diameter (inches)
<b>Standard Sizes</b>	1.5mm	0.059"
	2.0mm	0.079"
	3.0mm	0.118"
	4.5mm	0.177"
	6.0mm	0.236"

SECTION 4	Number of Elements
<b>S</b>	Simplex (2 wire)
<b>D</b>	Duplex (4 wire)
<b>T</b>	Triplex (6 wire)

SECTION 5	Pot Seal Terminations			
<b>Standard Pot Seals</b>	Temperature Rating	Dimensions	Description	
	90°C for PVC cables 230°C for PTFE and PFA cables 260°C for fibreglass cables		Ø6.3	For sheath diameters up to 3mm. Crimp on stainless steel pot seal potted with resin or high temperature resin. Supplied with PTFE solid tails 50mm long as standard.
	90°C for PVC cables 230°C for PTFE and PFA cables 260°C for fibreglass cables		Ø12	For sheath diameters between 3mm and 6mm. Crimp on stainless steel pot seal potted with resin or high temperature resin. Supplied with PTFE solid tails 50mm long as standard.

SECTION 6	Optional Extension Cables (please specify length in metres)	
<b>A82</b>	PVC Insulation (105°C)	
<b>B55</b>	PFA Insulation (250°C)	
<b>C40</b>	Fibreglass Insulation (480°C)	

\* All cables have 7/0.2mm conductors. If no cable is required, leave this section of the order code blank and the sensor will be supplied with 50mm PTFE 'tails'. Other cables are available on request, please contact us for details.

SECTION 7	Stainless Steel Adjustable Compression Fittings with Counter Bore						Optional Locknut	
	Diagram	Code	Thread Size	Code	Thread Type	Code	Diagram	
	<b>18</b>	1/8"	<b>T</b>	BSPT	<b>L</b>			
	<b>14</b>	1/4"	<b>P</b>	BSPP				
	<b>12</b>	1/2"	<b>N</b>	NPT				
	<b>34</b>	3/4"	<b>M</b>	M				
	<b>M16</b>	M16 x 1.5mm						
	<b>M20</b>	M20 x 1.5mm						

Only available for 'P' and 'M' threads

Order Code - Example													
General Details							Process End			Connection End			
Type No	I.S. Version (Optional, please see page 19 for details)	Thermocouple Type (See section 1)	Sheath Length 'L1'	Sheath Material (See section 2)	Sheath Diameter (See section 3)	No. of Elements (See section 4)	Cable Length 'L2'	Cable Type (See section 6)	Fitting Thread 1 (See section 7)	Cable Length 'L3'	Cable Type (See section 6)	Fitting Thread 2 (See section 7)	
54	- IS	- K	- 1000	- 600	- 3.0	- S	- 1m	- A82	- 12PL	- 1m	- A82	- 12PL	