

## Datasheet

# IEC Mineral Insulated Thermocouples with Threaded Pot

Type 'K' with threaded pot & tails – 310 stainless steel or Inconel® Alloy 600 sheath



- Mineral insulated Type 'K' Thermocouple
- Choice of 310 stainless steel or Inconel® Alloy 600 sheath
- Highly flexible, sheath can be bent/formed to suit many applications and processes
- 0.5mm diameter fast response option, other diameters include 1.0, 1.5, 3.0 & 6.0mm
- Insulated hot junction
- Probe temperature range -40°C to +1100°C
- M8 x 1.0mm fine pitch threaded pot seal (200°C)
- M8 locknuts available as an option (see below)
- 100mm tails, PFA twin twisted 7/0.2mm, colour coded to IEC 584

### Specifications

Sensor type:	Type 'K' (Nickel Chromium/Nickel Aluminium) to IEC 584
Construction:	Flexible mineral insulated probe with 310 stainless steel or Inconel® Alloy 600 sheath with M8 x 1.0mm fine pitch threaded pot seal & tails
Element/hot junction:	Single element, junction insulated from sheath (offers protection against spurious electrical signals)
Termination:	100mm PFA twin twisted 7/0.2mm tails, +green/-white colour coded in accordance with IEC 584
Probe temperature range:	-40°C to +1100°C >1.0mm diameter -40°C to +750°C – 1.0mm diameter and below
Pot seal rating:	200°C

**310 stainless steel:** Good corrosion & oxidation resistance to suit a wide range of processes, satisfactorily operates in sulphur bearing atmospheres

Typical applications include brick & cement kilns, glass industry, heat treatment & annealing furnaces, power stations, flues, heat exchangers etc.

<b>T/C Type</b>	<b>Probe Dia. (mm)</b>	<b>Probe Length (mm)</b>	<b>+Positive tail wire</b>	<b>-Negative tail wire</b>	<b>Allied code</b>	<b>RS order code</b>
K	0.5	150	Green	White	70644208	444-1231
K	0.5	250	Green	White	70644209	444-1247
K	0.5	500	Green	White	70644210	444-1253
K	0.5	1000	Green	White	70653318	787-7866
K	1.0	150	Green	White	70653304	787-7822
K	1.0	250	Green	White	70653305	787-7826
K	1.0	500	Green	White	70653308	787-7835
K	1.0	1000	Green	White	70641611	219-4359
K	1.0	1500	Green	White	70653309	787-7838
K	1.0	2000	Green	White	70653307	787-7832
K	1.5	150	Green	White	70641663	228-7445
K	1.5	250	Green	White	70641664	228-7451
K	1.5	500	Green	White	70641612	219-4365
K	1.5	1000	Green	White	70641613	219-4371
K	1.5	1500	Green	White	70653310	787-7841
K	1.5	2000	Green	White	70653311	787-7844
K	3.0	150	Green	White	70641665	228-7467
K	3.0	250	Green	White	70641666	228-7489
K	3.0	500	Green	White	70641614	219-4387
K	3.0	1000	Green	White	70641615	219-4393
K	3.0	1500	Green	White	70653312	787-7848
K	3.0	2000	Green	White	70641616	219-4416
K	4.5	150	Green	White	70653315	787-7857
K	4.5	250	Green	White	70653313	787-7850
K	4.5	500	Green	White	70653314	787-7854
K	4.5	1000	Green	White	70653317	787-7863
K	6.0	250	Green	White	70641667	228-7495
K	6.0	500	Green	White	70641668	228-7502
K	6.0	1000	Green	White	70641617	219-4422
K	6.0	2000	Green	White	70641618	219-4438

**Inconel® Alloy 600:** Excellent oxidation resistance to 1100°C (not suitable for sulphur bearing atmospheres above 550°C)

Typical applications include heat treatment processes, annealing furnaces, chemical reactors, man-made fibre & synthetic material production, steam boilers, paper industry etc.

T/C Type	Probe Dia. (mm)	Probe Length (mm)	+Positive tail wire	-Negative tail wire	Allied code	RS order Code
K	0.5	500	Green	White	70644211	444-1269
K	1.0	1000	Green	White	70641619	219-4450
K	1.5	500	Green	White	70641620	219-4466
K	1.5	1000	Green	White	70641621	219-4472
K	3.0	500	Green	White	70641622	219-4488
K	3.0	1000	Green	White	70641623	219-4494
K	3.0	2000	Green	White	70641624	219-4501
K	3.0	3000	Green	White	70644335	455-3750
K	6.0	1000	Green	White	70641625	219-4517
K	6.0	2000	Green	White	70641626	219-4523

**Optional M8 x 1 fine pitch threaded Locknuts:**

Brass:



Thread	Allied Code	RS order code
Brass M8 x 1mm	70651753	762-1162

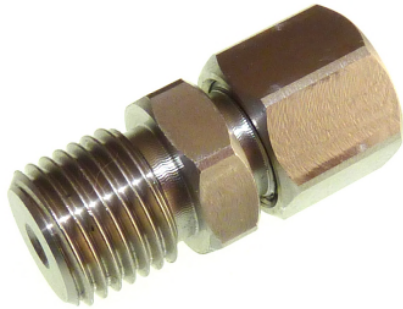
Stainless Steel:



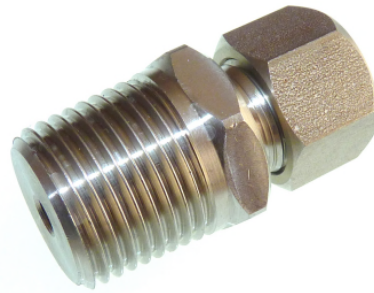
Thread	Allied Code	RS order code
S/Steel M8 x 1mm	70651761	762-1187

# Stainless Steel Compression Glands – Parallel, Tapered & M16 Thread

(BSP, BSPT, M16)



(BSP parallel example - 381-7362, see below for other sizes)



(BSPT tapered example – 286-787, see below for other sizes)

- Thermocouple installation fittings
- To suit a wide range of mineral insulated and other probe type sensors offered by RS
- Male in-line stainless steel compression type with nut & olive
- 1/8", 1/4", & 1/2" BSP parallel or BSPT tapered threads available. 1/2" M16 thread also available.
- Suits 1.0mm, 1.5mm, 3.0mm, 4.0mm, 4.5mm, 6.0mm, 8.0mm, 1/8", 1/4" or 3/16" probe diameters
- Stainless steel locknuts also available (see below)

## BSP Parallel:

Type	Thread Size	Thread Type	Suits Probe Ø	Allied code	RS order code
St/Steel	1/8"	BSP Parallel	1.0mm	70654828	<b>804-7975</b>
St/Steel	1/8"	BSP Parallel	1.5mm	70643728	<b>381-7334</b>
St/Steel	1/8"	BSP Parallel	3.0mm	70643729	<b>381-7340</b>
St/Steel	1/8"	BSP Parallel	4.0mm	70657784	<b>839-9566</b>
St/Steel	1/8"	BSP Parallel	4.5mm	70657785	<b>839-9569</b>
St/Steel	1/8"	BSP Parallel	6.0mm	70643730	<b>381-7356</b>
St/Steel	1/8"	BSP Parallel	1/4"		<b>110-4476</b>
St/Steel	1/8"	BSP Parallel	1/8"	70657782	<b>839-9557</b>
St/Steel	1/8"	BSP Parallel	3/16"	70657783	<b>839-9563</b>
St/Steel	1/4"	BSP Parallel	3.0mm	70643731	<b>381-7362</b>
St/Steel	1/4"	BSP Parallel	4.5mm	70657786	<b>839-9572</b>
St/Steel	1/4"	BSP Parallel	6.0mm	70643732	<b>381-7378</b>
St/Steel	1/4"	BSP Parallel	1/4"	70657787	<b>839-9575</b>
St/Steel	1/4"	BSP Parallel	3/16"	70657779	<b>839-9547</b>
St/Steel	1/2"	BSP Parallel	3.0mm	70657788	<b>839-9579</b>
St/Steel	1/2"	BSP Parallel	4.5mm	70657791	<b>839-9588</b>
St/Steel	1/2"	BSP Parallel	6.0mm	70643735	<b>381-7407</b>
St/Steel	1/2"	BSP Parallel	8.0mm	70657789	<b>839-9581</b>

## BSPT Tapered:

Type	Thread Size	Thread Type	Suits Probe Ø	Allied code	RS order code
St/Steel	1/8"	BSPT Tapered	1.0mm	70654831	<b>804-7984</b>

St/Steel	1/8"	BSPT Tapered	1.5mm	70637825	<b>286-743</b>
St/Steel	1/8"	BSPT Tapered	3.0mm	70636461	<b>158-610</b>
St/Steel	1/8"	BSPT Tapered	4.5mm	70637826	<b>286-759</b>
St/Steel	1/8"	BSPT Tapered	6.0mm	70657792	<b>839-9591</b>
St/Steel	1/8"	BSPT Tapered	1/4"		<b>110-4475</b>
St/Steel	1/8"	BSPT Tapered	1/8"	70657793	<b>839-9594</b>
St/Steel	1/8"	BSPT Tapered	3/16"	70657794	<b>839-9597</b>
St/Steel	1/4"	BSPT Tapered	3.0mm	70643733	<b>381-7384</b>
St/Steel	1/4"	BSPT Tapered	4.5mm	70657796	<b>839-9604</b>
St/Steel	1/4"	BSPT Tapered	6.0mm	70643734	<b>381-7390</b>
St/Steel	1/4"	BSPT Tapered	1/4"	70657797	<b>839-9608</b>
St/Steel	1/4"	BSPT Tapered	1/8"	70657795	<b>839-9601</b>
St/Steel	1/4"	BSPT Tapered	3/16"	70657790	<b>839-9585</b>
St/Steel	1/2"	BSPT Tapered	3.0mm	70657777	<b>839-9541</b>
St/Steel	1/2"	BSPT Tapered	4.5mm	70637828	<b>286-787</b>
St/Steel	1/2"	BSPT Tapered	6.0mm	70637829	<b>286-793</b>
St/Steel	1/2"	BSPT Tapered	8.0mm	70657780	<b>839-9550</b>
<b>M16</b>					
St/Steel	1/2"	M16	3.0mm	70657800	<b>839-9617</b>
St/Steel	1/2"	M16	6.0mm	70657798	<b>839-9610</b>
St/Steel	1/2"	M16	8.0mm	70657799	<b>839-9614</b>

**Stainless Steel locknuts also available:**



Thread	Allied code	RS order code
S/Steel 1/8" BSPP	70651759	<b>762-1180</b>
S/Steel 1/4" BSPP	70651760	<b>762-1184</b>
S/Steel 1/2" BSPP	70651762	<b>762-1193</b>

# Brass Compression Glands – Parallel, Tapered & NPT Thread

BSP, BSPT & NPT



- Thermocouple installation fittings
- To suit a wide range of mineral insulated and other probe type sensors offered by RS
- Male in-line brass compression type with nut & olive
- 1/8" & 1/4" BSP parallel thread to suit 1.5, 3.0, 4.0, 4.5 & 6.0mm. 3/16 also available.
- 1/2", 1/4" & 1/8" BSPT tapered thread to suit 1.5mm, 3.0mm, 4.5mm, 6.0mm, 1/8" & 3/16"
- Brass locknuts also available

## BSPP Parallel:

Type	Thread Size	Thread Type	Suits Probe Ø	Allied code	RS order code
Brass	1/8"	BSP Parallel	1.5mm	70657765	<b>839-9496</b>
Brass	1/8"	BSP Parallel	3.0mm	70643725	<b>381-7277</b>
Brass	1/8"	BSP Parallel	4.0mm	70657764	<b>839-9490</b>
Brass	1/8"	BSP Parallel	4.5mm	70657766	<b>839-9500</b>
Brass	1/8"	BSP Parallel	6.0mm	70657768	<b>839-9507</b>
Brass	1/8"	BSP Parallel	3/16	70657767	<b>839-9503</b>
Brass	1/4"	BSP Parallel	3.0mm	70643727	<b>381-7306</b>
Brass	1/4"	BSP Parallel	4.5mm	70657770	<b>839-9519</b>
Brass	1/4"	BSP Parallel	3/16	70657769	<b>839-9513</b>

## BSPT Tapered:

Brass	1/8"	BSPT Tapered	1.5mm	70637822	<b>286-715</b>
Brass	1/8"	BSPT Tapered	3.0mm	70637823	<b>286-721</b>
Brass	1/8"	BSPT Tapered	4.5mm	70637824	<b>286-737</b>
Brass	1/8"	BSPT Tapered	6.0mm	70657773	<b>839-9529</b>
Brass	1/8"	BSPT Tapered	1/8	70657771	<b>839-9522</b>
Brass	1/8"	BSPT Tapered	3/16	70657772	<b>839-9525</b>
Brass	1/4"	BSPT Tapered	3.0mm	70657774	<b>839-9531</b>
Brass	1/4"	BSPT Tapered	6.0mm	70657778	<b>839-9544</b>
Brass	1/4"	BSPT Tapered	1/4mm	70657776	<b>839-9538</b>
Brass	1/4"	BSPT Tapered	3/16	70657775	<b>839-9535</b>
Brass	1/2"	BSPT Tapered	6.0mm	70657781	<b>286-771</b>

## NPT

Brass	1/8"	NPT	1.5mm	70657781	<b>839-9553</b>
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## Brass locknuts also available:

Thread	Allied code	RS order code
Brass 1/8" BSPP	70651756	<b>762-1171</b>
Brass 1/4" BSPP	70651757	<b>762-1174</b>
Brass 1/2" BSPP	70651758	<b>762-1178</b>

