



SNÍMAČE TEPLOTY TC10-F

Série TC10-F

TC10F-14369122

Snimač teploty Typ K -40-1200°C 250x12mm DN40 form
2F

- Termočlánky K, J, E, N, T
- Teplota -40 až 1200°C
- Připojení příruba
- Média voda, plyny, oleje
- ATEX, IECEx, SIL2, GOST



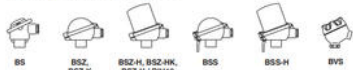
POPIS PRODUKTU

SPECIFIKACE

Insertion length	250 mm
Inside diameter	7 mm
Materiál kontaktní části	Nerez ocel 316Ti
Materiál těla	Hliník
Neck length	0,065 m
Plug diameter	12 mm
Provozní teplota max.	1200 °C
Provozní teplota min.	-40 °C
Temperature resistance housing from	-40 °C
Temperature resistance housing to	80 °C
Tlaková odolnost	16 bar
Třída krytí	IP65

Connection head

■ European designs per EN 50446 / DIN 43735



Model	Material	Cable entry thread size	Ingress protection (IP)	Cap	Surface	Connection to neck tube
BS	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Flat cap with 2 screws	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSZ	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Spherical hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSZ-H	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSZ-H (2x cable outlet)	Aluminum	2 x M20 x 1.5 or 1/2 NPT	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5
BSZ-H / DIN19	Aluminum	M20 x 1.5 or 1/2 NPT	IP65	Raised hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSS	Aluminum	M20 x 1.5 or 1/2 NPT	IP65	Spherical hinged cover with clamping lever	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSS-H	Aluminum	M20 x 1.5 or 1/2 NPT	IP65	Raised hinged cover with clamping lever	Blue, lacquered	M24 x 1.5, 1/2 NPT
BVS	Stainless steel	M20 x 1.5	IP65	Precision-cast screw-on lid	Black, electropolished	M24 x 1.5
BSZ-K	Plastic	M20 x 1.5 or 1/2 NPT	IP65	Spherical hinged cover with cylinder head screw	Black	M24 x 1.5
BSZ-HK	Plastic	M20 x 1.5 or 1/2 NPT	IP65	Raised hinged cover with cylinder head screw	Black	M24 x 1.5

Model	Explosion protection				
	without	Ex (gas) Zone 5, 1, 2	Ex (dust) Zone 20, 21, 22	Ex nA (gas) Zone 2	Ex (dust) Zone 22
BS	x	x	x	x	x
BSZ	x	x	x	x	x
BSZ-H	x	x	x	x	x
BSZ-H (2x cable outlet)	x	x	x	x	x
BSZ-H / DIN19	x	x	x	x	x
BSS	x	x	x	x	x
BSS-H	x	x	x	x	x
BVS	x	x	x	x	x
BSZ-K	x	x	x	x	x
BSZ-HK	x	x	x	x	x

Protection tube designs in accordance with DIN 43772

Protection tube	Material	Protection tube Ø	Suitable for measuring insert Ø	Connection to head
Straight, form 2F DIN 43772	Stainless steel 1.4571	9 x 1 mm	6 mm	M24 x 1.5 (standard threaded connection, male nut)
		11 x 2 mm	6 mm with sleeve Ø 8 mm / 8 mm	
Tapered, form 2F DIN 43772	Stainless steel 1.4571	14 x 2.5 mm		6 mm
		12 x 2.5 mm, tapered to 9 mm		

Protection tube	Material	Protection tube Ø	Suitable for measuring insert Ø	Connection to head
Tapered, weld-on solid tip, in line with DIN 43772, non-standard design	Stainless steel 1.4571	9 x 1 mm, tapered to 6 mm 11 x 2 mm, tapered to 6 mm 12 x 2.5 mm, tapered to 6 mm	6 mm	M24 x 1.5 (standard threaded connection, male nut)

Protection tube designs in line with DIN 43772, wetted parts: special material, gilder flange: stainless steel	Material	Protection tube Ø	Suitable for measuring insert Ø	Connection to head
Straight, in line with form 2F DIN 43772, non-standard design	2.400 (MonelK05) / stainless steel	13.7 x 2.2 mm	6 mm with sleeve Ø 8 mm / 8 mm	M24 x 1.5 (standard threaded connection, male nut)
	2.4019 (Hastelloy C276) / stainless steel			
	2.4610 (Hastelloy C4) / stainless steel			
3.7028 (Titan Grade 2) / stainless steel				

Protection tube designs in line with DIN 43772, tantalum cover with tantalum flange disc, carrier protection tube: stainless steel	Material	Protection tube Ø	Suitable for measuring insert Ø	Connection to head
Straight, in line with form 2F DIN 43772, non-standard design	Tantalum / stainless steel	11 x 2 mm, tantalum cover 12 x 0.4 mm	6 mm	M24 x 1.5 (standard threaded connection, male nut)
		15 x 3 mm, tantalum cover 16 x 0.4 mm	8 mm	
Tapered, in line with form 2F DIN 43772, non-standard design	Tantalum / stainless steel	12 x 2.5 mm, tantalum cover 13 x 0.4 mm	6 mm	M24 x 1.5 (standard threaded connection, male nut)

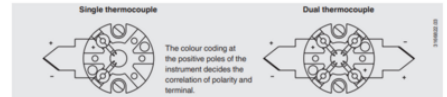
Cable entry



The pictures show examples of connection heads.

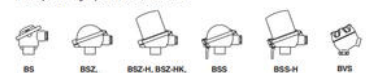
Cable entry	Cable entry thread size
Standard cable entry	M20 x 1.5 or 1/2 NPT
Plastic cable gland (cable Ø 6 ... 10 mm)	M20 x 1.5 or 1/2 NPT
Nickel-plated brass cable gland (cable Ø 6 ... 12 mm)	M20 x 1.5 or 1/2 NPT
Stainless steel cable gland (cable Ø 7 ... 12 mm)	M20 x 1.5 or 1/2 NPT
Plain threaded	M20 x 1.5
2 x M20 x 1.5	2 x M20 x 1.5
Junction box M12 x 1 (4-pin)	M20 x 1.5
Sealing plugs for transport	M20 x 1.5 or 1/2 NPT

Electrical connection



Connection head

■ European designs per EN 50446 / DIN 43735



Model	Material	Cable entry thread size	Ingress protection (IP)	Cap	Surface	Connection to neck tube
BS	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Flat cap with 2 screws	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSZ	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Spherical hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSZ-H	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSZ-H (2x cable outlet)	Aluminum	2 x M20 x 1.5 or 1/2 NPT	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5
BSZ-H / DIN19	Aluminum	M20 x 1.5 or 1/2 NPT	IP65	Raised hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSS	Aluminum	M20 x 1.5 or 1/2 NPT	IP65	Spherical hinged cover with clamping lever	Blue, lacquered	M24 x 1.5, 1/2 NPT
BSS-H	Aluminum	M20 x 1.5 or 1/2 NPT	IP65	Raised hinged cover with clamping lever	Blue, lacquered	M24 x 1.5, 1/2 NPT
BVS	Stainless steel	M20 x 1.5	IP65	Precision-cast screw-on lid	Black, electropolished	M24 x 1.5
BSZ-K	Plastic	M20 x 1.5 or 1/2 NPT	IP65	Spherical hinged cover with cylinder head screw	Black	M24 x 1.5
BSZ-HK	Plastic	M20 x 1.5 or 1/2 NPT	IP65	Raised hinged cover with cylinder head screw	Black	M24 x 1.5

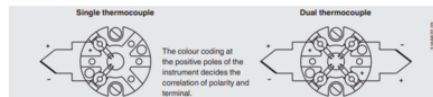
Model	Explosion protection				
	without	Ex (gas) Zone 5, 1, 2	Ex (dust) Zone 20, 21, 22	Ex nA (gas) Zone 2	Ex (dust) Zone 22
BS	x	x	x	x	x
BSZ	x	x	x	x	x
BSZ-H	x	x	x	x	x
BSZ-H (2x cable outlet)	x	x	x	x	x
BSZ-H / DIN19	x	x	x	x	x
BSS	x	x	x	x	x
BSS-H	x	x	x	x	x
BVS	x	x	x	x	x
BSZ-K	x	x	x	x	x
BSZ-HK	x	x	x	x	x

Cable entry



Cable entry	Cable entry thread size
Standard cable entry	M20 x 1.5 or 1/2 NPT
Plastic cable gland (cable Ø 6 ... 10 mm)	M20 x 1.5 or 1/2 NPT
Nickel-plated brass cable gland (cable Ø 6 ... 12 mm)	M20 x 1.5 or 1/2 NPT
Stainless steel cable gland (cable Ø 7 ... 12 mm)	M20 x 1.5 or 1/2 NPT
Plain threaded	M20 x 1.5
2 x M20 x 1.5	2 x M20 x 1.5
Junction box M12 x 1 (4-pin)	M20 x 1.5
Sealing plugs for transport	M20 x 1.5 or 1/2 NPT

Electrical connection



Protection tube designs in accordance with DIN 43772

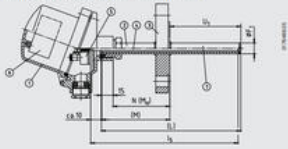
Protection tube	Material	Protection tube Ø	Suitable for measuring insert Ø	Connection to head
Straight, form 2F DIN 43772	Stainless steel 1.4571	9 x 1 mm	6 mm	M24 x 1.5 (standard threaded connection, male nut)
		11 x 2 mm	6 mm with sleeve Ø 8 mm / 8 mm	
Tapered, form 2F DIN 43772	Stainless steel 1.4571	14 x 2.5 mm		6 mm
		12 x 2.5 mm, tapered to 9 mm		

Protection tube designs in line with DIN 43772, weld-on solid tip	Material	Protection tube Ø	Suitable for measuring insert Ø	Connection to head
Tapered, weld-on solid tip, in line with DIN 43772, non-standard design	Stainless steel 1.4571	9 x 1 mm, tapered to 6 mm 11 x 2 mm, tapered to 6 mm 12 x 2.5 mm, tapered to 6 mm	6 mm	M24 x 1.5 (standard threaded connection, male nut)

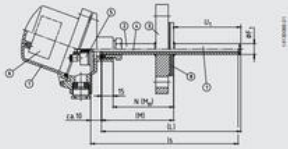
Protection tube designs in line with DIN 43772, wetted parts: special material, gilder flange: stainless steel	Material	Protection tube Ø	Suitable for measuring insert Ø	Connection to head	
Straight, in line with form 2F DIN 43772, non-standard design	2.400 (MonelK05) / stainless steel 2.4019 (Hastelloy C276) / stainless steel 2.4610 (Hastelloy C4) / stainless steel 3.7028 (Titan Grade 2) / stainless steel	13.7 x 2.2 mm	6 mm with sleeve Ø 8 mm / 8 mm	M24 x 1.5 (standard threaded connection, male nut)	

Protection tube designs in line with DIN 43772, tantalum cover with tantalum flange disc, carrier protection tube: stainless steel	Material	Protection tube Ø	Suitable for measuring insert Ø	Connection to head
Straight, in line with form 2F DIN 43772, non-standard design	Tantalum / stainless steel	11 x 2 mm, tantalum cover 12 x 0.4 mm	6 mm	M24 x 1.5 (standard threaded connection, male nut)
		15 x 3 mm, tantalum cover 16 x 0.4 mm	8 mm	
Tapered, in line with form 2F DIN 43772, non-standard design	Tantalum / stainless steel	12 x 2.5 mm, tantalum cover 13 x 0.4 mm	6 mm	M24 x 1.5 (standard threaded connection, male nut)

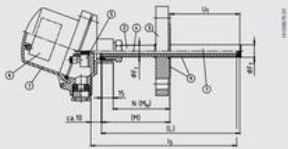
Version: Flanged protection tube from standard material



Version: Flange from standard material, protection tube and flange disc from special material



Version: Flanged protection tube from standard material with tantalum cover



- Legend:
- 1 Connection head
 - 2 Neck tube
 - 3 Flange
 - 4 Measuring insert (TC10-A)
 - 5 Tantalum backflange/insert (optional)
 - 6 Transmitter (optional)
 - 7 Protection tube
 - 8 Flange disc from special material
 - 9 Tantalum cover
- L Overall length of protection tube
 L1 Measuring insert length
 L2 Protection tube insertion length
 according with DIN 43772
 D F Protection tube diameter
 D F Outer diameter of tantalum cover
 N Neck length
 N1 Neck hole length