Dopyt

SNÍMAČE TEPLOTY

Séria TR10-B

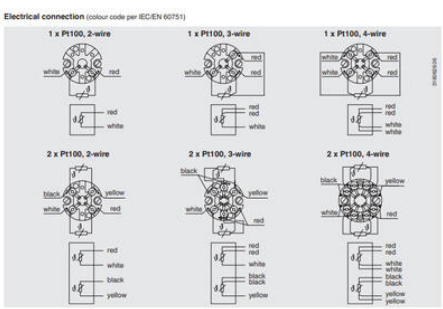
TR10B-14364745
PT100 2-tråd -50-500°C 150x6mm G1/2 NL=50mm

- PT100, PT1000
- Teplota -196 až 600°C
- Pripojenie M, NPT
- Médiá voda, plyny, oleje
- ATEX, IECEx, SIL2, DNV GL

POPIS PRODUKTU

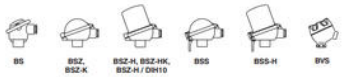
ŠPECIFIKÁCIA

Insertion length	150 mm
Materiál kontaktnej časti	Nerezová oceľ 316Ti
Materiál tela	Hliník
Neck length	0,05 m
Plug diameter	6 mm
Prevádzková teplota max.	500 °C
Prevádzková teplota min.	-50 °C
Teplota okolia do	80 °C
Teplota okolia od	-40 °C
Trieda krytia	IP65



Connection head

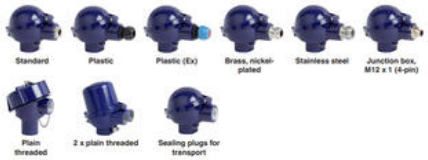
■ **European designs per EN 50446 / DIN 43735**



Model	Material	Cable entry thread size	Ingress protection (max.) [1]	Cap	Surface	Connection to neck tube
BS	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65, IP68	Flat cap with 2 screws	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSZ	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65, IP68	Spherical hinged cover with cylinder head screw	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSZ-H	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSZ-H (2x cable outlet)	Aluminium	2 x M20 x 1.5 or 2 x ½ NPT [2]	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered [4]	M24 x 1.5
BSZ-H / DIH10 [3]	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65	Raised hinged cover with cylinder head screw	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSS	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65	Spherical hinged cover with clamping lever	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSS-H	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65	Raised hinged cover with clamping lever	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BVS	Stainless steel	M20 x 1.5 [2]	IP65	Precision-cast screw cap	Blank, electropolished	M24 x 1.5
BSZ-K	Plastic	M20 x 1.5 or ½ NPT [2]	IP65	Spherical hinged cover with cylinder head screw	Black	M24 x 1.5
BSZ-HK	Plastic	M20 x 1.5 or ½ NPT [2]	IP65	Raised hinged cover with cylinder head screw	Black	M24 x 1.5

Model	Explosion protection				
	without	Ex i (gas) Zone 0, 1, 2	Ex i (dust) Zone 20, 21, 22	Ex nA (gas) Zone 2	Ex tc (dust) Zone 22
BS	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 / DIH10 [3]	x	x	-	-	-
BSS	x	x	-	-	-
BSS-H	x	x	-	-	-
BVS	x	x	-	-	-
BSZ-K	x	x	-	-	-
BSZ-HK	x	x	-	-	-

Cable entry



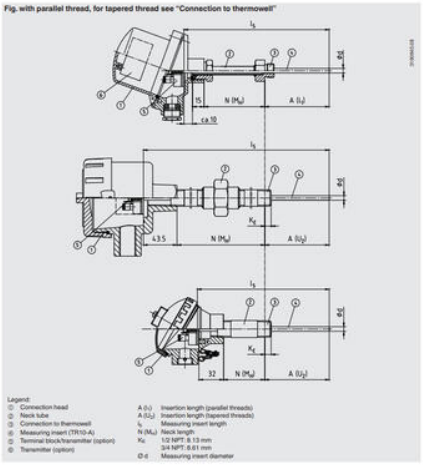
The pictures show examples of connection heads.

Cable entry	Cable entry thread size
Standard cable entry [1]	M20 x 1.5 or ½ NPT
Plastic cable gland (cable Ø 6 ... 12 mm) [1]	M20 x 1.5 or ½ NPT
Nickel-plated brass cable gland (cable Ø 6 ... 12 mm)	M20 x 1.5 or ½ NPT
Stainless steel cable gland (cable Ø 7 ... 12 mm)	M20 x 1.5 or ½ NPT
Plain threaded	M20 x 1.5 or ½ NPT
2 x plain threaded [2]	2 x M20 x 1.5 or 2 x ½ NPT
Junction box M12 x 1 (4-pin) [6]	M20 x 1.5
Sealing plugs for transport	M20 x 1.5 or ½ NPT

Cable entry	Colour	Ingress protection (max.)	Min./max. ambient temperature	Explosion protection				
				without	Ex i (gas) Zone 0, 1, 2	Ex i (dust) Zone 20, 21, 22	Ex nA (gas) Zone 2	Ex tc (dust) Zone 22
Standard cable entry [1]	Blank	IP65	-40 ... +80 °C	x	x	-	-	-
Plastic cable gland [1]	Black or grey	IP65, IP68	-40 ... +80 °C	x	-	-	-	-
Plastic cable gland, Ex e [1]	Light blue	IP66, IP68	-20 ... +80 °C (standard) -40 ... +70 °C (option)	x	x	x	-	-
Plastic cable gland, Ex e [1]	Black	IP66, IP68	-20 ... +80 °C (standard) -40 ... +70 °C (option)	x	-	-	x	x
Nickel-plated brass cable gland	Blank	IP66, IP68	-60 °C / -40 ... +80 °C	x	-	-	-	-
Nickel-plated brass cable gland, Ex e	Blank	IP66, IP68	-60 °C / -40 ... +80 °C	x	x	x	x	x
Stainless steel cable gland	Blank	IP66, IP68	-60 °C / -40 ... +80 °C	x	x	x	-	-
Stainless steel cable gland, Ex e	Blank	IP66, IP68	-60 °C / -40 ... +80 °C	x	x	x	x	x
Plain threaded	-	IP00	-	x	x	x [5]	x [5]	x [5]
2 x plain threaded [2]	-	IP00	-	x	x	x [5]	x [5]	x [5]
Junction box M12 x 1 (4-pin) [6]	-	IP65	-40 ... +80 °C	x	x [5]	x [5]	-	-
Sealing plugs for transport	Transparent	-	-40 ... +80 °C	not applicable, transport protection				

Components model TR10-B

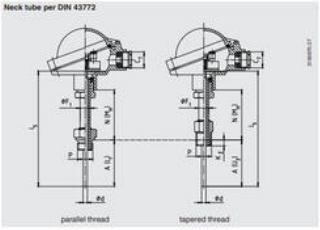
Fig. with parallel thread, for tapered thread see "Connection to thermowell"



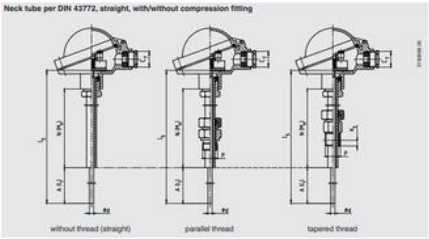
Neck tube

Neck tube designs

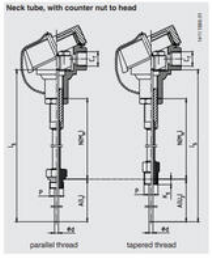
Neck tube per DIN 43772



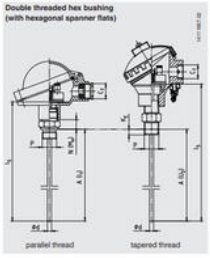
Neck tube per DIN 43772, straight, with/without compression fitting



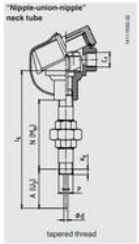
Neck tube, with counter nut to head



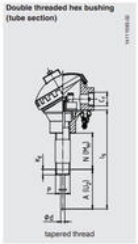
Double threaded hex bushing (with hexagonal spanner flats)



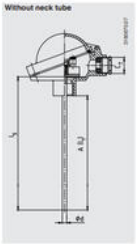
"Nipple-union-nipple" neck tube



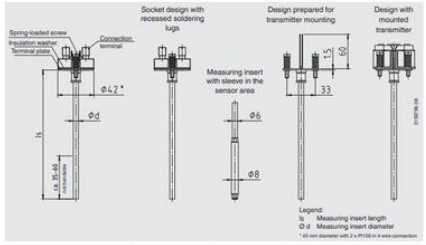
Double threaded hex bushing (tube section)



Without neck tube

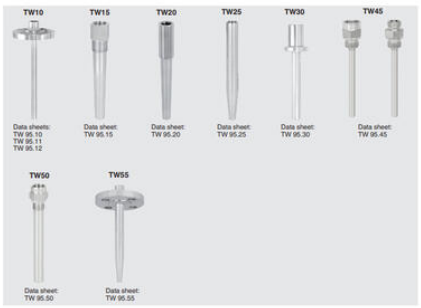


Dimensions in mm

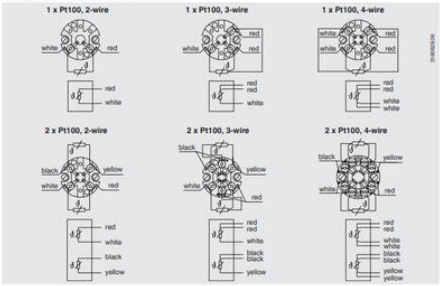


Measuring insert diameter Ø d in mm		Index per DIN 43735	Tolerance in mm	Sheath material	
				Standard design	Recessed soldering lugs
3 [1]	Standard	30	3 ±0.05	1.4571, 316L [1] [2]	1.4571
6	Standard	60	6 $^{0}_{-0.1}$	1.4571, 316L [1] [2]	1.4571
8 (6 mm with sleeve)	Standard	-	8 $^{0}_{-0.1}$	1.4571	1.4571
8	Standard	80	8 $^{0}_{-0.1}$	1.4571, 316L [1] [2]	1.4571

Thermowell selection



Electrical connection (colour code per IEC/EN 60751)



Connection head

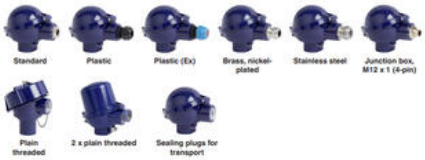
■ **European designs per EN 50446 / DIN 43735**

BS | **BSZ, BSZ-K** | **BSZ-H, BSZ-HK, BSZ-H / DIH10** | **BSS** | **BSS-H** | **BVS**

Model	Material	Cable entry thread size	Ingress protection (max.) [1]	Cap	Surface	Connection to neck tube
BS	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65, IP68	Flat cap with 2 screws	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSZ	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65, IP68	Spherical hinged cover with cylinder head screw	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSZ-H	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSZ-H (2x cable outlet)	Aluminium	2 x M20 x 1.5 or 2 x ½ NPT [2]	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered [4]	M24 x 1.5
BSZ-H / DIH10 [3]	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65	Raised hinged cover with cylinder head screw	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSS	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65	Spherical hinged cover with clamping lever	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BSS-H	Aluminium	M20 x 1.5 or ½ NPT [2]	IP65	Raised hinged cover with clamping lever	Blue, lacquered [4]	M24 x 1.5, ½ NPT
BVS	Stainless steel	M20 x 1.5 [2]	IP65	Precision-cast screw cap	Blank, electropolished	M24 x 1.5
BSZ-K	Plastic	M20 x 1.5 or ½ NPT [2]	IP65	Spherical hinged cover with cylinder head screw	Black	M24 x 1.5
BSZ-HK	Plastic	M20 x 1.5 or ½ NPT [2]	IP65	Raised hinged cover with cylinder head screw	Black	M24 x 1.5

Model	Explosion protection				
	without	Ex i (gas) Zone 0, 1, 2	Ex i (dust) Zone 20, 21, 22	Ex nA (gas) Zone 2	Ex tc (dust) Zone 22
BS	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 / DIH10 [3]	x	x	-	-	-
BSS	x	x	-	-	-
BSS-H	x	x	-	-	-
BVS	x	x	-	-	-
BSZ-K	x	x	-	-	-
BSZ-HK	x	x	-	-	-

Cable entry



Standard | **Plastic** | **Plastic (Ex)** | **Brass, nickel-plated** | **Stainless steel** | **Junction box, M12 x 1 (4-pin)**

Plain threaded | **2 x plain threaded** | **Sealing plugs for transport**

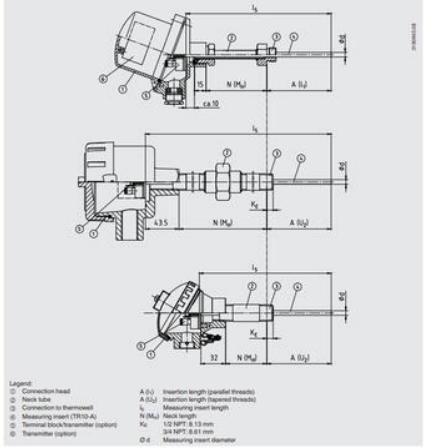
The pictures show examples of connection heads.

Cable entry	Cable entry thread size
Standard cable entry [1]	M20 x 1.5 or ½ NPT
Plastic cable gland (cable Ø 6 ... 10 mm) [1]	M20 x 1.5 or ½ NPT
Nickel-plated brass cable gland (cable Ø 6 ... 12 mm)	M20 x 1.5 or ½ NPT
Stainless steel cable gland (cable Ø 7 ... 12 mm)	M20 x 1.5 or ½ NPT
Plain threaded	M20 x 1.5 or ½ NPT
2 x plain threaded [2]	2 x M20 x 1.5 or 2 x ½ NPT
Junction box M12 x 1 (4-pin) [4]	M20 x 1.5
Sealing plugs for transport	M20 x 1.5 or ½ NPT

Cable entry	Colour	Ingress protection (max.)	Min./max. ambient temperature	Explosion protection				
				without	Ex i (gas) Zone 0, 1, 2	Ex i (dust) Zone 20, 21, 22	Ex nA (gas) Zone 2	Ex tc (dust) Zone 22
Standard cable entry [1]	Blank	IP65	-40 ... +80 °C	x	x	-	-	-
Plastic cable gland [1]	Black or grey	IP66, IP68	-40 ... +80 °C	x	-	-	-	-
Plastic cable gland, Ex e [1]	Light blue	IP66, IP68	-20 ... +80 °C (standard) -40 ... +70 °C (option)	x	x	x	-	-
Plastic cable gland, Ex e [1]	Black	IP66, IP68	-20 ... +80 °C (standard) -40 ... +70 °C (option)	x	-	-	x	x
Nickel-plated brass cable gland	Blank	IP66, IP68	-50 °) / -40 ... +80 °C	x	-	-	-	-
Nickel-plated brass cable gland, Ex e	Blank	IP66, IP68	-50 °) / -40 ... +80 °C	x	x	x	x	x
Stainless steel cable gland	Blank	IP66, IP68	-50 °) / -40 ... +80 °C	x	x	x	-	-
Stainless steel cable gland, Ex e	Blank	IP66, IP68	-50 °) / -40 ... +80 °C	x	x	x	x	x
Plain threaded	-	IP00	-	x	x	x [5]	x [5]	x [5]
2 x plain threaded [2]	-	IP00	-	x	x	x [5]	x [5]	x [5]
Junction box M12 x 1 (4-pin) [4]	-	IP65	-40 ... +80 °C	x	x [5]	x [5]	-	-
Sealing plugs for transport	Transparent	-	-40 ... +80 °C	not applicable, transport protection				

Components model TR10-B

Fig. with parallel thread, for tapered thread see "Connection to thermowell"



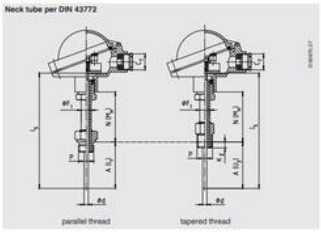
Legend:
① Connection head
② Neck tube
③ Connection to thermowell
④ Measuring insert (TR10-A)
⑤ Terminal block/transmitter (option)
⑥ Transmitter (option)

A (l_1) Insertion length (parallel threads)
A (l_{1t}) Insertion length (tapered threads)
l_5 Measuring insert length
N (M_{ab}) Neck length
K_6 1/2 NPT: 8.13 mm
3/4 NPT: 8.61 mm
Ø d Measuring insert diameter

Neck tube

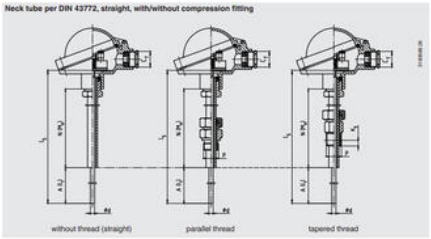
Neck tube designs

Neck tube per DIN 43772



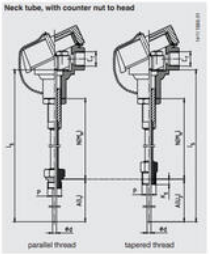
parallel thread | tapered thread

Neck tube per DIN 43772, straight, with/without compression fitting



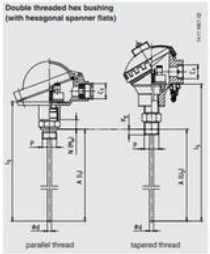
without thread (straight) | parallel thread | tapered thread

Neck tube, with counter nut to head



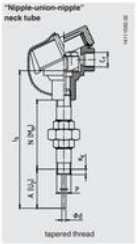
parallel thread | tapered thread

Double threaded hex bushing (with hexagonal spanner flats)



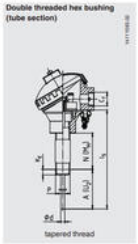
parallel thread | tapered thread

"Nipple-union-nipple" neck tube



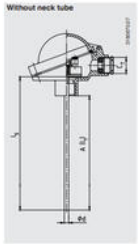
tapered thread

Double threaded hex bushing (tube section)

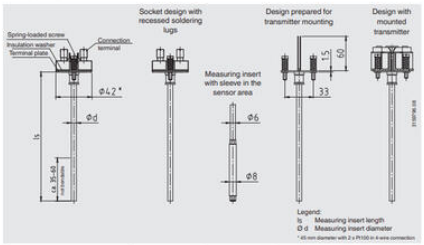


tapered thread

Without neck tube

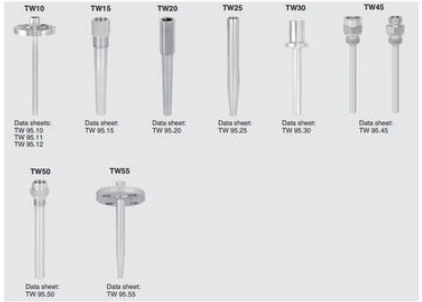


Dimensions in mm



Measuring insert diameter Ø d in mm	Index per DIN 43735	Tolerance in mm	Sheath material	
			Standard design	Recessed soldering lugs
3 [1]	Standard	30	3 ±0.05	1.4571, 316L [1,6]	1.4571
6	Standard	60	6 $^{0}_{-0.1}$	1.4571, 316L [1,6]	1.4571
6 (6 mm with sleeve)	Standard	-	8 $^{0}_{-0.1}$	1.4571	1.4571
8	Standard	80	8 $^{0}_{-0.1}$	1.4571, 316L [1,6]	1.4571

Thermowell selection



Data sheets: TW 95.10, TW 95.11, TW 95.12 | Data sheet: TW 95.15 | Data sheet: TW 95.20 | Data sheet: TW 95.25 | Data sheet: TW 95.30 | Data sheet: TW 95.45

Data sheet: TW 95.50 | Data sheet: TW 95.55