

VASTUSLÄMPÖTILA-ANTURI ERILLISELLE SUOJATASKULLE

TR10-B

TR10B-14364752

PT100 3-johdin -50-500°C 150x6mm G1/2 NL=50mm

- Mittausalueet -196-600°C
- Vaihdettava mittaosa
- Kaulan pituus vähintään 30mm
- PT100 tai PT1000
- ATEX optiolla



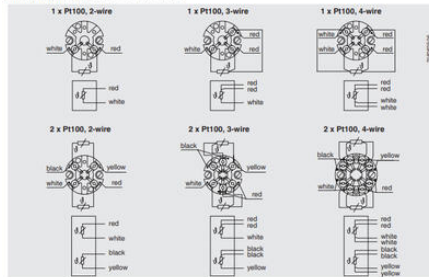
TUOTEKUVAUS

Lämpötila-antureihin on saatavilla laaja valikoima mahdollisia Pt100- tai Pt1000-anturien ja liitäntäpäiden yhdistelmiä, mittauskärkien pituuksia, kaulan pituuksia, suojataskuliitäntöjä jne., jotka sopivat minkä tahansa kokoiseen suojataskuun ja mihin tahansa käyttökohteeseen.

TEKNISEET TIEDOT

Aineen kanssa kosketuksissa olevien osien materiaali	Ruostumaton teräs 316Ti
Asennussyvyys	150 mm
IP-luokka	IP65
Kaulan pituus	0,05 m
Max. käyttölämpötila	500 °C
Max. ympäristön lämpötila	80 °C
Min. käyttölämpötila	-50 °C
Min. ympäristön lämpötila	-40 °C
Pistokkeen halkaisija	6 mm
Rungon materiaali	Alumiini

Electrical connection (colour code per IEC/EN 60751)



Connection head

* European designs per EN 50446 / DIN 43725

Model	Material	Cable entry thread size	Ingress protection (max.)	Cap	Surface	Connection to neck tube
B5	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
B5Z	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Spherical fanged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
B5Z-H	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Paired fanged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
B5Z-H / DIN10	Aluminum	2 x M20 x 1.5 or 2 x 1/2 NPT	IP65, IP68	Paired fanged cover with cylinder head screw	Blue, lacquered	M24 x 1.5
B5S	Aluminum	M20 x 1.5 or 1/2 NPT	IP65, IP68	Paired fanged cover with cylinder head screw	Blue, lacquered	M24 x 1.5, 1/2 NPT
B5S-H	Aluminum	M20 x 1.5 or 1/2 NPT	IP65	Paired fanged cover with clamping lever	Blue, lacquered	M24 x 1.5, 1/2 NPT
B5S-H	Aluminum	M20 x 1.5 or 1/2 NPT	IP65	Paired fanged cover with clamping lever	Blue, lacquered	M24 x 1.5, 1/2 NPT
B5S	Stainless steel	M20 x 1.5	IP65	Precision-cast screw cap	Blank, electropolished	M24 x 1.5
B5Z-K	Plastic	M20 x 1.5 or 1/2 NPT	IP65	Spherical fanged cover with cylinder head screw	Black	M24 x 1.5
B5Z-HK	Plastic	M20 x 1.5 or 1/2 NPT	IP65	Paired fanged cover with cylinder head screw	Black	M24 x 1.5

Model	Explosion protection	Ex I (gas) Zone 0, 1, 2	Ex I (dust) Zone 20, 21, 22	Ex II (gas) Zone 1	Ex II (dust) Zone 22
B5	X	X	X	X	X
B5Z	X	X	X	X	X
B5Z-H	X	X	X	X	X
B5Z-H / DIN10	X	X	X	X	X
B5S	X	X	X	X	X
B5S-H	X	X	X	X	X
B5S	X	X	X	X	X
B5Z-K	X	X	X	X	X
B5Z-HK	X	X	X	X	X

Cable entry



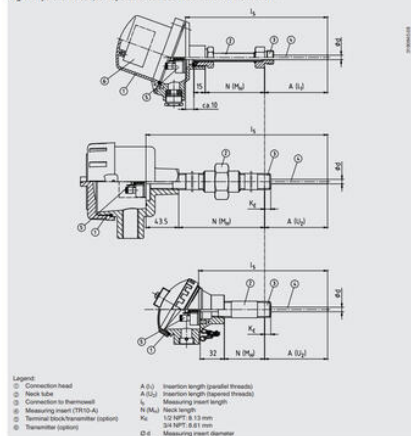
The pictures show examples of connection heads.

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 or 1/2 NPT
2 x plain threaded	2 x M20 x 1.5 or 2 x 1/2 NPT
Junction box M12 x 1 (4-pin)	M20 x 1.5
Sealing plugs for transport	M20 x 1.5 or 1/2 NPT

Cable entry	Colour	Ingress protection (max.)	Min. max. ambient temperature	Explosion protection (max.)	Ex I (gas) Zone 0, 1, 2	Ex II (gas) Zone 1	Ex I (dust) Zone 20	Ex II (dust) Zone 22
Standard cable entry	Black	IP65, IP68	-40 ... +80 °C	X	X	X	X	X
Plastic cable gland	Black or grey	IP65, IP68	-40 ... +80 °C	X	X	X	X	X
Plastic cable gland, Ex	Light blue	IP65, IP68	-20 ... +80 °C (optional)	X	X	X	X	X
Plastic cable gland, Ex	Black	IP65, IP68	-20 ... +80 °C (optional)	X	X	X	X	X
Nickel-plated brass cable gland	Black	IP65, IP68	-40 ... +80 °C	X	X	X	X	X
Nickel-plated brass cable gland, Ex	Black	IP65, IP68	-40 ... +80 °C	X	X	X	X	X
Stainless steel cable gland	Black	IP65, IP68	-40 ... +80 °C	X	X	X	X	X
Stainless steel cable gland, Ex	Black	IP65, IP68	-40 ... +80 °C	X	X	X	X	X
Plain threaded	X	IP50	-40 ... +80 °C	X	X	X	X	X
2 x plain threaded	X	IP50	-40 ... +80 °C	X	X	X	X	X
Junction box M12 x 1 (4-pin)	X	IP65	-40 ... +80 °C	X	X	X	X	X
Sealing plugs for transport	Transparent	X	-40 ... +80 °C	Not applicable, transport protection	X	X	X	X

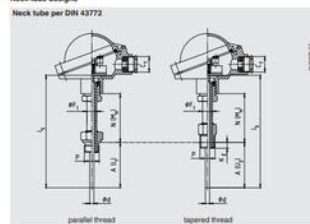
Components model TR10-B

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

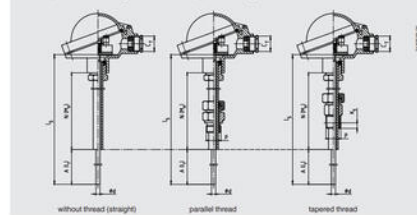


Neck tube

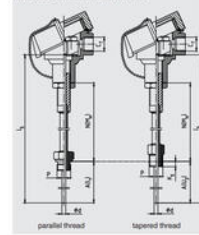
Neck tube designs



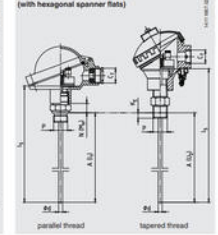
Neck tube per DIN 43772, straight, with/without compression fitting



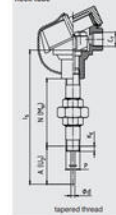
Neck tube, with counter nut to head



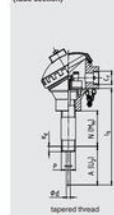
Double threaded hex bushing (with hexagonal spanner flats)



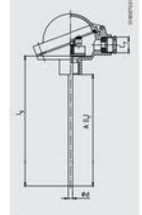
"Nipple-union-nipple" neck tube



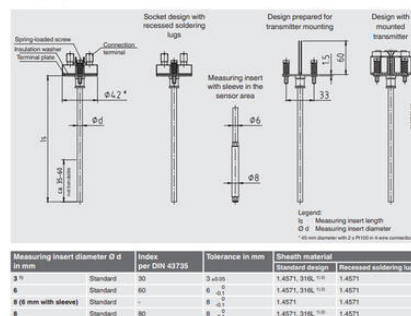
Double threaded hex bushing (tube section)



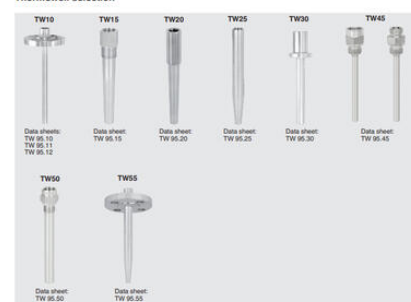
Without neck tube



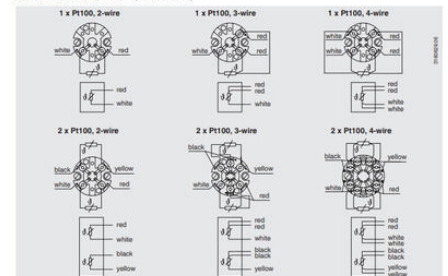
Dimensions in mm



Thermowell selection

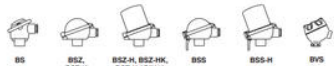


Electrical connection (colour code per IEC/EN 60751)



Connection head

* European designs per EN 50448 / DIN 43735



Model	Material	Cable entry thread size	Ingress protection (max.)	Cap	Surface	Connection to neck tube
B5	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
B5Z	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
B5Z-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
B5Z-H (2x cable outlet)	Aluminum	2 x M20 x 1.5 or 2 x 1/2 NPT	IP65, IP68	Raised hinged cover with cylinder head screw	Blue, lacquered	M24 x 1.5
B5S	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
B5S-H	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
BVS	Stainless steel	M20 x 1.5	IP65	Precision-rast screw cap	Black, electropolished	M24 x 1.5
B5Z-K	Plastic	M20 x 1.5 or 1/2 NPT	IP65	Spherical hinged cover with cylinder head screw	Black	M24 x 1.5
B5Z-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	Ex I (gas) Zone 1, 2	Ex I (dust) Zone 21, 22	Ex nA (gas) Zone 2	Ex n (dust) Zone 22
B5	x	x	x	x	x
B5Z	x	x	x	x	x
B5Z-H	x	x	x	x	x
B5Z-H (2x cable outlet)	x	x	x	x	x
B5S	x	x	x	x	x
B5S-H	x	x	x	x	x
BVS	x	x	x	x	x
B5Z-K	x	x	x	x	x
B5Z-HK	x	x	x	x	x

Cable entry



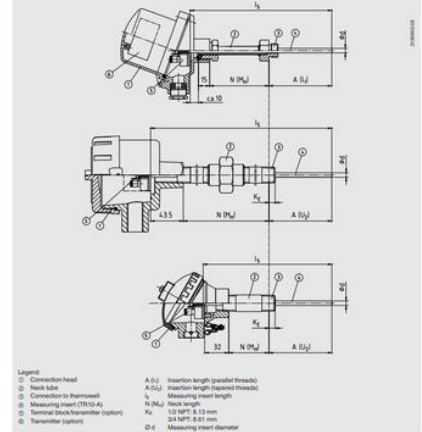
The pictures show examples of connection heads.

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
2 x plain threaded	2 x M20 x 1.5 or 2 x 1/2 NPT
Junction box M12 x 1 (4-pin)	M20 x 1.5
Sealing plugs for transport	M20 x 1.5 or 1/2 NPT

Cable entry	Colour	Ingress protection (max.)	Min./max. ambient temperature	Explosion protection	Ex nA (gas) Zone 2	Ex n (dust) Zone 22
Standard cable entry	Black	IP65	-40 ... +80 °C	x	x	x
Plastic cable gland	Black or grey	IP65, IP68	-40 ... +80 °C	x	x	x
Plastic cable gland, Ex n	Light blue	IP65, IP68	-20 ... +80 °C (standard) -40 ... +70 °C (optional)	x	x	x
Plastic cable gland, Ex n	Black	IP65, IP68	-20 ... +80 °C (standard) -40 ... +70 °C (optional)	x	x	x
Nickel-plated brass cable gland	Black	IP65, IP68	-40 ... +80 °C	x	x	x
Nickel-plated brass cable gland, Ex n	Black	IP65, IP68	-40 ... +80 °C	x	x	x
Stainless steel cable gland	Black	IP65, IP68	-40 ... +80 °C	x	x	x
Stainless steel cable gland, Ex n	Black	IP65, IP68	-40 ... +80 °C	x	x	x
Plain threaded	-	IP00	-	x	x ^{a)}	x ^{a)}
2 x plain threaded	-	IP00	-	x	x ^{a)}	x ^{a)}
Junction box M12 x 1 (4-pin)	-	IP65	-40 ... +80 °C	x	x ^{a)}	x ^{a)}
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"

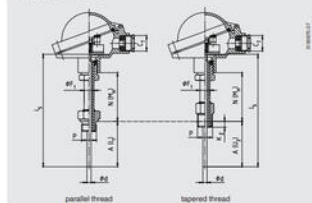


Legend:
 ① Connection head
 ② Neck tube
 ③ Connection to thermowell
 ④ Measuring insert (TR10-A)
 ⑤ Sensor block/thermistor (optional)
 ⑥ Transmitter (optional)
 A 5.2 Insertion length (parallel threads)
 A 5.2.2 Insertion length (tapered threads)
 N (N₂) Neck length
 N₂ 1/2 NPT & 1/2 inch
 3/4 NPT 0.61 mm
 Ø d Measuring insert diameter

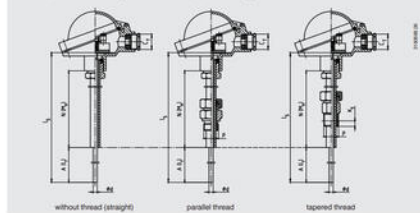
Neck tube

Neck tube design

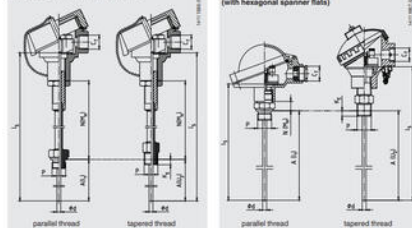
Neck tube per DIN 43772



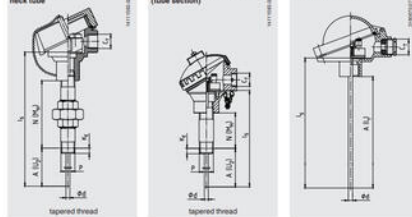
Neck tube per DIN 43772, straight, without/compression fitting



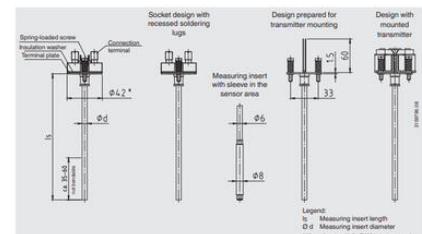
Neck tube, with counter nut to head



"Wiggle-union-ripple" neck tube



Dimensions in mm



Measuring insert diameter Ø d in mm	Index per DIN 43735	Tolerance in mm	Sheath material	Increased ending length
3 1/2	Standard	±0.08	1.4571, 316L, 1/2	1.4571
6	Standard	±0.1	1.4571, 316L, 1/2	1.4571
8 (8 mm with sleeve)	Standard	±0.1	1.4571, 316L, 1/2	1.4571
8	Standard	±0.1	1.4571, 316L, 1/2	1.4571

Thermowell selection

