



SNÍMAČE TEPLOTY

Séria TR10-B

TR10B-14364745

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

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

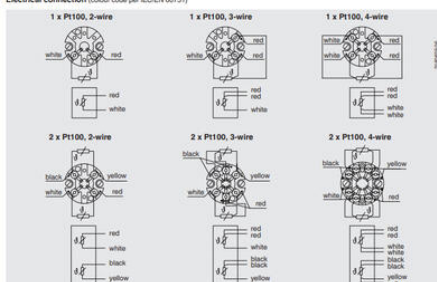


POPIS PRODUKTU

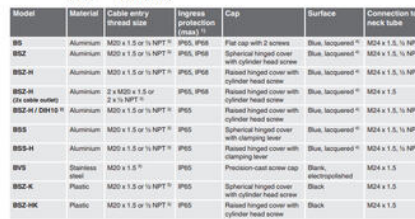
ŠPECIFIKÁCIA

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

Electrical connection (colour code per IEC-EN 60751)



■ European designs per EN 50446 / DIN 43735



Model	Explosion protection				
	without	Ex 1 (gast) Zone 0, 1, 2	Ex 1 (dust) Zone 20, 21, 22	Ex HA (gast) Zone 2	Ex II (dust) Zone 22
955	X	X	X	X	X
952-H	X	X	X	X	X
952-H (ex cable outlet)	X	X	X	X	X
952-H / D9519-1	X	X	X	X	X
955	X	X	X	X	X
955-H	X	X	X	X	X
955	X	X	X	X	X
952-K	X	X	X	X	X
952-HK	X	X	X	X	X

Standard

Plastic

Plastic (Ex)

Brass, nickel-plated

Stainless steel

Junction box, M12 x 1 (4-pin)

Pin thread

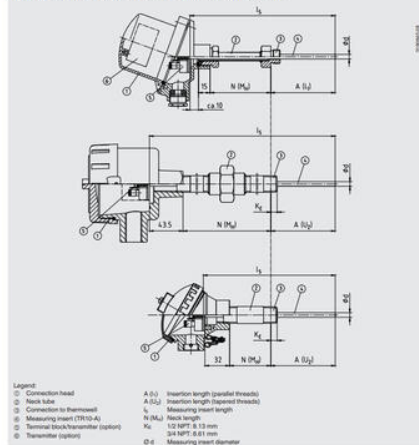
2 x pin thread

Sealing plugs for transport

Cable entry	Cable entry threaded size
Standard cable entry ¹⁾	M20 x 1.5 or 1/2" NPT
Plastic cable gland (cable Ø 6 ... 12 mm) ¹⁾	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 ²⁾	M20 x 1.5 or 1/2" NPT
2 x plain threaded ³⁾	2 x M20 x 1.5 or 2 x 1/2" NPT
Junction box M12 x 1 (4-pin) ⁴⁾	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 ia I Zone 0, I, 2	Ex ia I Zone 0, 1, 21, 22	Ex na I Zone 0, 1, 2	Ex na I Zone 0, 1, 21, 22
Standard cable entry	Black	IP60	-40...+80 °C	x	x	x	x	x
Plastic cable gland, Ex e	Black or grey	IP68, IP69	-40...+80 °C	x	x	x	x	x
Plastic cable gland, Ex e	Light blue	IP68, IP69	-40...+80 °C (standard) -40...+75 °C (optional)	x	x	x	x	x
Plastic cable gland, Ex e	Black	IP68, IP69	-20...+80 °C (standard) -20...+75 °C (optional)	x	x	x	x	x
Nickel-plated brass cable gland	Black	IP68, IP69	-60 °F...+180 °C	x	x	x	x	x
Nickel-plated brass cable gland, Ex e	Black	IP68, IP69	-60 °F...+180 °C	x	x	x	x	x
Stainless steel cable gland	Black	IP68, IP69	-60 °F...+180 °C	x	x	x	x	x
Stainless steel cable gland, Ex e	Black	IP68, IP69	-60 °F...+180 °C	x	x	x	x	x
3 x plain threaded		IP600		x	x	x	x	x
3 x plain threaded		IP600		x	x	x	x	x
Injection hose M12 x 1 (4-pin)		IP600	-40...+140 °C	x	x	x	x	x
Sealing plug for transport	Transparent		-40...+140 °C	not applicable	not applicable	not applicable	not applicable	not applicable

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



Neck tube designs

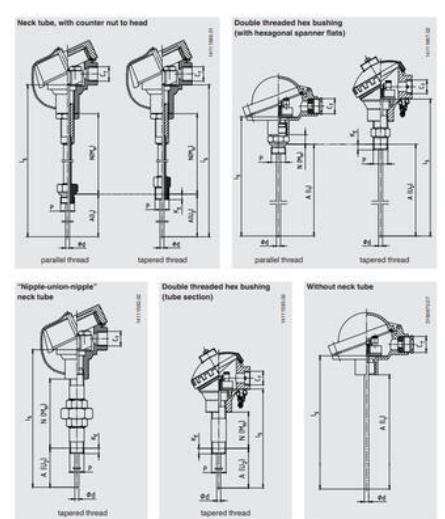
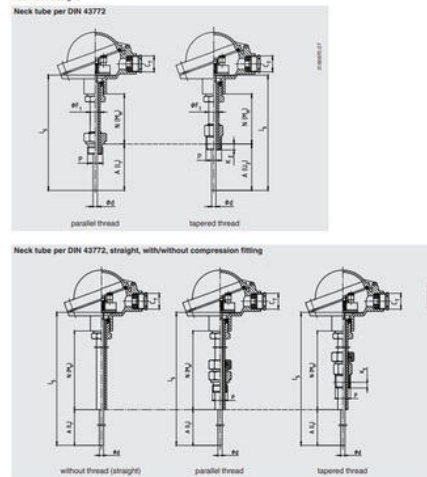


Figure 1 illustrates the design of the sensor probe, showing three cross-sectional views and a legend.

Socket design with recessed soldering lugs: This view shows the probe with a spring-loaded screw, insulation washer, terminal position, and compression terminal. The diameter of the probe is $\phi 4.2$.

Design prepared for transmitter mounting: This view shows the probe with a measuring insert with sleeves in the sensor area. The diameter of the probe is $\phi 6$ and $\phi 8$. The length of the measuring insert is 15.

Design with mounted transmitter: This view shows the probe with a measuring insert. The diameter of the probe is $\phi 6$ and $\phi 8$. The length of the measuring insert is 50.

Legend:

- L: measuring insert length
- $\phi 6$: measuring insert diameter
- $\phi 8$: measuring insert diameter

Measuring insert diameter Ø d in mm		Index per DIN 43735	Tolerance in mm	Sheath material	
				Standard design	Recessed soldering lug
3 H	Standard	30	3 ± 0.05	1.4571, 316L ⁽¹⁾⁽²⁾	1.4571
6	Standard	30	6 ± 0.1	1.4571, 316L ⁽¹⁾⁽²⁾	1.4571
8 (6 mm with sleeve)	Standard	-	8 ± 0.1	1.4571	1.4571
8	Standard	30	8 ± 0.1	1.4571, 316L ⁽¹⁾⁽²⁾	1.4571

The image displays ten different probe tips arranged in two rows. Each tip is shown against a white background with its label and data sheet reference below it.

- Top Row:**
 - TW10:** A small, cylindrical tip with a hexagonal base. Data sheet: TW 95.10
 - TW15:** A small, cylindrical tip with a hexagonal base. Data sheet: TW 95.15
 - TW20:** A small, cylindrical tip with a hexagonal base. Data sheet: TW 95.20
 - TW25:** A small, cylindrical tip with a hexagonal base. Data sheet: TW 95.25
 - TW30:** A small, cylindrical tip with a hexagonal base. Data sheet: TW 95.30
 - TW45:** A small, cylindrical tip with a hexagonal base. Data sheet: TW 95.45
- Bottom Row:**
 - TW50:** A small, cylindrical tip with a hexagonal base. Data sheet: TW 95.50
 - TW55:** A small, cylindrical tip with a hexagonal base. Data sheet: TW 95.55

Figure 1: Color coding for the 1200 series. The figure shows six diagrams of the 1200 series terminal block, arranged in a 3x2 grid. Each diagram is labeled with its wire count and color coding. The diagrams show the terminal block with wires inserted into the terminals, and a legend below each diagram showing the wire color and the corresponding terminal color. The diagrams are: 1 x P1100, 2-wire; 1 x P1100, 3-wire; 1 x P1100, 4-wire; 2 x P1100, 2-wire; 2 x P1100, 3-wire; 2 x P1100, 4-wire. The legends show: 1-wire: red, white; 2-wire: red, white; 3-wire: red, white, black; 4-wire: red, white, black, yellow.

Connection head

■ European designs per EN 50466 / DIN 43725



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 2 x 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
BS5	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
BS5-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
BV5	Stainless steel	M20 x 1.5 or 1/2 NPT	IP65	Precision-cast screw cap	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	Ex i (gas)	Ex (dust)	Ex nA (gas)	Ex to (dust)
BS	without	Ex i (gas) Zone 5, 1, 2	Ex (dust) Zone 21, 22	Ex nA (gas) Zone 3	Ex to (dust) Zone 22
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
BS5	X	X	X	X	X
BS5-H	X	X	X	X	X
BV5	X	X	X	X	X
BSZ-K	X	X	X	X	X
BSZ-HK	X	X	X	X	X

Cable entry



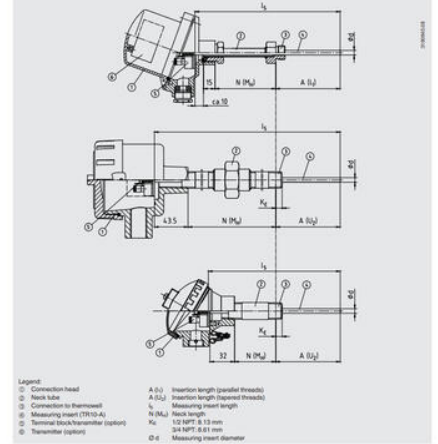
The picture shows examples of connection heads.

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

Cable entry	Colour	Ingress protection (max.)	Min./max. ambient temperature	Explosion protection without	Ex i (Zone 5, 1, 2)	Ex (Zone 21, 22)	Ex nA (Zone 3)	Ex to (Zone 21, 22)
Standard cable entry *	Black	IP65	-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 e *	Light blue	IP65, IP68	-30 ... +80 °C (standard) -40 ... +70 °C (optional)	X	X	X	X	X
Plastic cable gland, Ex e *	Black	IP65, IP68	-30 ... +80 °C (standard) -40 ... +70 °C (optional)	X	X	X	X	X
Nickel-plated brass cable gland	Black	IP65, IP68	-60 °F / -40 ... +80 °C	X	X	X	X	X
Nickel-plated brass cable gland, Ex e *	Black	IP65, IP68	-60 °F / -40 ... +80 °C	X	X	X	X	X
Stainless steel cable gland	Black	IP65, IP68	-60 °F / -40 ... +80 °C	X	X	X	X	X
Stainless steel cable gland, Ex e *	Black	IP65, IP68	-60 °F / -40 ... +80 °C	X	X	X	X	X
Plain threaded *	-	IP65	-	X	X	X	X	X
2 x plain threaded *	-	IP65	-	X	X	X	X	X
Junction box M12 x 1 (4-pin) *	-	IP65	-40 ... +80 °C	X	X	X	X	X
Sealing plugs for transport	Transparent	-	-40 ... +80 °C	-	-	-	-	-

Components model TR10-B

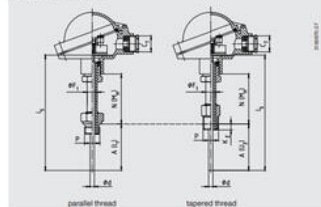
Fig. with parallel thread, for tapered thread see "Connection to thermowell"



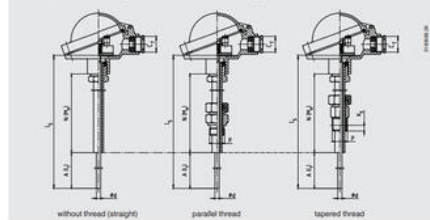
Neck tube

Neck tube designs

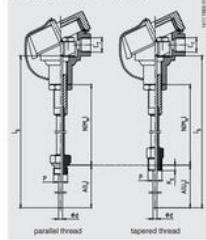
Neck tube per DIN 43772



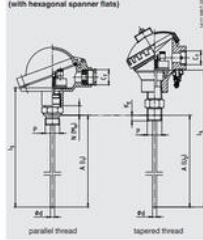
Neck tube per DIN 43772, straight, with/without compression fitting



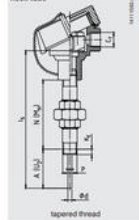
Neck tube, with counter nut to head



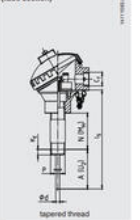
Double threaded hex bushing (with hexagonal spanner flats)



"Nipple-union-nipple" neck tube



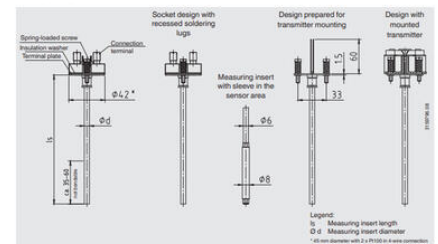
Double threaded hex bushing (tube section)



Without neck tube



Dimensions in mm



Measuring insert diameter Ø d in mm	Index per DIN 43725	Tolerance in mm	Sheath material	Standard design	Standard ending type
3	Standard	30	3 x 0.5	1.4571, 316L, 1/2	1.4571
6	Standard	60	6 x 0.7	1.4571, 316L, 1/2	1.4571
8 (6 mm with sleeve)	Standard	80	8 x 0.7	1.4571	1.4571
8	Standard	80	8 x 0.7	1.4571, 316L, 1/2	1.4571

Thermowell selection

