



VASTUSLÄMPÖTILA-ANTURI ERILLISELLE SUOJATASKULLE

TR10-B

TR10B-14364745

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



- Mittausalueet -196-600°C
- Vaihdeettava 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.

TEKNISET 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

BS	BS2	BS2-H, BS2-HK, BS2-HC	BS5	BS5-H	BV5	
Model	Material	Cable entry thread size	Ingress protection (IP)	Cap	Surface	Connection to neck tube
BS	Aluminum	MO 1.5 x 1.5 NPT ¹	IP68, IP69	Flat cap with 2 screws	Black, lacquered ²	MO 1.5, % NPT
BS2-H	Aluminum	MO 1.5 x 1.5 x NPT ¹	IP68, IP69	Raised flanged cover with cylindrical head screw	Black, lacquered ²	MO 1.5, % NPT
BS2-HC (BS2-HC)	Aluminum	2 x MO 1.5 x 1.5 or 2 x MO 1.5 x 1.5 NPT ¹	IP68, IP69	Raised flanged cover with cylindrical head screw	Black, lacquered ²	MO 1.5, % NPT
BS2-HK	Aluminum	MO 1.5 x 1.5 x NPT ¹	IP68, IP69	Raised flanged cover with cylindrical head screw	Black, lacquered ²	MO 1.5, % NPT
BS5	Aluminum	MO 1.5 x 1.5 x NPT ¹	IP68	Spherical flanged cover with clamping lever	Black, lacquered ²	MO 1.5, % NPT
BS5-H	Aluminum	MO 1.5 x 1.5 x NPT ¹	IP68	Spherical flanged cover with clamping lever	Black, lacquered ²	MO 1.5, % NPT
BV5	Stainless steel	MO 1.5 x 1.5 ¹	IP68	Drop-down access cap	Black, electrophoretic	MO 1.5, % NPT
BS2-HC	Plastic	MO 1.5 x 1.5 x NPT ¹	IP68	Spherical flanged cover with cylindrical head screw	Black, MO 1.5	MO 1.5
BS2-HK	Plastic	MO 1.5 x 1.5 x NPT ¹	IP68	Raised flanged cover with cylindrical head screw	Black, MO 1.5	MO 1.5

Model	Intrusion protection				
	withstand	Ex 1 (gate) Zone 0, 1, 2	Ex 1 (door) Zone 20, 21, 22	Ex A4 (gate) Zone 2	Ex 1c (door) Zone 22
BS	X	X	X		
BS2	X	X	X		
BS2-H	X	X	X	X	X
BS2-H (2x cable outlet)	X	X	X	X	X
BS2-H (20x16)	X	X		X	
BS5	X	X	X		
BS5-H	X	X	X		
BS5	X	X	X		
BS2-H	X	X			
BS2-H	X	X			

Technical diagrams illustrating three types of neck tubes (DIN 43772) shown in cross-section:

- without thread (straight):** Shows a straight neck tube with dimensions s_1 (total length), s_2 (threaded length), and s_3 (unthreaded length).
- conical thread:** Shows a neck tube with a conical thread profile. Dimensions s_1 and s_2 are indicated.
- tapered thread:** Shows a neck tube with a tapered thread profile. Dimensions s_1 and s_2 are indicated.

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 *		M20 x 1.5 or NPT	
Plastic cable gland (cable Ø 6 - 12 mm)		M20 x 1.5 or 1" NPT	
Nickel plated brass cable gland (cable Ø 6 - 12 mm)		M20 x 1.5 or 1" NPT	
Stainless steel cable gland (cable Ø 7 - 12 mm)		M20 x 1.5 or 1" NPT	
Plain threaded		M20 x 1.5 or 1" NPT	
2 x plain threaded *		2 x M20 x 1.5 or 2 x 1" NPT	
Junction box M12 x 1 (4-pin)		M20 x 1.5	
Sealing plug for transport		M20 x 1.5 or 1" NPT	

Cable entry	Colour	Ingress protection (max.)	Min./max. ambient temperature	Exclusion protection	
				Excluded Ex I Ex II Ex III Ex I Ex II Ex III Ex I Ex II Ex III	
Standard cable entry *	Black	IP68	-40 ~ +80 °C	x	x
Plastic cable gland **	Black or grey	IP68, IP69	-40 ~ +80 °C	x	x
Plastic cable gland, Ex *	Light blue	IP68, IP69	-40 ~ +80 °C (standard) -40 ~ +70 °C (optional)	x	x
Plastic cable gland, Ex x *	Black	IP68	-20 ~ +80 °C (standard) -40 ~ +80 °C (optional)	x	x
Nickel plated brass cable gland	Black	IP68, IP69	-60 °F ~ -40 ~ +80 °C	x	x
Nickel plated brass cable gland, Ex *	Black	IP68, IP69	-60 °F ~ -40 ~ +80 °C	x	x
Stainless steel cable gland	Black	IP68	-60 °F ~ -40 ~ +80 °C	x	x
Stainless steel cable gland, Ex *	Black	IP68	-60 °F ~ -40 ~ +80 °C	x	x
Plain threaded		IP50	-40 ~ +80 °C	x	x
2 x plain threaded *		IP50	-40 ~ +80 °C	x	x
Junction box M12 x 1 (4-pin)		IP60	-40 ~ +80 °C	x	x

* Excluded for use in Zone 0
** not available for use in Zone 0

[illegible]

TW10
Data sheet:
TW 95.10
TW 95.11
TW 95.12

TW15
Data sheet:
TW 95.15

TW20
Data sheet:
TW 95.20

TW25
Data sheet:
TW 95.25

TW30
Data sheet:
TW 95.30

TW45
Data sheet:
TW 95.45

TW50
Data sheet:
TW 95.50

TW55
Data sheet:
TW 95.55

The diagram illustrates six different electrical plug configurations, each with a circular plug and a corresponding wiring diagram below it. The configurations are as follows:

- 1 x P1100, 2-wire:** The plug has a red segment on the right and a white segment on the left. The wiring diagram shows a red wire connected to the top terminal and a white wire connected to the bottom terminal.
- 1 x P1100, 3-wire:** The plug has a red segment on the right, a white segment on the left, and a black segment at the bottom. The wiring diagram shows a red wire connected to the top terminal, a white wire connected to the bottom terminal, and a black wire connected to the middle terminal.
- 1 x P1100, 4-wire:** The plug has a red segment on the right, a white segment on the left, a black segment at the bottom, and a yellow segment at the top. The wiring diagram shows a red wire connected to the top terminal, a white wire connected to the bottom terminal, a black wire connected to the middle terminal, and a yellow wire connected to the top terminal.
- 2 x P1100, 2-wire:** The plug has a red segment on the right and a white segment on the left. The wiring diagram shows a red wire connected to the top terminal and a white wire connected to the bottom terminal.
- 2 x P1100, 3-wire:** The plug has a red segment on the right, a white segment on the left, and a black segment at the bottom. The wiring diagram shows a red wire connected to the top terminal, a white wire connected to the bottom terminal, and a black wire connected to the middle terminal.
- 2 x P1100, 4-wire:** The plug has a red segment on the right, a white segment on the left, a black segment at the bottom, and a yellow segment at the top. The wiring diagram shows a red wire connected to the top terminal, a white wire connected to the bottom terminal, a black wire connected to the middle terminal, and a yellow wire connected to the top terminal.

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 / DIN 19	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 20, 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 / DIN 19	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



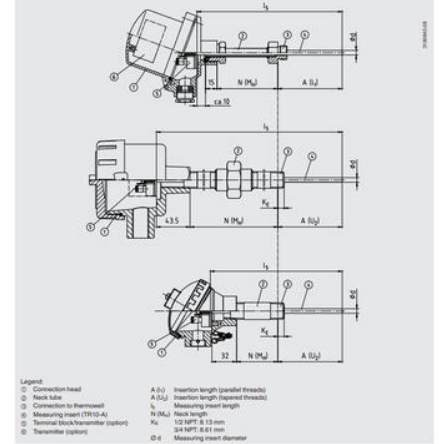
The picture shows examples of connection heads.

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 i (Zone 20, 21, 22)	Ex nA (Zone 3)	Ex to (Zone 22)
Standard cable entry *	Black	IP65	-40 ... +80 °C	X	-	-	-	-
Plastic cable gland *	Black or grey	IP65, IP68	-40 ... +80 °C	X	-	-	-	-
Plastic cable gland, Ex e *	Light blue	IP65, IP68	-35 ... +80 °C (standard) -40 ... +70 °C (optional)	X	X	X	-	-
Plastic cable gland, Ex e *	Black	IP65, IP68	-35 ... +80 °C (standard) -40 ... +70 °C (optional)	X	-	-	X	X
Nickel-plated brass cable gland	Black	IP65, IP68	-60 °F / -40 ... +80 °C	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	-	-
Stainless steel cable gland, Ex e	Black	IP65, IP68	-60 °F / -40 ... +80 °C	X	X	X	X	X
Plain threaded *	-	IP50	-	X	X	X	X	X
2 x plain threaded *	-	IP50	-	X	X	X	X	X
Junction box M12 x 1 (4-pin) *	-	IP65	-40 ... +80 °C	X	X	X	-	-
Sealing plugs for transport	Transparent	-	-40 ... +80 °C	-	-	-	-	-

Components model TR10-B

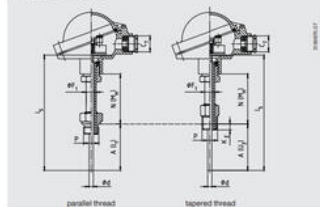
Fig. with parallel thread, for tapered thread see "Connection to thermowell"



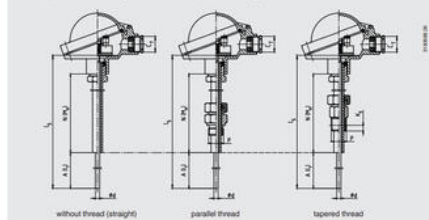
Neck tube

Neck tube designs

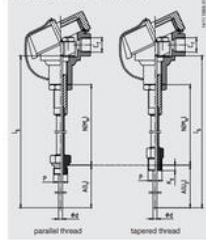
Neck tube per DIN 43772



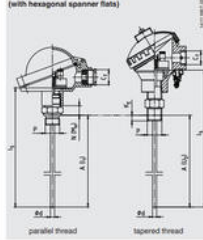
Neck tube per DIN 43772, straight, with/without compression fitting



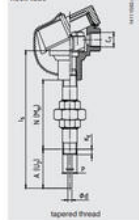
Neck tube, with counter nut to head



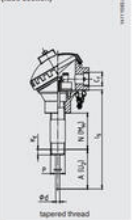
Double threaded hex bushing (with hexagonal spanner flats)



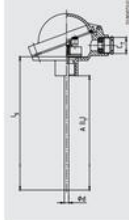
"Nipple-union-nipple" neck tube



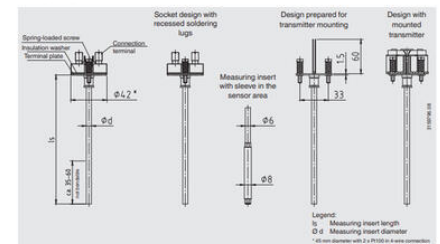
Double threaded hex bushing (tube section)



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 soldering lugs
3	Standard	30	3 x 0.5	1.4571, 316L, 1/2	1.4571
6	Standard	60	9 x 0.7	1.4571, 316L, 1/2	1.4571
8 (6 mm with sleeve)	Standard	80	9 x 0.7	1.4571	1.4571
8	Standard	80	9 x 0.7	1.4571, 316L, 1/2	1.4571

Thermowell selection

