

MODSTANDSFØLERE I PROCESUDFØRSEL

Serie TR12-B

TR12B-14381341
PT100 3-tråd -50-500°C NL=150, 150x6mm

- Måleområde fra -196 til 600°C
- Udskiftelig måleindsats
- Option: 4-20mA udgangssignal + HART
- Option: ATEX eller IECEx beskyttelsesklasse
- Option: Digital display



PRODUKTBESKRIVELSE

Serie TR12-B kan kombineres med alle dyklommer i vores sortiment. Måleindsatsen er fjederbelastet og er derfor let at kombinere med-, men også at skifte mellem de fleste forbindelseshoveder. En bred vifte af sensorer, indsættelseslængder og halsrørslængder gør TR12-B-serien velegnet til alle applikationer.

Modstandsføleren fås i eksplosionssikkert design i henhold til Ex-d eller Ex som ATEX / IECEx.

Om nødvendigt er det muligt at tilslutte en transmitter for at få et 4-20mA udgangssignal + HART, også tilgængeligt som SIL2 klassificeret.

Bestillingsnøgle:

- Godkendelser?
- Anti-korrosionsbeskyttelse?
- Flere godkendelser / certifikater?
- Sensortype?
- Nøjagtighed?
- Måleområde?
- Model på huset?
- Kabelindgang + størrelse?
- Evt. transmitter?
- Tilslutnings halsrør?
- Halsrørslængde?
- Procesforbindelse?
- Indstikslængde?
- Diameter måleindsatsen?
- Materiale måleindsats?

SPECIFIKATIONER

Configured measuring range ending value	150 °C
Configured measuring range starting value	0 °C
Indstikslængde	150 mm
IP-klasse	IP66
Materiale hus	Aluminium

Materiale medieberørte del	Rustfrit stål 316Ti
Neck length	0,15 m
Omgivelsestemperatur fra	-40 °C
Omgivelsestemperatur til	80 °C
Plug diameter	6 mm
Temperaturområde fra	-50 °C
Temperaturområde til	500 °C

Specifications

Output signal P100	
Temperature range	Measuring range: -200 ... +400 °C
Measuring element (measuring current: 0.1 ... 1.0 mA)	P100 measuring resistor
Connection method	1 x 2-wire 1 x 3-wire 1 x 4-wire 2 x 2-wire 2 x 3-wire 2 x 4-wire
Tolerance value of the measuring element ⁽¹⁾ per EN 60751	Wire-wound Thin film Class B: +196 ... -499 °C -50 ... -500 °C Class A: +100 ... +499 °C -30 ... -300 °C Class AA: -50 ... -499 °C 0 ... 150 °C

Output signal 4 ... 20 mA, HART[®] protocol, FOUNDATION[™] Fieldbus and PROFIBUS[®] PA	
Temperature range	Model T11 Model T12 Model T13 Model T150, T152
Data sheet	TS 13.41 TS 32.04 TS 33.01 TS 42.01
Output	4 ... 20 mA x x x x HART [®] protocol x x x x FOUNDATION [™] Fieldbus and PROFIBUS [®] PA x x
Connection method	1 x 2-wire, 3-wire or 4-wire x x x x
Measuring current	< 0.2 mA < 0.3 mA < 0.2 mA < 0.3 mA
Explosion protection	Optional Standard Standard

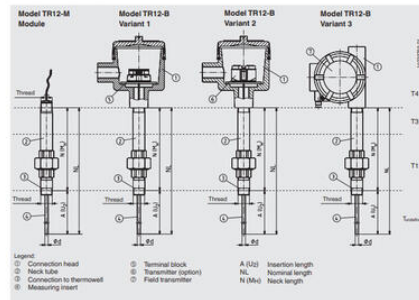
Measuring insert (replaceable)	
Material	Stainless steel 1.4571, 316L
Diameter	Standard: 3 mm (1/8 inch, 8 mm (with sleeve)) Option (on request): 1.9 inch (4.83 mm), 1/4 inch (6.35 mm), 3/8 inch (9.53 mm)
Spring travel	approx. 20 mm
Response time	t ₉₀ < 10 s t ₉₀ < 20 s (measuring insert diameter 8 mm. The thermowell required for operation increases the response time dependent upon the actual parameters for the thermowell and the process.)

Neck tube	
Material	Stainless steel 1.4571, 316L, 316L
Connection thread to the thermowell	1/2 B 3/4 B 1/2 NPT 3/4 NPT
Connection thread to the head	M20 x 1.5 with counter nut 1/2 NPT
Neck length	min. 150 mm, standard neck length 200 mm 300 mm other neck lengths on request

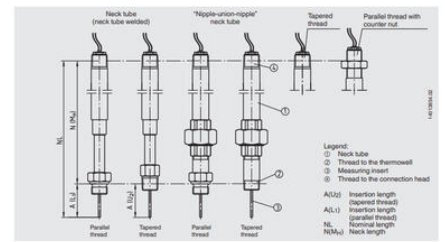
Thermowell selection



Components model TR12



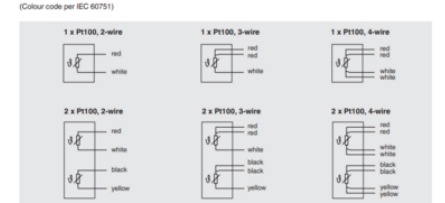
Neck tube versions



Connection head

Model	Material	Cable outlet	Ingress protection	Explosion protection	Cap	Surface
1/4000	Aluminum	1/2 NPT, 1/4 NPT, M20 x 1.5	IP66	Without, Ex I, Ex d	Screw-on lid	Blue, lacquered ⁽¹⁾
5/6000	Stainless steel	1/2 NPT, 1/4 NPT, M20 x 1.5	IP66	Without, Ex I, Ex d	Screw-on lid	Blank
7/8000	Aluminum	2 x 1/2 NPT, 2 x 1/4 NPT, 2 x M20 x 1.5	IP66	Without, Ex I, Ex d	Screw-on lid	Blue, lacquered ⁽¹⁾
7/8000 B	Aluminum	1/2 NPT, 1/4 NPT, M20 x 1.5	IP66	Without, Ex I, Ex d	Screw-on lid	Blue, lacquered ⁽¹⁾
7/8000 S	Stainless steel	1/2 NPT, 1/4 NPT, M20 x 1.5	IP66	Without, Ex I, Ex d	Screw-on lid	Blank

Electrical connection



Specifications

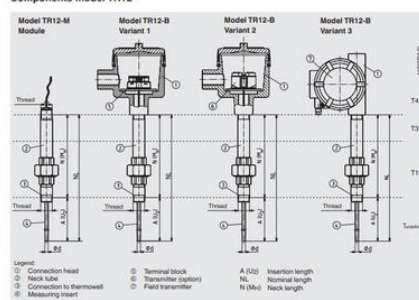
Output signal P100	
Temperature range	Measuring range: -200 ... +400 °C
Measuring element (measuring current: 0.1 ... 1.0 mA)	P100 measuring resistor
Connection method	1 x 2-wire 1 x 3-wire 1 x 4-wire 2 x 2-wire 2 x 3-wire 2 x 4-wire
Tolerance value of the measuring element ⁽¹⁾ per EN 60751	Wire-wound Thin film Class B: +196 ... -499 °C -50 ... -500 °C Class A: +100 ... +499 °C -30 ... -300 °C Class AA: -50 ... -499 °C 0 ... 150 °C

Output signal 4 ... 20 mA, HART[®] protocol, FOUNDATION[™] Fieldbus and PROFIBUS[®] PA	
Temperature range	Model T11 Model T12 Model T13 Model T150, T152
Data sheet	TS 13.41 TS 32.04 TS 33.01 TS 42.01
Output	4 ... 20 mA x x x x HART [®] protocol x x x x FOUNDATION [™] Fieldbus and PROFIBUS [®] PA x x
Connection method	1 x 2-wire, 3-wire or 4-wire x x x x
Measuring current	< 0.2 mA < 0.3 mA < 0.2 mA < 0.3 mA
Explosion protection	Optional Standard Standard

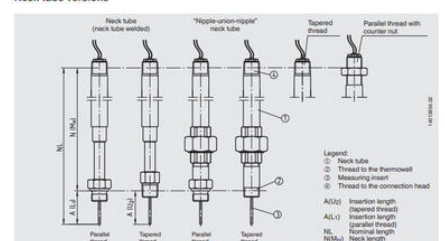
Measuring insert (replaceable)	
Material	Stainless steel 1.4571, 316L
Diameter	Standard: 3 mm (1/8 inch, 8 mm (with sleeve)) Option (on request): 1.9 inch (4.83 mm), 1/4 inch (6.35 mm), 3/8 inch (9.53 mm)
Spring travel	approx. 20 mm
Response time	t ₉₀ < 10 s t ₉₀ < 20 s (measuring insert diameter 8 mm. The thermowell required for operation increases the response time dependent upon the actual parameters for the thermowell and the process.)

Neck tube	
Material	Stainless steel 1.4571, 316L, 316L
Connection thread to the thermowell	1/2 B 3/4 B 1/2 NPT 3/4 NPT
Connection thread to the head	M20 x 1.5 with counter nut 1/2 NPT
Neck length	min. 150 mm, standard neck length 200 mm 300 mm other neck lengths on request

Components model TR12



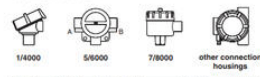
Neck tube versions



Thermowell selection



Connection head



Model	Material	Cable outlet	Ingress protection	Explosion protection	Cap	Surface
1/4000 F	Aluminium	1/4 NPT, 1/4 NPT, M20 x 1.5	IP66 ¹⁾	Without, Ex I, Ex d	Screw-on lid	Blue, lacquered ²⁾
1/4000 S	Stainless steel	1/4 NPT, 1/4 NPT, M20 x 1.5	IP66 ¹⁾	Without, Ex I, Ex d	Screw-on lid	Blank
5/6000	Aluminium	2 x 1/4 NPT, 2 x 1/4 NPT, 2 x M20 x 1.5	IP66 ¹⁾	Without, Ex I, Ex d	Screw-on lid	Blue, lacquered ²⁾
7/8000 W	Aluminium	1/4 NPT, 1/4 NPT, M20 x 1.5	IP66 ¹⁾	Without, Ex I, Ex d	Screw-on lid	Blue, lacquered ²⁾
7/8000 S	Stainless steel	1/4 NPT, 1/4 NPT, M20 x 1.5	IP66 ¹⁾	Without, Ex I, Ex d	Screw-on lid	Blank

Electrical connection

(Colour code per IEC 60751)

