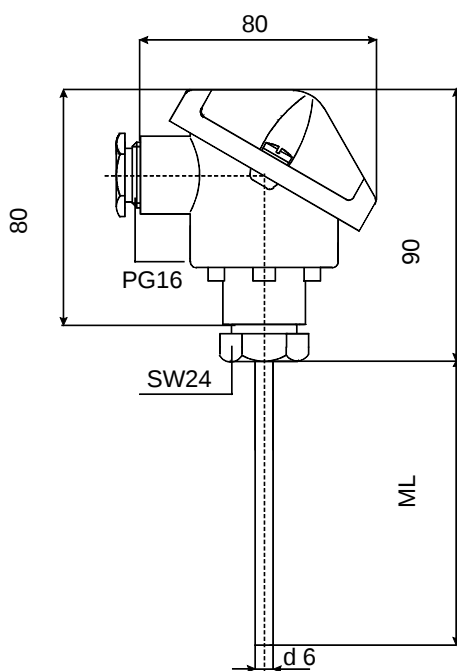


Thermocouple inset *omnigrad TEC 420*

According to DIN 43735



Description

The thermometer TEC 420 comprises a TEC 100 6 mm diameter inset with either a transmitter mounting plate or a ceramic block terminal. The hot junction can be either "grounded" or "isolated" from the sheath. The terminal head can be selected from a wide choice of standards items (see Technical Information TA 20 or order key).

Application

TEC 420 sheathed thermocouples cover temperatures range of -200°C to 1200°C depending on the type of thermocouple. They can be used in low pressure applications in direct contact with the medium or protected by a thermowell. They can also be used in all applications where small immersion lengths are needed. Special attention should be paid to the maximum operating temperature of the connection head.

Response time

To 50% and 90% of end value in water at 0,4m/s according to VDE/VDI 3522

	T ₅₀	T ₉₀
Isolated junction	2.5 s	7 s

Technical Data

Inset

Type:
Thermocouple type
single or double:
Range:
Tolerances

Isolation resistance:
Sheath material:

Terminal head

Standard:

Process connection

Type:

TEC 100 to DIN 43735, 6 mm diameter

T (Cu/CuNi), J (Fe/CuNi), K (NiCr/NiAl)
according to the type of thermocouple
according to class 2 DIN IEC 584.2
other available on request
≥ 1000 MΩ/ test voltage 500 V DC
AISI316-W1.4401; INCONEL 600-W2.4816

TA 20A DIN B type, in Al, max temp. 130 °C
IP68 protection rate, or,

TA 20B DIN B type, in PA, max. temp. 80 °C
IP55 protection rate, or,

TA 20C DIN B type, in Al, max. temp. 130 °C,
for I.S. applications, IP55 protection rate

TA 50 threaded compression fitting (see fig. 1)
TA 60 flanged compression fitting (see fig. 2)
TA 70 weld-in sanitary fitting (see fig. 3),
to be ordered separately

Endress+Hauser

Nothing beats know-how



Order Key

TEC 420, 6 mm - Sheath TC Thermometer with insulation in mineral oxide
Includes a 6 mm mineral insulated thermocouple and a terminal head.
Range : according to type of thermocouple
Tolerance : Class 2, DIN IEC 584.2

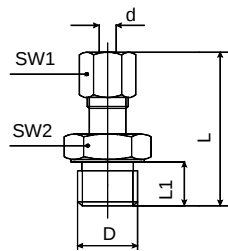


Fig. 1 - TA 50 threaded compression fitting, d=6 mm

D	SW1	SW2	L1	L	Element material
G1/4"	17	19	10	43.5	AISI 316
G1/2"	17	27	15	50.5	
G1/4"	17	19	10	41	
G1/2"	17	27	15	48	
					PTFE

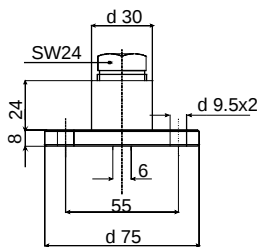


Fig. 2 - TA 60 flanged compression fitting
Sealant glands in PTFE or in AISI 316

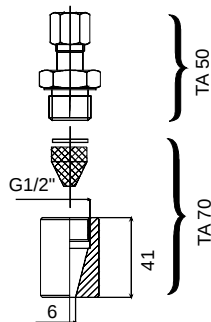


Fig. 3 - TA 70 weld-in hygienic fitting
to be used with TA 50

Type of thermoelement

- B - 1 x TC type K, sheath INCONEL 600 - W2.4816
- F - 2 x TC type K, sheath INCONEL 600 - W2.4816
- H - 1 x TC type J, sheath AISI 316 - W1.4401
- J - 2 x TC type J, sheath AISI 316 - W1.4401
- L - 1 x TC type T, sheath AISI 316 - W1.4401
- M - 2 x TC type T, sheath AISI 316 - W1.4401

Insertion length ML

- A - 120 mm insertion length ML
- B - 175 mm insertion length ML
- C - 235 mm insertion length ML
- D - 275 mm insertion length ML
- E - 335 mm insertion length ML
- F - 365 mm insertion length ML
- G - 425 mm insertion length ML
- H - 485 mm insertion length ML
- K - 515 mm insertion length ML
- L - 615 mm insertion length ML
- M - 695 mm insertion length ML
- P - 785 mm insertion length ML

Type of terminal strip

- 12 - Washer DIN B head, wire length 45 mm
- 13 - Ceramic block, DIN B head, 1 x TC
- 14 - Ceramic block, DIN B head, 2 x TC

Hot junction type

- G - Hot junction grounded
- J - Hot junction isolated

Terminal head

- A - TA 20A - DIN B, Al
- B - TA 20B - DIN, PA
- C - TA 20C - DIN B, Al, i.s.

Built-in 2 wire transmitter

- 0 - Transmitter not built -in
- 1 - Transmitter built-in

TEC 420-

Complete Order Code

All information is subject to change without notice

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