

EPIC® SENSORS T-H-12 / W-H-12

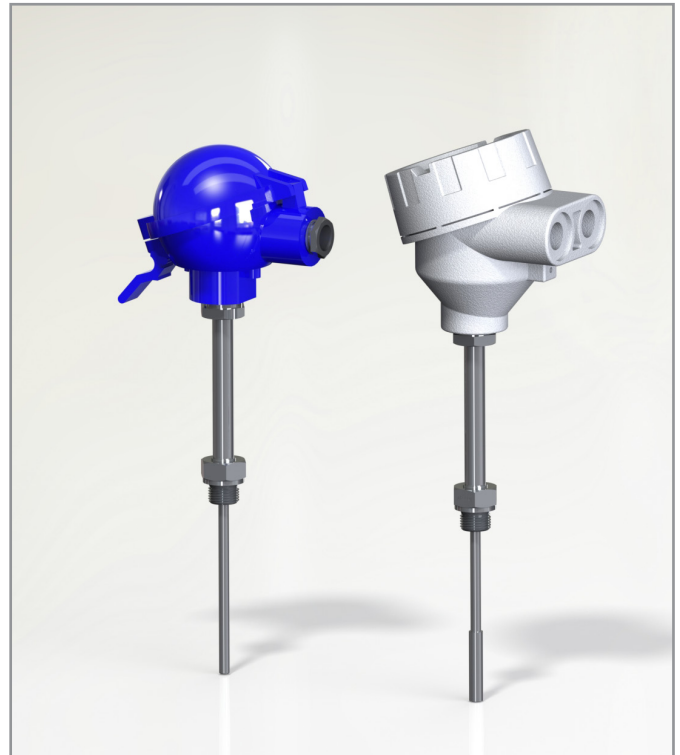
Threaded temperature sensor with neck pipe and sensing element

Features

- temperature range *) -200...+1200 °C
- neck pipe for heat source clearance
- thread attachable to thermowell or process
- Pt 100 or thermocouple as sensing element
- Pt 100 accuracy class A as standard delivery
- thermocouple accuracy class 1 as standard delivery
- MI cable structured sensor element
- internal sensor element replaceable on the fly
- standard delivery length for sensor element is 315, 375 or 435mm, other lengths available on request
- neck pipe length 165 mm as standard delivery, other lengths on request
- tailored solutions according to customer specific needs
- ATEX and IECEx compatible Ex db and Ex i versions available
- 3D step models available on request.

Typical applications

- energy and power plant technology
- process industry
- chemical industry
- machinery and vessel construction
- manufacturing industry.



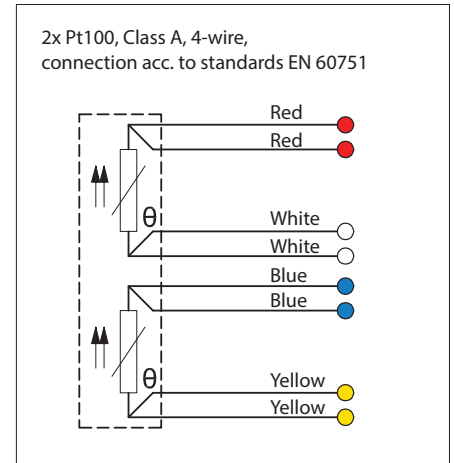
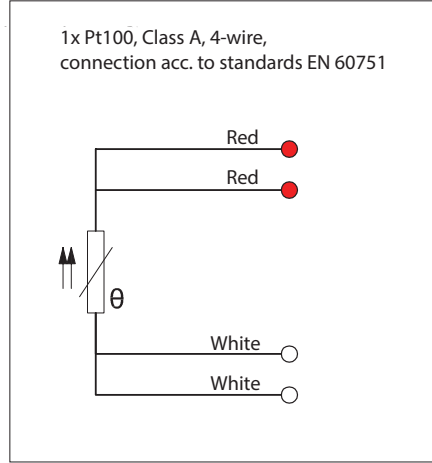
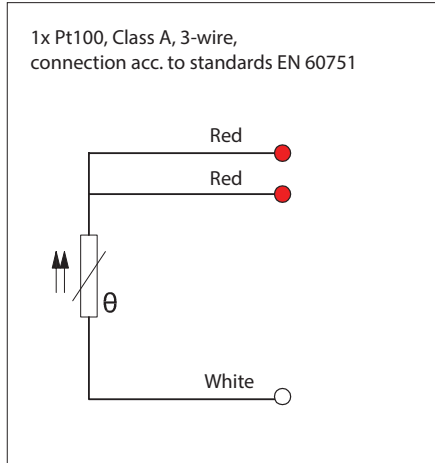
Technical data

Thread	M14x1.5 or M18x1.5 thread as standard delivery, other threads on request
Internal sensor element diameter	3, 6 or 8 mm
Tolerances Pt 100 (IEC 60751)	AA tolerance $\pm 0.1 + 0.0017 \times t$, operating temperature -50...+250 °C A tolerance $\pm 0.15 + 0.002 \times t$, operating temperature -100...+450 °C B tolerance $\pm 0.3 + 0.005 \times t$, operating temperature -196...+600 °C B 1/3 DIN, 0.1 °C +0.5%, B1/10 DIN 0.03 °C +0.5%, operating temperature -196...+250 °C
Tolerances thermocouple (IEC 60584)	Type J tolerance class 1 = -40...375 °C ± 1.5 °C, 375...750 °C $\pm 0.004 \times t$ Type K and N tolerance class 1 = -40...375 °C ± 1.5 °C, 375...1000 °C $\pm 0.004 \times t$
*) Temperature range Pt 100	-200...+550 °C
*) Temperature range thermocouple	-200...+1200 °C depending on thermocouple type, thermowell materials and cooling neck length Neck pipe length = 250 mm → typical maximum temperature +750 °C Neck pipe length = 300 mm → typical maximum temperature +1000 °C Neck pipe length = 350 mm → typical maximum temperature +1200 °C
Approvals	ATEX, IECEx
Quality certificate	ISO 9001:2015 and ISO 14001:2015 issued by DNV
IP rating	IP65, higher IP rating on request

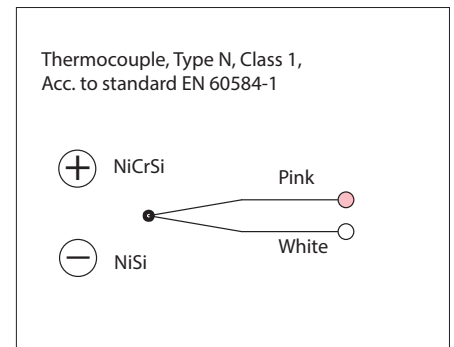
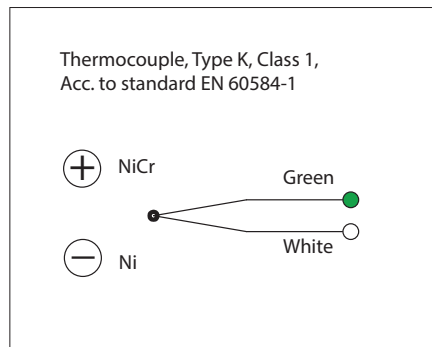
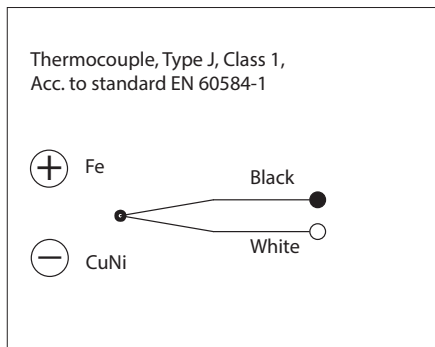
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Threaded temperature sensor with neck pipe and sensing element

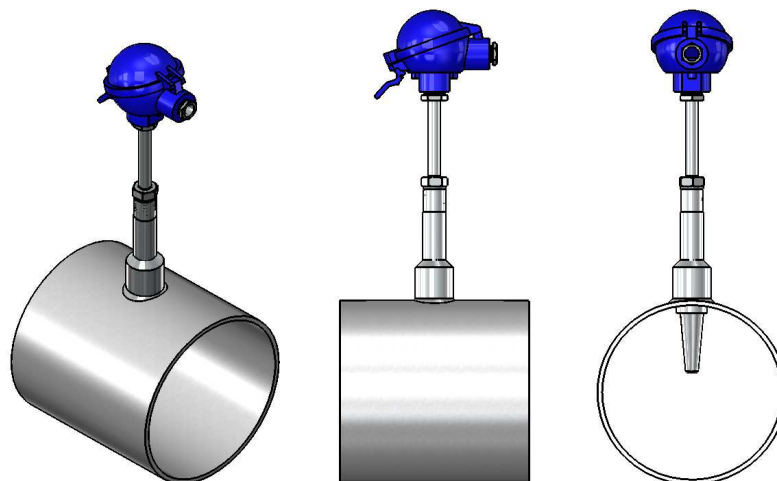
Pt100 connections



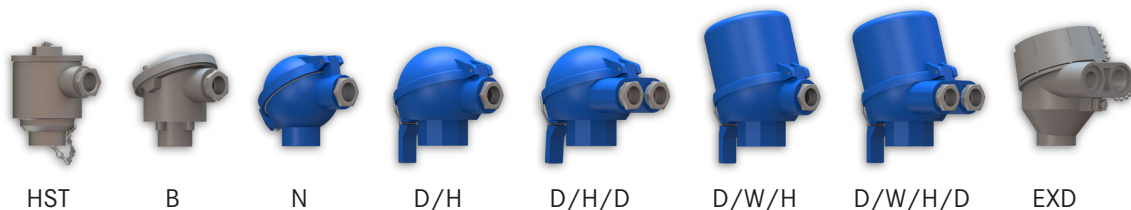
Thermoelement connections



Installation examples



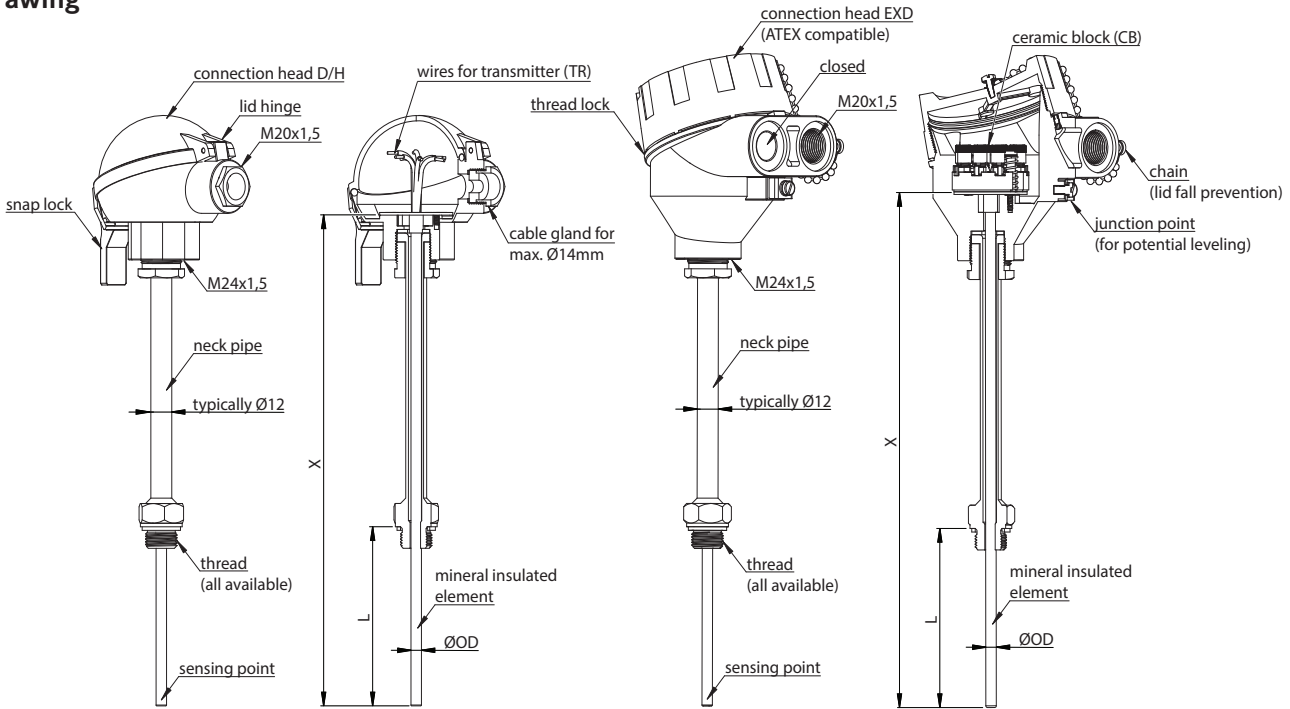
Connection heads



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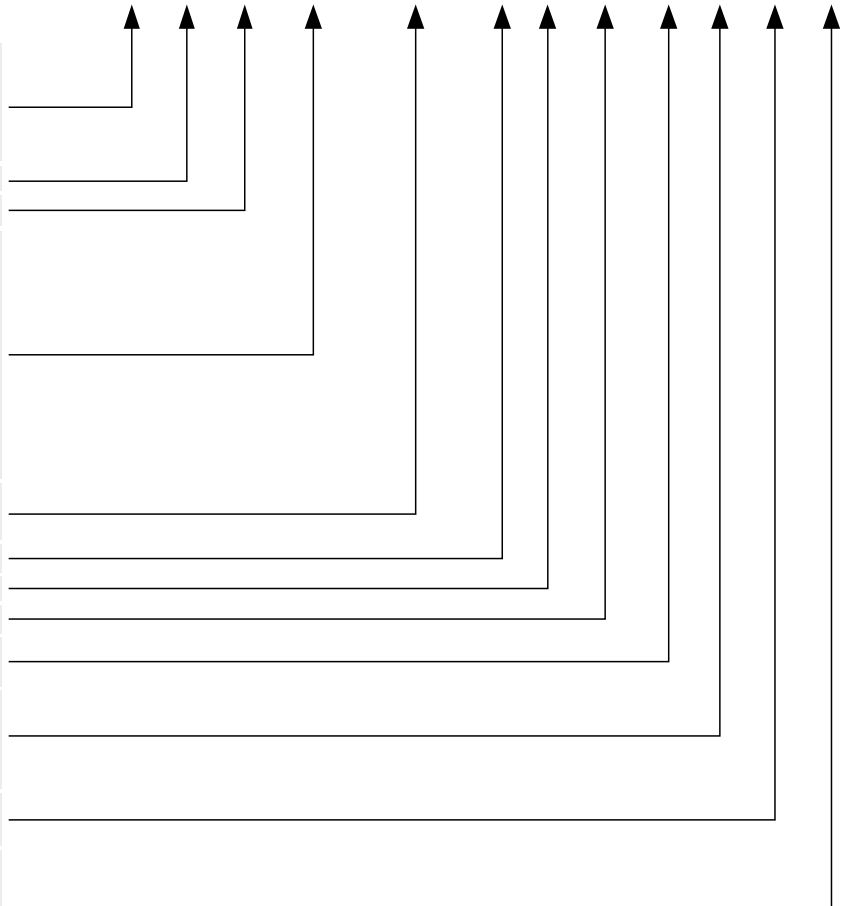
Drawing



Product code key

Example code: W — H — 12 — D/H — M18x1,5 — 6 / 375 / 200 — 4 — A — TR — X

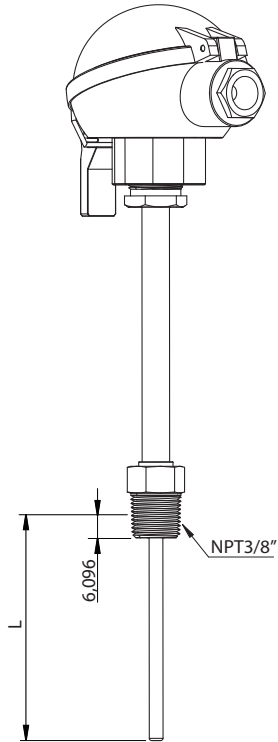
W	= Pt100 resistance thermometer
2xW	= 2 x Pt100 resistance thermometer
T	= thermocouple
2xT	= 2 x thermocouple
H	= sensor with cooling neck (constant in code)
12	= external diameter of neck pipe [mm]
B	= connection head B
D/H	= connection head with snap lock
D/H/D	= connection head with snap lock and double barrel (2x cable gland)
D/W/H	= high cover connection head with snap lock
D/W/H/D	= high cover connection head with snap lock and double barrel (2x cable gland)
EXD	= ATEX-compatible connection head
HST	= acid proof connection head
N	= connection head N
M18x1,5	= thread size (all available: M14x1,5, M18x1,5, M20x1,5, G1/2", R1/2", NPT1/2")
3, 6, 8	= outer diameter of sensor element (ØOD) [mm]
375	= length of the sensor element, X [mm]
200	= immersion length, L [mm]
4,3,2	= Pt100 wire count
K,N,J	= thermocouple type
A,B	= Pt100 accuracy class, (class A as standard delivery)
1,2,3	= thermocouple accuracy class, (class 1 as standard delivery)
TR	= wires for transmitter connection
CB	= with ceramic terminal block
EXI	= Ex i certified sensor
X	= additional details on the text line



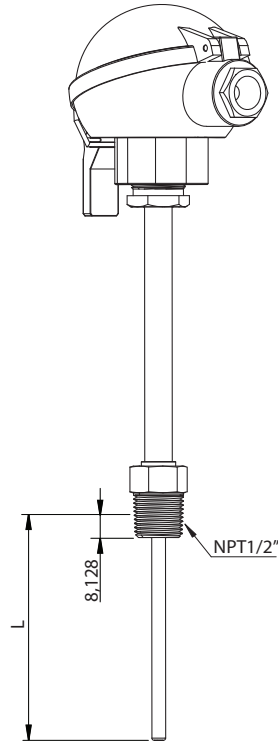
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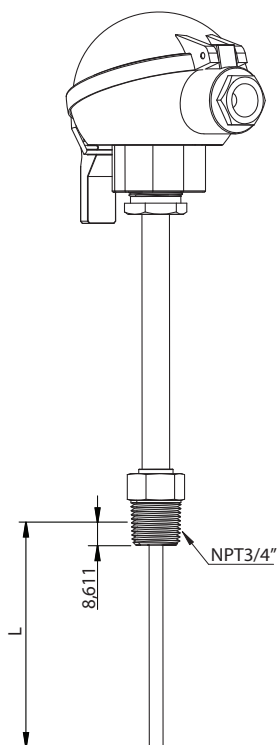
Dimensions with NPT3/8" thread:



Dimensions with NPT1/2" thread:



Dimensions with NPT3/4" thread:



Dimensions with NPT1" thread:

