

**EPIC® SENSORS T-H-12 / W-H-12**

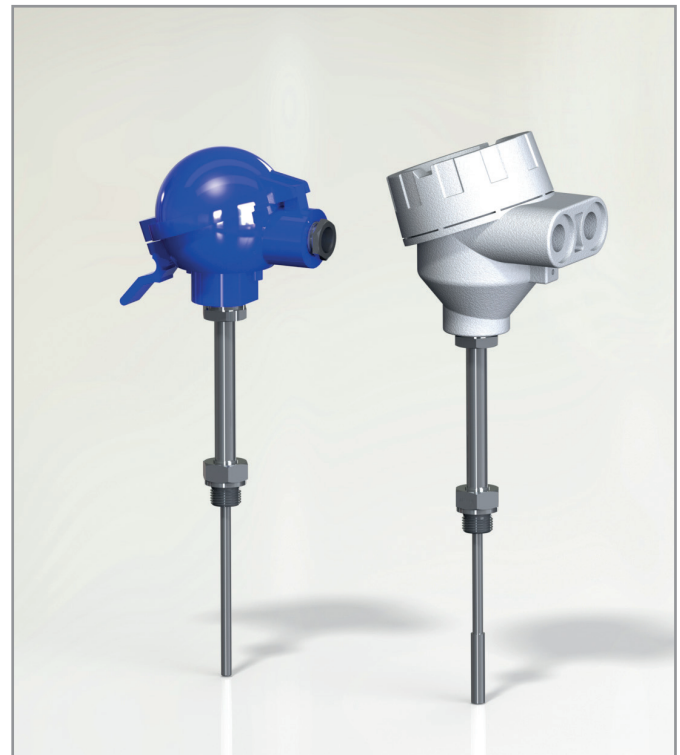
**Threaded temperature sensor with neck pipe and sensing element**

**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 compatible Ex db version also available.

**Typical applications**

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



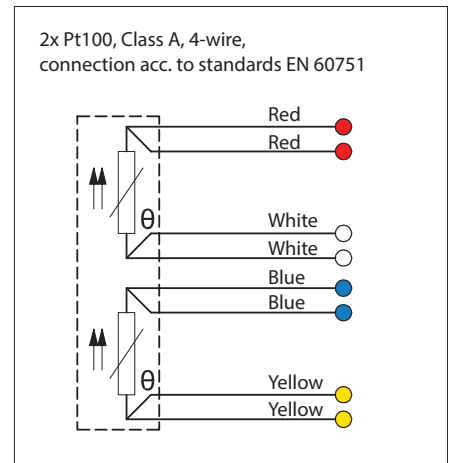
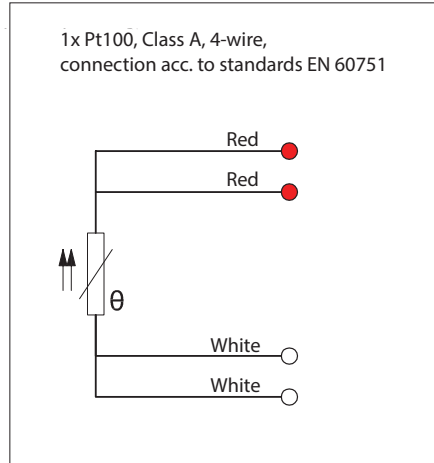
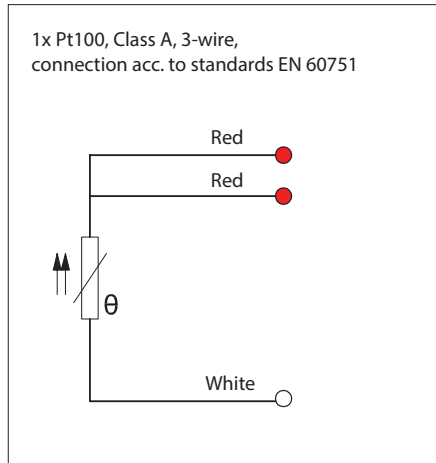
**Technical data**

|  |  |
|--|--|
| <b>Thread</b>                              | M14x1.5 or M18x1.5 thread as standard delivery, other threads on request   |
| <b>Internal sensor element diameter</b>    | 3, 6 or 8 mm   |
| <b>Tolerances Pt 100 (IEC 60751)</b>       | A tolerance $\pm 0.5 + 0.002 \times t$ , operating temperature -100...+450 °C<br>B tolerance $\pm 0.3 + 0.005 \times t$ , operating temperature -196...+600 °C<br>B 1/3 DIN, tolerance $\pm 1/3 \times (0.3 + 0.005 \times t)$ , operating temperature -196...+600 °C<br>B 1/10 DIN, tolerance $\pm 1/10 \times (0.3 + 0.005 \times t)$ , operating temperature -196...+600 °C |
| <b>Tolerances thermocouple (IEC 60584)</b> | Type J tolerance class 1 = -40...375 °C $\pm 1.5$ °C, 375...750 °C $\pm 0.004 \times t$<br>Type K and N tolerance class 1 = -40...375 °C $\pm 1.5$ °C, 375...1000 °C $\pm 0.004 \times t$  |
| <b>Temperature range Pt100</b>             | -200...+550 °C   |
| <b>Temperature range thermocouple</b>      | -200...+1200 °C depending on thermocouple type, thermowell materials and cooling neck length<br>Neck pipe length = 250 mm → temp. max. +750 °C<br>Neck pipe length = 300 mm → temp. max. +1000 °C<br>Neck pipe length = 350 mm → temp. max. +1200 °C   |
| <b>Approvals</b>                           | ATEX, IECEx, EAC Ex, EAC EMC, METROLOGICAL PATTERN APPROVAL  |
| <b>Quality certificate</b>                 | ISO 9001:2015 issued by DNV-GL   |
| <b>IP rating</b>                           | IP65, higher IP rating on request  |

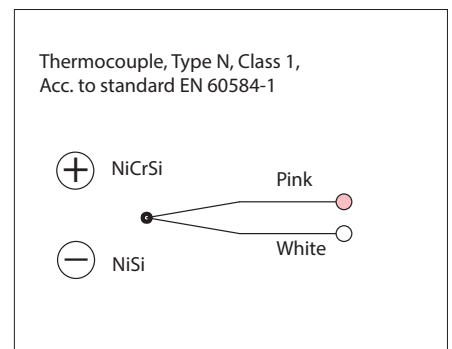
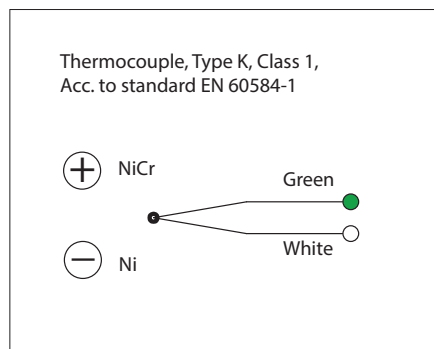
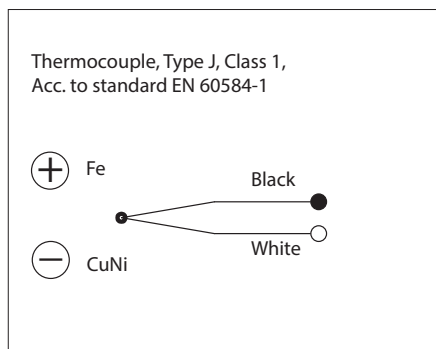
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**Threaded temperature sensor with neck pipe and sensing element**

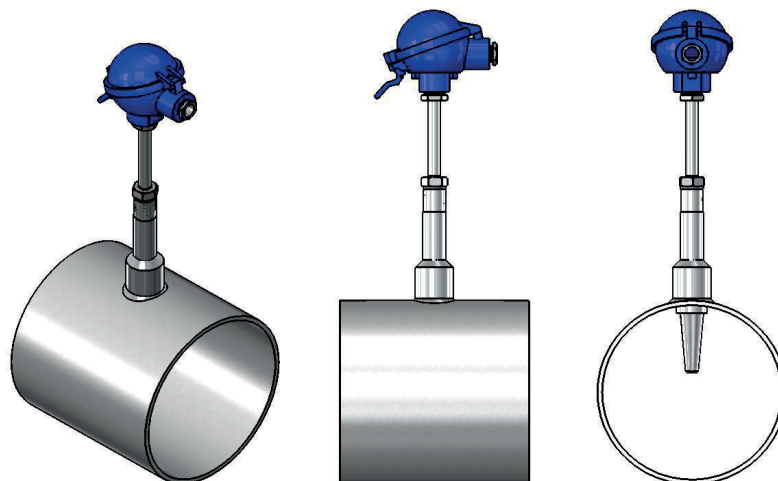
**Pt100 connections**



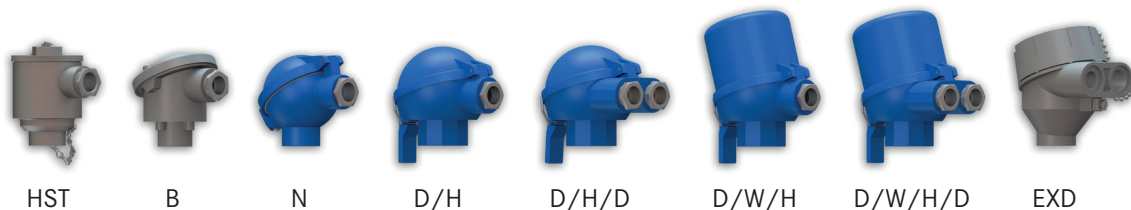
**Thermoelement connections**



**Installation examples**



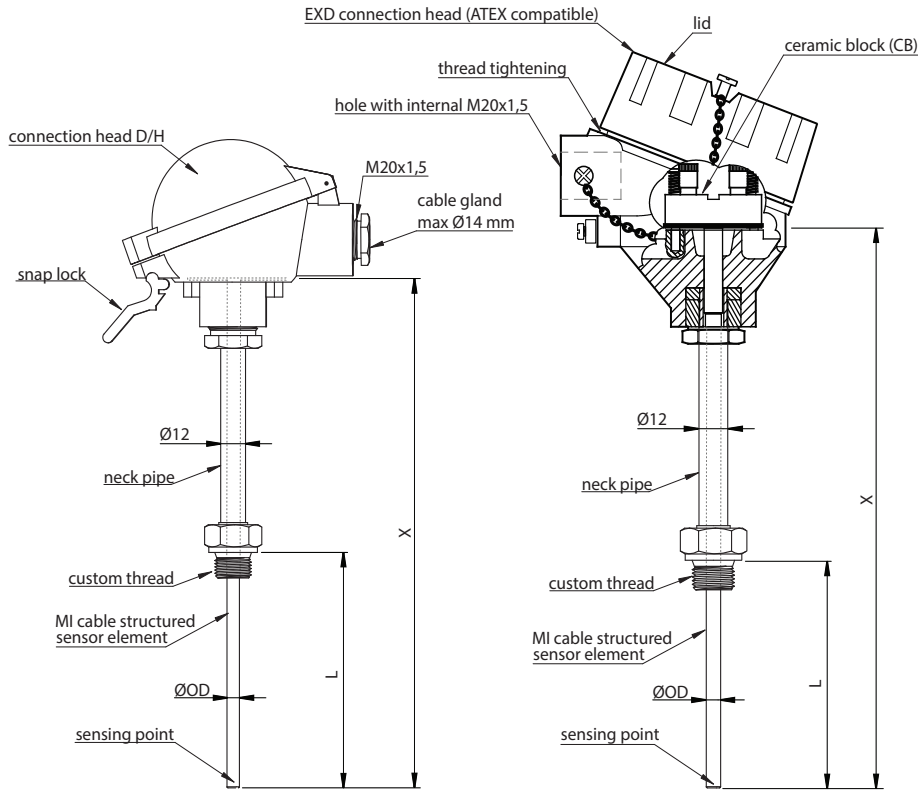
**Connection heads**



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**Drawing**



**Product code key**

Example code: W — H — 12 — D/W/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   | ↑ |
| X       | = additional details on the text line   | ↑ |