

## EPIC® SENSORS T-K / T-AK / T-AKK

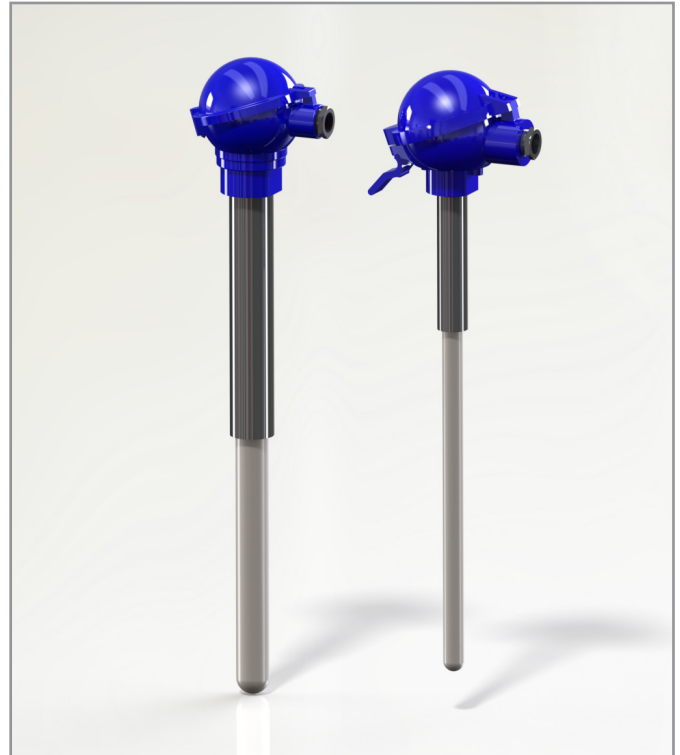
### Immersible thermocouple sensor

#### Features

- similar to DIN 43733
- temperature range \*) -200...+1600 °C
- thermocouple as sensing element
- thermocouple accuracy class 1 as standard delivery
- ceramic thermowell with C610 or C799 as typical material, other materials on request
- ceramic C610 and C799 are gas-tight materials
- typical neckpipe materials AISI304/316L
- thermo-cement filling in between neckpipe and ceramic
- installation recommendation with weldable flange, adjustable flange or with gas tight compression fitting
- tailored solutions according to customer specific needs
- ATEX and IECEx compatible Ex i versions available
- 3D step models available on request.

#### Typical applications

- very high temperature applications
- energy and power plant technology
- process industry
- chemical industry
- machinery and vessel construction
- manufacturing industry.



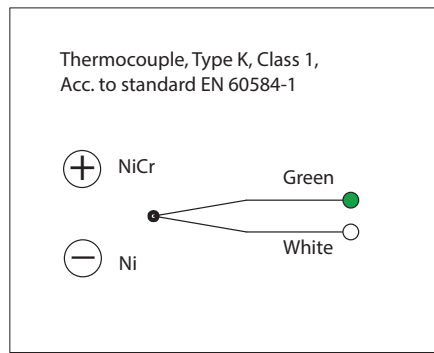
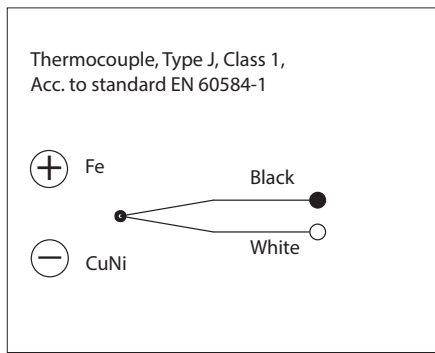
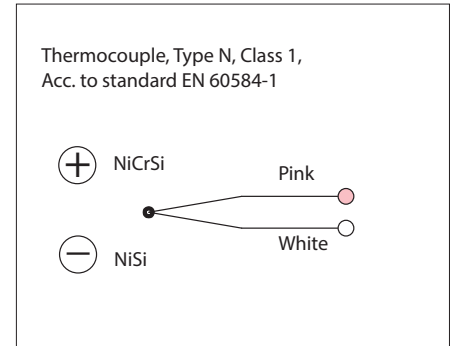
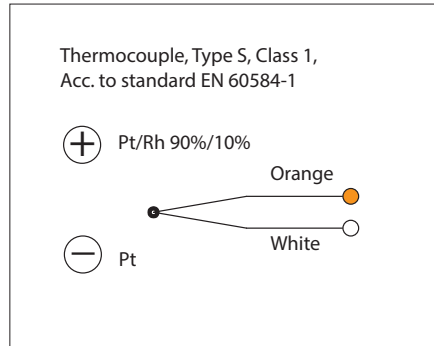
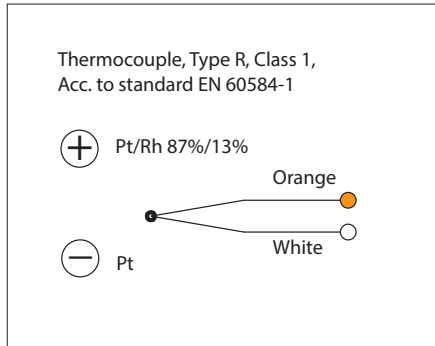
#### Technical data

<b>*) Thermowell material</b>	Ceramic C610 max. temperature +1500 °C, gas-tight, medium to good thermal shock resistance Ceramic C799 max. temperature +1600 °C, gas-tight, medium thermal shock resistance Other materials on request
<b>Tolerances thermocouple (IEC 60584)</b>	Type J tolerance class 1 = -40...+375 °C ±1.5 °C, +375...+750 °C +/- 0.004 x t Type K and N tolerance class 1 = -40...+375 °C ±1.5 °C, +375...1000 °C ±0.004 x t Type R and S tolerance class 1 = 0...+1100 °C ±1 °C, 1100...1600 °C ±[1+0.003(t-1100)] °C
<b>*) Temperature range</b>	-200...+1700 °C, depending on thermocouple type, thermowell material and neck pipe length
<b>Approvals</b>	ATEX, IECEx
<b>Quality certificate</b>	ISO 9001:2015 and ISO 14001:2015 issued by DNV
<b>IP rating</b>	IP65, higher IP rating on request

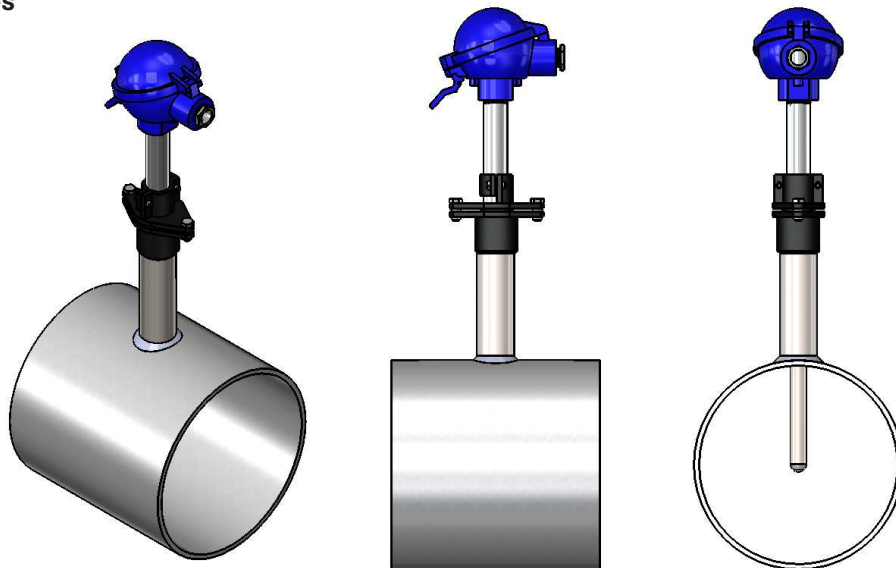
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## Immersible thermocouple sensor

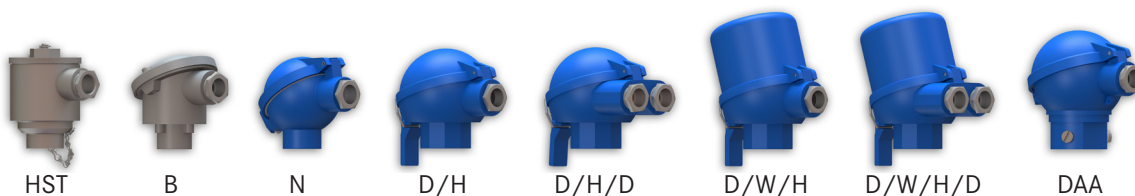
### Thermoelement connections



### Installation examples



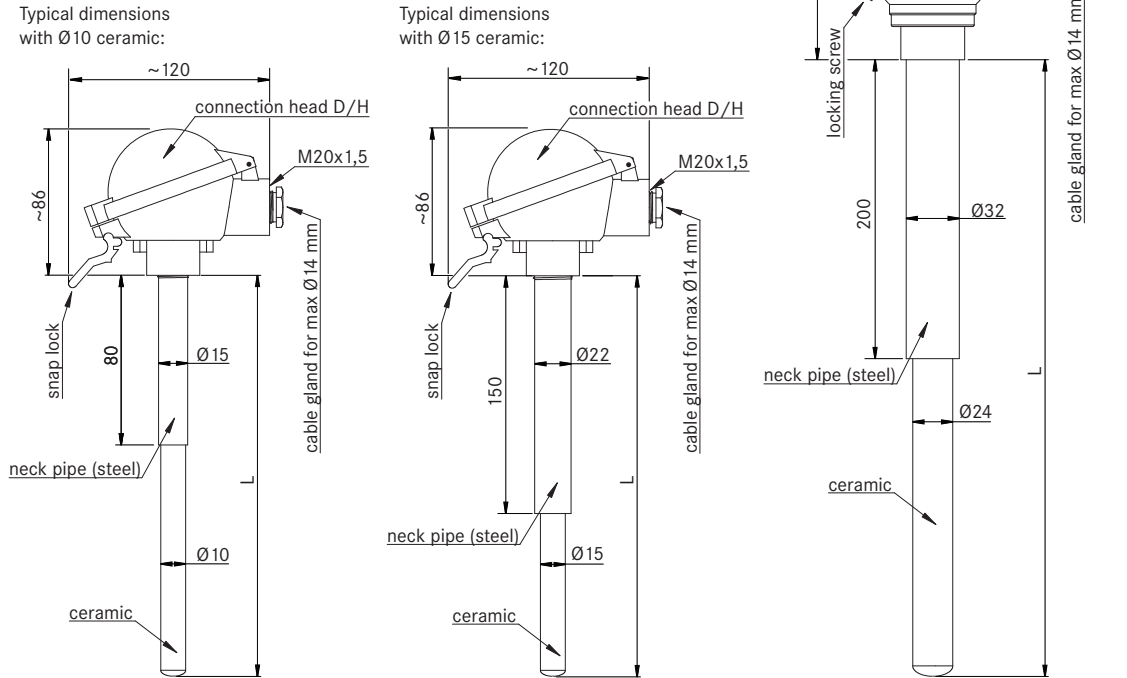
### Connection heads



# EPIC® SENSORS T-K / T-AK / T-AKK

## Immersible thermocouple sensor

### Drawing



### Product code key

Example code: T — AK — 24 — D/H — 1000 — S / 0.5 — 1 — CB — X

T	= thermocouple	↑
2xT	= 2 x thermocouple	↑
K	= gastight ceramic well	↑
AK	= flame proof outer tube, internal well gastight	↑
AKK	= gastight ceramic inner and outer tube	↑
10	= gastight ceramic C799, Ø10 mm	↑
15	= gastight ceramic C799, Ø15 mm	↑
24	= flameproof ceramic outer tube C610, Ø24 mm and gas tight internal ceramic tube C799, Ø15 mm (only with DAA enclosure) (special versions with Ø24 can be customized)	↑
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)	↑
HST	= acid-proof connection head	↑
N	= connection head N	↑
DAA	= connection head DAA (only with Ø24 ceramic)	↑
1000	= immersion length [mm]	↑
J, K, N, S, R, B	= thermocouple type	↑
0.5	= platinum sensor wire diameter (0.5 mm diameter 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	↑