EPIC® SENSORS nxT-MP-303

Mineral insulated temperature sensor for multipoint measurement

Features

- according to DIN 43721
- temperature range *) -200...+1200 °C
- AISI 316L or INCONEL 600 as standard delivery material, other materials on request
- customer specific lengths
- customer specific amount of measurement points
- MI cable structured sensor element
- depending on the customer application, the sensor element can be constructed as a bendable or non-bendable element
- vibration proof
- thermocouple as sensing element
- thermocouple accuracy class 1 as standard delivery
- EMI shielded version available
- 3D step models available on request.

Typical applications

- steel industry, chill molds
- energy and power plant technology
- process industry
- chemical industry
- machinery and vessel construction
- manufacturing industry.

Technical data

*) **Materials**	AISI 316L, maximum temperature +550 °C, temporarily +600 °C, INCONEL 600, maximum temperature +1100 °C, temporarily +1200 °C Other materials on request (Note. max. safe temperature +100 °C for the sealant tube in cable to sensor element transition)
Tolerances thermocouple (IEC 60584)	Type J tolerance class1 = -40... 375 °C ±1,5 °C, 375...750 °C ±0,004 x t Types K and N tolerance class 1 = -40...375 °C ±1,5 °C, 375...1000°C ±0,004 x t
*) **Cable materials**	SIL = silicone, max. +180 °C FEP = fluoropolymer, max. +205 °C GGD = glass silk cable/metal braid jacket, max. +350 °C FDF = FEP wire insulation/braid shield/FEP jacket, max. +205 °C SDS = silicone wire insulation/braid shield/silicone jacket, only available as 2 wire cable, max. +180 °C TDT = fluoropolymer wire insulation/braid shield/fluoropolymer jacket, max. +205 °C FDS = FEP wire insulation/braid shield/silicone jacket, max. +180 °C FS = FEP wire insulation/silicone jacket, max. +180 °C (Note. max. safe temperature +100 °C for the sealant tube in cable to sensor element transition)
*) **Temperature range**	-200...+1200 °C depending on thermocouple type and cable material (Note. max. safe temperature +100 °C for the sealant tube in cable to sensor element transition)
Quality certificate	ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 issued by DNV
IP rating	IP65, higher IP rating on request

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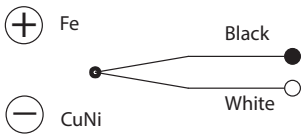
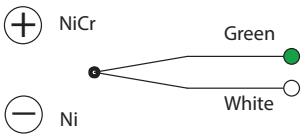
Thermoelement connections

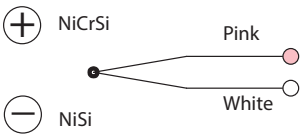
Thermocouple, Type J, Class 1,
Acc. to standard EN 60584-1



Thermocouple, Type K, Class 1,
Acc. to standard EN 60584-1



Thermocouple, Type N, Class 1,
Acc. to standard EN 60584-1



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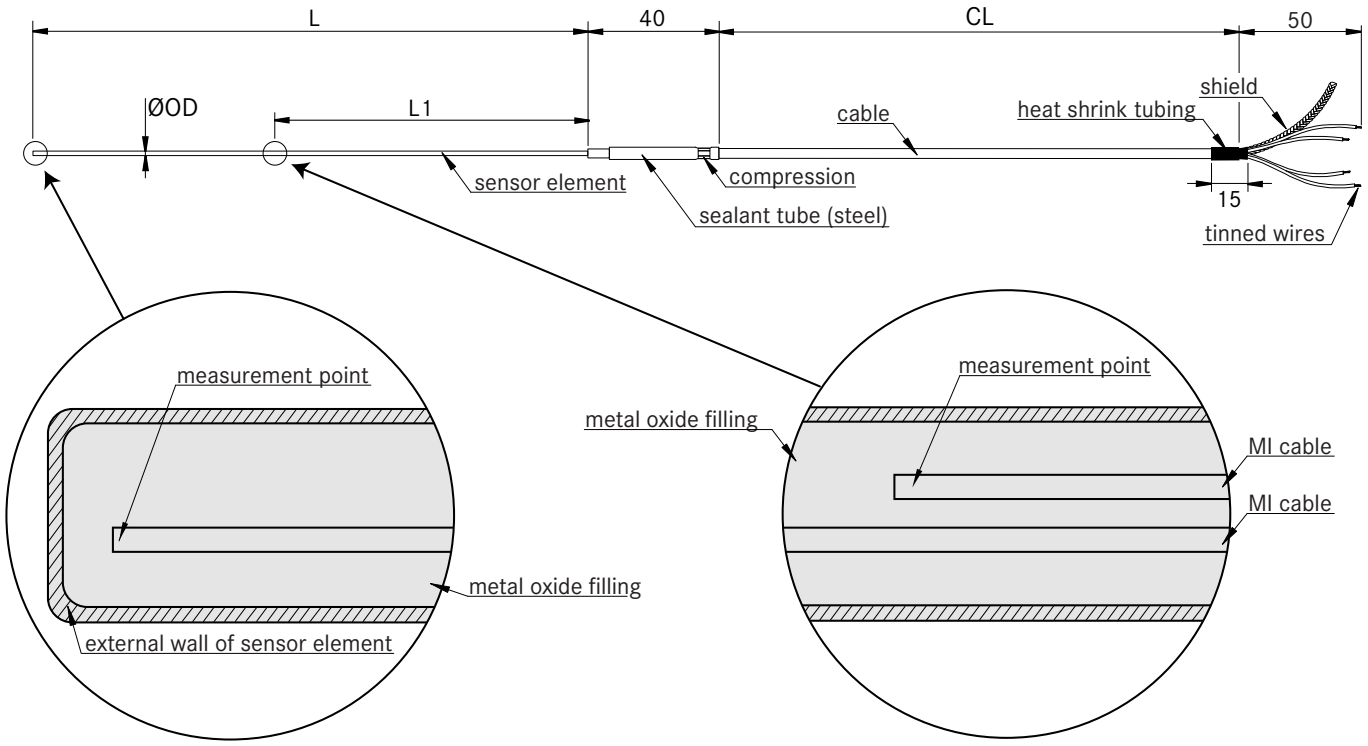
Drawing



Product code key

n times the lengths, according to the amount of measurement points

Example code: 2XT – MP – 303 – 2.7 / 2750 / ... / AISI – 5000 / SIL – K – 1 – X

nxT	= n x thermocouple (n = amount of measurement points)
MP-303	= multipoint sensor (constant in code)
2.7	= outer diameter of sensor element (ØOD) [mm]
2750	= MI cable (sensor 1) length, L [mm]
650	= MI cable (sensor 2) length, L1 [mm]
AISI INCO	= AISI316L, max. temp. +550 °C = Inconel 600, max. temp. +1100 °C (other materials on request)
5000	= cable length, CL [mm]
SIL, FEP, GGD, FDF, TDT, SDS, FDS, FS	= cable material (for more information, look technical data on first page of the datasheet)
K,N,J	= thermocouple type
1,2,3	= thermocouple accuracy class, (class 1 as standard delivery)
X	= additional details on the text line