



# Resistance thermometer TYPE MNS

## Tank Thermometer

- Mineral insulated thermometer for temperature measurement in insulation and concrete surroundings e.g. liquid gas tanks and LNG tanks.
- Measuring temp. range: -200°C to +100°C.
- The measuring element is glass encapsulated platinum elements according to EN60751.
- Protective sheath of AISI 316L filled with compressed MgO powder. Sensor tip Ø6 AISI 316L.
- 24 AWG PTFE
- Response time (mean values) measured at velocities in:  
water w. 0.4 m/s:  $\tau_{0.5} = 6.4 \text{ sec.}$  -  $\tau_{0.9} = 27 \text{ sec.}$
- Recommended measuring current: 1 mA (max. 2 mA).
- Approvals: Ex ia IIC T6 Ga, FM13ATEX0019X, IECEx FME 13.0003X, DNV-GL EU RO MR



EU RO MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE - Group members are:



To achieve the highest accuracy we recommend the 4 wire calibrated version. Each calibrated sensor is supplied with a certificate stating its own individual coefficients Ro, A, B and C to substitute the standard coefficients in the EN60751 platinum curve. By use of the coefficients the uncertainty of the sensor will be  $\leq 20 \text{ mK}$  in the range -195 to 100 °C. The transmitter will represent the major part of the total system uncertainty.

### Options / accessories:

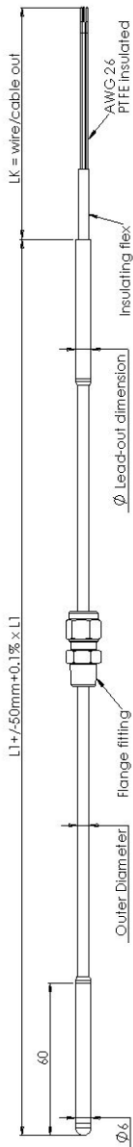
- Junction box
- Transmitters
- Calibration
- Factory Acceptance Test (FAT)
- Installation accessories

See separate data sheets for further information

For installation and connection - see drawing 800-MNS-EX and installation manual.

### Recommended Torque while mounting:

- 1/8" threaded part: 16-18 Nm (Max. 22 Nm)
- Compression part: max. 16-18 Nm



Ordering: See ordering form on back page



# ORDERING FORM / RESISTANCE THERMOMETER TYPE MNS

## Type MNS

V4.7

### Sensor Length/L1:

Min. 200 mm -  
max. 300.000 mm  
Optional length .....

### Outer Diameter:

4.5 mm ..... 5  
6.0 mm ..... 6

### Number of elements:

Simplex ..... S  
Duplex ..... D

### Wiring ( Number of conductors):

3 wire ..... 3  
4 wire ..... 4

### Resistance at 0°C:

100 Ω ..... 1

### Tolerance Class EN 60751:

Grade A ..... 1  
Grade B ..... 2  
Calibrated - 4 wire only ..... C

### Sensor Tip:

Ø6x60 ..... A

### Lead-out wire:

PTFE single wire ..... 1

### Lead-out dimension:

Straight ..... 0  
Ø6 ..... 1  
Ø10 ..... 2  
Ø12 ..... 3

### MNS TAG No. - Project No.:

Max. 20 characters - customer def.

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### Extension length L2:

..... None  
.....  Min. 500 mm - max 10,000 mm

### Sensor tip fitting:

..... 0 None  
..... 5 Sensor connection block

### Flange fitting:

..... 0 None  
..... 5 1/8" NPT SS ferrule compression fitting  
..... 6 1/4" NPT SS ferrule compression fitting  
..... 7 1/2" NPT SS ferrule compression fitting  
..... 8 3/4" NPT SS ferrule compression fitting

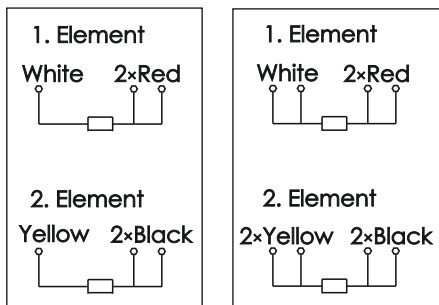
### Junction box fitting:

..... 0 None

### Lead-out wire/LK:

.....  Min. 200 mm  
.....  Optional length

## Connection Diagram:



## Head office:

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