Mobrey MSP-RTP
External Temperature Sensor
Part No : MSP-RTP
For use with ultrasonic transmitters MSP400RH and MSP900GH

Introduction
For transmitter installations where the integral temperature sensor is not representative of the air / medium temperature in the process, the use of the external temperature sensor improves accuracy.

Sensor Specification
316 Stainless steel body with two locknuts, M8 thread, 6 mm maximum panel thickness. Sensor working temperature -40 to 85 °C, cable working temperature -20 to 80 °C. Cable 5 m long, single twisted pair.

Note :
When connected to a MSP900GH intrinsically safe transmitter, this sensor is classifiedas'simple apparatus' according to EN 50020 paragraph 5.4. Temperature class T6, $-20\ °C \leq Ta \leq 80\ °C$

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Level

Installation

1. Connect the two sensor wires to terminals 7 and 8 of the transmitter; polarity is not important. See diagram below; also refer to Transmitter Installation Manual.
Ensure use of a suitably IP rated cable gland to maintain the IP rating of the transmitter.

2. Mount the sensor between the transmitter and the liquid level, to measure the air / medium temperature at a representative point.
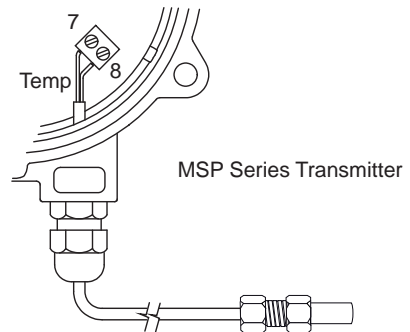
3. Avoid allowing the sensor to become submerged.

4. Do not mount the sensor near a heat source or in direct sunlight.

5. For the optimum response to temperature change, do not mount directly onto a large thermal mass.

6. To avoid false echoes, do not mount the sensor directly in the path of the transmitter beam.

7. The transmitter will automatically detect and enable the sensor. Fine adjustments to the temperature calibration may be made; refer to the Installation Manual supplied with the transmitter.

Wiring Diagram
External temperature sensor

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