1-Wire Digital Temperature Transmitter
(with calibration certificate)
Sensor Probe with fixed cable (various lengths available)
Typical Applications:
HVAC & Refrigeration Systems & Applications
General Industrial Systems & Applications
General Commercial Systems & Applications

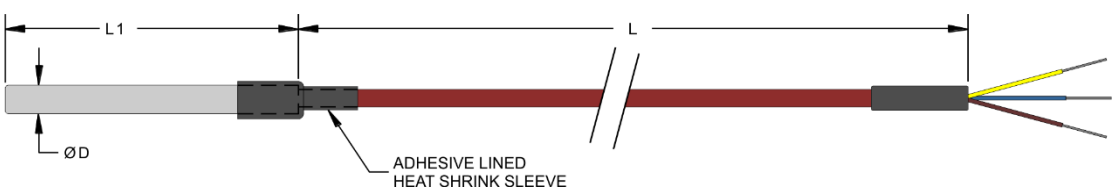
Sensor Technical Specifications

Measuring Range	-55°C to +125°C (-67°F to +257°C)
Accuracy	±0.3°C from -25°C to +80°C
Output	Digital: 1-Wire Protocol Interface
Resolution	9 to 12 bits (Programmable)
Identifier	Each individual sensor has a Unique 64-bit serial code store in its on-board ROM
Drift	max ±0.2°C per 1000 hours of continuous operation at 125°C
Power Supply	3.0V to 5.5V (DC)
IP Ingress Protection Rating	IP68
Probe Sheath Material	Stainless Steel 316
Sensor Calibration Certificate	Each individual sensor comes with its calibration certificate and calibration curve

Sensor Cable Specification

Cable Type	Multicore Flexible Cable (Unscreened)
Insulation	Silicone Rubber
Cable Properties	Weather-proof cable for static use
Cores & Nominal Section	3 x 0.35 mm^2
Outer Diameter	5mm
Max. Electric Resistance at 20°C	55.70 Ohm/km
Length Options	1m / 3m / 5m / 10m / Custom User Request
Nominal Working Temperature	-60°C to +180°C
Peak Working Temperature	+210°C
Nominal Voltage	300/500 V
Voltage Test	2 kV
References: Conductor	IEC EN 60228 Class 5
References: Halogen Free	EN 50267-2-1

Sensor Layout & Cable Cores



Electrical Connections (with reference to cable cores colours)	
Green (GN)	Data – 1-Wire bus
Blue (BL)	GND (Ground)
Brown (BR)	Power Supply (+5VDC)
Implementation Note	In order to achieve the mentioned accuracy, the power supply to the sensor must not be parasitic.

Dimensions	
L1	50mm
D	6mm
L	Various cable lengths available: 1m (standard version), 3m, 5m and 10m. Other cable lengths available upon request).

Quality Tests	
IP68 Verification Test	Operational test with the sensor probe submersed at a depth of 6m in a fresh-water tank for 5 hours.
Sensor Calibration Verification Test	Metrology & Measurement test conducted over the following range: -25°C … +80°C. The whole test is conducted over a period of 8 hours within a temperature controlled testing chamber. Measurements are recorded continuously along with the measurements of a reference calibrator thermometer. The measured values are checked against the measurements of the reference thermometer. The accuracy class of the sensor under test is automatically verified and any sensor out of acceptable accuracy is discarded. A calibration certificate is issued for each sensor.

Certificates	
EC Conformity	EMC 2014/30/EU EN 61326-1:2013

Ordering code AP-150-152

	AP-150-902-			
Cable Length				
	1m	0	1	
	3m	0	3	
	5m	0	5	
	10m	1	0	

IMPORTANT NOTICE

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