

## DX 111-S6

### Precision digital 4-wire Pt100 surface probe, with thin film Pt100 sensor



- 2-point factory calibrated
- Interchangeable without adjustment
- Ergonomic handle with high operating temperature up to 120 °C
- Robust for many years of professional use
- Silver contact surface with premium thermal properties
- Optional ISO9001 certification available

#### DESCRIPTION

DX 111-S6 is a high precision Pt100 temperature surface probe with economic thin film sensors for the PRO D01 / PRO D05 handheld meters and similar with DX-input.

The probes are designed for use on surfaces but can be immersed in liquids e.g. calibration baths, as well. When using on metal surfaces, please note that a measurement deviation remains despite the optimized design, especially at high temperatures. Ensure good heat transfer (e.g. heat-conducting paste)!

Stem material is corrosion and temperature resistant stainless steel, the tip is silver.

The probe is supplied factory-calibrated, and it is ready to use. It can be optionally supplied with a ISO9001 calibration certificate.

The calibration data are stored in the probe, allowing for interchangeability without need for recalibration.

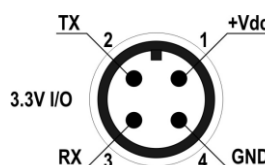
Digitizing electronic integrated in connector body to minimize temperature effects, including 4-wire technology and thermo-voltage compensation.

The user can adjust the probe in two points (offset and slope) or by setting R0 (sensor resistance @ 0 °C) and the Callendar-Van Dusen parameters.

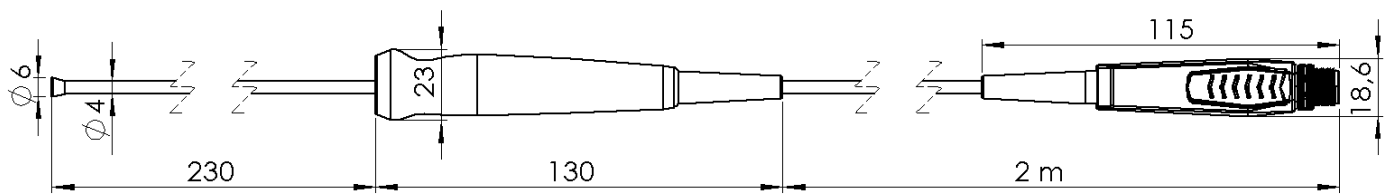
Surface head silver Ø 6 mm:



M12 DX 111 sensor pin out:



Supplied with 1, 2 or 5 m cable with 4-pin M12 connector.



## TECHNICAL SPECIFICATIONS

Sensor	Pt100 (thinfilm)
Stem	Surface probe Ø6 mm, rigid 4mm probe stem
Measuring range	-50 ... 300°C
Resolution	0.01 °C
Accuracy	±0.1 °C (0 °C ≤ t ≤ 100 °C) ±0.2 °C (-50 °C ≤ t < 0 °C, 100 < t ≤ 250 °C) Accuracy in liquid reference (Measuring surfaces practically decreases practical accuracy due to quality of thermal contact and heat loss effects of stem)
Response time (T <sub>90</sub> )	water 0.4 m/s: < 5 s, metal surface: ~15 s
Output	UART (TTL 3.3V)
Power supply	3.3...6 Vdc, DX-sensor interface
Power consumption	<1 mA typ.
Connection	4-pole M12, PVC cable
Dimensions	Stem: Ø4 mm, L=230 mm (other lengths on request) Handle length 98 mm Cable: Ø4 mm, L=1, 2 or 5 m
Weight	120 g approx. with 1 m cable
Materials	Stem: AISI 316 Handle: Polyamide (PA6-GF30) Cable: PVC (-20...+105 °C)
Protection degree	IP64

## Ordering codes

DX111      1.       2.       3.

1.	Version	
	<b>-S6</b>	Ø6 mm surface silver tip, 4-wire, up to 300 °C, rigid 4 mm stem, fast
2.	Stem length	
	<b>-230</b>	230 mm
3.	Cable length	
	<b>-L01</b>	1 m PVC cable, -20 ... +105 °C
	<b>-L02</b>	2 m PVC cable, -20 ... +105 °C
	<b>-L05</b>	5 m PVC cable, -20 ... +105 °C

## Standard articles

**DX 111-S6-230-L01**      Digital Pt100 surface probe Ø6 mm, thinfilm sensor, high precision, -50 ... 300°C, stem Ø4 x 230 mm, cable length 1 m, in scarton box, incl. QuickStart  
**Art no. 489065**

## Suitable Instruments

**PRO D01**      1-channel handheld meter for digital probes. Supplied with 4 x AA alkaline batteries, USB cable and software downloadable from Senseca website.

**Art no. 486134**

**PRO D05.2**      2-channel handheld data logger for digital probes. Supplied with 4 NiMH rechargeable batteries, USB cable and software downloadable from Senseca website.

**Art no. 486136**

**PRO D05.3**      3-channel handheld data logger for digital probes. Supplied with 4 NiMH rechargeable batteries, USB cable and software downloadable from Senseca website.

**Art no. 486137**