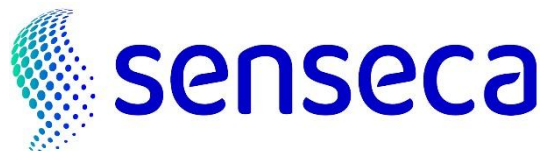


# AX 111-I36 / I8 / I6



## Specialized 4-wire precision Pt100 insertion probes



- Rigid stainless-steel construction for long life in professional use
- For special applications in construction and agriculture
- Pt100 platinum sensor for 4-wire reference-thermometer (e.g. PRO 115)
- Ergonomic handle with high operating temperature up to 120 °C
- Easy to clean
- High precision
- Water-protected according to IP67

### DESCRIPTION

AX 111-I36 / I8 / I6 are precision analog type Pt100 4-wire temperature probes. The insertion probes are designed for demanding field applications.

Applications include measurements in liquid asphalt (AX111-I36-200), in bulk goods (pellets, wood chips, compost), in bagged goods (grain etc.) and bales (lightly compressed hay or straw bales). For applications in heavily compressed bales, please use T-handle probes: GSF 40 T with Ø 10 mm tube diameter.

Stem material is corrosion and temperature resistant stainless steel, which is suitable for continuous food contact. The probe tip and tube dimensions represent a balanced solution between the requirements for response speed and robustness.

The standard 1 meter thermocouple cable is optionally terminated with M12 connector plug or loose ends.

All probes are based on class 1 material, which is the highest available precision class for thermocouples.

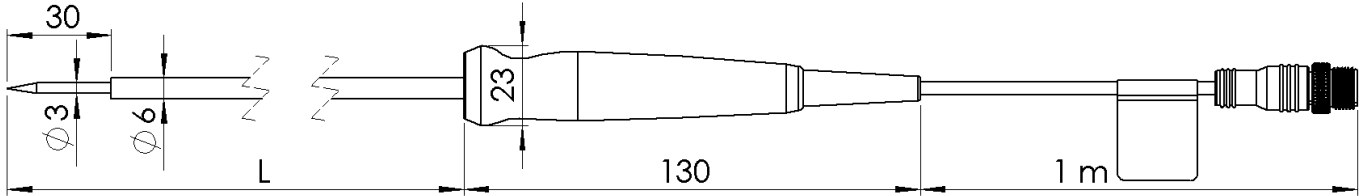
The probe can be optionally supplied with a DAKKS-/ACCREDIA calibration certificates when combined to a suitable display instrument (e.g. PRO 111/ 115).

Sensor	Pt100, thin film sensor
Measuring range	-50 ... +250 °C
Accuracy	Tolerance classes B, AA. Attention: Note the applicability of the classes *)
Response time (T <sub>90</sub> )	AX 131-I36: Ø 3 mm: Water 0.4 m/s < 2 s, air 2 m/s ca. 40 s AX 131-I6: Water 0.4 m/s ca. 3 s AX 131-I8: Water 0.4 m/s ca. 4 s
Cable	1 m PVC coated thermocouple cable (up to +105 °C) or coiled cable 300 mm stretchable to 1.2 m
Connection	M12 4pole male A plug or loose ends
Dimensions	Sensor tube Ø 6 mm reduced down to Ø 3 mm, Ø 6 or 8 mm Probe length: please refer to ordering codes
Materials	Stem: AISI 316L (1.4404) Handle: Polyamide (PA6-GF30, max. 120°C, grommet Santoprene (up to +120 °C)
Protection degree	IP67
Applications	Immersion, insertion

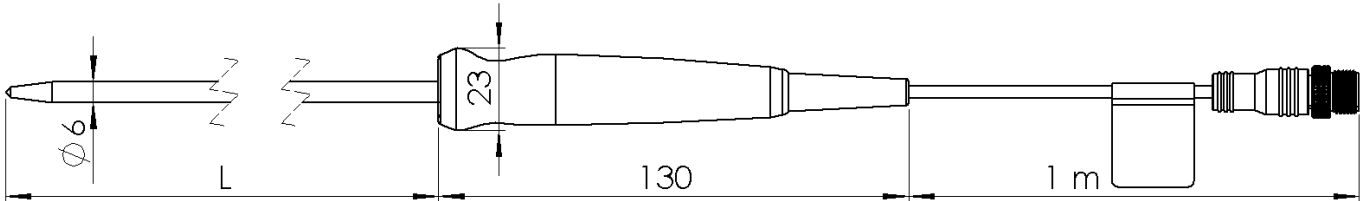
\*) following **tolerance classes** of platinum resistors are standardized according/aligning to IEC 751 and EN 60751:

Tolerance class	Norm	limiting deviation in °Kelvin	wire wound	thin film
B	IEC 751 / EN 60751	± (0,30 + 0,00500 •  temperature )	-196 to +600 °C	-50 to +500 °C
AA (= 1/3 B)	IEC 751 / EN 60751	± (0,10 + 0,00167 •  temperature )	-50 to +250 °C	0 to +150 °C

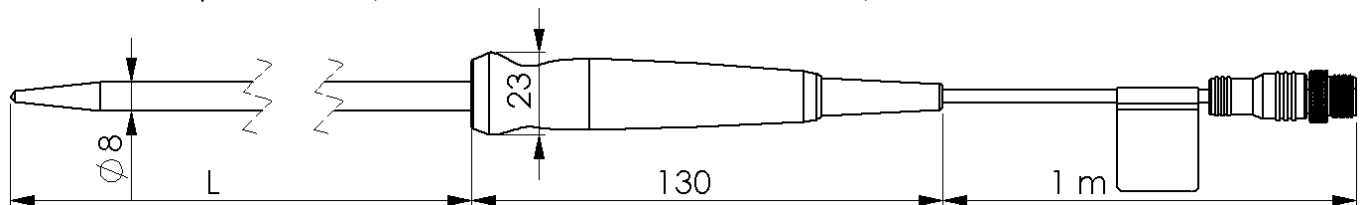
Bulk material/asphalt penetration sensor  $\varnothing$  3/6 mm (here with cable L01-P and M12 connector)



Robust insertion probe  $\varnothing$  6 mm (here with cable L01-P and M12 connector)



Robust insertion probe  $\varnothing$  8 mm (here with cable L01-P and M12 connector)



## ORDERING CODE

Type K Immersion/Insertion Probes

AX111 - 1 - 2 - 3 - 4

1	Diameter stem	
	I36	$\varnothing$ 6 mm reduced down to $\varnothing$ 3 mm
	I6	$\varnothing$ 6 mm
	I8	$\varnothing$ 8 mm
2	Accuracy	
	-B	Class B
	-AA	Class AA
3	Probe length	
	200	200 mm, standard for I36
	300	300 mm
	1000	1000 mm
4	Cable type & length	
	L01-P	1 m PVC cable, -20 ... +105 °C
	L02-P	2 m PVC cable, -20 ... +105 °C
	CC12	Coiled cable approx. 1.2 m stretched (up to 2 m at max. extension)
5	Connection	
	M12	M12 connector, 4-pin (e.g. PRO 11X)
	LE	Loose ends with ferrules

## STANDARD ARTICLES

- AX111-I6-B-300-L01-P-M12** Pt100 special insertion probe, large handle, probe tube: Ø 6 mm, probe length 300 mm, cable 1 m, M12 plug, -50 ... +250 °C **Art. No. 489819**
- AX111-I6-AA-1000-L02-P-M12** Pt100 special insertion probe class AA, large handle, probe tube: Ø 6 mm, probe length 1000 mm, cable 2 m, M12 plug, -50 ... +250 °C **Art. No. 489854**
- AX111-I8-B-300-L01-P-M12** Pt100 special insertion probe, large handle, probe tube: Ø 8 mm, probe length 300 mm, cable 2 m, M12 plug, -50 ... +250 °C **Art. No. 488727**
- AX111-I36-B-300-L01-P-M12** Pt100 special insertion probe, large handle, Ø 6 mm, reduced tip Ø 3 mm, probe length 300 mm, cable 2 m, M12 plug, -50 ... +250 °C **Art. No. 489299**

## SUITABLE INSTRUMENTS

- PRO 111** High precision thermometer for Pt100 4 wire probes, M12 socket 4-pole, graphic display. Supplied in carton box, with 4 x AA alkaline batteries, QuickStart, test-protocol **Art. No. 486650**
- PRO 115** High precision thermometer for Pt100 4 wire probes, M12 socket 4-pole, graphic display. Supplied with 4 x AA alkaline batteries, QuickStart, test-protocol, USB cable. Free Software ProXware downloadable from Senseca website **Art. No. 486651**