

- Accurate temperature measurement, e.g., PV modules
- Pt100 element class B
- Sensor glued on the surface area



Sensor for measuring the temperature of the surface of the PV module.

### Security advice

The installation and assembly of electrical equipment may only be performed by a skilled electrician.

The sensor must not be used in any relation with equipment that supports, directly or indirectly, human health or life or with applications that can result in danger for people, animals or real value.

### Electrical connection

The sensors are designed for safety extra-low voltage (SELV) operation.

For keeping the accuracy of the sensor a 4-wire measurement is recommended. Due to the selfheating, the wire current affects the accuracy of the measurement. Thus, the same should not exceed 1mA.

Ammonit Meteo-40 data loggers measure with 0.2mA.

### Installation Instructions

If mounted outdoors, avoid direct exposure to sunlight and rain to the sensor housing (Silicone rubber patch). If necessary, provide protection from the sun and rain. The through holes used to fix the sensor to a stable and suitable surface shall be accessible when the housing is opened.

The sensor element is mounted by glueing the sensor housing directly to the measurement surface. The surface must be dry, clean and degreased. It is also recommended using an extra fixing with silicon or Sikaflex.

**For PV module temperature measurement fix the sensor on the backside of the module.**

Note: The module temperature measurement can be optimised by completely covering the sensor element. The sensor cable needs a cable grip close to the sensor housing, particularly for module temperature above 75°C.

### Maintenance

The sensors should be checked once a year for damage, contamination and correct fitting.

### Specifications

Characteristic	Value
Sensor type	Pt100 class B
Temperature range	-50 ... +150 °C
Sensor capture	Silicon rubber patch
Dimension	40 x 13 x 5 mm
Sensor cable	2 m PTFE insulated, 4-wire, AWG30
Accessories	
Extention for connection to Ammonit Meteo-40 data logger	Ammonit Junction Box (Order No. C09100)
Ammonit cable (Junction Box)	LiYCY (TP) 2 x 2 x 0.25 mm <sup>2</sup> (Order No. C68920)

## Sensor connection to Ammonit Meteo-40 data logger

Sensor	Sensor Cable Wire Colour	Ammonit Cable Wire Colour	Meteo-40 Data Logger		Supply Sensor
			Analog Voltage	Current Source	
Pt-100	white	green	Ax		
	white	white		I+	Meteo-40 Current Source
	red	brown		I-	
	red	yellow	Bx		
Shield	Housing				Main Ground (GND)

Connect the shield logger-sided to Ground (GND)

LiYCY (TP): 2 x 2 x 0.25 mm<sup>2</sup>

## Sensor connection diagram to Ammonit Meteo-40 data logger

