

SolarTemp® 851

-60...650 °C



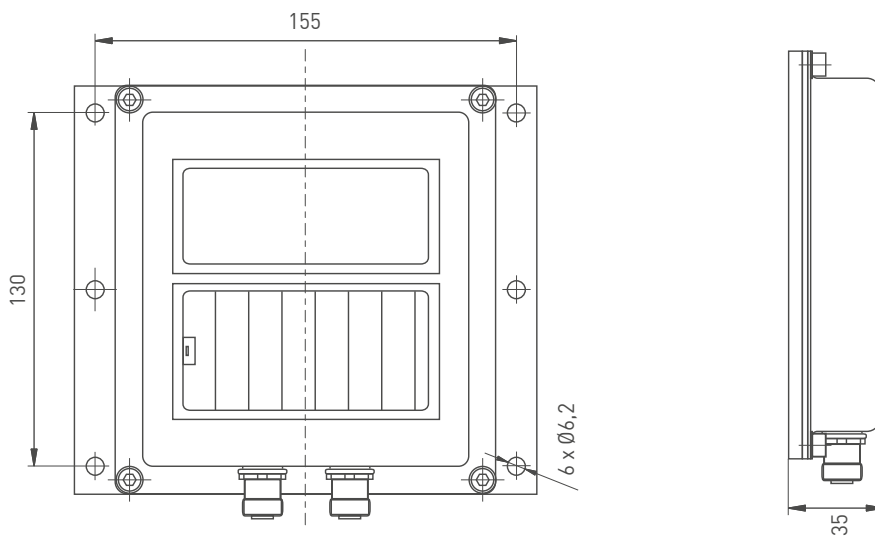
Highlights

- **Powered by the current loop itself with backup via solar cell**
→ temperature display even in the case of power supply failure
- One measuring point for local display and transmitter signal
→ no measured value deviation & lower costs per measuring point
- Robust mechanical construction → Reliable and long-lasting operation
- Insensitive to electromagnetic interference → Additional EMC shielding
- Integrated transmitters → Simple integration into process control system
- Two separate measuring circuits and continuous self-test → Maximum operational reliability

Technical data	
Version	Straight
Dimensions	
→ Housing	140 x 150 x 30 (W x H x D)
→ With mounting plate	170 x 150 x 35 (W x H x D)
Measuring range	-60...650 °C
Medium / Application	Liquid and gaseous media
Display	3½ digit, 7 segment LCD, 25 mm high
Resolution	0.1 K in the range <200 °C 1 K in the range >200 °C
Measuring rate	3 s
Ambient temperature	5...60 °C
Storage temperature	5...60 °C
Degree of protection EN 60529	IP65
Approvals	
EU RO Mutual Recognition Type Approval Certificate (pending) (Covers: ABS, BV, CCS, CRS, DNV, IRS, KR, LR, ClassNK, PRS, RINA, RS)	

Electrical data	
Measuring element	Pt1000 / 2-wire / Class B
Accuracy	±1 % of range ±1 digit
Electrical connection	4-pin plug connector M12 x 1
Supply voltage	Loop supply 15...26 VDC Solar cell, 80 lux (as backup for display)
Analogue output	
Current signal	4...20 mA / 2-wire
Scaling	Measuring range
Signal error	Error signal according to NAMUR NE43
Burden	Max. 500 Ω

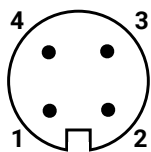
Technical drawings // Dimensions



Pin assignment

Transmitter output / Supply Voltage M12 (plug / male)

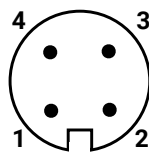
Pin assignment



Pin 1: GND/Sig-
Pin 3: +UB/Sig+

Sensor input M12 (socket / female)

Pin assignment



Pin 1 / 2: Pt1000 for the display
Pin 3 / 4: Pt1000 for the transmitter 4...20mA

Materials

Materials	
Not in contact with medium	
Housing	Powder-coated steel, glass front window



Article numbers

SolarTemp type 851		
Transmitter output range	Display range	Article number
0...300 °C	-60...650 °C	85165P53330
0...600 °C	-60...650 °C	85165P53360

Accessories



Connection cable

Order code			
Accessories		Length	Order number
	Sensor cable	3 m	XPV108
	Connection cable with cable plug M12 x 1, 4 pin version, shielded	5 m	XPV109
		10 m	XPV110
	Cable: FEP cable 4 x 0.5 mm ²	15 m	XPV158
	Transmitter cable	10 m	XPV150
	Connection cable with cable socket M12 x 1, 4 pin version, shielded	15 m	XPV167
	Cable: FEP cable 4 x 0.5 mm ²		