

Transmitter Display

- Solar Powered Display
- Dual Sensor Input
- Designed For Marine Industry Applications



Key characteristics

- Display range: 0-750° C
- Resolution: 1K
- Power supply: Solar cell + Loop powered
- Light intensity: ≥ 40 Lux
- Accuracy: Class 1 according to DIN EN 13190
- Measurement input: PT1000, 2 wires, Class B, IEC 751
- Loop voltages: 24 VDC (15-26 VDC), Reverse Voltage Protection
- Output signal: 4-20mA @ 0-600° C, optional 0-300° C, 0-750° C
- Connector: Male and Female M12x1
- Operating temperature: 0° C ~ 60° C
- Storage temperature: -10° C ~ 65° C

Applications



MARINE INDUSTRY

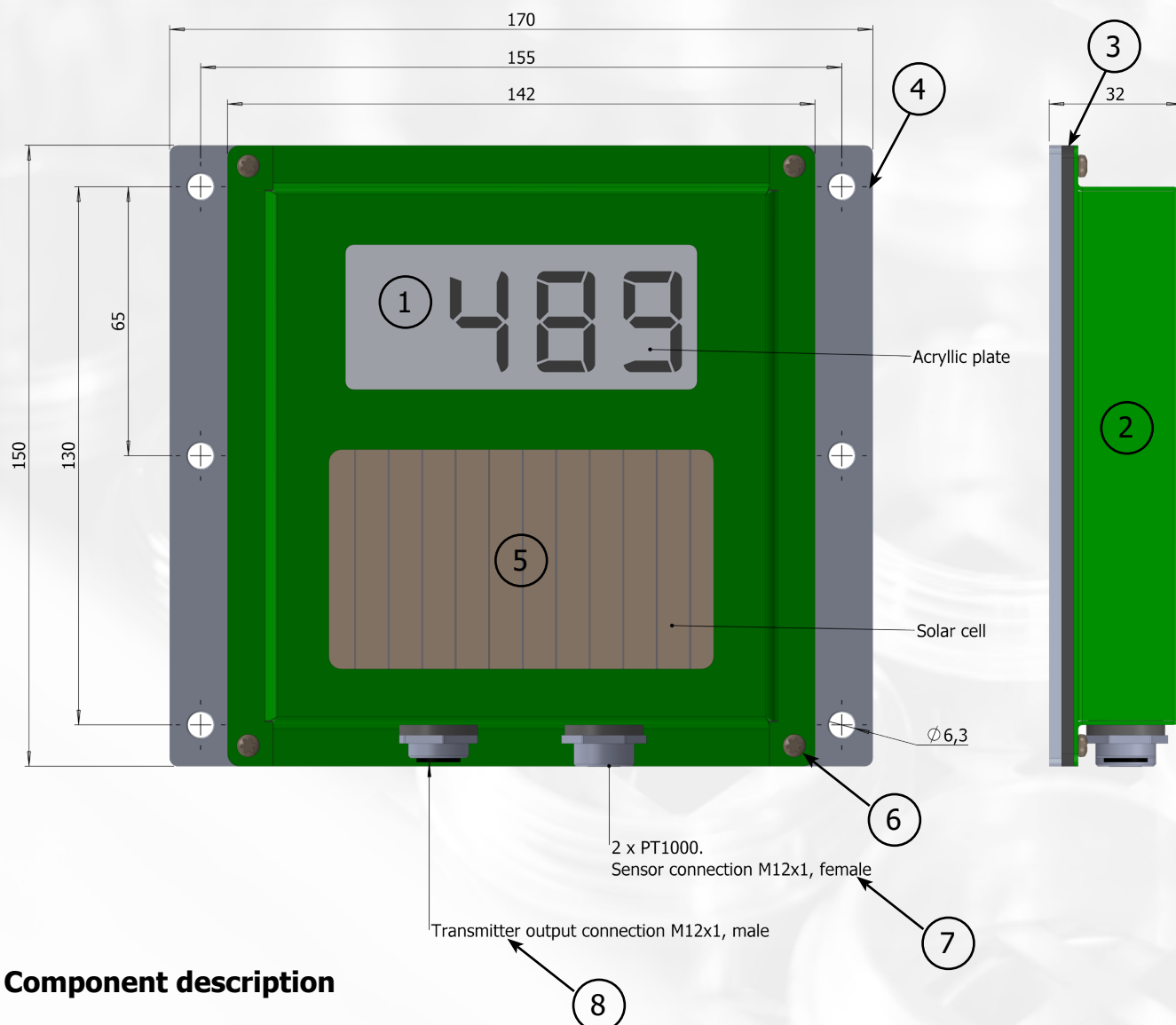
Approvals



DNV-GL EU RO MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE -
Group members are:



Description of instrument

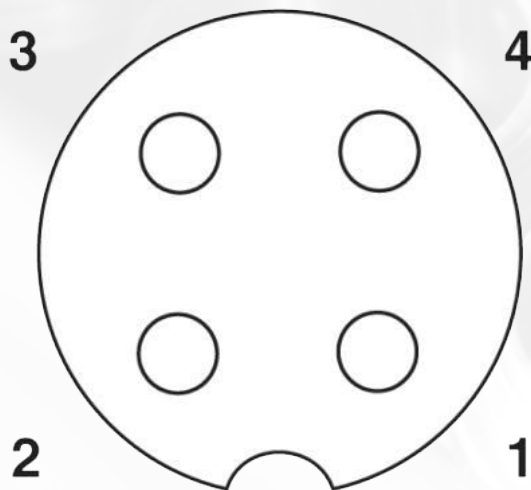


Component description

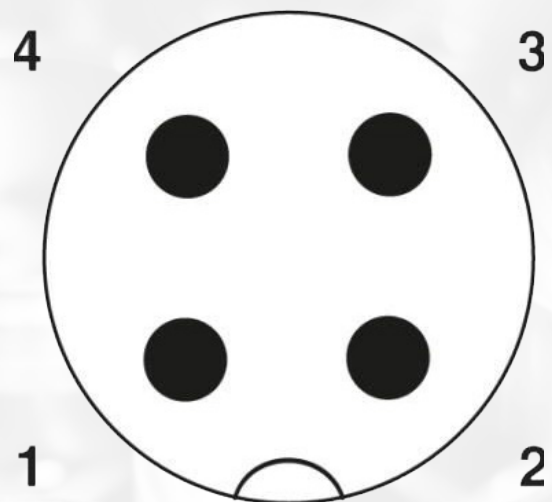
1. LCD screen
2. Housing
3. Gasket
4. Connection plate
5. Solar panel
6. M3 screw
7. Sensor connection M 12x1, female
8. Transmitter output connection M 12x1, male

Connector Pin Out

The Transmitter Display can be connected with a double PT1000 / 2 wire system through a 4-pole M12 connector.



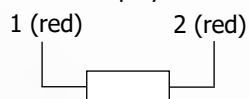
M12 Female connector to the sensor input on the Transmitter Display



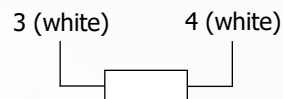
M12 Male connector to the transmitter input on the Transmitter Display

1 I in(+)
3 I out(-)

Connection diagram for the display:



Connection diagram for the transmitter 4 - 20 mA:



Technical data

Display part

Reading range	Multiple scalings 0° C to 300° C 0° C to 600° C 0° C to 750° C
Resolution	1K
Accuracy	Class 1 in accordance with DIN EN 13190
Luminous intensity	≥ 40 lux
Measurement cycle	3 sec
Digital display type	4-digit, 7-segment display, height: 25.4 mm

Transmitter part

Linearity deviation	< 0.1 % Full scale
Loop voltage	24 ±2 V DC, reverse polarity protected ¹
Output signal	4 - 20 mA
Multiple scalings	0° C to 300° C 0° C to 600° C 0° C to 750° C
Maximum load	500 Ω
Sensor break signal	> 21 mA
Short circuit signal	< 3.6 mA

¹ 15V DC – 26V DC with Load_max = 250 Ω

Mechanical

Housing dimensions [mm]	142 x 130 x 32
Backplate dimensions [mm]	170 x 150 x 3
Protection class	IP65
Operating temperature	0° C ~ 60° C
Storage temperature	-10° C ~ 65° C

Materials

Housing	Aluminum – powder coated
Connection plate	Aluminum
Display protection	Acrylic
Solar panel	Glass
Gasket	Rubber - E9614

Start-up of the Transmitter Display

The Transmitter Display will start up as soon as enough light is available.

Doing the start-up process the display will show 2 messages:

- The first message is the maximum temperature it can measure
- The second message is the version number.

If a sensor is connected, the first valid measurement will appear after 9 seconds and the following measurements will appear in intervals of 3 seconds.

If no sensor is connected to the terminal, the display will show the blinking message "Conn", which means that a sensor needs to be connected.

Messages

Message	Meaning	Cause	Recommend action
Err	Error in measurement	Defect sensor or cable	Install new sensor or cable
Conn	Connect sensor	No sensor connected	Connect sensor
Lo	Low amount of light	Luminous intensity too low	Provide more light >40 lux