

## HD48\_07TFP.3 - HD4907TFP.3



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# ACTIVE AND PASSIVE TEMPERATURE TRANSMITTERS FOR SOLAR PANELS

**HD48... active** and **HD49... passive** are temperature transmitters for solar panels.

They are supplied with **contact temperature probe for solar panels** with 3 m cable (other lengths on request), class B Pt100 sensor dimensions  $10 \times 30 \times 5$  mm, adhesive aluminum plate, TPE isolated cable.

HD48...is available with active 4...20 mA or 0...10 V analogue output, or with only RS485 MODBUS-RTU output.

HD49... is available with passive (2-wire) 4..20 mA output. Versions with analogue output provide a signal suitable to be transmitted to a remote display, a recorder or a PLC. The versions with RS485 output are suitable for connection to a PC or a PLC.

- Probe operating temperature: max. temperature 149 °C (200 °C for short periods).
- Default analog output:
  HD4807TFP.3, HD4907TFP.3: 4...20mA = -40...+80 °C
  HD48V07TFP.3: 0...10Vdc = -40...+80 °C
- Working temperature of the electronics: -20  $^{\circ}$ C...+60  $^{\circ}$ C.
- Power supply: 18...40 Vdc or 24 Vac for models HD48... 12...40 Vdc for models HD49...

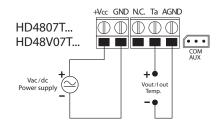
All models are supplied also with LCD display (opz. L).

#### Electrical connections

## HD48.. series with analogue output

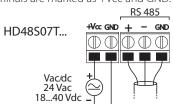
Power the instrument as shown in the below connection schemes, the power supply terminals are marked as +Vcc and GND.

The output signal is available between Ta and AGND terminals for the HD4807TFP.3 and HD48V07TTFP.3 transmitters.



#### HD48...series with RS485 output

Connect the instrument as shown in the below connection schemes, the power supply terminals are marked as +Vcc and GND.

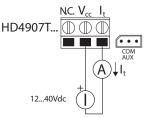


Thanks to the RS485 output, several instruments can be connected to form a network. The instruments are connected in a sequence through a shielded cable with twisted pair for signals and a third wire for the mass.

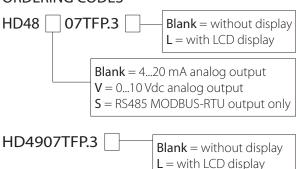
### HD49... series

Follow the connection schemes shown below, the maximum load resistance that can be connected to each 4...20mA output depends on the power supply Vcc applied, according to the relation:

 $R_{l_{max}} = (Vcc-12)/0.022$ , e.g. if Vcc=24Vdc the max load is  $R_{l_{max}} = 545$  ohm



## **ORDERING CODES**



CP27: Serial connection cable with USB connector for PC and 3-pole connector for COM AUX port. The cable has a built-in USB / RS232 converter and connects the transmitter directly to the USB port of the PC. This cable is suitable only for the models with analog output

**RS48:** Cable for RS485 connection with built-in USB/RS485 converter. The cable has USB connector for PC and 3 separate wires for the instruments. The cable is suitable for the models with RS485 output only.

**HD4817CAL**: software for the configuration of the transmitters. Downloadable from Delta OHM website, for Windows® operating systems.