

## HD48...07TFP... - HD4907TFP...



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### ACTIVE AND PASSIVE TEMPERATURE TRANSMITTERS FOR SOLAR PANELS

HD48... active and HD49... passive are temperature transmitters for solar panels. All models are available as well with LCD display (opz. L). The versions with 3 m cable are supplied with 10 x 30 x 5 mm rectangular shaped class B Pt100 sensor while the versions with 5 or 10 m cable are supplied with a Ø 30 x 7.5 mm disk shaped 1/3 DIN Pt100 sensor.



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

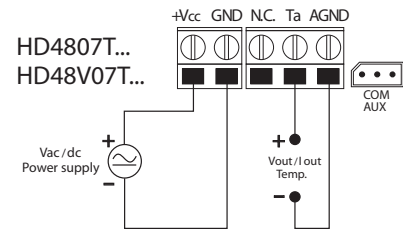
HD49... is available with passive (2-wire) 4..20 mA output. Versions with analogue output provide a signal suitable to be transmitted to a remote display, a recorder or a PLC. The versions with RS485 output are suitable for connection to a PC or a PLC.

- Measuring range: -40...+85 °C
- Default analog output:  
HD4807TFP..., HD4907TFP...: 4...20 mA = -40...+85 °C  
HD48V07TFP...: 0...10 Vdc = -40...+85 °C
- Working temperature of the electronics: -20 °C...+60 °C.
- Power supply: 18...40 Vdc or 24 Vac for models HD48...  
12...30 Vdc for models with MODBUS-RTU output  
12...40 Vdc for models HD49...

### Electrical connections

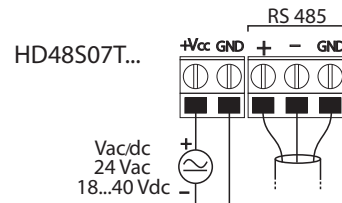
#### HD48... series with analogue output

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... and HD48V07TFP... 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.

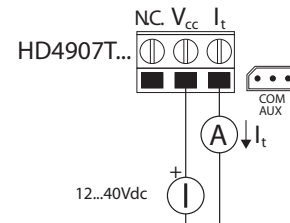


Thanks to the RS485 output, several instruments can be connected to form a network. The instruments are connected in a sequence through a shielded cable with twisted pair for signals and a third wire for the mass.

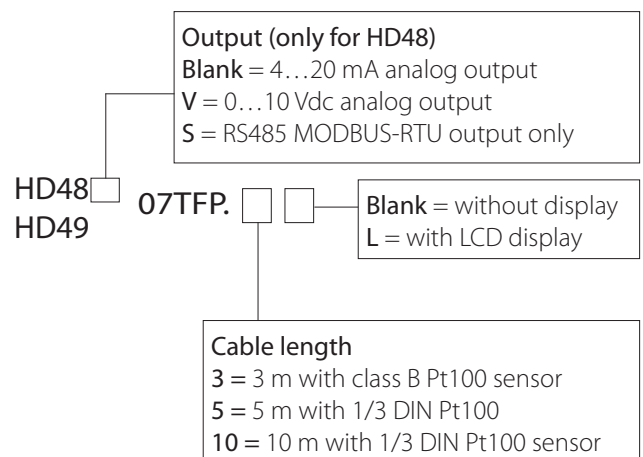
#### HD49... series

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

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



### 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 analogue 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.