PTDNC04 4CH PT100 PT1000 RS485 Sensor Manual
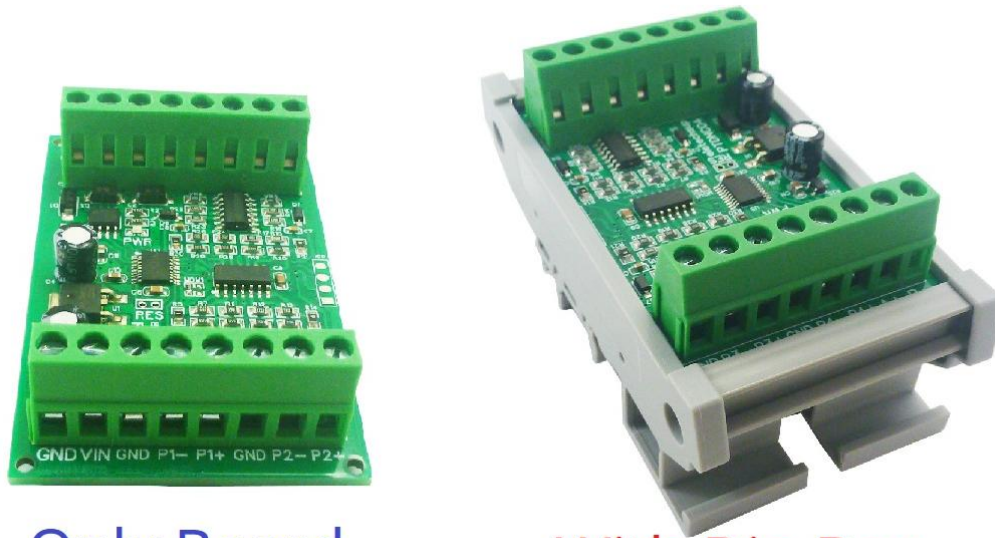
Only Board

With Din Box

Demo : https://youtu.be/VsYYrE8g4fo

PTDNC04 PT100/PT1000 RS485 Acquisition module Description:

Power supply voltage: DC 6~25V

Working current: 20MA

MODBUS RTU protocol, 03 read command, 06 or 16 write command.

Serial port baud rate: 1200-115200,9600 (default), N, 8, 1

By modifying the 485 address, up to 247 modules can be cascaded (please use RS485 repeater for more than 16)

Can read temperature and PT100/PT1000 resistance value

Applicable sensor: PT100/PT1000 3-wire or 2-wire sensor

Temperature measurement range: A version -40℃ to +220℃; B version -40℃ to +500℃. It is recommended to choose a version with a smaller range within the measurement range.

Temperature measurement accuracy: 1%, if the temperature deviation is too large, please recalibrate

Dimensions: 72 X 46 X18MM (board only), 79 X 49 X40MM (with shell)

Weight: 32g (board only), 78g (with shell)

MODBUS RTU protocol   please refer to : "PTDNC04 Modbus Rtu Command "

Product testing experience:

Although it uses the LM324 op amp as the front-end circuit like other eletechsup PT100 collectors, it uses a more ingenious and reasonable signal processing design, coupled with a more accurate ADC chip, which allows it to achieve higher-precision measurements while keeping the cost unchanged. Its measurement accuracy is more than 20% higher than that of PTA8C04 PTA8D08 PTA8E16.
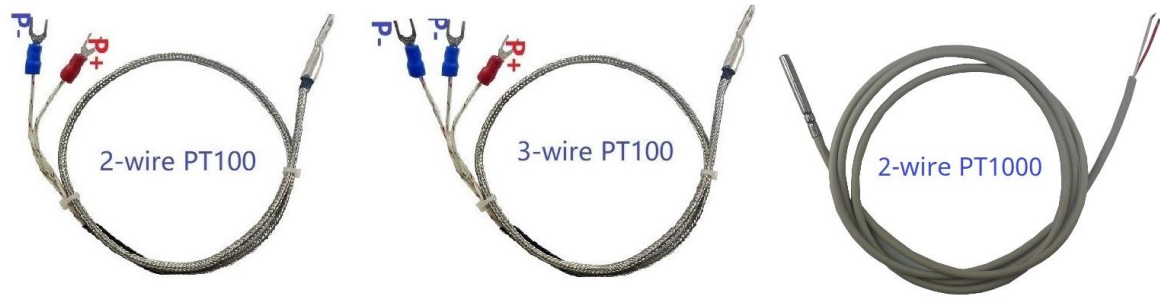
PT100 sensor specifications(Type A):

Type: PT100
Probe Diameter: 6.5mm
Probe Length: 30mm
Probe Material : Stainless steel
Cable Length: 0.5M
PTFE sheath 3-Wire type
Temperature -200~550°C degree
Nominal accuracy : 0.1%

PT100 sensor specifications(Type B):

Type: PT100
Probe Diameter: 4mm
Probe Length: 30mm
Probe Material : Stainless steel
Cable Length: 0.5M
PTFE sheath 3-Wire type
Temperature -50~200°C degree
Nominal accuracy : 0.3%

PT1000 sensor specifications:
Wire: PVC
Wire temperature resistance: -20~+108℃
Probe temperature range: -60~260℃
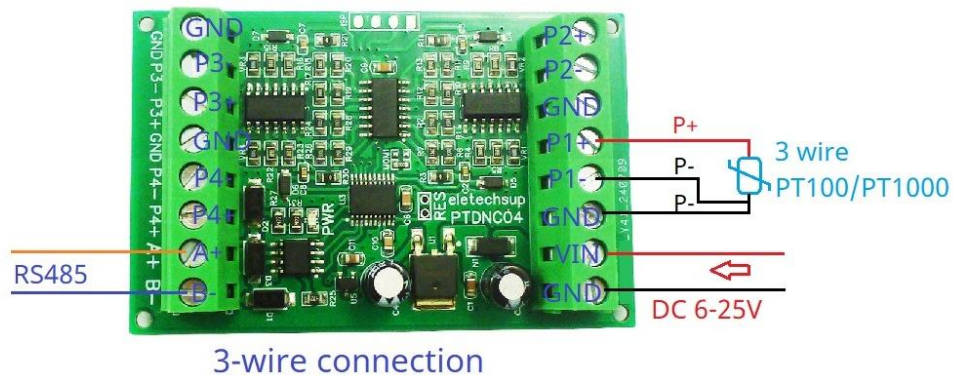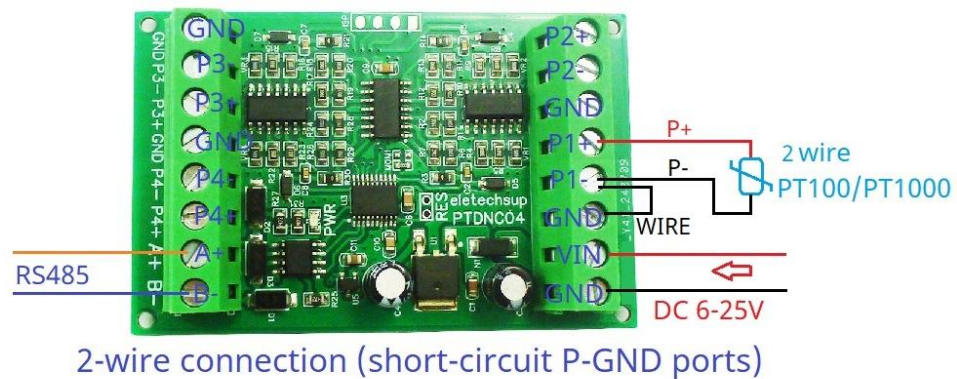Measurement accuracy: 0.1%
Probe diameter: 5MM
Probe length: 45MM
Probe material: stainless steel shell
Total cable length: 1.5 meters
Weight: 32 grams

Wiring diagram:

Wiring Diagram

2-wire connection (short-circuit P-GND ports)

3-wire connection

The PT100/PT1000 sensor probe is a variable resistor, regardless of positive or negative poles.

3-wire probe wiring method: red wire connected to P+, the other two wires of the same color connected to P- and GND (without distinguishing between ports).

2-wire probe wiring method: red wire connected to P+, blue wire connected to P-, P- and GND are connected with wires.

RS485 bus wiring diagram: