

2-wire transmitter HTB230 for RTD sensor

- Resistor sensors Pt100, Ni100, Cu10
- 3- or 4-wire installation
- Input converter 24 bit
- Output signal 2-wire 4-20 mA
- Output conversion 16 bit
- Freely scalable output
- 2 point calibration option
- operating temperature -40...+85°C
- Accuracy 0.05% from reading +0.1°C
- Excellent stability
- USB connection in programmer
- MekuWin configuration program for PC

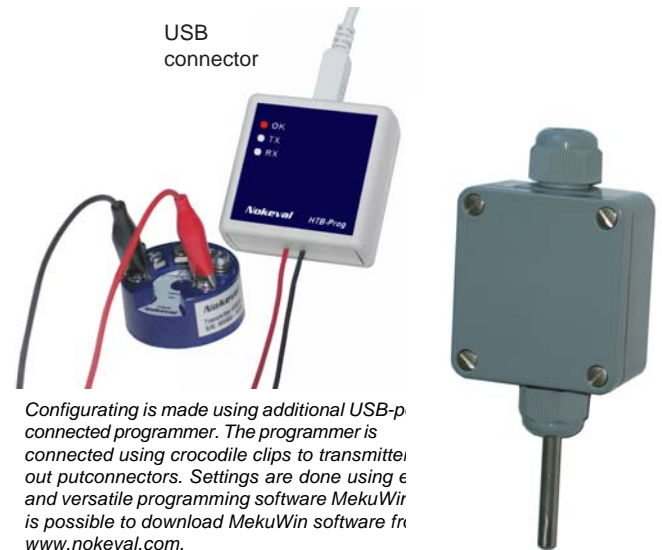


The 2-wire transmitter designed for sensor case installation is easily programmable to different resistor type sensors. Programmer can be connected directly to a USB port where it takes the operational energy so the additional power supply is not required.

The transmitter is configured using multi purpose configuration software MekuWin. MekuWin is compatible with all Nokeval's intelligent instruments.

The wide operational temperature range -40...+85°C makes it possible to use the transmitter almost in any industrial environment. Transmitter has exceptionally good input and output resolution (24 bit input and 16 bit output). Excellent stability guarantees longterm accuracy. If needed, the transmitter can be calibrated in one or two points.

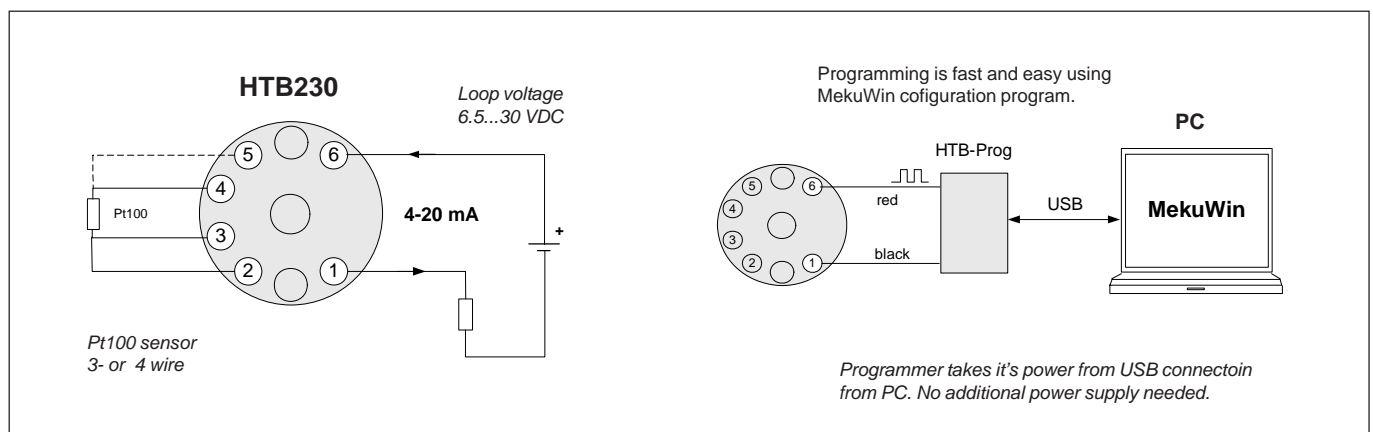
Transmitter has been fully tested in our EMC-laboratory in Nokia to be as immune as possible to different type of distortions. The transmitter exceeds the required standards and is CE-approved.



Configuring is made using additional USB-p connected programmer. The programmer is connected using crocodile clips to transmitter out putconnectors. Settings are done using € and versatile programming software MekuWin is possible to download MekuWin software fr www.nokeval.com.

Field enclosure is available with or without Pt100 sensor (option). Enclosure size is 58 x 65 x 35 mm (WHD), IP65, gland(s) PG11.

Transmitter can be installed to DIN rail (35 mm) by using HTB-DIN bracket.



Technical specifications:

Resistive sensor Pt100

Accuracy 0.05% from reading +0.1°C
 Thermal drift 0.01°C / °C
 Connection type 2-, 3- ja 4-wired

Ni100

Measurement range -60...+180 °C
 Accuracy 0.05% from reading +0.1°C

Cu10

Measurement range -200...+260 °C
 Accuracy 0.05% from reading +0.1°C

Ohm

Measurement range 0...2000 ohm
 Accuracy 0.1% from reading +1 ohm

Output signal

Voltage: 6.5...30 VDC
 Current range: 3.5...23 mA
 Accuracy: ±8 µA (25°C)
 Thermal drift: ±1 µA / °C
 Sensor fault: 23 mA (selectable also 3.5 mA)

General information:

A/D conversion 24 bit (input signal)
 D/A conversion 16 bit (output signal)
 Speed of update 2.5 measures / s
 Startup time 1 s (4% from the final value)
 1.5 s (fully stabilised)

Operating temperature -40...+85°C
 Operating voltage 6.5...30 VDC
 Connection terminals 2 x 2.5 mm²
 Installation B ja Buz sensor casings
 Weight 30g

EMC immunity EN61326
 EMC emissions EN61326 class B
 Marks CE-mark

Programming

Programmer HTB-PROG, connection to USB-port
 Configuring software MekuWin (universal Nokeval software)

Ordering code HTB230 - 0/200

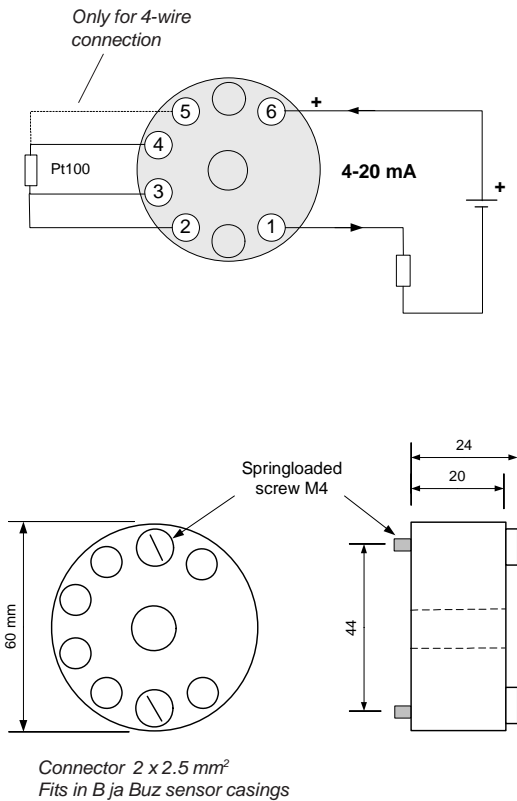
Transmitter type _____
 Temperature range _____

Delivered ready to use in customers announced range.

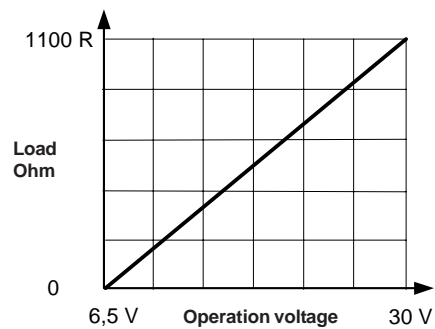
Accessories:

Configuring software MekuWin (PC-program)
 Configuring hardware HTB-PROG

Connection and measures:



Outputsignal load



$$\frac{\text{Oper. voltage} - 6.5 \text{ V}}{0,02 \text{ A}} = \text{max. load}$$

Example:
 Operating voltage for transmitter is 24 VDC and there is only one device in the current loop which has input resistance 100 ohm.
 Usable load in the loop is :
 $(24\text{V} - 6.5\text{V}) / 0.02 \text{ A} = 875 \text{ ohm}$
 So additional 775 ohm can still be loaded if necessary in the loop.