

One or two channel 2-wire transmitters RTB231 and RT232 for RTD sensors

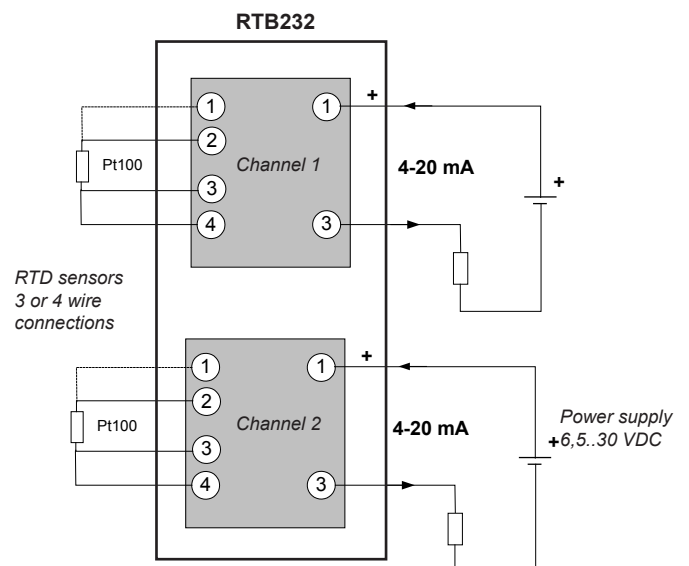
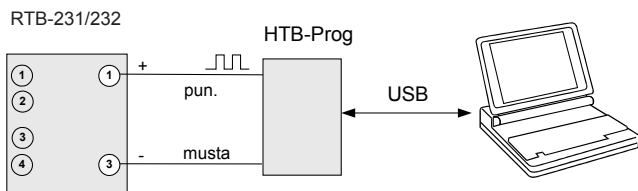
- One or two channels
- RTD sensors Pt100, Ni100, Cu10
- 2 wire 4-20 mA output
- Freely scalable measuring range
- 2 point calibration option
- Operating temperature range -40...+85°C
- Accuracy < 0.05% from reading +0.1°C
- Excellent stability



One and two channel RTB series transmitters have been designed for different type RTD sensors with two wire 4-20 mA output. Channels are completely isolated from each other. Transmitters have exceptionally good input and output resolution, 24 bit input and 16 bit output. Excellent stability guarantees long term accuracy. If needed, the transmitter can be calibrated in one or two points together with sensors. The wide operational temperature range -40..+85°C makes it possible to use almost in any industrial environment.

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.

Transmitters can be configured using multi purpose configuration software MekuWin (free). MekuWin is compatible with all Nokeval's intelligent instruments. Transmitters are delivered according to ordered measuring range.



Configuring is made using USB-port connected HTP-Prog programmer that is connected to transmitters output connectors. HTB-Prog programmer can program also headmounting transmitter HTB230. Transmitters delivered with ordered measuring range or settings can be done later using easy and versatile programming software MekuWin. It is possible to download MekuWin software from www.nokeval.com.

Specifications:

RTD 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:

Channels Isolated completely from each other
 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 2.5 mm²
 IWeight 150 g

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

Programming

Programmer HTB-PROG, connection to USB port
 Software MekuWin (free)

How to order

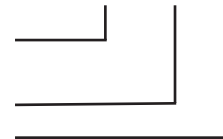
Model **RTB231 - 0/200-3**

RTB231 1 Channel

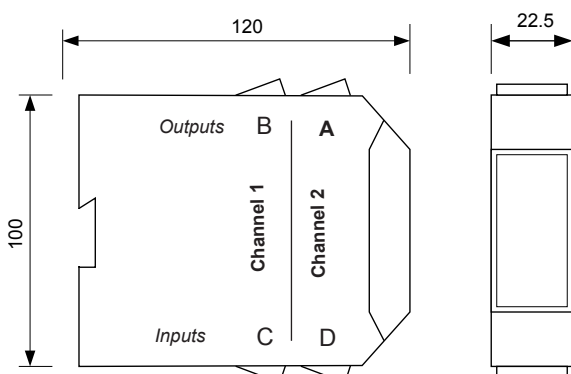
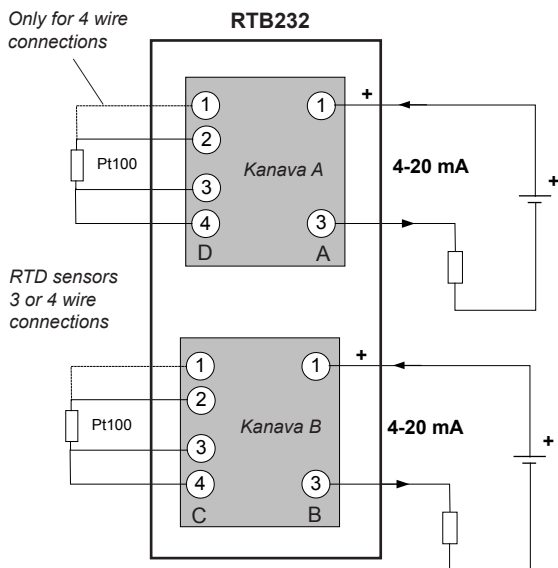
RTB232 2 Channel

Temperature range

2, 3 or 4 wire connections



Connections and dimensions:

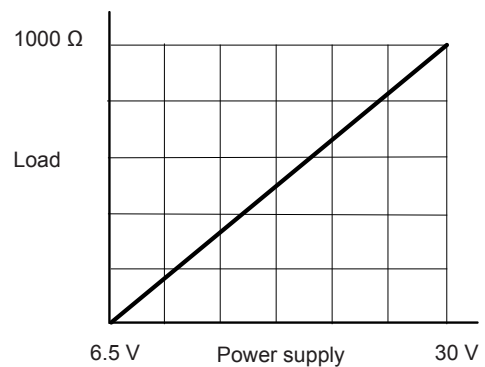


Removable connectors, max. 2.5 mm²

Options:

Confiruration software (free) MekuWin (PC-ohjelma)
 Programmer HTB-PROG

Output Load



$$\frac{\text{Power supply} - 6.5 \text{ V}}{0,02 \text{ A (20 mA)}} = \text{max. load}$$

Output load increases according to power supply voltage being 775 ohms with 24 VDC, 24V -6.5V / 0.02 A=875 ohm