

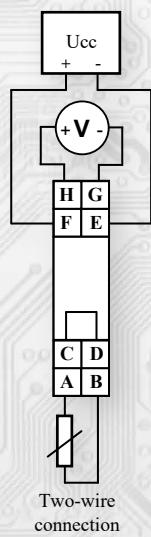

Description

The transmitters series PU-1x are intended for signal conversion from resistive temperature sensors Pt100, Pt500, Pt1000, Ni1000, Ni10000 and resistive sensors OV100 (0 to 100 Ω) and OV105 (5 to 105 Ω) to the standard voltage signal 0 to 10 V. The output signal has got a linear temperature or resistance dependence.

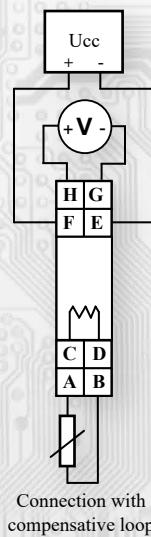
The transmitters are according to the type variant supplied by 24 V DC or AC. The transmitters are not equipped with galvanic separation between input and output signals. The given degree of ingress protection and possibility of fitting on the mounting bar DIN TS 35 determinate the transmitters for use in the distribution cases, boards and panels.

Main technical parameters

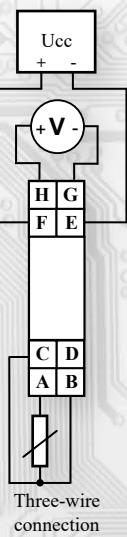
Power supply	11 ÷ 35 VDC, 24VAC
Load resistance Rz	< (Ucc - 11) x 50 [Ω]
Sensing element short	< 3 mA
Sensing element break	> 24 mA
Measurement error	< 0,8 %
Ambient temperature	-20 ÷ 60°C
Storage temperature	-20 ÷ 80°C
Relative humidity	< 80 %
Terminal board	max. diameter 1,5 mm ²
Dimension	18 x 62 x 64 mm

Transmitter connection into the circuit - DC supply


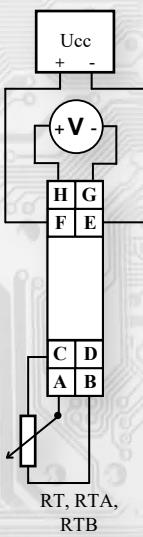
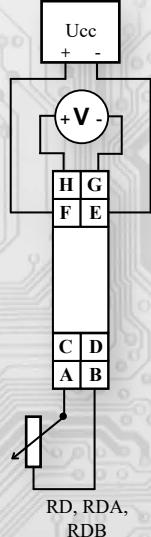
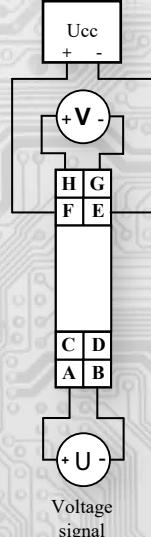
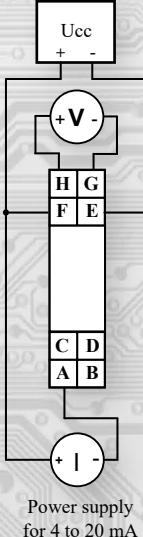
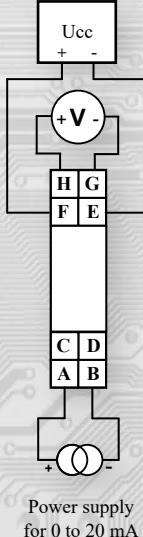
Two-wire connection



Connection with compensative loop



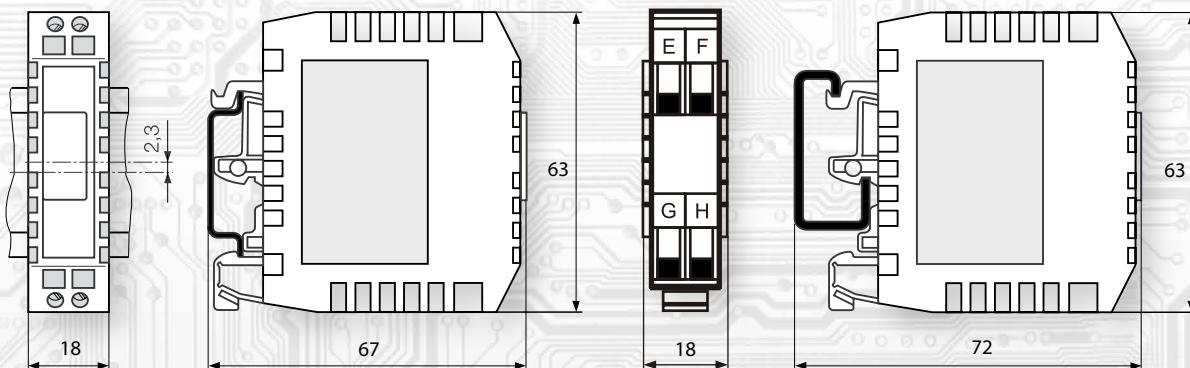
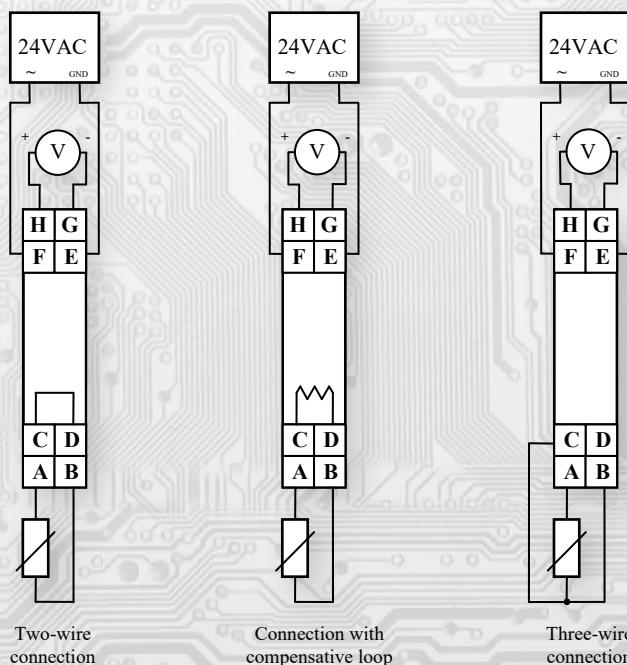
Three-wire connection


 RT, RTA,
RTB

 RD, RDA,
RDB

 Voltage
signal

 Power supply
for 4 to 20 mA
(arbitrary polarity)

 Power supply
for 0 to 20 mA
(terminals F and G
are internally connected)

The terminals F and G are galvanically connected (GND). Also the terminals D and B are galvanically connected (except types RT, RTA, RTB, RDA, RDB).

Installation and connection

The transmitters are designed for DIN rail mounting.
 Wiring to terminal: max. wire cross section to 1,5 mm²


Attachment to DIN bar EN 50 022 – 35 x 7,5
Attachment to DIN bar G EN 50 035 – G32
Examples of wiring for AC supply


Note: The terminals G,E and D,B are galvanically connected (GND).

Temperature range

sensor	PT 100/1000	Ni 1000
Temperature range	-30 ÷ 60°C	-30 ÷ 60°C
	0 ÷ 100°C	0 ÷ 35°C
	0 ÷ 200°C	0 ÷ 50°C
	0 ÷ 400°C	0 ÷ 100°C
	0 ÷ 600°C	0 ÷ 150°C
	200 ÷ 600°C	0 ÷ 250°C

Summary of types

TYPE	INPUT	TYPE	INPUT
PU-1P	Pt100	PU-1RT	OV100 3-wire connection
PU-1PA	Pt1000	PU-1RD	OV100 2-wire connection
PU-1PB	Pt500	PU-1RTA	OV105 3-wire connection
PU-1L	Ni1000/5000 ppm	PU-1RDA	OV105 2-wire connection
PU-1S	Ni1000/6180 ppm	PU-1RTB	OV1000 3-wire connection
PU-1J	Ni891/6371 ppm	PU-1RDB	OV1000 2-wire connection
PU-1SA	Ni10000/6180 ppm	PU-1RDB	OV1000 2-wire connection
		PU-1RU3	0 ÷ 10V

Power supply

TYPE	power supply
PU-1xx-AC	24 VAC
PU-1xx-DC	15 ÷ 30 VDC