

The transmitters series **RI-1...**, and **RI-2...** in single or double version are proposed for signal conversion from resistive temperature sensors Pt100, Pt500, Pt1000, Ni1000, Ni10000 and resistive sensors OV100 (0 to 100 Ω), OV105 (5 to 105 Ω) and OV1000 (0 to 1000 Ω) to the standard current signal 4 to 20mA or 0 to 20mA. The output signal has got a linear temperature or resistance dependence. The transmitters are supplied by 24 VDC. 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 de-terminate the transmitters for use in the distribution cases, boards and panels.

### Summary of types

TYPE	INPUT	TYPE	INPUT
RI-1P	Pt100	RI-2P	2xPt100
RI-1PA	Pt1000	RI-2PA	2xPt1000
RI-1PB	Pt500	RI-2PB	2xPt500
RI-1L	Ni1000/5000 ppm	RI-2L	2xNi1000/5000 ppm
RI-1S	Ni1000/6180 ppm	RI-2S	2xNi1000/6180 ppm
RI-1J	Ni891/6371 ppm	RI-2J	2xNi891/6371 ppm
RI-1SA	Ni10000/6180 ppm	RI-2SA	2xNi10000/6180 ppm
RI-1RT	OV100 3-wire connection	RI-2RT	2xOV100 3-wire connection
RI-1RD	OV100 2-wire connection	RI-2RD	2xOV100 2-wire connection
RI-1RTA	OV105 3-wire connection	RI-2RTA	2xOV105 3-wire connection
RI-1RDA	OV105 2-wire connection	RI-2RDA	2xOV105 2-wire connection
RI-1RTB	OV1000 3-wire connection	RI-2RTB	2xOV1000 3-wire connection
RI-1RDB	OV1000 2-wire connection	RI-2RDB	2xOV1000 2-wire connection

### Main technical parameters

Transmitter type	RI-xP; RI-xP A; RI-xPB	RI-xL; RI-xS; RI-xJ	RI-xR...
Power supply	11 ± 35 V <sub>ss</sub>	11 ± 35 V <sub>ss</sub>	11 ± 35 V <sub>ss</sub>
Output signal I <sub>z</sub>	1 or 2 x (4 ± 20 mA)	1 or 2 x (4 ± 20 mA)	1 or 2 x (4 ± 20 mA)
Input signal measuring range	-30 ± 60°C	-30 ± 60°C	0 ± 100 Ω
	0 ± 100°C	0 ± 35°C	for RT a RD
	0 ± 200°C	0 ± 100°C	0 ± 1000 Ω
	0 ± 400°C	0 ± 150°C	for RTB a RDB
	0 ± 600°C	0 ± 250°C	5 ± 105 Ω
Ambient temperature	-25 ± 60°C	-25 ± 60°C	for RTA a RDA
Relative humidity	< 80 %	< 80 %	< 80 %
Measurement error	< 0,8 %	< 0,8 %	< 0,8 %
Load resistance R <sub>z</sub>	< (U <sub>cc</sub> -11)x50 [Ω]	< (U <sub>cc</sub> -11)x50 [Ω]	< (U <sub>cc</sub> -11)x50 [Ω]
Sensing element break	I <sub>z</sub> > 24 mA	I <sub>z</sub> > 24 mA	I <sub>z</sub> > 24 mA
Sensing element short	I <sub>z</sub> < 3 mA	I <sub>z</sub> < 3 mA	I <sub>z</sub> < 3 mA

### Mounting and putting into service

The transmitter has to be fastened with the help of a holder on the mounting bar DIN TS 35. First we set the upper mandrel of transmitter box holder on the upper bar edge and with the help of a screwdriver push out the lower arrestment mandrel lock. We pull the lower box part to the bar and then free the lock. The transmitter is fastened now. We connect the inputs, outputs and power supply into the respective clamps. We recommend the connecting cable with the wires cross section 0,35...2 mm<sup>2</sup>, for the active signals with the screening mantle.

### How to order the transmitter

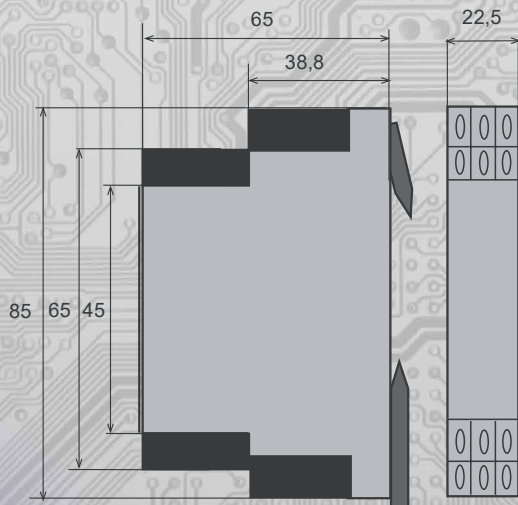
There have to be given the number of pieces and the type of temperature or resistance transmitter in the order. i. e. transmitter for 2x Pt100, measuring range 0 ÷ 100°C  
 E. g.: 5 pieces transmitter RI-2P.2



Transmitter type	RI-xP, RI-xP A, RI-xPB	Order number	RI-xL, RI-xS, RI-xJ	Order number
Temperature range	-30 ÷ 60°C	1	-30 ÷ 60°C	1
	0 ÷ 100°C	2	0 ÷ 35°C	2
	0 ÷ 200°C	3	0 ÷ 100°C	3
	0 ÷ 400°C	4	0 ÷ 150°C	4
	0 ÷ 600°C	5	0 ÷ 250°C	5
	200 ÷ 600°C	6	0 ÷ 50°C	6

### Single or double version - RI-1..., RI-2...

### Dimensions



### Transmitter connection into the circuit

This holds for the RI-2P; connection with a compensation loop

