

Product Information

# Resistance Transmitter RT500



- Measuring range 0..50 Ω up to 100 kΩ
- Processor technology with 12 Bit AD/DA-converter
- Teach-in programming for start- and end-value
- Increase or decrease output characteristic programmable
- Operation mode indicated by use of a 2-color LED

## Characteristics

RT500 transmitter converts a resistance- or potentiometer signal into industry standard signals. Initial and final value may be in the range of 0..100 kOhm. Easy programming by means of Teach-in. The measuring range will be selected automatically. The input circuit is designed in 3-wire technology and can provide compensation of the line resistance. The linear output signal is generated between minimum and maximum input resistance.

## Technical data

### Power supply

Supply voltage : 85..265 V AC or 10..30 V AC/DC

Frequency : 47..63 Hz

Power consumption : < 3 VA

### Operating

temperature : -10..+50 °C

CE-conformity : EN 61326-1:2013; EN 60664-1:2007

### Input

Measuring range :  $R_{max}$ : 50 Ω..100 kΩ,  
 Condition:  $\Delta R \geq 0.5 R_{max}$   
 characteristic curve increasing or decreasing

Solution : 600..3000 Digit

(depends on measuring range)

Sampling frequency : 250 Hz real-time processing

Line resistance : max. 10 Ω, line compensation  
 in 3-wire-circuits

### Outputs

Current : 0/4..20 mA, selectable, burden ≤ 1 kΩ

Voltage : 0/2..10 V, selectable, load max. 15 mA  
 short-circuit-proof  
 (parallel with current output max. 5 mA)

**Attention! No isolation between in- and output.**

Rise time ( $T_{90}$ ) : < 8 ms

Accuracy : ± 0.2 % of the measuring range

Case : Polycarbonate, UL94V-0

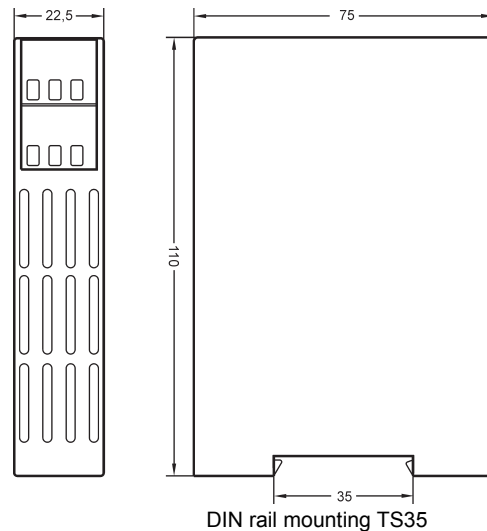
TS 35 acc. to DIN EN 60715:2001-09

Weight : approx. 200 g

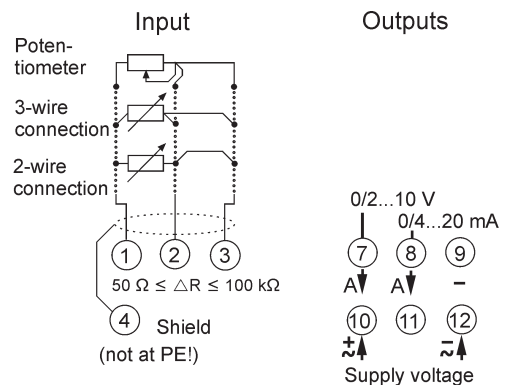
Connection : screw terminals, max. 2.5 mm<sup>2</sup>

Protection class : case IP30,  
 terminals IP20 acc. to BGV A3

## Dimensions



## Connection diagram



## Ordering code

RT500 - 1. - 2.

1. Measuring range	
40	$R_{max}$ in range 50 Ω up to 100 kΩ programmable (see examples)
2. Supply voltage	
0	85..265 V AC
5	10..30 V AC/DC

Examples:

- 1.) Range 15..90 Ω
- 2.) Range 0..1000 Ω
- 3.) Range 100..200 Ω

Attention!

Minimal span 0.5 x  $R_{max}$