

# 3-WIRE TRANSMITTER RESISTANCE – CURRENT

## STI – RI1



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USER'S MANUAL

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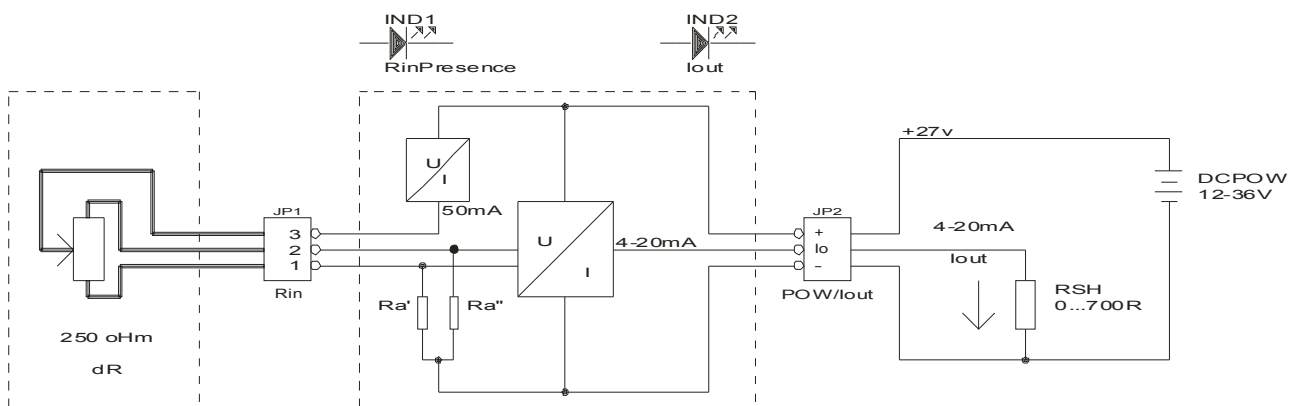
## 1. INTRODUCTION

The 3-wire transmitter resistance-current STI - RI1 is designed to convert 3-wire adjustable resistance (potentiometer) into an analog electrical signal  $4 \div 20$  mA.

STI - RI1 consist of the following main functional blocks and components:

- AZ431A – reference voltage source;
- OPA2251 – 50 mA current source for the potentiometer slider;
- Operational Amplifier OPA2251 –  $4 \div 20$  mA output current source;
- 3-wire pluggable screw connection terminals for power supply and for transmitter connection to the secondary device ( $4 \div 20$  mA);
- 3-wire pluggable screw connection terminals for input resistance connection (potentiometer);
- LED (green), indicating the presence of output current;
- LED (yellow), indicating the presence of potentiometer current.

## 2. CONNECTION DIAGRAM



### 3. TECHNICAL DATA

3.1. Number of channels:	1 (one input, one output)
3.2. Input resistance:	0 ÷ 250 Ohm (or customer specified);
3.3. Output current:	4 ÷ 20 mA
3.4. Maximum relative error:	0.1% ± 1LSB
3.5. Work temperature range:	5 ÷ 45 °C
3.6. Line resistance:	700Ω at 24 VDC
3.7. Power supply:	12 ÷ 36 VDC; 100 mA
3.8. Dimensions: (W x H x D):	22,5 x 75 x 105 mm
3.9. Mounting:	35 x 7,5 mm DIN-rail

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