

## ISO<sup>PAQ</sup>-110R

# Transmitter Repeater for Powering and Isolation of 2-wire transmitters

*COMPACT LINE is a line of very compact and cost-optimized Isolators, Transmitter Repeaters and Isolating Transmitters within the IsoPAQ family.*

*The small dimensions - only 60 mm deep and 11.2 mm wide – and the favorable pricing allow for space saving and economic installations.*



**COMPACT LINE**

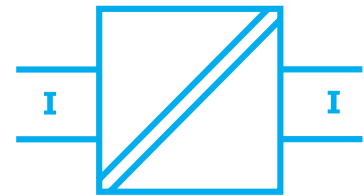


**IsoPAQ-110R is a Transmitter Repeater for powering and isolation of a non-isolated 2-wire transmitter.**

**Thanks to the isolation, the 4-20 mA transmitter signal can be connected to a grounded input circuit of a control system without risk for measurement errors due to ground loops.**

**The Transmitter Repeater needs no power supply, which contributes to reduced installation costs.**

**The high reliability ensures a safe system operation and low maintenance costs.**



- **Transmitter isolation**  
Problem-free connection of non-isolated 2-wire transmitters to grounded control system inputs
- **Transmitter powering**  
The 24 VDC power from the control system is transferred to the 2-wire transmitter
- **High accuracy**  
Negligible additional measurement errors in the loop
- **HART communication**  
Separate input terminals with built-in 250 Ω load resistor
- **Fixed ranges**  
Ready to use without any settings
- **Compact DIN-rail mounting**  
11.2 mm (0.44") housing combined with very low self heating allows for high density mounting. With a depth of only 60 mm, compact standard boxes can be used.
- **Protective Separation**  
The design and high isolation level (2.5 kV) provides protection for service personnel and downstream devices against impermissibly high voltage

## Specifications: IsoPAQ-110R

### Input

|                             |  |
|-----------------------------|--|
| Input signal                | 4-20 mA  |
| Operating current range     | 2-23 mA  |
| Voltage drop                | ~ 4.7 V  |
| HART communication          | Separate terminals with 250 Ω input resistance. Additional voltage drop 5V @ 20 mA |
| Short circuit input current | ≤ 50 mA  |

### Output

|  |                                 |
|--|---------------------------------|
| Output signal                              | 4-20 mA                         |
| Supply voltage                             | 15-30 VDC                       |
| Response time<br>(10 to 90 % of end value) | < 10 ms                         |
| Ripple                                     | < 0.2 % of end value, ~ 100 kHz |

### General data

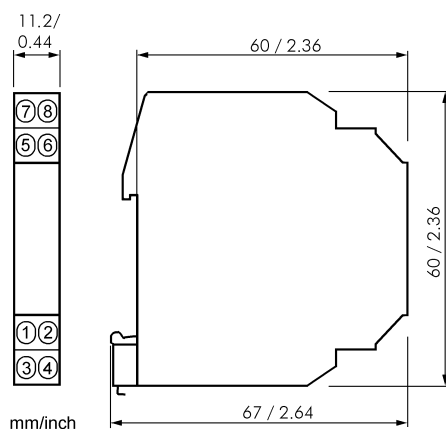
|  |  |                                |
|--|--|--------------------------------|
| Transmission error                                       | ± 0.1 % of end value   |                                |
| Supply voltage influence                                 | ± 0.01% of end value (difference from 24 VDC)  |                                |
| Temperature coefficient <sup>1)</sup>                    | ± 0.01 %/K of end value  |                                |
| Test voltage   | 2.5 kV, 50 Hz  | Between all circuits           |
| Working voltage <sup>2)</sup><br>(Basic Insulation)      | 600 VAC/DC for overvoltage category II and contamination class 2 acc. to EN 61010 part 1   |                                |
| Protection against dangerous body currents <sup>2)</sup> | Protective separation acc. to EN 61140 by reinforced insulation acc. to EN 61010 part 1 up to 300 VAC/DC for overvoltage category II and contamination class 2 between all circuits. |                                |
| Ambient temperature                                      | Operation  | 0 to +55 °C (32 to +131 °F)    |
|  | Transport and storage  | -25 to +80 °C (-13 to +176 °F) |
| EMC <sup>3)</sup>  | EN 61326-1   |                                |
| Construction   | 11.2 mm (0.44") housing, protection type: IP 20  |                                |
| Connection   | ≤ 2.5 mm <sup>2</sup> , AWG 14   |                                |
| Weight   | Approx. 50 g   |                                |

1) Average TC in specified operating temperature range

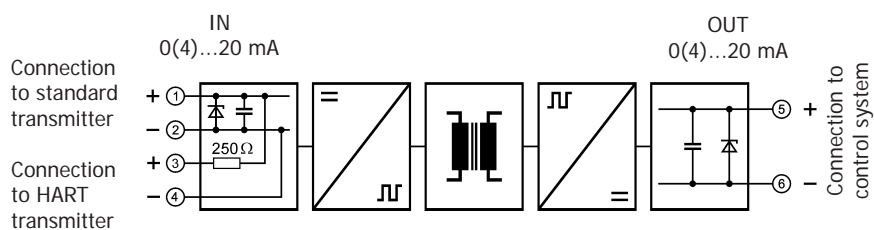
2) As far as relevant the standards and rules mentioned above are considered by development and production of our devices. In addition relevant assembly rules are to be considered by installation of our devices in other equipments. For applications with high working voltages, take measures to prevent accidental contact and make sure that there is sufficient distance or insulation between adjacent situated devices.

3) Minor deviations possible during interference

### Dimensions



### Block diagram/Connections



### Ordering information

| Product     | Input / Output | Part No.   |
|-------------|----------------|------------|
| IsoPAQ-110R | 4-20 / 4-20 mA | 70ISC11011 |