

# D6072-087

## SIL2 Resistance Repeater

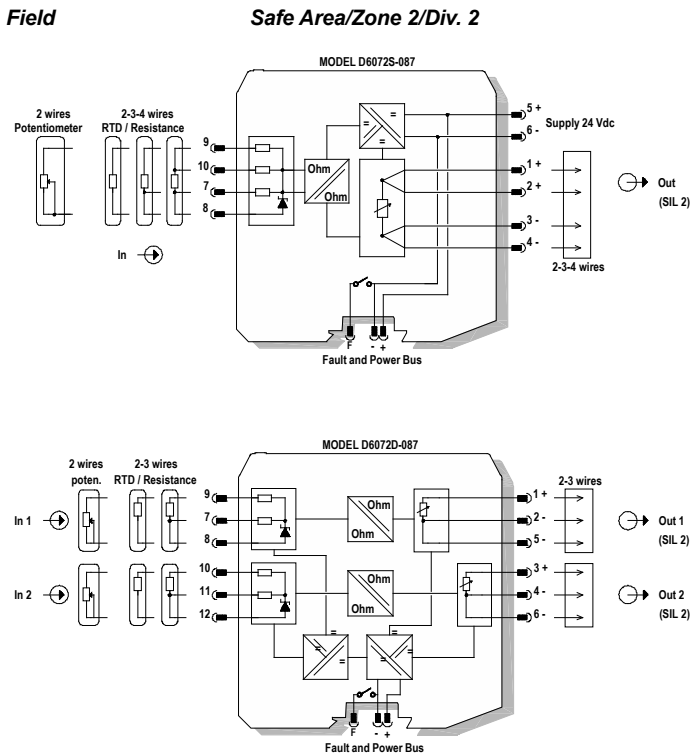
The Resistance Repeater D6072-087 accepts a resistance/RTD or transmitting potentiometer sensor and repeats the resistance with isolation, suitable for applications requiring SIL 2 level in safety related systems for high risk industries.

### FEATURES

- SIL 2
- Installation in Zone 2 (pending)
- Installation in Div. 2
- 2/3/4 wire res./RTD or potentiometer input
- Burnout Fault detection
- Fully programmable operating parameters
- High Accuracy
- Three port isolation, Input/Output/Supply
- High Density, two channels per unit

### FUNCTION DIAGRAM

Additional installation diagrams may be found in Instruction Manual.



### TECHNICAL DATA

#### Supply

24 Vdc nom (18 to 30 Vdc), reverse polarity protected.  
**Current consumption:** 26 mA (D6072S-087), 37 mA (D6072D-087), @ 24 Vdc with 1 mA excitation current, typical.  
**Power dissipation:** 0.65 W (D6072S-087), 0.9 W (D6072D-087), @ 24 Vdc with 1 mA excitation current, typical.

#### Input

2-3-4 wire (4 wire only for D6072S-087) Resistance or 2 transmitting pot.  
**Integration time:** from 50 ms to 500 ms.  
**Input range:** 0 to 4 kΩ.  
**Measuring RTD current:** ≤ 0.15 mA.

#### Output

2-3-4 wire (4 wire only for D6072S-087) resistance.  
**Transfer characteristic:** linear, scaled or custom.  
**Response time:** 10 to 90 % step: ≤ 10.0 ms (slow), ≤ 1.2 ms (fast).  
**Output range:** 0 to 400 Ω.  
**Excitation current:** 0.1 to 10 mA.

#### Fault

Burnout / Internal fault. Output reflects fault condition via highsacle (450 Ω) value forcing. Fault condition is also signaled via BUS and red LED on front panel.

#### Performance

**Ref. Conditions:** 24 V supply, 23 ± 1 °C ambient temperature, slow integration mode, 4 wires (for D6072S-087) or 3 wires (for D6072D-087) configuration for RTD, input/output range 10 to 400 Ω.

**Calibration & linearity accuracy:** < 200 mΩ typical (Excitation Current ≥ 1 mA); < 300 mΩ typical (0.5 mA ≤ Excitation Current < 1 mA).  
**Temp. influence:** ± 20 mΩ/°C, typical (Excitation Current ≥ 1 mA).

#### Isolation

In/Out 2.5 kV; In/Supply 2.5 kV; In/In 500 V; Out/Supply 500 V; Out/Out 500 V.

#### Environmental conditions

**Operating temperature:** temperature limits -40 to +70 °C.  
**Storage temperature:** temperature limits -45 to +80 °C.

#### Mounting

DIN-Rail 35 mm, with or without Power Bus.  
**Weight:** about 135 g (D6072D-087), 130 g (D6072S-087).  
**Connection:** by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm<sup>2</sup> (13 AWG).  
**Dimensions:** Width 12.5 mm, Depth 123 mm, Height 120 mm.

### ORDERING INFORMATION

D6072S-087: 1 channel  
D6072D-087: 2 channels

#### Accessories

Bus Connector JDFT049, Bus Mounting Kit OPT5096.  
Programmable USB serial line Kit PPC5092 + SWC5090.