

# D6072-096

## SIL2 Thermocouple/mV Repeater

The Thermocouple/mV Repeater D6072-096 accepts a low level dc signal from millivolt or thermocouple sensor and repeats, with isolation, the signal, suitable for applications requiring SIL 2 level in safety related systems for high risk industries. For D6072D-096 module: duplicator function provides two independent outputs from one single input.

### FEATURES

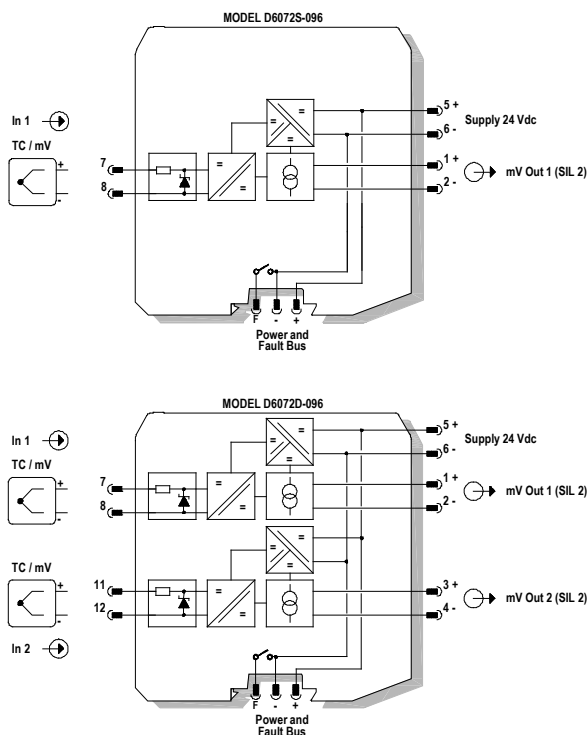
- SIL 2
- Installation in Zone 2 (pending)
- Installation in Div. 2
- mV or thermocouple input
- Output duplication
- Fully programmable operating parameters
- High Accuracy,  $\mu\text{P}$  controlled A/D converter
- Three port isolation, Input/Output/Supply
- High Density, two channels per unit

### FUNCTION DIAGRAM

Additional installation diagrams may be found in Instruction Manual.

#### Field

#### Safe Area/Zone 2/Div. 2



### TECHNICAL DATA

#### Supply

24 Vdc nom (18 to 30 Vdc), reverse polarity protected.

**Current consumption:** 35 mA (D6072D-096), 30 mA (D6072S-096), @ 24 Vdc, typical.

**Power dissipation:** 0.85 W (D6072D-096), 0.6 W (D6072S-096), @ 24 Vdc, typical.

#### Input

Millivolt or any type of thermocouple within Input Range.

**Integration time:** 75 ms (fast), 375 ms (slow), user selectable.

**Input range:** -10 to +100 mV.

**Thermocouple burnout current:**  $\leq 50 \mu\text{A}$ .

#### Output

Millivolt.

**Transfer characteristic:** linear.

**Response time:**  $\leq 20$  ms (10 to 90 % step).

**Output range:** -10 to +100 mV.

#### Fault

Output reflects burnout/internal fault condition via highscale (+110 mV) value forcing. Fault condition is also signaled via BUS and red LED on front panel.

#### Performance

**Ref. Conditions:** 24 V supply,  $23 \pm 1^\circ\text{C}$  ambient temperature, slow integration mode.

**Input Calibration & linearity accuracy:**  $\leq \pm 10 \mu\text{V}$ .

**Input Temp. influence:**  $\leq \pm 3 \mu\text{V}/^\circ\text{C}$ , typical.

**Output Calibration & linearity accuracy:**  $\leq \pm 10 \mu\text{V}$ .

**Output Temp. influence:**  $\leq \pm 3 \mu\text{V}/^\circ\text{C}$ , typical.

#### 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  $+70^\circ\text{C}$ .

**Storage temperature:** temperature limits  $-45$  to  $+80^\circ\text{C}$ .

#### Mounting

DIN-Rail 35 mm, with or without Power Bus.

**Weight:** about 135 g (D6072D-096), 130 g (D6072S-096).

**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-096: 1 channel

D6072D-096: 2 channels

#### Accessories

Bus Connector JDFT049, Bus Mounting Kit OPT5096.

Programmable USB serial line Kit PPC5092 + SWC5090.