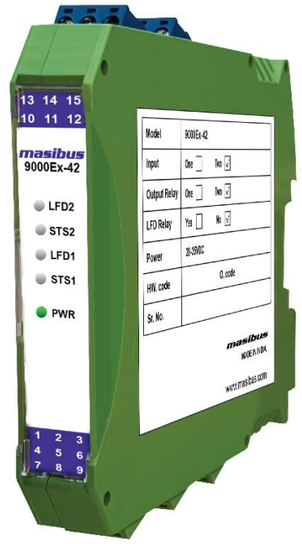



RoHS

# 9000Ex-42
# Switching Repeater
Two-channel Module

**SPECIFICATION**
**HAZARDOUS -AREA INPUT**

| | |
|---|---|
| **Connection side** | Field Side (Hazardous Area) |
| **Input** | Inputs conforming to BS EN60947–5–6:2001 standards for proximity detectors (NAMUR) |
| **No. of Input Channels** | 2 |
| **Location of Switch** | Zone 0, IIC, T6 hazardous area Div.1, Group A, hazardous location |
| **Location of Proximity Detector** | Zone 0, IIC, T4–6 hazardous area, if suitably certified Div.1, Group A, hazardous location |
| **Sensor Voltage** | 7 to 9V dc from 1kΩ ±10% |
| **Switching Points** | In normal phase, Outputs closed if input > 2.1mA (< 2kΩ in input circuit) and Outputs open if input < 1.2mA (> 10kΩ in input circuit) |
| **Switching hysteresis** | 200µA (650Ω) nominal |

**SAFE-AREA OUTPUT**

| | |
|---|---|
| **Connection Side** | Control Side (Safe Area) |
| **No. of Output Relay** | 2 (SPDT) |
| **Relay Contact rating** | 250V ac, 2A, cosØ >0.7,<br>30V dc, 2A, resistive load,<br>40V dc, 1.2A, resistive load<br>Note: Reactive loads must be adequately suppressed |
| **Response time** | ≤ 10mS |
| **Indication LED** | Yellow: channel status, on when output energized<br>Red: LFD indication, on when line fault detected |
| **Line fault detection (LFD)** | User selectable by switches on the side of the module.<br>- Open-circuit alarm on if $I_{in}$ < 50µA, Open-circuit alarm off if $I_{in}$ > 250µA<br>- Short-circuit alarm on if $R_{in}$ < 100Ω, Short-circuit alarm off if $R_{in}$ > 360Ω<br>Note: Resistors must be fitted when using the LFD facility with a contact input 500Ω to 1kΩ in series with switch, 20kΩ to 25kΩ in parallel with switch |
| **Output Phase reversal** | User selectable by switches on the side of the module. |

**POWER SUPPLY**

| | |
|---|---|
| **Voltage** | 20 to 35 VDC |
| **Power Consumption** | ≤0.9W@24V |
| **Power Dissipation** | ≤0.9W@24V |
| **Power ON status LED** | Green |

**ISOLATION**

| |
|---|
| Between Power to Input and Relay outputs: Galvanic Isolation of 2KVAC for 1 minute |
| Between Input to Relay outputs: Galvanic Isolation of 2KVAC for 1 minute |
| Between one Relay output to second Relay Output: Galvanic Isolation of 2KVAC for 1 minute |
| Insulation resistance: >200MΩ@500V DC between All Ports |

**PHYSICAL**

| | |
|---|---|
| **Mounting Type** | DIN Rail (35 mm) |
| **Terminal Block** | UL, CSA standard |
| **Terminal Cable Size** | 2.5mm² |
| **Enclosure Material** | PA66 |
| **IP Rating** | IP20 |
| **Dimension (in mm)** | 17.6(W)x108(H)x114(D) mm |
| **Weight** | ≤150 g |

**ENVIRONMENTAL**

| | |
|---|---|
| **Operating temperature** | -20 to 60°C |
| **Storage temperature** | -20° to 70°C |
| **Relative Humidity** | 30% to 95% RH (Non-Condensing) |
| **Protection** | Conformal Coating on PCB |

**SIDE DIP SWITCH FUNCTION**

| | |
|---|---|
| SW1 | Phase Reversal for CH-1 |
| SW2 | LFD Enable for CH-1 |
| SW3 | Phase Reversal for CH-2 |
| SW4 | LFD Enable for CH-2 |

**MARKING AND ENTITY PARAMETERS**
**Marking: [Ex ia Ga] IIC**
Hazardous Area Input Terminals:
- Terminals 10 w.r.t. 11 (Channel-1)
- Terminals 13 w.r.t. 14 (Channel-2)
  Uo = 10.5V, Io = 14mA, Po = 37mW, Ci = 0, Li = 0

Safe Area Terminals:
- Terminals 7 w.r.t. 8 (Supply)
  Um = 253Vrms (Attention! Um is not rated voltage)
- Terminals 1 to 6 (Output)
  Um = 253Vrms (Attention! The rated voltage can be lower)

**Certificate Report No.:KLPL/Ex/25-102, Issue No.00**
**PESO Approval No.: A/P/HQ/GA/104/5538**

**SAFETY/WARNING PRECAUTIONS**
To avoid Electrostatic Discharge (ESD) to the transmitter, that may cause permanent damage, Operator must operate device using ESD safe tools and clothing.

Terminal wiring:
Check that all cables are correctly connected according to the connection diagram. Before installation or beginning of any troubleshooting Procedures, the power to all equipment must be turned off and isolated. Units suspected of being faulty must be Disconnected and removed first and brought to a our authorised service center for testing and repair.

Component replacement and internal adjustments must be done by our authorised service center. Wiring must be carried out by skilled personnel and correct tools.

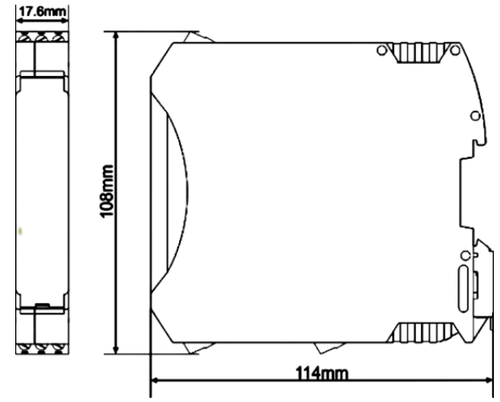
All wiring must confirm with standards of good practice and local codes and regulations. Wiring must be suitable for voltage, current, and temperature rating of the system. Beware not to over-tighten the terminal screws.

**WARRANTY**
Warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification.

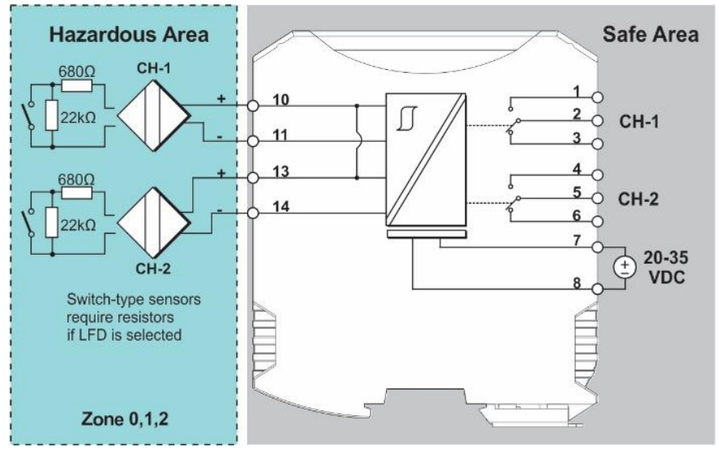
We are not liable for special, indirect or consequential damages or for loss of profit or for expenses sustained as a result of a device malfunction, incorrect application or adjustment.

Our total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

**DIMENSIONS**




**BLOCK DIAGRAM & TERMINAL CONNECTION**




**TROUBLE SHOOTING**

**Unit Not Turn ON**:
If Green LED at the front side is not turned "ON", the device is not getting sufficient power supply, or the connections are not as per terminal details.

If still problem, contact as below.

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