

**9000Ex-31****9000Ex-32****Smart Current Driver****masibus**

A Sonepar Company

**SPECIFICATION****SAFE-AREA INPUT**

<b>Input Type</b>	Current
<b>Input Range</b>	4 to 20mA
<b>No. of channel</b>	One
<b>Voltage Drop</b>	Approx 6V at 20 mA
<b>Temperature Coefficient</b>	≤50 ppm/°C
<b>CMRR</b>	≥ 100 dB
<b>NMRR</b>	≥ 70 dB

**HAZARDOUS-AREA OUTPUT**

<b>Output Type</b>	Current
<b>Output Range</b>	4 to 20mA
<b>Response time</b>	≤100ms
<b>Accuracy</b>	± 0.1% of FS
<b>Output Load Resistance</b>	100 Ω to 650Ω @20mA
<b>Line fault detection (LFD)</b>	Field wiring open circuit or ≤50 Ω(Short Circuit) then the input current ≤1.2 mA (Short Circuit LFD is available with 9000Ex-31)
<b>Communication support</b>	HART pass supported

**POWER SUPPLY**

<b>Voltage</b>	20 to 35 VDC
<b>Power Consumption</b> (20mA signal)	≤1W@24V
<b>Power Dissipation</b> (20mA signal)	≤0.74W@24V
<b>Power ON status LED</b>	Red

**ISOLATION**

Between Power to Input and Output: Galvanic Isolation of 2KVAC for 1 minute
Between Input to Output: Galvanic Isolation of 2KVAC for 1 minute
Insulation resistance: >200MΩ@1000V DC between All Ports

**PHYSICAL**

<b>Mounting Type</b>	DIN Rail (35 mm)
<b>Terminal Block</b>	UL, CSA standard
<b>Terminal Cable Size</b>	2.5mm <sup>2</sup>
<b>Enclosure Material</b>	PA66
<b>IP Rating</b>	IP20
<b>Dimension (in mm)</b>	17.6(W)x108(H)x114(D) mm
<b>Weight</b>	≤ 150 g

**ENVIRONMENTAL**

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

Model	Open Circuit Line Fault Detection	Short Circuit Line Fault Detection
9000Ex-31	✓	✓
9000Ex-32	✓	X

**MARKING AND ENTITY PARAMETERS****Marking: [Ex ia Ga] IIC**

9000Ex-31, 9000Ex-32:

-Terminal 7 (OP+) to 8 (OP-): U<sub>o</sub>=28V, I<sub>o</sub>=91mA, P<sub>o</sub>=0.65W, C<sub>o</sub>=76nF, L<sub>o</sub>=4.2mH-Terminal 4 (V+) to 5 (V-): U<sub>m</sub> = 250Vrms**Certificate Report No.: KLPL/Ex/25-025X, Issue No.00****PESO Approval No.: A/P/HQ/GA/104/5532****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 Masibus authorised service center for testing and repair.

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

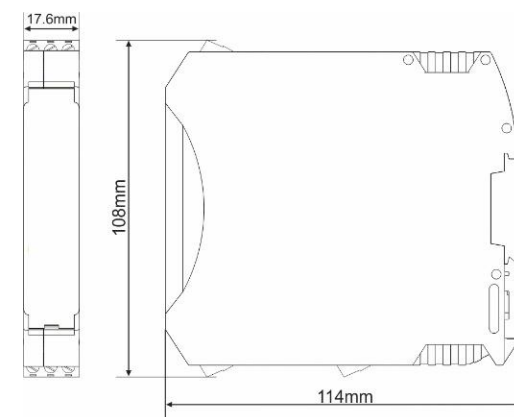
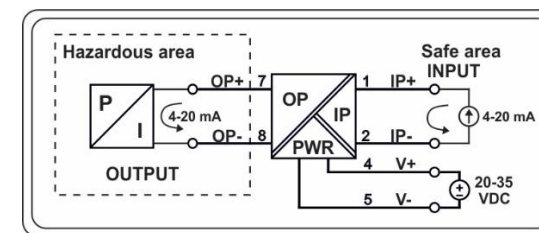
All wiring must confirm with standards of good practice and local codes and regulations. Wiring must be suitable for voltage, current, and temperature rating of the system. Beware not to over-tighten the terminal screws.

**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.

Masibus is 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.

Masibus 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 Red LED at the front side is not turned "ON", the device is not getting sufficient supply or the connections are not as per terminal details.

**Output not matching with expected value?**

Make sure the load on output of device is as per specification criteria. Make sure the output Signal is really incorrect with respect to input signal before attempting any re-calibration.

**Unstable Reading?**

Check for loose connections. First verify that all conventional instrumentation norms have been followed for wiring. Make noise away from instrument.

If still problem, contact Masibus.

**masibus**

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