



9000Ex-31 9000Ex-32 Smart Current Driver

SPECIFICATION SAFE-AREA INPUT

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

HAZARDOUS-AREA OUTPUT

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

POWER SUPPLY

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

Mounting Type	DIN Rail (35 mm)
Terminal Block	UL, CSA standard
Terminal Cable Size	2.5mm ²
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

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_o=28V, I_o=91mA, P_o=0.65W,

C_o=76nF, L_o=4.2mH

-Terminal 4 (V+) to 5 (V-): U_m = 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 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.

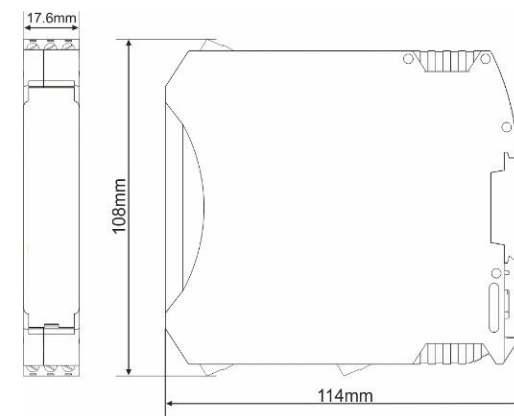
WARRANTY

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.

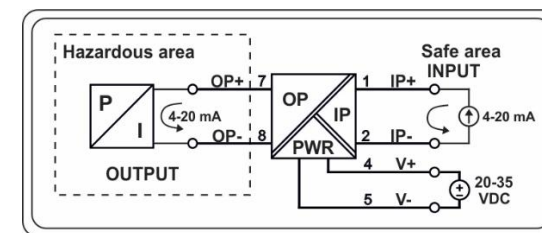
We are not liable for special, indirect or consequential damages or for loss of profit or for expenses sustained as a result of a device malfunction, incorrect application or adjustment.

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 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 as below.

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