

ISO52EX

Single Channel Safety Barrier

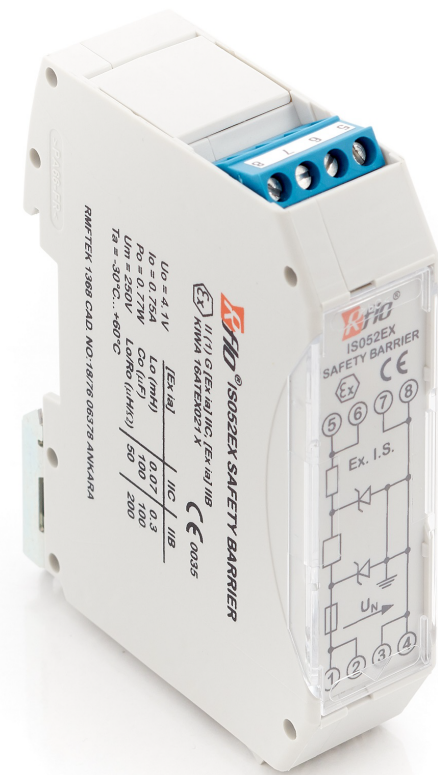
KEY FEATURES

- Single Channel
- DC positive polarity
- Small size. Simple snap on DIN rails
- Designed for externally powering MICRO-Z family of EVCs
- 0.25A fuse rating

The ISO52EX limits the transfer of high energy from the safe area into the hazardous area to a safe level. The zener diodes in the device are connected in the reverse direction. During normal operation the zener diodes do not conduct and introduces only a small amount of leakage current. If the breakdown voltage is exceeded, due to a fault condition, the diodes start to conduct, causing the internal fuse to blow.

Instructions

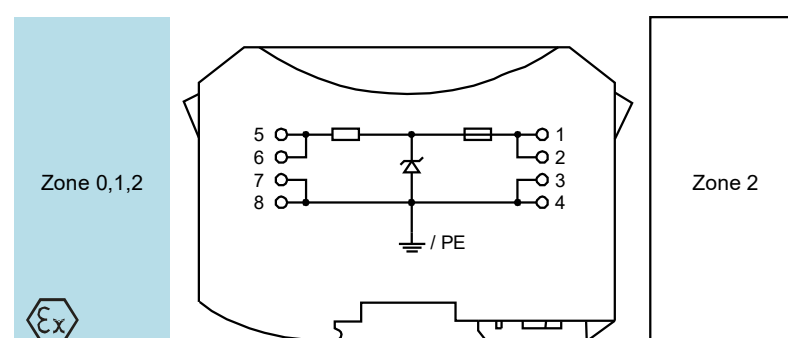
- Read the operating instructions carefully and keep it at the installation location of the device.
- Observe applicable documents and operating instructions of the devices to be connected.
- Read and observe the safety notes in these operating instructions.
- Use the device in accordance with its intended and approved purpose only.
- We cannot be held liable for damage caused by incorrect or unauthorized use or by noncompliance with these operating instructions.
- Before installation and commissioning, make sure that the device is not damaged.
- Installation, maintenance, overhaul may only be carried out by appropriately authorized and trained personnel.
- During installation and operation observe the information on the rating data and information plates located on the device.
- Always consult us in case of operating conditions, which deviate from the technical data.
- The current assembly and installation regulations (e.g. IEC/EN 60079-14) shall apply.
- Install the device in Zones 2, 22 or outside of hazardous areas.
- When used in Zones 2 the device must be built into an enclosure that complies with the requirements of IEC/EN 60079-15.
- When used in Zones 22 the device must be built into an enclosure that complies to the requirements of IEC/EN 60079-31.



Instructions (cont'd)

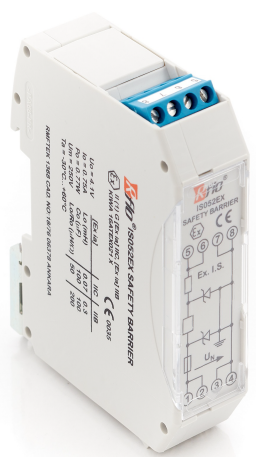
- When used in Zones 2, 22, intrinsically safe devices of Zones 0, 20 and of Zones 1, 21 can be connected to the intrinsically safe signal circuits.
- For safe operation, the devices must be connected to the PE (via the terminals 3, 4, 7 and 8). Using the device means that the connected electric circuit must be considered single point grounded. For the connection of intrinsically safe circuits of Zone 0, in particular the requirements of IEC/EN 60079-14 Section 12.3 must be observed.
- Due to the special requirements of Zone 0, it is recommended connecting the devices to the equipotential bonding via a PE terminal.
- Connect the device only to equipment, which does not carry voltage higher than AC 250V (50 Hz).
- The connection terminals allow to connect wires with maximum diameter of 2.5 mm² (solid/stranded). The tightening torque is 0.5-0.6 Nm.
- The safety characteristic values of the connected field devices must match specifications in the data sheet or in the EU Type Examination Certificate.
- WARNING: Substitution of any components may impair suitability for Division 2.
- This device has to be installed and operated in an undamaged, dry and clean condition.
- WARNING – EXPLOSION HAZARD - Do not replace the device unless power has been switched off or the area is known to be non-hazardous.
- This device is open-type and is to be installed in an enclosure suitable for the environment.

Connections:



IS052EX

Single Channel Safety Barrier



BASIC SPECIFICATIONS

GENERAL

Type Single channel, positive polarity

CERTIFICATES AND APPROVALS

Safety KIWA ATEX II 1 G [Ex ia] IIC and [Ex ia] IIB (KIWA 16ATEX0021)
EN 60079-0 : 2012 + A11 : 2013, EN 60079-11 : 2012

ELECTRICAL / ENVIRONMENTAL / MECHANICAL

Fuse rating 0.25A
Hazardous area connections Terminals 5-6 (+), 7-8 (-)
Safe area connections Terminals 1-2 (+), 3-4 (-)
Working voltage 4.1V max
Degree of protection IP20 as per the IEC 60529
Ambient temperature -30°C...+60°C
Relative humidity 95%, non-condensing
Connections Screw terminals , max. wire core cross-section 2.5 mm²
Dimensions H85mm x W22.5mm x D67mm
Construction Modular terminal housing
Mounting On 35 mm DIN mounting rail acc. to EN 60715:2001

SAFETY INFORMATION

EU-Type Examination Certificate KIWA 16ATEX0021
Group, category, type of protection II (I) G [Ex ia] IIC, [Ex ia] IIB
Voltage U_o 4.1V
Current I_o 0.75A
Power P_o 0.77W
Maximum safe voltage U_m 250V
L_o 0.07mH (IIC), 0.3mH (IIB)
C_o 100µF (IIC), 100µF (IIB)
L_o/R_o 0.05mH/Ω (IIC), 0.2mH/Ω (IIB)
Series resistance 5.94Ω min.