



Digital Input Barrier
[Ex ia Ga] IIC

9000Ex-41
9000Ex-41-FS
9000Ex-42
9000Ex-43
9000Ex-44
9000Ex-45

Switching Repeater



PESO Certified



LFD Supported



Masibus 9000Ex-41, 9000Ex-41-FS, 9000Ex-42, 9000Ex-43, 9000Ex-44 and 9000Ex-45 Switching Repeater are engineered to provide safe and reliable signal transmission from hazardous areas to non-hazardous areas. These devices are specifically designed to transfer digital signals originating from NAMUR sensors or dry contacts located in hazardous zones, ensuring that control operations in safe areas can be executed without compromising safety.

By enabling a safe-area load to be controlled by a switch or proximity detector installed in a hazardous environment, these repeaters serve as a critical interface for process automation in industries where intrinsic safety is paramount.

The design incorporates galvanic isolation between the intrinsically safe digital input, the output, and the auxiliary power supply. It has an output relay, which changes state in direct response to the input signal. For ease of monitoring, the output status is clearly indicated by an Status LED located on the top of the module. This visual feedback ensures quick diagnostics and status verification during installation and maintenance.

With Line Fault Detection Output Relay, Line faults are signalled through a separate LFD relay and LFD LED indicated on the top of the module. To prevent unsafe operations, output relay is de-energized during a fault condition.

Switching Repeaters combine robust safety features with operational flexibility, making them an ideal choice for hazardous-area applications in process industries such as oil and gas, chemical, pharmaceuticals etc. The compact design with galvanic isolation, and advanced fault detection capabilities ensure excellent performance and compliance with safety requirements.

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Features

- Provides intrinsically safe digital input with galvanic isolation from output and auxiliary power
- Phase reversal allows reversing output mode
- Side DIP switches used for enable/disable Phase reversal and Line Fault Detection (LFD)
- During fault condition, output channel relay de-energizes automatically
- Advanced LFD monitoring for wire-break/ short-circuit
- Front LEDs of status/fault for ease of monitoring
- Polarised plugs and sockets for Hazardous area terminals

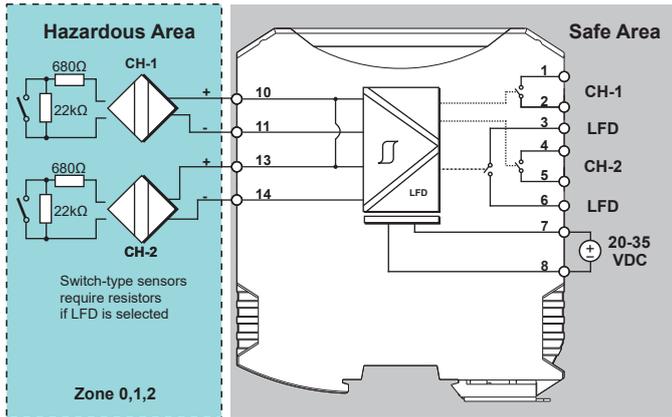
Applications

- Protect control systems from Hazardous area faults.
- Connects underground sensors to surface control systems safely for mining operation.
- Interfacing NAMUR proximity detectors, limit switches, push buttons installed in hazardous areas for Oil & Gas Industry.
- Valve position feedback and turbine pulse detection for refinery operations.
- Digital inputs for pumps, compressors, and reactor monitoring.
- Digital feedback for mixers, and process skids in API manufacturing.
- Skid integration with digital inputs for dosing, fuel, and burner skids.

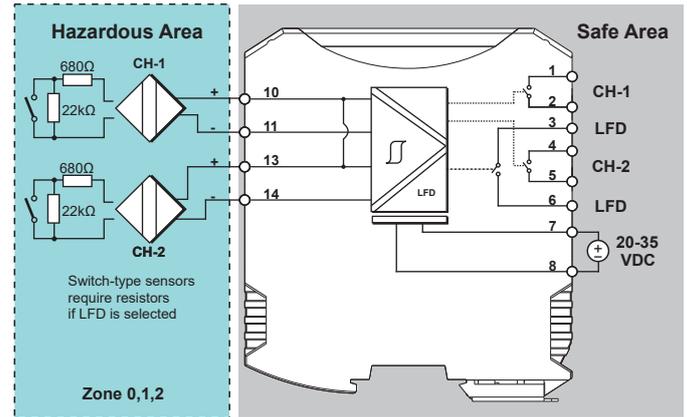
sales@masibus.com

CONNECTION DIAGRAM

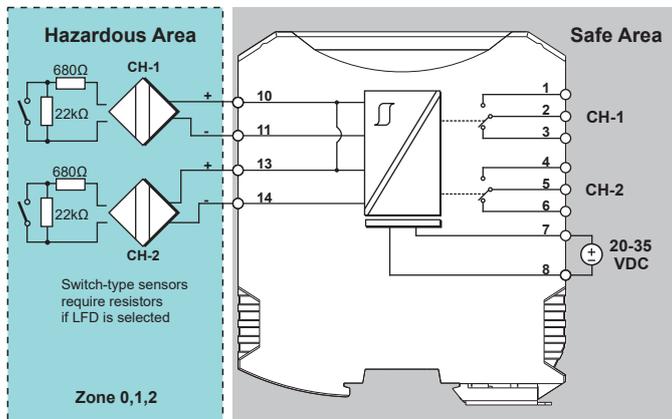
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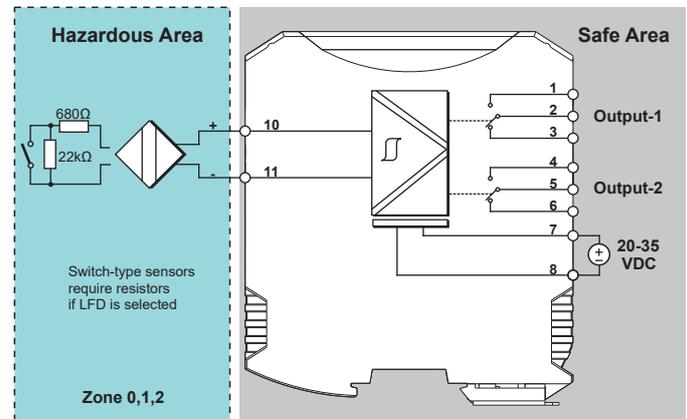
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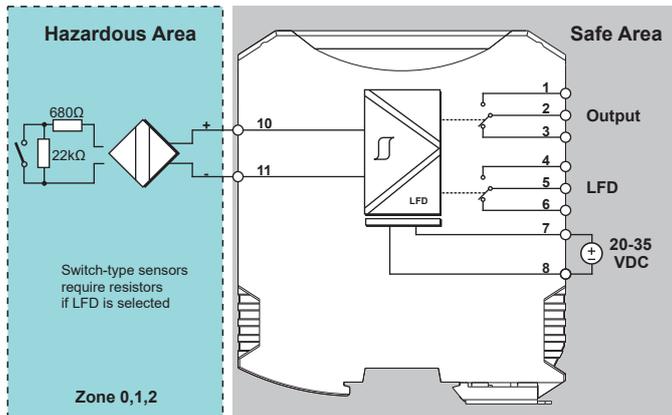
9000Ex-42



9000Ex-43



9000Ex-44



9000Ex-45

