

INFORMATION SHEET

DESCRIPTION

The EXI800 I.S. Loop Interface Module is used in conjunction with a galvanic isolator to provide a path for a compatible MX Control and Indicating Equipment (c.i.e.) to transparently communicate to compatible devices connected to an Intrinsically Safe (I.S.) spur. The interface reduces the standard MX loop supply voltage and signalling currents to levels that are acceptable for I.S. devices operating in hazardous areas. It converts the low-level reply messages from the slave devices on the I.S. spur, in order to be compatible with the standard MX digital protocol. The EXI800 electronics is fitted into a DIN rail mounted housing.

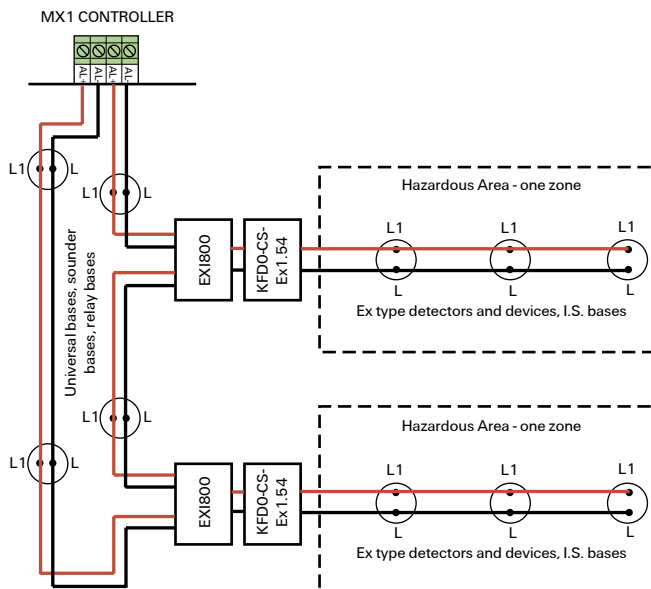


Fig. 1 Intrinsically Safe Wiring Spur Example

SPECIFICATIONS

Loop Voltage ¹	20V to 40Vdc
Quiescent Current	6mA
I.S. Output Voltage	28V maximum
Dimensions (HWD)	115 x 104 x 20mm
Ambient Temperature	-25°C to +70°C
Storage Temperature	-40°C to +70°C
Relative Humidity	10% to 95% (non cond.)
<i>Indoor Applications Only</i>	
Wire Size (maximum)	2.5sq. mm
Ingress Protection	IP20

Part Numbers

514.001.063	EXI800 Interface Module
517.001.259	KFDO-CS-EX1.54 Barrier

1. Addressable loop voltage provided by MX c.i.e.
2. Refer to appropriate manual:LT0360 (MX 7-NZ), LT0441 (MX 7-Au) for design specifications.

The I.S. MX devices must be connected to a branch or spur from the main MX loop. This spur is isolated from the main loop by two devices: - EXI800 – adapts the main loop voltage to match the actual isolator, and to allow the MX DIGITAL™ signal to pass through. This device also provides short circuit isolation, to prevent faults on the spur affecting the main loop. - KFDO-CS-EX1.54 (manufactured by Pepperl & Fuchs) – provides galvanic isolation and current limiting. The wiring diagram shows how the spur is connected to the main loop. The main MX loop can have up to eight I.S. spurs connected to it, each with its own EXI800 and KFDO isolation device. The I.S. certification places limits on the permissible cable capacitance and inductance of the spur wiring, depending on the hazardous gas that may be present. This will in turn limit the type and length of wiring that can be used for the spur.