RINGLINE CATEGORY 4
2 CH TRANSMITTER
RLTX2PC4

Ringway

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Features

- Intrinsically safe for hazardous applications
- Built in surge / lightning protection
- Programmable
- Easy connection
- Advanced error reporting to meet Cat 4 requirements

Detailed information

The Ringline enhanced safety transmitters are designed to achieve up to Safety Category 4. They will operate on any Ringline system and are specifically designed for emergency stop or remote isolation functions. Superior functional safety is achieved by interlocking two normally closed inputs and advanced diagnostics.

The advanced diagnostics are reported on the B channel of the transmitter. It transmits an analogue value when tripped to identify an input disagreement fault, shorted inputs (moisture) or wiring fault and inputs incorrectly wired.

Intrinsically safe applications require a minimum housing protection of IP54 and at least 500V isolation from earth for monitored interlocks.

Applications

Cat 4 transmitters will operate on any Ringline system; however, Category 4 Safety can only be achieved if the entire system (inclusive of hardware) meets the requirements of Safety Category 4. These transmitters are specifically designed to perform the emergency stop or remote isolation functions only.

Cat 4 Reporting

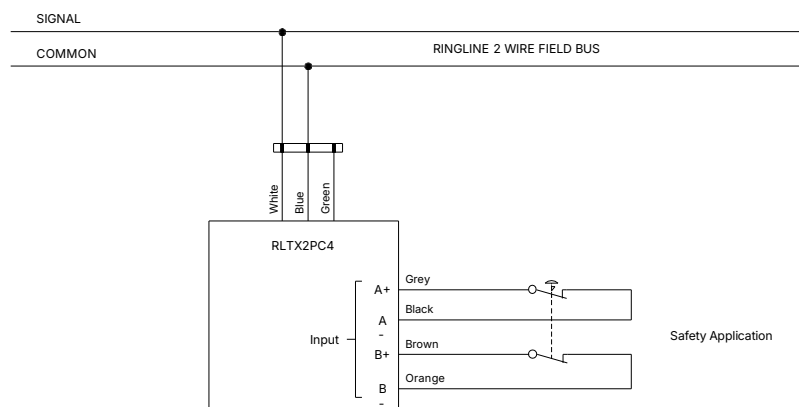The Category 4 Ringline transmitter indicates a range of switch input conditions.

When healthy, the A Channel is a logical 'One' and B Channel is a logical 'Zero'. When a trip occurs the A Channel is 'Zero' and the B Channel is 'One'. The transmitter then uses the B Channel to convey an analogue code that corresponds to a fault (if any is active) as shown in the table below. Filtering in the Safety Function (SF) Card prevents these from being interpreted as 'Transmitter Failure'. The SF Card will capture the analogue code on channel B (if present) from a transmitter that causes a stoppage and will store the corresponding Stop Type Number and transmitter address in the Stop History.

Decimal Value	Hex Value	Type of Fault or Indication
4095	FFFh	Correct switch operation
4091	FFBh	Input disagreement fault
4079	FEFh	Inputs Shorted wiring fault
4031	FBFh	Input Crossed wiring fault

Technical Specifications

Power supply	7.4V RMS from the Ringline field bus
Input	2 x voltage free N/C contacts
Output	Encoded onto the Ringline field bus, 2 channels
Addressing	Electronic transfer via Ringline Programmer
Operating Temperature Range	-30 — +75 ºC
Dimensions	70 (w tabs) / 50 (w body) x 30(h) x 25(d) mm Ø3mm mounting holes - 60mm apart
I.S. Certification	Ex ia – IECEx TSA 08.0031X

Diagram

Connection for Emergency Stop Operation