PT971

Intrinsically Safe Single Channel Protocol Translator

General

The PT971 is a single channel protocol translator for the 970 series analogue addressable intrinsic safe sensors. It must be used with the GBX70 barrier.

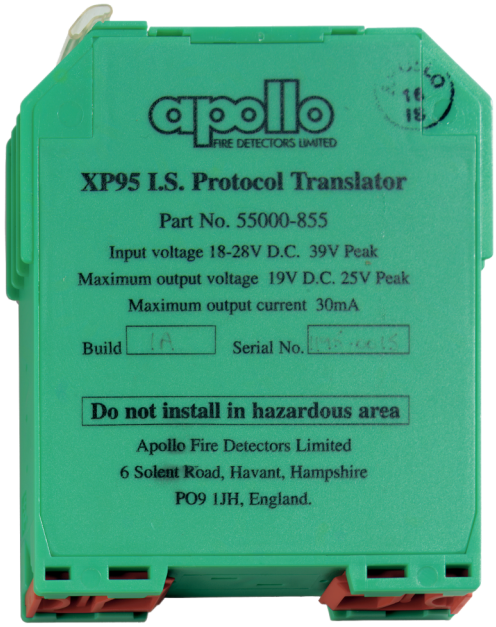
Application

To enable the use of standard control (NON IS) fire panels in intrinsically safe systems, a device to “translate” voltage levels from the loop to levels compatible with the I.S. requirements is required. The PT971 also “boosts” the current pulses returned by the I.S. detectors.

The PT971 is a loop-powered device that draws a low quiescent current and is therefore transparent to both the loop driver and the I.S. detectors.

Construction

The translator is housed in a moulded plastic enclosure that can be either clipped onto a standard 35mm DIN rail (DIN 46277) or panel mounted by using pull-out latches in the base. The PT971 should only be connected to a single intrinsically safe circuit through an appropriate safety barrier. Each channel is thus capable of supplying up to twenty 970 series I.S. devices.



Details

- 900 Series protocol compatible
- Connects 1 IS zone to a standard fire panel
- DIN or panel mount options
- No configuration required
- Interfaces with the GBX70 IS barrier

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Technical specifications

Electrical

Operating voltage	19 to 28 V
Modulation voltage at translator	5 to 9 V (peak-to-peak)
Input current (no load)	1 mA max.
Input pulse current (from barrier)	8 to 12 mA
Output voltage (to barrier)	16.5 to 19 V
Output current (to barrier)	0.2 to 30 mA
Output pulse current (from loop)	17 to 23 mA

Physical

Physical dimensions	92.5 x 110 x 20 mm
Net weight	± 100 g
Mounting type	DIN-rail
Material (body)	Makrolon 6485 - UL94V-0

Environmental

Operating temperature	-20 to +60°C
Relative humidity	10 to 95% noncondensing
Environment	Indoor, IS

Regulatory

Certification	CENELEC/ATEX

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