

DP971

Apollo XP95 Series Intrinsically Safe Optical Detector (55000-640)

General

The DP971 is an intrinsically safe addressable optical detector. It should be used together with the PT971 or PT972 protocol translator, as well as a GBX70 barrier when installed in an explosive environment.

IS Optical Smoke Detectors

Optical smoke detectors incorporate a pulsing LED located in a labyrinth within the housing of the detector. This labyrinth is designed to exclude light from any external sources. At an angle to this LED is a photo diode that in clear air conditions does not receive any light directly from the pulsing LED.

When smoke enters the labyrinth, the smoke particles scatter the light from the pulsing LED onto the photo diode. This results in a signal increase to the detector electronics. In the DP971 this signal is processed by the electronic circuitry and transmitted to the control panel for evaluation.

Unique Addressing

A unique, patented addressing method provides simple, userfriendly and accurate identification of monitor location whereby a coded card, inserted in the base, is read by any monitor as it is plugged in. All the electronic components are in the detector, but the location information is held in the base. Addressing errors during maintenance and service are eliminated. Precoded and pre-numbered address cards are also available. These address cards simplify and speed up installation and commissioning.

The base for the IS device range is not identical to the standard range. This ensures that standard detectors cannot be accidentally fitted into an explosive area.



Details

- Passive base address
- Electronic free base
- Programmable slide-in address card
- Full IS line including optical, temperature and manual call point
- Aesthetic design
- BASEEFA certified

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Technical specifications

Electrical

Operating voltage	14 to 22 VDC
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Physical

Physical dimensions	100 x 42 mm (Ø x H)
Net weight	105 g
Colour	White
Size (H x Ø)	42 x 100 mm
Weight	105 g
Colour	White

Environmental

Operating temperature	-20 to +40°C (T5) / -20 to +60°C (T4)
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Storage temperature	-30 to +68°C
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Relative humidity	0 to 95% noncondensing
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Environment	Indoor, IS
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IP rating	IP23D
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Operating temperature (no icing)	-20°C to +40°C (T5) -20°C to +60°C (T4)
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Storage temperature	-30°C to +68°C
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Relative humidity (non- condensing)	0 - 95%
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Max. wind (continuous)	Not affected
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IP Rating	IP23D
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Standards & regulation

Certification	CENELEC/ATEX, EN54-7
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Operating voltage

14 - 22 VDC

Current consumption

Quiescent	340 µA
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Alarm	3.5 mA
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Remote LED (internally limited)	1 mA
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Alarm indication (LED)

Clear (red in alarm)

Approvals

BASEEFA	BAS01ATEX1289
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Classification	E Ex ia IIC T5
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