DP721I

ARITECH Dx700 Series conventional optical smoke detector

Preventing false alarms with self diagnostics

All Aritech 700 series smoke detectors continuously monitor their sensitivity and operational status. Background drift is daily compensated to maintain the original calibrated sensitivity within the required limits.

Once a day the detector performs a full diagnostic test that includes dynamically testing the sensing chamber and internal electronics. If a detector drifts out of sensitivity range or fails the internal diagnostics test, this is reported back to the panel and indicated on the detector with a yellow fault LED.

Maintenance friendly sensitivity level test mode

The 700 Series photoelectric detectors include a sensitivity test mode that may be activated by simply holding a magnet near the detector's test point. This initiates a self-diagnostic routine and provides visual indication if service is required. This test mode allows field sensitivity testing without the requirement for external meters or test gas.

Field cleaning and service

The photoelectric sensing chamber unclips from the detector for easy field cleaning and service. During regular maintenance the detector cover can be removed, the optical chamber removed and replaced by a low cost, new chamber. On power up the detector auto-calibrates and returns to normal operating mode without any further intervention.

The right detector for the right job

For a truly fast and broad-spectrum detection the DP721RTA offers both optical and heat sensors. The interaction of both the smoke and heat algorithms ensure a quick response to both flaming and smouldering fires.

All bases are provided with an integral locking tab for extra security if required. Bases are equipped with a shorting bar between IN and OUT that opens when the head is installed and that may be manually restored when removing the head. This simplifies cable continuity testing.

Note

The DP721RTA must not be used in applications requiring compliance with commercial or residential fire standards such as EN54-5/EN54-7/EN54-29/CEA4021/EN14604. Always ensure compliance with local codes and standards.



Details

- Automatic self diagnostics with dynamic full detector and sensitivity test
- High false alarm immunity with floating background with drift compensation
- Separate fire and fault LEDs for unambiguous alarm reporting
- Wide operating voltage for use on most conventional systems
- Polarity insensitive for carefree installation
- Manual self diagnostic with visual sensitivity indication
- Field exchangeable and disposable optical chamber

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Technical specifications

General

Status indication	White LED (red in alarm), Yellow LED (test & fault)
User interface	LEDs
Reset voltage	<2.5 V max
Reset time	1 s
Alarm levels	1
Connectivity	Aritech conventional base

Electrical

Power supply type	Zone powered
Operating voltage	8.5 to 33 VDC
Current consumption	100 µA (quiescent at 24 VDC) <60 mA (in alarm at 24 VDC)

Detection

Detection principle	Optical light scatter
Monitoring	Alarm threshold, Contamination level
Sensitivity	10%/m (+1.6%, -3.3%)
Zone length	Cable dependent

Output

Output quantity	1
Output type and rating	Remote indicator
Programmable	No
Remote alarm output	30 mA

Physical

Physical dimensions	100 x 50 mm (Ø x H)
Net weight	112 g
Colour	Cloud white (RAL 9001)
Mounting type	Ceiling mount
Material (body)	Plastic

Environmental

Vandal proof	No
Operating temperature	-10 to 55°C
Storage temperature	-10 to 70°C
Application temperature (typical)	+25°C
Relative humidity	0 to 95% noncondensing
Environment	Indoor
IP rating	IP43

Regulatory

Compliancy	CE, REACH, RoHS 3, WEEE
Certification	CPR
Standards	EN45-7

Compatible products

Category	Reference	Description
Detection device	DB702	
Notification device	AI672	
Notification device	AI673	

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