

# DP721R

## Dx700 Series conventional optical smoke detector with relay

### Preventing false alarms with self diagnostics

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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

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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

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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

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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 smoldering 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

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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

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- 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
Compatibility	Aritech conventional zones
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	Relay (2 A at 30 VDC, 1 A at 120 VAC)
Programmable	No
Remote alarm output	NA

#### Physical

Physical dimensions	100 x 50 mm (Ø x H)
Net weight	115 g
Colour	Cloud white (RAL 9001)
Mounting type	Ceiling mount
Material (body)	Plastic

#### Environmental

Vandal proof	No
Operating temperature	-10 to +60°C
Storage temperature	-10 to 70°C
Application temperature (typical)	+25°C
Relative humidity	0 to 95% noncondensing
Environment	Indoor
IP rating	IP43

#### Regulatory

Compliance	CE, REACH, RoHS 3, WEEE
Certification	CPR
Standards	EN54-7

#### Compatible products

Category	Reference	Description
Detection device	DB702	Dx700 Series standard point detector base
Detection device	DB702U	Dx700 Series wide point detector base



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