DP721R

700 Series Conventional Optical Smoke Detector w/ Relay Output

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.

Standard Features

- Automatic self diagnostics: Dynamic full detector and sensitivity test
- Manual self diagnostic with visual sensitivity indication
- Field sensitivity testing without external meters
- Field exchangeable and disposable optical chamber
- High false alarm immunity
- Floating background with drift compensation
- Separate fire and fault LED
- 12 - 24 VDC operation
- Polarity insensitive
- Full range: optical, heat and optical/heat multi criteria sensor
- EN54 approved and CPR certified

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Specifications

Electrical

Operating voltage	8.5 to 33 VDC

Physical

Physical dimensions	100 x 50 mm (Ø x H)
Colour	White

Environmental

Operating temperature	-10 to +60°C
Relative humidity	0 to 95% noncondensing
Environment	Indoor
IP rating	IP43

Standards & regulation

Certification	EN54-7

Operating voltage

	8.5 - 33 VDC

Current consumption

Quiescent at 24 VDC	100 µA max.
In alarm at 24 VDC	60 mA

Alarm indication

	White LED (red alarm)

Fault indication

	Yellow LED

Remote alarm output

	30 mA
Relay models	2 A @ 30 VDC, 1 A @ 120 VAC

Humidity

	0 - 95%, Non-condensing

IP rating

	IP43

Operating temperature

	-10°C to 60°C

Sensitivity

	10%/m (+1.6%, -3.3%)

Heat specification

Ambient	25°C
R.O.R.	NA
Fixed temp	NA

Reset voltage

	2.5 V max

Reset time

	1 s

Dimensions

	10 cm Ø, H = 5 cm

Ordering Information

Part No.	Description
DP721R	700 Series Conventional Optical Smoke Detector w/ Relay Output
DB702	700 Series 6 Terminal Conventional 2-wire Base - 100 mm
DB702U	700 Series 6 Terminal Conventional 2-wire Base - 150 mm
211	(10 Pack) 400/500/700/2000 Replacement Chamber

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