# 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 |
| 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)<br><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 | ARITECH Dx700 Series standard point detector base |
| Notification device | AI672 | Dx700 / Dx2000 series conventional remote indicator |
| Notification device | AI673 | Conventional remote indicator with buzzer |

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