



Product Data Sheet

DP721R

Photoelectric smoke detector with C/O 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 EN54 sensitivity limits.

Once a day the detector performs a full diagnostic test that includes dynamically testing the sensing chamber as well as the 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 photoelectric detectors include a sensitivity test mode that may be activated by simply holding a magnet near the detectors 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 thrown away 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.



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

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Specifications

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	Photoelectric smoke detector with C/O relay output
DB702	10 cm diameter base - 6 terminals

The right detector for the right job

For a truly fast and broad-spectrum detection a multi-criteria optical/heat sensor is also available. 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 reasons if required. They are also 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 line testing before detector installation to ensure continuity.

