

700 Series Intelligent Conventional Marine Fire Detection Range

The 700 Series Intelligent Conventional Fire Detection Range is the first conventional detector range from Johnson Controls that uses algorithms to determine fire conditions more precisely. This provides superior performance and improved false alarm rejection rates.

Through innovative design, the built-in micro-processors in the 700 Series detectors offer drift compensation which extends the life of the detectors, thereby reducing service costs to the customers. Installers only need one fitting to complete the installation.

In addition to all of the features found in the 700 series detectors, the Marine approved detectors also include additional features and environmental protections, such as IP rating, conformal coating and an insect mesh. The whole range is approved by MED and IACS and the 711PH is also approved to EN54-29.



Features

- Available as smoke, fixed heat, RoR heat, and photo heat
- Backward compatibility with 600 series
- Compatible with 4"B-D, 4B and 5B bases
- Low profile and discreet design
- Approval to EN54, LPCB standards
- Improved detection algorithms
- Built-in drift compensation
- EN54 approval
- Ingress protection
- Insect Mesh
- MED and IACS approvals
- Suitable for EN54 land applications

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General

The 700 series of detectors are microprocessor-based conventional fire detectors. There are five models in the range, which measure certain parameters and respond to them. The parameters monitored are:

- Smoke density
- Fixed temperature
- Rate of temperature rise

The 700 series of detectors are used for conventional 2-wire detection systems, where detectors will normally be connected in zones. Each detector samples the ambient air every five seconds. If a fire condition is detected, a signalling current is drawn from the zone, causing the fire detection panel to provide an alarm response for the affected zone.

Series 700 Conventional Detectors

711P Smoke Detector

The 711P Smoke Detector operates by sensing the optical scatter from smoke particles generated in a fire. These detectors are suitable for general applications and areas where cable overheating may occur, for example, in electrical services areas.

The 711P is rated IP44 and includes an insect mesh and Marine Approvals. It is also suitable for land application where these additional features may be required in an EN54 market.

711PH Optical and Heat Detector

The 711PH Optical and Heat Detector is suitable for normal ambient conditions, where the high-performance optical detector behaves as a normal optical detector. Only when a rapid rise in temperature is detected does the sensitivity of the detector increase and the condition change. This is the first conventional detector from Johnson Controls to be certified to the EN54-29 standard for multi-sensors.

The 711PH is rated IP44 and includes an insect mesh and Marine Approvals. It is also suitable for land application where these additional features may be required in an EN54 market.

71xH Heat Detectors

700 series heat detectors include rate-of-rise and fixed-temperature types. These detect high rates of temperature rises, and high temperatures, 60°C and 90°C, respectively. For general use and where ambient temperatures may be low, the 711H rate-of-rise heat detector may be preferred.

In environments where a sudden change in temperature is normal, such as kitchens and canteens, the slower responsiveness of the 712H or 713H fixed-temperature detectors may be suitable. The three heat detectors are rated IP55 and include an insect mesh and Marine Approvals.

They are also suitable for land applications where these additional features may be required in an EN54 market.

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Technical specifications

Table 2: Performance characteristics

Characteristics	Minimum	Typical	Maximum	Units
Operating voltage (dc)	10.5	24	33	V
Average quiescent current		50 60 37		μ A μ A μ A
Switch on surge			200	μ A
Stabilisation time		30		seconds
Alarm current*	65mA @30V, 35mA @20V, 12.5mA @12V			mA
Holding current		3		mA
Reset voltage		6.9		
Reset time	2			seconds
Remote LED drive	Pulls low from line +ve via 1k (see note below**)			

*Alarm current excluding remote LED current.

**Note: A drive is provided for a remote indicator connected between the positive supply and the R terminal. Therefore, the polarity of the supply must be known at a detector where a remote indicator is connected.

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Product Order Codes

516.900.101	711P: Optical Smoke Detector, Marine
516.900.102	711PH: Optical Heat Detector, Marine
516.900.103	711H: Heat Detector, Rate-of-Rise, Marine
516.900.104	712H: Heat Detector, Fixed 60°C, Marine
516.900.105	713H: Heat Detector, Fixed 90°C, Marine
516.800.908	801 RIL: Remote Indication LED
540.003.006	601 RIL: Remote Indication LED
577.001.035	601SB: Conventional Sounder Base
577.001.037	601SBD: Conventional Diode Sounder Base
568.001.018	MC600: Relay Base
517.050.015	Volume adjustment tool