

Conventional (Non-Addressable) Detectors - Tyco 614 Series

The Tyco 614 range of low profile non-addressable detectors have a number of unique design features that offer improved operation, installation and ease of servicing. Through innovative design, these detectors have reduced the installation and servicing time to a minimum.

The Tyco 614 range includes the 614CH Carbon Monoxide fire detector, which responds to carbonaceous fires with an unprecedented early detection of slow smouldering fires, yet offers unequalled false alarm immunity.

The use of the patented optical sensing chamber, together with refined signal processing, has enabled the introduction of a smoke detector suitable for fast, reliable smoke detection of both slow and fast developing fires.

The Tyco 614 series is compatible with VIGILANT and Simplex CIE collective (non-addressable) circuits.

Features

- Range includes unique CO+Heat fire detector
- Type A, B, C and D Heat detector
- Low profile and discreet
- Superior performance and reliability
- Patented optical chamber
- Attractive design
- Designed for fast, easy installation
- Detector Lock included with 4B base
- Integral and remote alarm LED
- ActivFire and FPANZ Listing

614CH Carbon Monoxide and Heat Fire Detector



The 614CH fire detector provides very early warning of slow smouldering fires. The CO fire detector is well suited to many applications where heat detection is insufficient but smoke detection causes unwanted alarms. As CO travels more freely than smoke, the positioning of CO fire detectors is more flexible. This feature is particularly useful in large complex structures such as atria and warehouses, where positioning of smoke detectors is difficult. The 614CH has an additional mode of operation as a Class A1R combined rate-of-rise and 60°C fixed temperature heat detector to supplement the CO detector mode to permit the detector to react to a wider range of fire types. Although the 614CH has a rated service life of 10 years, in order for the 614CH to provide the intended level of fire detection, the detector should be checked for calibration 5 years after installation (or 5 years after re-installation following service) or within 7 years of the date of manufacture.

Specifications

Operating Voltage	10 to 33Vdc
Quiescent Current	55µA (max.)
Alarm Current ¹	3.2 to 67mA (50°C)
Alarm State Voltage	2.5 to 7.4Vdc
Alarm Threshold	38ppm CO
Ext. Powered Load (max.)	50mA, 28Vdc
Remote Indicator	E500 Mk2 Series
Relative Humidity	15 to 90% (n/cond)
Ambient Temp	0 to +50°C
Dimensions (incl. base)	127 dia x 54H (mm)
Weight	200g with base
FPANZ Listed	VF/345
Part Number	516.600.304

¹ 3.2mA min. for LED visibility. Max. current must be externally limited

614P Photoelectric Smoke Detector



The 614P is capable of detecting the visible smoke produced by materials which smoulder or burn slowly, i.e. soft furnishings, plastic foam etc. or 'smoke' produced by overheated but unburnt PVC. These detectors are particularly suitable for general applications and areas where cable overheating may occur; electrical services areas. The novel design of the asymmetrical sampling chamber and signal processing techniques stop unwanted alarms caused by very small insects. Smoke entering the sampling chamber scatters the infrared light pulses onto a photodiode. These pulses are converted to an electrical signal that is compared against a preset alarm level.

Specifications

Operating Voltage	10 to 33Vdc
Quiescent Current	60µA
Alarm Current (max.)*	0.7 to 67mA (55°C) 0.7 to 60mA (70°C)
Alarm State Voltage	2.5 to 7.4V
Ext. Powered Load (max.)	50mA, 28Vdc
Sensitivity (AS7240.7-2004)	4%Obs/m
Remote Indicator	E500 Mk2 Series
Relative Humidity	10% to 95% (n/cond)
Ambient Temperature	-20°C to +70°C
Dimensions (incl. base)	127 dia x 54H (mm)
Weight	188g with base
ActivFire Listed	afp-1715
FPANZ Listed	VF/344
Part Number	516.600.301

*Max. current must be externally limited

614I Ion Chamber Smoke Detector



The 614I detectors are offered for legacy specifications which still call for ionisation smoke detectors. The 614I offers detection of visible and invisible fire aerosols (products of combustion) and is therefore capable of detecting the early presence of hot smouldering and flaming fires, such as wood, paper etc. They use a dual ionisation chamber in which the air is ionised by a single radioactive source. The presence of smoke in the sampling chamber causes a change in the balance voltage between the two chambers. This is then compared against an alarm level.

Use of ionisation chamber smoke detectors is not recommended for new installations.

Specifications

Operating Voltage	12 to 33Vdc
Quiescent Current	70µA
Alarm Current*	0.7 to 67mA (55°C) 0.7 to 60mA (70°C)
Alarm State Voltage	2.5 to 7.4V
Ext. Powered Load (max.)	50mA, 28Vdc
Ionisation Source	<33kBq (Am241)
Alarm Threshold	0.32 MIC X
Remote Indicator	E500 Mk2 Series
Relative Humidity	10% to 95% (n/cond)
Ambient Temperature	-20°C to +70°C
Dimensions (incl. base)	127 dia x 54H (mm)
Weight	200g with base
ActivFire Listed	afp-1716
FPANZ Listed	VF/343
Part Number	516.600.305

*3.2mA min. for LED visibility. Max. current must be externally limited