

FC460 Series Detectors

Who this Leaflet is for

This leaflet is aimed at suitably qualified technicians experienced in the design and specification of fire detection and alarm systems, who have also received training.

What this Leaflet Covers

This leaflet is for use when designing a fire detection system, or replacing detectors in an existing system. Specifications are provided for determining detector suitability. Information is provided on features that are unique to the series.

What this Leaflet does not Cover

This leaflet does not provide the following:

- Information on detection functionality or guidance on detector type choice. This information is provided in the Detectors Product Application & Design Information document.
- Installation information. This is because the detectors simply dock to detector bases, and installation details are provided in the associated base documentation.

Introduction

The detectors are for use in an addressable system, where a number of detectors are placed in key areas around the building.

For a more detailed introduction, refer to the Product Application & Design Information document.

The next few sections include provide information common to all the detector variants in the series.

Specifications

Dimensions

- Height: 42 mm, diameter: 108 mm



Fig. 1: Dimensions

Material

- Body, cover, and closure: Flame Retardant ABS

Electrical characteristics

- The detectors are designed for use in an addressable system which uses the FIRECLASS Protocol.

Temperature Ranges

The temperature ranges are shown in Table 1.

Detector	Operating Temperature (°C)	Storage Temperature (°C)	Relative Humidity
FC460PH	-25 °C to +70	-40 °C to +80	95 % (non-condensing)
FC460P	-25 °C to +70	-40 °C to +80	95 % (non-condensing)
FC460H	-25 °C to +70 short-term: to +90	-40 °C to +80	95 % (non-condensing)
FC460PC	-10 °C to +55	-20 °C to +55	95 % (non-condensing)

Table 1: Temperature Ranges

Weights

The detector weights are shown in Table 2.

Detector	Weight (Kg)
FC460PH	0.092
FC460P	0.092
FC460H	0.081
FC460PC	0.094

Table 2: Weights

Compatible Bases

The detectors are compatible with the 4B and 4B-I Bases.

Approvals

The detector complies with the following standards:

- Construction Products Regulation (CPR), fulfilling the requirements of:
 - EN 54-5:2000 + A1:2002 - Heat Detectors
 - EN 54-7:2000 + A1:2002 + A2:2006 - Smoke Detectors
- CEA 4021 (2003)- MultiSensor Detectors
- Product family standard EN 50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy
- EN 61000-6-3 for Emissions
- Rated to IP44 in accordance with BS EN 60529:1992 + A2:2013


Ordering Information


The order numbers for the different detectors are as shown in Table 3.


Detector	Order Number
FC460PH	516.460.501
FC460P	516.460.502
FC460H	516.460.503
FC460PC	516.460.504

Table 3: Detectors Ordering Information

CPR Information

 0832
Tyco Fire & Security GmbH, Victor von Bruns-Strasse 21, 8212 Neuhausen am Rheinfall, Switzerland 15 DoP-2015-4035
EN54-5 and EN54-7 Digital addressable detector for use in fire detection and alarm systems in buildings FC460PC
Essential Characteristics EN54-5 and EN54-7 Nominal activation conditions/Sensitivity, Response delay (response time) and Performance under fire conditions: Pass Operational reliability: Pass Tolerance to supply voltage: Pass Durability of operational reliability and response delay; temperature resistance: Pass Durability of operational reliability; vibration resistance: Pass Durability of operational reliability; humidity resistance: Pass Durability of operational reliability; corrosion resistance: Pass Durability of operational reliability; electrical stability: Pass

 0832
Tyco Fire & Security GmbH, Victor von Bruns-Strasse 21, 8212 Neuhausen am Rheinfeld, Switzerland 15 DoP-2015-4036
<p>EN54-5</p> Digital addressable detector for use in fire detection and alarm systems in buildings FC460H
<p>Essential Characteristics</p> <p>EN54-5</p> Nominal activation conditions/Sensitivity, Response delay (response time) and Performance under fire conditions: Pass Operational reliability: Pass Tolerance to supply voltage: Pass Durability of operational reliability and response delay; temperature resistance: Pass Durability of operational reliability; vibration resistance: Pass Durability of operational reliability; humidity resistance: Pass Durability of operational reliability; corrosion resistance: Pass Durability of operational reliability; electrical stability: Pass

 0832
Tyco Fire & Security GmbH, Victor von Bruns-Strasse 21, 8212 Neuhausen am Rheinfeld, Switzerland 15 DoP-2015-4038
<p>EN54-5 and EN54-7</p> Digital addressable detector for use in fire detection and alarm systems in buildings FC460PH
<p>Essential Characteristics</p> <p>EN54-5 and EN54-7</p> Nominal activation conditions/Sensitivity, Response delay (response time) and Performance under fire conditions: Pass Operational reliability: Pass Tolerance to supply voltage: Pass Durability of operational reliability and response delay; temperature resistance: Pass Durability of operational reliability; vibration resistance: Pass Durability of operational reliability; humidity resistance: Pass Durability of operational reliability; corrosion resistance: Pass Durability of operational reliability; electrical stability: Pass



0832

Tyco Fire & Security GmbH,
Victor von Bruns-Strasse 21,
8212 Neuhausen am Rheinfeld,
Switzerland

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DoP-2015-4037

EN54-7

Digital addressable detector for use in fire detection
and alarm systems in buildings

FC460P

Essential Characteristics

EN54-7

Nominal activation conditions/Sensitivity, Response
delay (response time) and Performance under fire con-
ditions: Pass

Operational reliability: Pass

Tolerance to supply voltage: Pass

Durability of operational reliability and response delay;
temperature resistance: Pass

Durability of operational reliability; vibration resistance:
Pass

Durability of operational reliability; humidity resistance:
Pass

Durability of operational reliability; corrosion resist-
ance: Pass

Durability of operational reliability; electrical stability:
Pass