850 Series Marine 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 MX Digital Protocol.

Temperature Ranges

The temperature ranges are shown in Table 1.

Detector	Operating Temperature (°C)	Storage Temperature (°C)	Relative Humidity
850H	-25 to +70 short-term to +90	-40 to +80	95 % (non-condensing)
850PC	-10 to +55	-20 to +55	95 % (non-condensing)
851PH	-25 to +70	-40 to +80	95 % (non-condensing)

Table 1: Temperature Ranges

Weights

The detector weights are shown in Table 2.

Detector	Weight (Kg)
850H	0.081
850PC	0.094
851PH	0.076

Table 2: Weights

Colour Options

Coloured detector covers are available to replace the standard white cover.

These may be required for architectural reasons to blend in with decor of the building.

The detector cover is removed from the detector body and replaced by the coloured cover.

Full fitting details are provided in the leaflet shipped with the covers, which also can be downloaded from the Tyco EMEA web site.

Table 3 shows the coloured cover options available and their order numbers. The order numbers are for 10 covers.

Compatible Bases

The detectors are compatible with the 4B-C Continuity Base.

Approvals

The detector complies with the following standards:

■ Construction Products Directive (CPD), fulfilling the requirements of:
  – EN 54-5:2000 + A1:2002 - Heat Detectors
  – EN 54-7:2000 + A1:2002 + A2:2006 - Smoke Detectors
  – EN 54-17:2005 - Short-Circuit Isolators
■ Marine Equipment Directive (MED)
■ CEA 4021 (2003)- MultiSensor Detectors
■ VdS 2806 (1999) - Fire Gas 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
■ SIL2 Certified
■ Rated to IP44 in accordance with BS EN 60529:1992 + A2:2013

Ordering Information

The order numbers for the different colour conversion kits and detectors are as shown in Tables 3 and 4.

Colour Conversion Kits	Order Number
Sample set (all 10 colours)	517.050.501
Orange semi-gloss	517.050.502
Yellow gloss	517.050.503
Green matt	517.050.504
Red matt	517.050.505
Brown matt	517.050.506
Blue gloss	517.050.507
Pink gloss	517.050.508
Silver metallic	517.050.509
Gold metallic	517.050.510
Black matt	517.050.511

Table 3: Colour Conversion Kits Ordering Information

Detector	Order Number
850H	516.850.053
850PC	516.850.054
851PH	516.850.055

Table 4: Detectors Ordering Information

CPD Information

$C \in$ 0786
Tyco Safety Products Dunhams Lane Letchworth SG6 1BE UK 11 0786-CPD-21118
EN54-5 and EN54-17 Digital addressable detector for use in fire detection and alarm systems in buildings 850H

$C \in$ 0786
Tyco Safety Products Dunhams Lane Letchworth SG6 1BE UK 11 0786-CPD-21116
EN54-5, EN54-7 and EN54-17 Digital addressable detector for use in fire detection and alarm systems in buildings 851PH

$C \in$ 0786
Tyco Safety Products Dunhams Lane Letchworth SG6 1BE UK 11 0786-CPD-21119
EN54-5, EN54-7 and EN54-17 Digital addressable detector for use in fire detection and alarm systems in buildings 850PC