



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 2930	30-Jul-2014	Number 1	Issue date 30-Jul-2014	30-Apr-2016

Product designation

Tyco, Model 850PH, photoelectric / heat (classes A2S / A2R) multisensor fire detector

(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

Tyco Fire Protection Products
Level 3, 95 Coventry Street, SOUTHBANK, VIC, AUSTRALIA, 3006

Registrant

Tyco Fire Protection Products
17 Mary Muller Drive, HILLSBOROUGH, CHRISTCHURCH, NEW ZEALAND, 8022

Producer

Tyco Safety Products
Dunhams Lane, LETCHWORTH, HERTFORDSHIRE, UNITED KINGDOM, SG6 1BE

Conformance criteria and evaluation

The Tyco, Model 850PH, photoelectric / heat (classes A2S / A2R) multisensor fire detector has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 7240.5-2004, 'Fire detection and alarm systems - Point type heat detectors (ISO 7240-5:2003, MOD)'.
2. Australian Standard AS 7240.7-2004, 'Fire detection and alarm systems - Point-type smoke detectors using scattered light, transmitted light or ionization (ISO 7240-7:2003, MOD)'.

Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

- i. Compatibility of this fire detector and its base assembly with new or existing control and indicating equipment should be verified prior to installation.

This certification is issued within the scope of CSIRO Verification Services – Rules governing ActivFire Scheme and is valid only for the product(s) as submitted for evaluation and verification of conformity, subject to the following conditions.

- Reference to details, limitations and requirements, where documented as a schedule/enclosure with this certificate.
- The Registrant is responsible for their attestation of conformity and ensuring that on-going production complies with the conformance criteria defined in this certificate.
- This certificate will not be valid if any changes or modifications are made to the product which have not been notified and validated by CSIRO Verification Services.
- This certificate is subject to periodical re-validation upon verification that all requirements, as determined by the conformity assessment body, continue to be satisfactorily met by the Registrant.
- This certificate may only be reproduced in its published form, without modification and inclusive of all schedules/enclosures.
- Any changes, errors or omissions, must be submitted in writing and if necessary or requested, substantiated with relevant evidence.
- Any representations, such as advertising or other marketing related activities or articles shall reflect the correct contents of this certificate and conform with all relevant trade practices and consumer protection legislation and regulations.
- Any terms or conditions of use as applicable to content and documentation as published or accessed through web sites administered by the CSIRO Verification Services.

Issued by

David Whittaker
Executive Officer – ActivFire Scheme



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Producer's description

The Tyco, Model 850PH, photoelectric / heat (classes A2S / A2R) multisensor fire detector is an analogue addressable multi-sensor detector that uses the MX Digital Communications Protocol to be powered by and communicate with a compatible MX fire alarm panel. The detector has an in-built loop short circuit isolator that is functional when the detector is installed in a 4B-C continuity base. It has a red LED that can be programmed to blink when the detector is polled, and that turns on for alarm. It has a yellow LED that turns on when the in-built short circuit isolator operates.

The heat sensor of the 850PH is programmable at the fire panel for A2S or A2R modes of operation.

The smoke sensor is programmable at the fire panel for Count-of-3 or FastLogic algorithms, with high, normal and low sensitivities on each.

Heat enhancement can be enabled on each mode so the heat sensor adjusts the smoke threshold for heat rates of rise

Technical specification

The following details are a representative extract of the technical specification for the Tyco, Model 850PH, photoelectric / heat (classes A2S / A2R) multisensor fire detector and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Schedule of properties/characteristics

The following schedule is an extract of physical and operational properties/characteristics of the certified/listed equipment.

Working voltage range:	20.0 to 40.0 Vdc (loop voltage)
Quiescent current:	330 uA
Alarm current:	3 mA (no remote indicator), 10 mA (with remote indicator)
Operating temperature:	-25°C to 70°C
Humidity:	95% non-condensing
Storage Temperature:	-40°C to 80°C
Dimensions: Height:	43 mm
Diameter:	109 mm
Weight:	76 g

Schedule of components and/or assemblies

The following is a schedule of validated components of the certified/listed equipment.

Base designation	Base + detector circuit type
Tyco, Model 4B base	Analogue Addressable
Tyco, Model 4B-C continuity base	
Tyco, Model 4B-I isolator base	
Tyco, Model 5B universal base	
Tyco, Model 5BI isolator base	
Tyco, Model MUB universal base	
Tyco, Model 802SB sounder base	
Tyco, Model 814RB relay base	

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Supplementary information

Schedule of relevant articles

The following schedule is an extract of articles significant and/or related as evidence of conformity.

Reference		Title / description	Date issued (or date validated)	Source
Ident. type	Ident.			
Report	XF2681/R2	Evaluation for conformity of the Tyco Model 850PH Multi-Sensor Detector to the requirements of AS 7240.5-2004 and AS 7240.7-2004	10-Jul-2014	CSIRO, Fire Systems and Acoustics, AU
EC-Certificate of Conformity	0786-CPD-21070	EC-Certificate of Conformity Multi sensor detector 850PH;850P;850H;850PC EN 54-5: 2000 + A1: 2002 EN 54-7: 2000 + A1: 2002 + A2: 2006 EN 54-17: 2005 /AC: 2007	5-Dec-2011	Verband der Schadenverhütung, DE
Report	BMA 11042	VdS Schadenverhütung Brandschutz/Fre Protection, Laboratorien/Laboratories, Amsterdamer Str. 174, 0-50735 Koln Laboratory for Fire Detection Systems (BMA) Test Report No.BMA 11042 on the testing of Multiple Sensor Detector Types BSOPH, 851PH, 851PHN, 840PH, 830PH, 856PH and FC460PH and Smoke Detector Types 856P, 850P, 840P, 830P and FC460P submitted by Thorn Security Ltd. trading as Tyco Safety Products (TSP) Dunhams Lane GB Letchworth SG6 1BE	26-Aug-2011	
Information Sheet	850INFTFPP1406 (-D4)	Vigilant 850 Series Fire Detectors	1-Jul-2014	Tyco Fire Protection Products, AU / NZ