

# Certificate of Constancy of Performance

## 0359-CPR-00475



In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation), this certificate applies to the construction product(s)

**Product(s):** **Cirrus Hybrid range of Aspirating Smoke Detectors**  
(refer to attached appendix for details and conditions)

**Produced by or for:** **Protec Fire Detection Plc.**  
Protec House, Churchill Way, Nelson, Lancashire, BB9 6RT

**Produced in the manufacturing plant(s):** **Protec Fire Detection Plc. (PROTECUK.01)**  
Protec House, Churchill Way, Nelson, Lancashire, BB9 6RT

**Intended use:** **Fire Safety**

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard(s):

### EN54-20:2006

Fire detection and fire alarm systems - Aspirating smoke detectors

### EN54-17:2005+AC:2007

Fire detection and fire alarm systems - Short-circuit isolators

under system 1 are applied and that the product(s) fulfils all the prescribed requirements set out above.

This certificate was first issued on **17 June 2015** and will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly, unless suspended or withdrawn by the product certification body. A review of the product(s) and compliant standard(s) will be carried out after 5 years to ensure continued compliance.



**Notified Body**  
**0359**

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Daniel Griffin  
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Date 17/06/2015  
Issue 1

Re-Issue 17/06/2020

**www.intertek.com**

Registered No 3272281 Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ, United Kingdom

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### Appendix to Certificate of Constancy of Performance 0359-CPR-00475

The details and conditions of use for the Protec Fire Detection Plc Cirrus Hybrid range of Aspirating Smoke Detectors, placed on the market by:

#### Protec Fire Detection Plc.

Protec House, Churchill Way, Nelson, Lancashire, BB9 6RT

To be used in accordance with the supplier's installation instructions and in conjunction with the following bases, ancillaries, sounder tones and sensitivity settings (*where applicable*):

### Products compliant with EN54-20:2006 and EN54-17:2005+AC:2007

Variant	Manufacturing Location	Description
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#### Cirrus Hybrid scanning variants

61-986-H4S	PROTECUK.01	Cirrus Hybrid Scanner – 4 Pipe Aspirating Smoke Detector
61-986-H3S	PROTECUK.01	Cirrus Hybrid Scanner – 3 Pipe Aspirating Smoke Detector
61-986-H2S	PROTECUK.01	Cirrus Hybrid Scanner – 2 Pipe Aspirating Smoke Detector

#### Cirrus Hybrid non-scanning variants

61-986-H4	PROTECUK.01	Cirrus Hybrid - 4 Pipe Aspirating Smoke Detector
61-986-H3	PROTECUK.01	Cirrus Hybrid - 3 Pipe Aspirating Smoke Detector
61-986-H2	PROTECUK.01	Cirrus Hybrid - 2 Pipe Aspirating Smoke Detector
61-986-H1	PROTECUK.01	Cirrus Hybrid - 1 Pipe Aspirating Smoke Detector

#### Approved settings:

##### EN54-20:2006 settings:

##### Cirrus Hybrid Scanner variants

Class	Alarm settings (max)		Maximum holes
	Alarm Point	CFS Level	
Class A	Pre-Alarm	150	44 (max 11 holes per pipe)
	Fire - 1	200	
	Fire - 2	250	
	Fire - 3	400	
Class B	Pre-Alarm	150	88 (max 22 holes per pipe)
	Fire - 1	250	
	Fire - 2	400	
Class C	Pre-Alarm	150	176 (max 44 holes per pipe)
	Fire - 1	250	
	Fire - 2	400	
	Fire - 3	600	

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### Appendix to Certificate of Constancy of Performance 0359-CPR-00475 (continued)

#### Cirrus Hybrid variants

Class	Alarm settings (max)		Maximum holes
	Alarm Point	CFS Level	
Class A	Pre-Alarm	150	34 (max 9 holes per pipe)
	Fire - 1	200	
	Fire - 2	250	
	Fire - 3	400	
Class B	Pre-Alarm	150	44 (max 11 holes per pipe)
	Fire - 1	250	
	Fire - 2	400	
Class C	Pre-Alarm	150	44 (max 11 holes per pipe)
	Fire - 1	250	
	Fire - 2	400	
	Fire - 3	600	

#### EN54-17:2005+AC:2007 settings

Quantity	Description	Value
$V_{max}$	Maximum line voltage	27 VDC
$V_{nom}$	Nominal line voltage	24 VDC
$V_{min}$	Minimum line voltage	18 VDC
$V_{so max}$	Maximum voltage at which the device isolates	3.2 V
$V_{so min}$	Minimum voltage at which the device isolates	1.2 V
$V_{sc max}$	Maximum voltage at which the device reconnects	3.85 V
$V_{sc min}$	Minimum voltage at which the device reconnects	2.0 V
$I_{c max}$	Maximum rated continuous current with S1 closed	1.2 A
$I_{s max}$	Maximum rated switching current	1.2 A
$I_{L max}$	Maximum leakage current with S1 open	14 mA
$Z_{c max}$	Maximum isolator contact series impedance with S1 closed	100 mΩ

#### Conditions of use:

Suitable for indoor applications

#### General Notes:

1. Evaluated under Intertek project number 101518083.
2. No CE or other type approval is made or inferred outside of the attestation of conformity and the product performance as stipulated on this certificate.

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### Appendix to Certificate of Constancy of Performance 0359-CPR-00475 (continued)

Table of performance for EN54-17:2005+AC:2007			
Harmonised technical specification			
Essential characteristics	Performance	Clauses	Notes
Performance under fire conditions	Pass	5.2	a
Operational reliability	Pass	4	b, c, d, e, f, g
Durability of operational reliability; temperature resistance	Pass	5.4, 5.5	
Durability of operational reliability; vibration resistance	Pass	5.9 to 5.12	
Durability of operational reliability; humidity resistance	Pass	5.6, 5.7	
Durability of operational reliability; corrosion resistance	Pass	5.8	
Durability of operational reliability; electrical stability	Pass	5.3, 5.13	
<b>Notes:</b>  a. This is assuming that the effect of the fire is to cause a short circuit in the transmission path that is protected by these devices. b. Clause 4.2 is only applicable if the short-circuit isolator incorporates an integral visual indication of status; an assessment to this clause was therefore not performed. c. Clause 4.3 is only applicable if the short-circuit isolator provides for connections to ancillary devices; an assessment to this clause was therefore not performed. d. Clause 4.4 is only applicable for detachable short-circuit isolators; an assessment to this clause was therefore not performed. e. Clause 4.5 requires use of a special code or tool, or the breaking or removing of a seal; an assessment to this clause was therefore not performed. f. Clause 4.6 is only applicable if there is provision for on-site adjustment of the short-circuit isolator; an assessment to this clause was therefore not performed. g. The manufacturer declared that the short-circuit isolators are not controlled by software; an assessment to Clause 4.9 was therefore not performed.			

### Appendix to Certificate of Constancy of Performance 0359-CPR-00475 (continued)

Table of performance for EN54-20:2006			
Harmonised technical specification			
Essential characteristics	Performance	Clauses	Notes
Nominal activation Conditions / sensitivity, response delay (response time) and performance under fire conditions	Pass	5.6, 6.2, 6.3, 6.15	a
Operational reliability	Pass	5.2 to 5.5, 5.7 to 5.12	
Tolerance to supply voltage	Pass	6.4	
Durability of operational reliability, Temperature resistance	Pass	6.5, 6.6	
Durability of operational reliability, Vibration resistance	Pass	6.10, 6.11, 6.12, 6.13	
Durability of operational reliability, Electrical stability	Pass	6.14	
Durability of operational reliability, Humidity resistance	Pass	6.7, 6.8	
Durability of operational reliability, Corrosion resistance	Pass	6.9	
<b>Notes:</b>  a) The products covered by this standard are assumed to enter the alarm condition, in an event of fire, before the fire becomes so large as to affect their functioning. There is therefore no requirement to function when exposed to direct attack from fire.			