

CERTIFICATE OF CONSTANCY OF PERFORMANCE

0905-CPR-230938

In compliance with Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product(s)

Product(s): **Aspirating Smoke Detector**
(refer to attached appendix for details and conditions)

**Placed on the market
under the name or trade mark of:** **Protec Fire Detection Plc.**
Protec House, Churchill Way
Nelson BB9 6RT, United Kingdom

**and produced in the
manufacturing plant(s):** **Protec Fire Detection Plc. (SG- 12916)**
Protec House, Churchill Way
Nelson BB9 6RT, United Kingdom

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):

EN 54-17:2005 and EN 54-20:2006

Under System 1 for the performance set out in this certificate are applied and that the performance of the construction product is assessed to remain constant.

This certificate was first issued under **0905-CPR-230938** on **2023-10-10** and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Notified Body 0905

Certification Manager: **Dipl.-Ing. Bernhard Miedtank**

Date Issue: **2023-10-10**

Issue: **1**

Signature:

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APPENDIX TO: Certificate of Constancy of Performance 0905-CPR-230938

The details and conditions of use for the Aspirating Smoke Detector , placed on the market under the name or trade mark of:

Protec Fire Detection Plc.
Protec House, Churchill Way
Nelson BB9 6RT, United Kingdom

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 EN 54-17:2005 and EN 54-20:2006

Model	Manufacturing Location	Description
61-986-H1	(SG-12916)	Cirrus Hybrid NonScanner-1 Pipe
61-986-H2	(SG-12916)	Cirrus Hybrid NonScanner-2 Pipe
61-986-H3	(SG-12916)	Cirrus Hybrid NonScanner-3 Pipe
61-986-H4	(SG-12916)	Cirrus Hybrid NonScanner-4 Pipe
61-986-H2S	(SG-12916)	Cirrus Hybrid Scanner-2 Pipe
61-986-H3S	(SG-12916)	Cirrus Hybrid Scanner-3 Pipe
61-986-H4S	(SG-12916)	Cirrus Hybrid Scanner-4 Pipe
61-986-H1ND	(SG-12916)	Cirrus Hybrid NonScanner-1 Pipe-No Display
61-986-H2ND	(SG-12916)	Cirrus Hybrid NonScanner-2 Pipe-No Display
61-986-H3ND	(SG-12916)	Cirrus Hybrid NonScanner-3 Pipe-No Display
61-986-H4ND	(SG-12916)	Cirrus Hybrid NonScanner-4 Pipe-No Display
61-986-H2SND	(SG-12916)	Cirrus Hybrid Scanner-2 Pipe-No Display
61-986-H3SND	(SG-12916)	Cirrus Hybrid Scanner-3 Pipe-No Display
61-986-H4SND	(SG-12916)	Cirrus Hybrid Scanner-4 Pipe-No Display
61-986-C1	(SG-12916)	Cirrus CCD NonScanner-1 Pipe
61-986-C2S	(SG-12916)	Cirrus CCD Scanner-2 Pipe
61-986-C3S	(SG-12916)	Cirrus CCD Scanner-3 Pipe
61-986-C4S	(SG-12916)	Cirrus CCD Scanner-4 Pipe
61-986-C1ND	(SG-12916)	Cirrus CCD NonScanner-1 Pipe-No Display
61-986-C2SND	(SG-12916)	Cirrus CCD Scanner-2 Pipe-No Display
61-986-C3SND	(SG-12916)	Cirrus CCD Scanner-3 Pipe-No Display
61-986-C4SND	(SG-12916)	Cirrus CCD Scanner-4 Pipe-No Display

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Products compliant with EN 54-17:2005 and EN 54-20:2006

Model	Manufacturing Location	Description
61-986-106	(SG-12916)	ProPointPlus-1 Pipe '2 stage alarm' (Optical & CO)
61-986-103	(SG-12916)	ProPointPlus-2 Pipe '2 stage alarm' (Optical & CO)
61-986-105	(SG-12916)	ProPointPlus-3 Pipe '2 stage alarm' (Optical & CO)
61-986-104	(SG-12916)	ProPointPlus-4 Pipe '2 stage alarm' (Optical & CO)
61-986-106-OP	(SG-12916)	ProPointPlus-1 Pipe '2 stage alarm' (OP)
61-986-103-OP	(SG-12916)	ProPointPlus-2 Pipe '2 stage alarm' (OP)
61-986-105-OP	(SG-12916)	ProPointPlus-3 Pipe '2 stage alarm' (OP)
61-986-104-OP	(SG-12916)	ProPointPlus-4 Pipe '2 stage alarm' (OP)
61-986-106-OP4S	(SG-12916)	ProPointPlus-1 Pipe '4 stage alarm' (OP)
61-986-103-OP4S	(SG-12916)	ProPointPlus-2 Pipe '4 stage alarm' (OP)
61-986-105-OP4S	(SG-12916)	ProPointPlus-3 Pipe '4 stage alarm' (OP)
61-986-104-OP4S	(SG-12916)	ProPointPlus-4 Pipe '4 stage alarm' (OP)

Conditions of use:

Suitable for indoor applications only.

Approved settings:

Cirrus Hybrid Non-Scanner-x Pipe and Cirrus Hybrid Non-Scanner-x Pipe-No Display:

Fire Class	Maximum Number of Holes	Maximum Alarm Level [CFS Value]
A	34 per detector	130
B	44 per detector	422
C	44 per detector	1000

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Cirrus Hybrid Scanner-x Pipe and Cirrus Hybrid Scanner-x Pipe-No Display:

Fire Class	Maximum Number of Holes	Maximum Alarm Level [CFS Value]
A	44 per detector (max. 11 per pipe)	549
B	88 per detector (max. 22 per pipe)	599
C	176 per detector (max. 44 per pipe)	1000

Cirrus CCD-1 Pipe, Cirrus CCD-1 Pipe-No Display, Cirrus CCD Scanner-x Pipe, and Cirrus CCD Scanner-x Pipe-No Display:

Fire Class	Maximum Number Of Holes	Maximum Alarm Level [CFS Value]
A	32 per detector (max. 8 per pipe)	117
B	56 per detector (max. 14 per pipe)	147
C	64 total detector (max. 16 per pipe)	752

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ProPointPlus-x Pipe 2 stage alarm (OP & CO):

Fire Class	Maximum Number of holes	Sensitivity Setting	Comment
A	12 per detector (max. 3 per pipe)	A1, to A3	
B	20 per detector (max. 5 per pipe)	B1, to B5	
C	32 per detector (max. 8 per pipe)	C1, to C8	
C	32 per detector (max. 8 per pipe)	ESC1, to ESC8	Escalator mode
C	Prison Sample Head (Part no. 61-988-00)	PR2	Prison mode

ProPointPlus-x Pipe 2 stage alarm (OP):

Fire Class	Number of holes	Sensitivity Setting
A	24 per detector (max. 6 per pipe)	A1, to A6
B	48 per detector (max. 12 per pipe)	B1, to B12
C	80 per detector (max. 20 per pipe)	C1, to C20

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ProPointPlus-x Pipe 4 stage alarm (OP):

Fire Class	Number of holes	Maximum Alarm Level
A	15 holes per pipe (60 per detector)	1.1%/m
B		3.2%/m
C		11.5%/m

The approved settings were recorded during the EN54 part 20 fire tests using a fully populated model variant (4 pipe) and a worst case pipe configuration, designed by the manufacturer. A design in the field must comply to the limits in the approved settings, however where a reduced model variant is used (i.e., 1, 2 or 3 pipe variant), the maximum detector pipe length and hole qualities can be shared between pipes to maximize coverage. Ensuring the transport times do not exceed the EN54 part 20 requirements. All designs must be verified using the manufacturer’s Pipe Configuration Design Tool.

Quantity	Value
V max	28 V dc
V min	16 V dc
I _C max	1.2 Amps
I _S max	1.2 Amps
I _L max	14mA
Z _C max	150mΩ
Parameters for each stimulus (closed → open)	3.2-1.2V dc
Parameters for each stimulus (open → close)	2.0-3.85V dc

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Part Accessories:

Part accessories incorporated in the electromagnetic compatibility tests, clause 6.14:

61-986-RDP	Aspirating Detector Remote Display Programmer
61-986-EXP	ASD I/O Expansion Interface Unit
CIE	Protec Fire Alarm Control and Indicator – Loop Protocol: 6000/6000PLUS

Part accessories incorporated in the fire tests, clause 6.15:

61-986-F01	3 Stage 25mm Inline Sampling Pipe Filter
37-550-68	25mm 3m Red Sampling Pipe
37-552-70	25mm Red 90° Bend
37-551-69	25mm Red 'Tee' Piece
37-553-71	25mm Red End Cap
37-559-77	25mm Red Socket Union
37-558-76	Red Pipe Clips
37-551-69	25mm Red Jointing Socket
37-560-70	Conical Head Capillary Sampling Point c/w 2m of 10mm Sampling Tube & Tee
37-563-73	Red Tee Piece for 10mm Sampling Tubes
37-564-74	30m Red 10mm Sampling Tube
37-556-74	250ml Tin Solvent Cement
23-039-37	100x Sample Hole Warning Labels.
45-028-08	3 Stage Replacement Filter Mesh

Full accessories details referenced in manufacture control document: RDM0065.

Pipe Options:

- 25mm red ABS Pipe
- 25mm white ABS Pipe
- 25mm grey ABS Pipe
- 27mm red ABS Pipe

General Notes:

1. Evaluated under Intertek project number G104700683
2. No CE or other type approval is made or inferred outside of the Assessment and Verification of Constancy of Performance as stipulated on this certificate.

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EN54-17:2005:AC:2007

Table ZA.1 — Relevant clauses

Essential characteristics	Clauses in this European Standard	Mandated level(s)	Notes
Performance under fire conditions	5.2	None	1)
Operational reliability	4		
Durability of operational reliability; temperature resistance	5.4, 5.5		
Durability of operational reliability; vibration resistance	5.9 to 5.12		
Durability of operational reliability; humidity resistance	5.6, 5.7		
Durability of operational reliability; corrosion resistance	5.8		
Durability of operational reliability; electrical stability	5.3, 5.13		
1) 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.			

EN54-20:2006

Table ZA.1 — Relevant clauses

Essential characteristics	Clauses in this European Standard	Mandated level(s)	Notes
Nominal activation conditions/sensitivity, response delay (response time) and performance under fire conditions	5.6, 6.2, 6.3, 6.15	None	a)
Operational reliability	5.2 to 5.5, 5.7 to 5.12		
Tolerance to supply voltage	6.4		
Durability of operational reliability, Temperature resistance	6.5, 6.6		
Durability of operational reliability, Vibration resistance	6.10, 6.11, 6.12, 6.13		
Durability of operational reliability, Electrical stability	6.14		
Durability of operational reliability, Humidity resistance	6.7, 6.8		
Durability of operational reliability, Corrosion resistance	6.9		
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.			

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