

UKCA Type Examination Certificate

This is to certify that:

Helmet Integrated Systems Limited
3 Commerce Road
Stranraer
DG9 7DX
United Kingdom

Holds Certificate Number:

UKCA 741869

In respect of:

**Respiratory protective devices to EN 12941:1998+A2:2008
Powered filtering devices incorporating a helmet or hood
See Continuation Sheet For Details**

On the basis that BSI carried out the relevant Type Examination procedures under the requirements with the Regulation 2016/425 on Personal Protective Equipment, as amended to apply in GB (PPE) Annex V (Module B) and meets the relevant health and safety requirements specified in Annex II.

For and on behalf of BSI, an Approved Body for the above Regulation (Approved Body Number 0086):

Shahm Barhom, Group Product Certification Director

First Issued: 2023-01-24
Latest Issue: 2023-01-24

Effective Date: 2023-01-24
Expiry Date: 2028-01-23

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Product details

Product range:	Pureflo ESM.
Product type:	Powered air respiratory devices incorporating a helmet.
Models:	PF23ESM PF23ESML PF23ESM-NI-P PF23ESML-NI PF23ESM-NIS PF23ESM+ PF33ESM PF33ESML PF33ESM-NI PF33ESML-NI PF33ESM-NIS PF33ESM+

Basic description

The range of Pureflo ESM systems are lightweight self-contained powered air respirators intended to offer respiratory protection against solid and liquid aerosols and, additionally, eye protection and two different categories of head protection dependent upon the specific variant from the model range. The range includes six variants that have a non-incendiary build standard.

The main section of the helmet consists of a 'framework' to which an adjustable cradle and ratchet adjustable headband are attached. Within this framework are fitted a motor/fan assembly, two lightweight batteries and an Electronic Systems Management (ESM) unit. A duct directs the airflow to the wearer either over the face via the standard long duct or over the head via a short duct. The ESM monitors filter usage and fan delivery and battery performance to ensure that optimum airflow is maintained at all times. The ESM also provides the input for the Head Mounted Display LEDs that indicate the overall condition of the system and the input for the audio signals that indicate battery and/or filter condition. A replaceable air filter screws into the back of the framework.

Also fitted to the framework are a neck cape or face seal and a visor. Dependent upon the model variant the visor is locked closed, has a mechanism to allow it to be moved from the line of sight or fixed to the framework. The head protection element of the system is affixed to the top section of the framework.

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Product Assessments

The product assessments were conducted against the requirements of the English language versions (BS ENs) of the referenced Designated UK Standards.

Respiratory Protection

Technical Specification:	Designated UK Standard EN 12941:1998+A2:2008 respiratory protective devices – powered filtering devices incorporating a helmet or hood
EN 12941 classification:	TH3P (for use against solid and liquid particulates only)

Head Protection

Technical Specification:	EN 812
EN 812 classification:	Mandatory clauses

or

Technical Specification:	EN 397
EN 397 classification:	Mandatory clauses

Eye Protection (all models)

Technical Specification:	EN 166	
EN 166 classification:	Attribute	Product Marking
	Optical class 1	1
	Protection from high speed particles - medium energy impact	B
	Protection against droplets and splashes of liquids	3
	Protection against molten metals and hot solids	9

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Additional Characteristics of the Systems

Some models within the ranges have Non-Incendive attributes, see below and Model Detail sections for details.

Non-Incendive Attributes

Technical Specification:	Designated UK Standard EN 60079-15:2003 – Explosive atmospheres Part 15: Equipment protection by type of protection “n”
EN 60079-15 classification:	Explosive gas atmosphere Zone 2 environments
Technical Specification:	Designated UK Standard EN 60529:1992 – Degrees of protection provided by enclosures (IP code)
EN 60529 classification:	IP5X Category 2 IPX4

Model Details

Models with Head Protection to EN 812

Model	Basic description	Additional characteristics
PF23ESM	With locked visor	None
PF23ESML	With moveable visor	None
PF23ESM-NI-P	With locked visor	Model suitable for use in explosive gas atmosphere Zone 2 and pharmaceutical environments
PF23ESML-NI	With moveable visor	Model suitable for use in explosive gas atmosphere Zone 2 environments
PF23ESM-NIS	With fixed visor and short air duct	Model suitable for use in explosive gas atmosphere Zone 2 and pharmaceutical environments
PF23ESM+	With fixed visor and short air duct	Model suitable for use in pharmaceutical environments

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Models with Head Protection to EN 397

Model	Basic description	Additional characteristics
PF33ESM	With locked visor.	None
PF33ESML	With moveable visor.	None
PF33ESM-NI	With locked visor.	Model suitable for use in explosive gas atmosphere Zone 2 environments.
PF33ESML-NI	With moveable visor.	Model suitable for use in explosive gas atmosphere Zone 2 environments.
PF33ESM-NIS	With locked or moveable visor and short air duct.	Model suitable for use in explosive gas atmosphere Zone 2 environments.
PF33ESM+	With locked or moveable visor and short air duct.	None

Assessed Accessories

Part Number	Description
PR01095SP	Radiant Heat Snood
PR01101SP	Green Shade 3 Polycarbonate Gold Coated Anti Glare Visor
PR01100SP	Welding shield
PR01105SP	Sparkshield Neckcape
PR01461SP	Tychem Neckcape
PR01930SP	Integrity Neckcape
PR01500SP	Nuisance Odour Particulate Filter (P3)
PR01515SP	Heatshield Neckcape
PR01025SP	Combined Filter (gas and particle) type A1B1E1P3 R SL

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Certificate Administration Details

Technical File Reference: PUREFLO ESM & ESM+

Certificate Administration Record and BSI internal Technical File Review reference

Issue date	Comments	BSI Project Ref.
January 2023	First Issue	0086:23:3346891

Certificate validity

The Certificate holder is responsible for ensuring that the Approved Body is advised of changes to any aspect of the overall process utilised in the manufacture of the products, failure to do so could invalidate the Certificate in respect of product manufactured following the introduction of such changes

The requirements for internal production control plus supervised product checks at random intervals, are referenced in BSI issued Certificate Number UKCA 741875.

The validity of the Certificate is also dependent on the maintenance of a documented quality system.

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