



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX BAS 14.0003X**

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Certificate history:

Status: **Current**

Issue No: 11

Issue 10 (2021-05-24)

Issue 9 (2020-07-03)

Issue 8 (2019-12-19)

Issue 7 (2018-05-15)

Issue 6 (2018-02-15)

Issue 5 (2016-09-20)

Issue 4 (2016-08-09)

Issue 3 (2015-12-03)

Issue 2 (2015-07-15)

Issue 1 (2014-11-10)

Date of Issue: 2021-11-29

Applicant: **Longvale Limited**  
Lancaster Park  
Needwood  
Burton-upon-Trent  
Staffordshire  
DE13 9PD  
**United Kingdom**

Equipment: **Euroswitch**

Optional accessory:

Type of Protection: **Intrinsic Safety (Gas & Dust)**

Marking: **See Annex**

Approved for issue on behalf of the IECEx  
Certification Body:

**R S Sinclair**

Position:

**Technical Manager**

Signature:  
(for printed version)

Date:

2/12/2021

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**Buxton, Derbyshire, SK17 9RZ**  
**United Kingdom**





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Date of issue: 2021-11-29

Issue No: 11

Manufacturer: **Longvale Limited**  
Lancaster Park  
Needwood  
Burton-upon-Trent  
Staffordshire  
DE13 9PD  
**United Kingdom**

Additional  
manufacturing  
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

## STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

## TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/BAS/ExTR14.0017/00](#)  
[GB/BAS/ExTR15.0349/00](#)  
[GB/BAS/ExTR17.0197/00](#)  
[GB/BAS/ExTR19.0321/00](#)

[GB/BAS/ExTR14.0331/00](#)  
[GB/BAS/ExTR16.0201/00](#)  
[GB/BAS/ExTR18.0093/00](#)  
[GB/BAS/ExTR20.0104/00](#)

[GB/BAS/ExTR15.0208/00](#)  
[GB/BAS/ExTR16.0252/00](#)  
[GB/BAS/ExTR19.0304/00](#)  
[GB/BAS/ExTR21.0204/00](#)

Quality Assessment Report:

[GB/SIR/QAR07.0013/12](#)



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Date of issue: 2021-11-29

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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The euroswitch range of proximity sensors consist of up to two sets of volt-free switch contacts, either normally-open, normally-closed or change-over, which are actuated by either an external or integral magnet.

The proximity sensors come in various shapes, sizes and external materials of construction (stainless steel, brass, plastic). In all cases the switch contacts are encapsulated into the outer enclosure.

Electrical connections are made to the Gas and Dust certified proximity sensors via an integral cable, separately certified Ex e terminals in a terminal chamber or via a plug and socket connector.

See Certificate Annex for Model details and electrical parameters.

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

1. Non-metallic proximity sensors may pose an electrostatic risk. This should be taken into account during installation.
2. Metallic proximity sensors or metallic parts of non-metallic proximity sensors may pose an electrostatic risk if not earthed. This should be taken into account during installation.
3. Integral cables shall be fixed and effectively protected against damage as required of a Type B cable as defined in clause 9.5.3 of IEC 60079-25: 2010.
4. External cabling to the proximity sensors shall use either type A or type B cable as defined in clause 9.5.2 & 9.5.3 of IEC 60079-25: 2010.
5. Junction boxes used to extend the sensor cabling, that are located in a dust hazardous area must be separately certified and appropriate for use in that hazardous area.
6. Where a sensor has two sets of switching contacts, both sets of switching contacts are considered to be part of the same single intrinsically safe circuit, not separate intrinsically safe circuits.
7. The VDHA type Euroswitch bodies may be manufactured from Titanium and so must be mounted in such a way as to avoid impact or friction.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

### Variation 11.1

Standards update for IEC 60079-0 from IEC 60079-0, Edition 6 to IEC 60079-0, Edition 7.

### Variation 11.2

Introduction of IP68 ingress protection for the metallic models.

### Variation 11.3

Change to the model code for the safety switch variation.

### Variation 11.4

To permit the use of the Teflon cable for all non-wireable devices.

### Variation 11.5

Revised Annex added to the certificate.

|                                    |
|------------------------------------|
| ExTR: <b>GB/BAS/ExTR21.0204/00</b> |
|------------------------------------|

|                                |
|--------------------------------|
| File Reference: <b>21/0381</b> |
|--------------------------------|

## Annex:

[IECEX 14.0003X Issue 11 Annex 11.pdf](#)

Marking for the **METALLIC Group IIC & IIIC** versions (excluding LFM and connector versions) as detailed on drawing **ENG002**:

|  |   |
|--|---|
| U <sub>i</sub>   | = 30V   |
| I <sub>i</sub>   | = 250 mA  |
| P <sub>i</sub>   | = 1.3 W   |
| C <sub>i</sub>   | = 0 or 120 pF/m of cable for non-wireable types       |
| L <sub>i</sub>   | = 0 or 0.7 µH/m of cable for non-wireable types       |
| <b>The Wireable types shall be marked (metallic IP66/67/68 enclosures only)</b>            |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T135°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T85°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)   |
| <b>The Non-Wireable types with PVC integral cable types shall be marked</b>                |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T6 Ga (-20°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T85°C IP66/67/68 Da (-20°C ≤ Ta ≤ +80°C)   |
| <b>The Non-Wireable types with Polyolefin integral cable types shall be marked</b>         |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T135°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T85°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)   |
| <b>The Non-Wireable types with Teflon integral wiring shall be marked</b>                  |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T3 Ga (-40°C ≤ Ta ≤ +175°C)  | Ex ia IIIC T200°C IP66/67/68 Da (-40°C ≤ Ta ≤ +175°C) |
| Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T135°C IP66/67/68 Da (-40°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T85°C IP66/67/68 Da (-40°C ≤ Ta ≤ +80°C)   |
| <b>The Non-Wireable types with Silicone integral wiring shall be marked</b>                |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T3 Ga (-55°C ≤ Ta ≤ +175°C)  | Ex ia IIIC T200°C IP66/67/68 Da (-55°C ≤ Ta ≤ +175°C) |
| Ex ia IIC T4 Ga (-55°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T135°C IP66/67/68 Da (-55°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-55°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T85°C IP66/67/68 Da (-55°C ≤ Ta ≤ +80°C)   |
| <b>The Non-Wireable types with Polyurethane (PUR) integral cable types shall be marked</b> |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +90°C)   | Ex ia IIIC T135°C IP66/67/68 Da (-40°C ≤ Ta ≤ +90°C)  |
| Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T85°C IP66/67/68 Da (-40°C ≤ Ta ≤ +80°C)   |
| <b>The Non-Wireable types with PEEK integral wiring shall be marked</b>                    |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T3 Ga (-60°C ≤ Ta ≤ +175°C)  | Ex ia IIIC T200°C IP66/67/68 Da (-60°C ≤ Ta ≤ +175°C) |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T135°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T85°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)   |

Marking for the **METALLIC Group IIC & IIIC** versions (ES Series LFM versions only. Excluding connector versions), as detailed on drawing **ENG002**:

|  |   |
|--|---|
| Ui   | = 30V   |
| Ii   | = 250 mA  |
| Pi   | = 1.3W  |
| Ci   | = 0 or 120 pF/m of cable for non-wireable types       |
| Li   | = 0 or 0.7 μH/m of cable for non-wireable types       |
| <b>The Wireable types shall be marked (metallic IP66/67 enclosures only)</b>               |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with PVC integral cable types shall be marked</b>                |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T6 Ga (-20°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-20°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with Polyolefin integral cable types shall be marked</b>         |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with Silicone integral cable types shall be marked</b>           |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-55°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-55°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-55°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-55°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with Polyurethane (PUR) integral cable types shall be marked</b> |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +90°C)   | Ex ia IIIC T150°C IP66/67/68 Da (-40°C ≤ Ta ≤ +90°C)  |
| Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-40°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with PEEK integral cable types shall be marked</b>               |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with Teflon integral wiring shall be marked</b>                  |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-40°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-40°C ≤ Ta ≤ +80°C)  |

Marking for the **METALLIC Group IIC & IIIC** versions (FS series LFM versions only. Excluding connector versions), as detailed on drawing **ENG002**:

|  |   |
|--|---|
| Ui   | = 30V   |
| Ii   | = 250 mA  |
| Pi   | = 650mW   |
| Ci   | = 0 or 120 pF/m of cable for non-wireable types       |
| Li   | = 0 or 0.7 μH/m of cable for non-wireable types       |
| <b>The Wireable types shall be marked (metallic IP66/67/68 enclosures only)</b>            |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with PVC integral cable types shall be marked</b>                |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T6 Ga (-20°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-20°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with Polyolefin integral cable types shall be marked</b>         |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with Silicone integral cable types shall be marked</b>           |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-55°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-55°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-55°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-55°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with Polyurethane (PUR) integral cable types shall be marked</b> |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +90°C)   | Ex ia IIIC T150°C IP66/67/68 Da (-40°C ≤ Ta ≤ +90°C)  |
| Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-40°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with PEEK integral cable types shall be marked</b>               |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-60°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-60°C ≤ Ta ≤ +80°C)  |
| <b>The Non-Wireable types with Teflon integral wiring shall be marked</b>                  |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +105°C)  | Ex ia IIIC T185°C IP66/67/68 Da (-40°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +55°C)   | Ex ia IIIC T140°C IP66/67/68 Da (-40°C ≤ Ta ≤ +80°C)  |

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ANNEX to IECEx BAS 14.0003X

Issue No. 11

Date: 29 November 2021

Marking for the **Connector type** versions as detailed on drawing ENG002

|   |  |          |
|---|--|----------|
|   | U <sub>i</sub>                                       | = 30V    |
|   | I <sub>i</sub>                                       | = 250 mA |
|   | P <sub>i</sub>                                       | = 550mW  |
|   | C <sub>i</sub>                                       | = 0      |
|   | L <sub>i</sub>                                       | = 0      |
| <b>The Connector types shall be marked</b>              |  |          |
| E II 1G   | E II 1D  |          |
| Ex ia IIC T6 Ga (-20°C ≤ Ta ≤ +80°C)                    | Ex ia IIIC T135°C IP66/67/68 Da (-20°C ≤ Ta ≤ +80°C) |          |
| <b>The Connector type LFM versions shall be marked:</b> |  |          |
| E II 1G   | E II 1D  |          |
| Ex ia IIC T6 Ga (-20°C ≤ Ta ≤ +55°C)                    | Ex ia IIIC T135°C IP66/67/68 Da (-20°C ≤ Ta ≤ +80°C) |          |



Marking for the **NON-METALLIC Group IIC & IIIC** versions as detailed on drawing ENG005:

|  |   |
|--|---|
| Ui   | = 30V   |
| Ii   | = 250 mA  |
| Pi   | = 650 mW  |
| Ci   | = 0 or 120 pF/m of cable for non-wireable types |
| Li   | = 0 or 0.7 µH/m of cable for non-wireable types |
| <b>The Non-Wireable types with PVC integral cable types shall be marked</b>                |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T6 Ga (-20°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T75°C IP54 Da (-20°C ≤ Ta ≤ +70°C)   |
| <b>The Non-Wireable types with Polyolefin integral cable types shall be marked</b>         |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T75°C IP54 Da (-20°C ≤ Ta ≤ +70°C)   |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +80°C)   |   |
| <b>The Non-Wireable types with Silicone integral cable types shall be marked</b>           |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-55°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T75°C IP54 Da (-20°C ≤ Ta ≤ +70°C)   |
| Ex ia IIC T6 Ga (-55°C ≤ Ta ≤ +80°C)   |   |
| <b>The Non-Wireable types with Polyurethane (PUR) integral cable types shall be marked</b> |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +90°C)   | Ex ia IIIC T75°C IP54 Da (-20°C ≤ Ta ≤ +70°C)   |
| Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +80°C)   |   |
| <b>The Non-Wireable types with PEEK integral cable types shall be marked</b>               |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T4 Ga (-60°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T75°C IP54 Da (-20°C ≤ Ta ≤ +70°C)   |
| Ex ia IIC T6 Ga (-60°C ≤ Ta ≤ +80°C)   |   |
| <b>The Non-Wireable types with Teflon integral wiring shall be marked</b>                  |   |
| E II 1G  | E II 1D   |
| Ex ia IIC T3 Ga (-40°C ≤ Ta ≤ +175°C)  | Ex ia IIIC T200°C IP54 Da (-40°C ≤ Ta ≤ +175°C) |
| Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +125°C)  | Ex ia IIIC T135°C IP54 Da (-40°C ≤ Ta ≤ +125°C) |
| Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +80°C)   | Ex ia IIIC T85°C IP54 Da (-40°C ≤ Ta ≤ +80°C)   |

**Part number matrix Metallic switches (Drawing SWM5)**

| Switch Type/Description                | XX      | - | X    | X | X | X | - | X |
|--|---------|---|------|---|---|---|---|---|
| Euroswitch                             | ES      | - |      |   |   |   | - |   |
| Ferro switch                           | FS      | - |      |   |   |   | - |   |
| Safety switch                          | ES      | - |      |   |   |   | - |   |
| 90 x 20 x 23 rectangular switch        | ES only | - | 0    |   |   |   | - |   |
| 80 x 20 x 25 rectangular switch        | ES only | - | 1    |   |   |   | - |   |
| 55 x 20 x 25 rectangular switch        | ES only | - | 2    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | ES only | - | 3    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | ES only | - | 4    |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | ES only | - | 5    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | ES only | - | 6    |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | ES only | - | 7    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | ES only | - | 8    |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | ES only | - | 9    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | ES only | - | 10   |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | ES only | - | 11   |   |   |   | - |   |
| M18 x 1 cylindrical switch             | ES only | - | 12   |   |   |   | - |   |
| 3/8" UNF cylindrical switch            | ES only | - | 13   |   |   |   | - |   |
| M12 x 1 cylindrical switch             | ES only | - | 14   |   |   |   | - |   |
| 3/8" UNF cylindrical switch            | ES only | - | 15   |   |   |   | - |   |
| M12 x 1 cylindrical switch             | ES only | - | 16   |   |   |   | - |   |
| 87 x 15 x 22 rectangular switch        | ES only | - | 44   |   |   |   | - |   |
| 67 x 19 x 13 rectangular switch        | ES only | - | 45   |   |   |   | - |   |
| 35 x 13 x 16 rectangular switch        | ES only | - | 46   |   |   |   | - |   |
| 80 x 16 x 21 rectangular switch        | ES only | - | BZ18 |   |   |   | - |   |
| 91 x 22 x 36 rectangular safety switch | ES only | - | SS   |   |   |   | - |   |
| M18 x 1 cylindrical switch             | FS only | - | A    |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | FS only | - | B    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | FS only | - | C    |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | FS only | - | D    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | FS only | - | E    |   |   |   | - |   |
| 3/4"-16 UNF cylindrical switch         | FS only | - | F    |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | FS only | - | H    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | FS only | - | I    |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | FS only | - | J    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | FS only | - | K    |   |   |   | - |   |
| 5/8" UNF cylindrical switch            | FS only | - | L    |   |   |   | - |   |
| M18 x 1 cylindrical switch             | FS only | - | M    |   |   |   | - |   |
| 3/8" UNF cylindrical switch            | FS only | - | N    |   |   |   | - |   |
| M12 x 1 cylindrical switch             | FS only | - | O    |   |   |   | - |   |
| 3/8" UNF cylindrical switch            | FS only | - | P    |   |   |   | - |   |
| M12 x 1 cylindrical switch             | FS only | - | Q    |   |   |   | - |   |
| 1" -14 UNF cylindrical switch          | FS only | - | R    |   |   |   | - |   |
| Flange mount s/w                       | FS only | - | CYL  |   |   |   | - |   |
| 90 x 20 x 23 rectangular switch        | FS only | - | Z    |   |   |   | - |   |
| ATEX/IECEx Markings                    |         | - |      | 2 |   |   | - |   |

|   |         |   |  |       |   |    |   |                  |
|---|---------|---|--|-------|---|----|---|------------------|
| Multiple Certification Markings (Exia only)             |         | - |  | E     |   |    | - |                  |
| Other regional Exia certification                       |         | - |  | F - Z |   |    | - |                  |
| Brass housing   |         | - |  |       | 1 |    | - |                  |
| Stainless steel housing                                 |         | - |  |       | 2 |    | - |                  |
| PVC cable   |         | - |  |       |   | 1  | - |                  |
| PVC Leads   |         | - |  |       |   | 1L | - |                  |
| Polyolefin cable  |         | - |  |       |   | 2  | - |                  |
| Polyurethane (PUR) Cable                                |         | - |  |       |   | 3  | - |                  |
| Teflon Leads  |         | - |  |       |   | 4L | - |                  |
| PEEK Leads  |         |   |  |       |   | 5  |   |                  |
| Silicon Cable   |         |   |  |       |   | 6  |   |                  |
| Options (may be combined eg -LE)                        |         |   |  |       |   |    |   |                  |
| 1A Switching  | ES only | - |  |       |   |    | - | A                |
| 20W Reed  | ES only | - |  |       |   |    | - | B                |
| 3A switching N/O  | ES only | - |  |       |   |    | - | C                |
| DPDT  |         | - |  |       |   |    | - | D                |
| Earth wire  |         | - |  |       |   |    | - | E                |
| Latching/bi-stable                                      | ES only | - |  |       |   |    | - | F                |
| Fully Potted  |         | - |  |       |   |    | - | FP               |
| Line Fault Monitoring (Normally open)                   |         | - |  |       |   |    | - | LFM/LFO          |
| Line Fault Monitoring (Normally closed)                 |         | - |  |       |   |    | - | LFC              |
| Normally Open Form A (2-wire)                           |         | - |  |       |   |    | - | NO               |
| Normally Closed Form B (2-wire)                         |         | - |  |       |   |    | - | NC               |
| 5000 psi pressure resistant end cap                     |         | - |  |       |   |    | - | 5K               |
| 10000 psi pressure resistant end cap                    |         | - |  |       |   |    | - | 10K              |
| Side entry teflon leads                                 |         | - |  |       |   |    | - | SE               |
| Back wireable (cylindrical only)                        |         | - |  |       |   |    | - | W                |
| Side wireable (cylindrical only)                        |         | - |  |       |   |    | - | WL               |
| Rotatable side wireable (cylindrical only)              |         | - |  |       |   |    | - | WLR              |
| Twin entry rotatable side wireable (cylindrical only)   |         | - |  |       |   |    | - | WLRT             |
| Customer requests not affecting certification           |         | - |  |       |   |    | - | (X...)           |
| Male adaptor thread M20, ½"NPT or ¾"NPT                 |         | - |  |       |   |    | - | (M), (N) or (3N) |
| Metric micro change connector (* denotes no. of pins)   |         | - |  |       |   |    | - | V2-*             |
| Imperial micro change connector (* denotes no. of pins) |         | - |  |       |   |    | - | V5-*             |
| Mni change connector (* denotes no. of pins)            |         | - |  |       |   |    | - | V3-*             |

**Part number matrix Non-Metallic switches (Drawing SWM8)**

| Switch Type/Description                     | XX | - | X  | X | X | X | - | X |
|---|----|---|----|---|---|---|---|---|
| Euroswitch - Resin Series                   | RS | - |    |   |   |   | - |   |
| 65 x 15 x 25 rectangular switch             |    | - | V1 |   |   |   | - |   |
| ATEX/IECEX Markings                         |    | - |    | 2 |   |   | - |   |
| Multiple Certification Markings (Exia only) |    | - |    | E |   |   | - |   |

|  |  |   |  |       |   |    |   |        |
|--|--|---|--|-------|---|----|---|--------|
| Other regional Exia certification                          |  | - |  | F - Z |   |    | - |        |
| Plastic housing  |  | - |  |       | 0 |    |   |        |
| PVC cable  |  | - |  |       |   | 1  | - |        |
| PVC Leads  |  | - |  |       |   | 1L | - |        |
| Polyolefin cable   |  | - |  |       |   | 2  | - |        |
| Options (may be combined eg -DF)                           |  |   |  |       |   |    |   |        |
| Double pole changeover                                     |  | - |  |       |   |    | - | D      |
| Latching/bi-stable   |  | - |  |       |   |    | - | F      |
| Metric micro change connector<br>(* denotes no. of pins)   |  | - |  |       |   |    | - | V2-*   |
| Imperial micro change connector<br>(* denotes no. of pins) |  | - |  |       |   |    | - | V5-*   |
| Single pole normally open                                  |  | - |  |       |   |    | - | NO     |
| Customer requests not affecting certification              |  | - |  |       |   |    | - | (X...) |

|   |    |   |    |       |   |    |   |        |
|---|----|---|----|-------|---|----|---|--------|
| Euroswitch - Resin Series                     | RS | - |    |       |   |    | - |        |
| 28 x 9 x 16 rectangular switch                |    | - | V3 |       |   |    | - |        |
| ATEX/IECEX Markings                           |    | - |    | 2     |   |    | - |        |
| Multiple Certification Markings (Exia only)   |    | - |    | E     |   |    | - |        |
| Other regional Exia certification             |    | - |    | F - Z |   |    | - |        |
| Plastic housing                               |    | - |    |       | 0 |    | - |        |
| PVC cable                                     |    | - |    |       |   | 1  | - |        |
| PVC Leads                                     |    | - |    |       |   | 1L | - |        |
| Options                                       |    |   |    |       |   |    |   |        |
| Single pole normally open                     |    | - |    |       |   |    | - | NO     |
| Customer requests not affecting certification |    | - |    |       |   |    | - | (X...) |

|   |    |   |     |       |   |    |   |  |
|---|----|---|-----|-------|---|----|---|--|
| Euroswitch - Resin Series                   | RS | - |     |       |   |    | - |  |
| M12 x 1 x 60mm cylindrical switch           |    |   | M12 |       |   |    |   |  |
| M18 x 1 x 60 cylindrical switch             |    | - | M18 |       |   |    | - |  |
| ATEX/IECEX Markings                         |    | - |     | 2     |   |    | - |  |
| Multiple Certification Markings (Exia only) |    | - |     | E     |   |    | - |  |
| Other regional Exia certification           |    | - |     | F - Z |   |    | - |  |
| Plastic housing                             |    |   |     |       | 0 |    | - |  |
| PVC cable                                   |    | - |     |       |   | 1  | - |  |
| PVC Leads                                   |    | - |     |       |   | 1L | - |  |
| Polyolefin cable                            |    | - |     |       |   | 2  | - |  |

|  |  |   |  |  |  |  |   |        |
|--|--|---|--|--|--|--|---|--------|
| Options  |  |   |  |  |  |  |   |        |
| Single pole normally open                                  |  | - |  |  |  |  | - | NO     |
| Short housing  |  | - |  |  |  |  | - | K40    |
| Double pole changeover                                     |  | - |  |  |  |  | - | D      |
| Metric micro change connector<br>(* denotes no. of pins)   |  | - |  |  |  |  | - | V2-*   |
| Imperial micro change connector<br>(* denotes no. of pins) |  | - |  |  |  |  | - | V5-*   |
| Customer requests not affecting certification              |  | - |  |  |  |  | - | (X...) |

The Part Number format for other switches can be summarised as follows:

|                                       |          |   |            |   |          |  |
|---------------------------------------|----------|---|------------|---|----------|--|
| <b>Valve Position Switch (4-wire)</b> | <b>X</b> | - | <b>VIP</b> | - | <b>X</b> |  |
| Plastic housing                       | MI       | - | VIP        | - | 4        |  |
| Stainless Steel housing               | MS       | - | VIP        | - | I        |  |

The customer special switch types can be summarised as follows:

|  |            |   |             |   |             |  |
|--|------------|---|-------------|---|-------------|--|
| <b>DIFFERENTIAL PRESSURE SWITCH</b>      | <b>ESI</b> | - | <b>VDHA</b> | - | <b>XXXX</b> |  |
| Single Pole Changeover – Titanium        | ESI        | - | VDHA        | - | 1035        |  |
| Single Pole Changeover – Stainless Steel | ESI        | - | VDHA        | - | 700         |  |
| Single Pole Changeover – Stainless Steel | ESI        | - | VDHA        | - | 450         |  |

|  |         |   |          |
|--|---------|---|----------|
| 80 x 20 x 25 rectangular switch – 5m of pvc cable  | ES only | - | HLS-25i  |
| 80 x 20 x 25 rectangular switch – 10m of pvc cable | ES only | - | HLS-210i |