



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

Certificate No.: **IECEx CML 17.0147X**

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Certificate history:

Status: **Current**

Issue No: 2

[Issue 1 \(2019-01-25\)](#)

[Issue 0 \(2017-10-03\)](#)

Date of Issue: 2023-06-16

Applicant: **Ross Pneumatrol Limited**
West End Business Park
Blackburn Road
Oswaldtwistle
Lancashire BB5 4WZ
United Kingdom

Equipment: **Type EP000/d/TB Solenoid Assembly**

Optional accessory:

Type of Protection: **Flameproof "db", Dust Ignition "tb"**

Marking: Ex db IIC T6...T3 Gb

Ex tb IIC T85°C...T200°C Db

T_{amb} = -65°C to +**°C

Refer to Annex for full marking and ambient ranges

Approved for issue on behalf of the IECEx
Certification Body:

L A Brisk

Position:

Assistant Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **Ross Pneumatrol Limited**
West End Business Park
Blackburn Road
Oswaldtwistle
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United Kingdom

Manufacturing locations: **Ross Pneumatrol Limited**
West End Business Park
Blackburn Road
Oswaldtwistle
Lancashire BB5 4WZ
United Kingdom

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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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/CML/ExTR17.0181/00

GB/CML/ExTR18.0056/00

GB/CML/ExTR21.0299/00

Quality Assessment Report:

GB/CML/QAR16.0014/06



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Date of issue: 2023-06-16

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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

A Type EP000/d/TB Solenoid Assembly comprises a cast housing with an integral terminal enclosure and a threaded cover; all manufactured from grade ANC1B stainless steel to BS3146. The enclosure contains a coil rated at up to 3.2 W dc or 9.5 VA ac which is retained by a threaded end cap. The cap also positions and retains a centre tube which locates the pole piece and armature. Alternative coils may be fitted for 12 V to 440 V ac 50/60 Hz, or 6 V to 240 V dc supplies.

Refer to Certificate Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Certificate Annex for Specific Condition of Use.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1

This issue introduces the following changes:

1. To allow the option of partially encapsulating the rectifier assembly within the flameproof enclosure.
2. To allow the option of supplying the equipment with a cable gland and cable attached, and fully encapsulating the terminal chamber.

Issue 2

This issue introduces the following changes:

1. To recognise a change to the company name and trademark.
2. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the document previously listed, IEC 60079-0:2011 Ed. 6, was replaced by IEC 60079-0:2017 Ed. 7.
3. To recognize illustrative and editorial changes to Drawing V5358.
4. To recognize the removal of the alternative case detail.
5. To recognize the removal of the alternate armature detail.
6. To assess and permit the addition of an adhesive label.
7. To permit the addition of FVMQ as an alternative option.
8. To recognize the removal of a routine test note (listed in Drawing V5358).
9. To assess and permit the increase of the encapsulant compound depth.

Annex:

[Certificate Annex IECEx CML 17.0147X Issue 2.pdf](#)

Annexe to: IECEx CML 17.0147X Issue 2
Applicant: Ross Pneumatrol Limited
Apparatus: Type EP000/d/TB Solenoid Assembly

Description

A Type EP000/d/TB Solenoid Assembly comprises a cast housing with an integral terminal enclosure and a threaded cover; all manufactured from grade ANC1B stainless steel to BS3146. The enclosure contains a coil rated at up to 3.2 W dc or 9.5 VA ac which is retained by a threaded end cap. The cap also positions and retains a centre tube which locates the pole piece and armature. Alternative coils may be fitted for 12 V to 440 V ac 50/60 Hz, or 6 V to 240 V dc supplies.

A two, or three-way terminal block is fitted within the terminal compartment. A bridge rectifier may also be fitted so that the 3 W dc coil can be operated from an appropriate ac or dc supply.

Internal and external earthing facilities are provided.

The temperature classifications, assigned maximum surface temperatures and ambient temperature range for each coil type are listed below:

Supply	Coil Rating (max)	Marking	Cable temperature
dc	3 W	Ex db IIC T6 Gb Ex tb IIIC T85°C Db (T _{amb} = -65°C to +40°C)	-
dc	3 W	Ex db IIC T5 Gb Ex tb IIIC T100°C Db (T _{amb} = -65°C to +55°C)	-
dc	3 W	Ex db IIC T4 Gb Ex tb IIIC T135°C Db (T _{amb} = -65°C to +60°C)	85°C
dc	3 W	Ex db IIC T4 Gb Ex tb IIIC T135°C Db (T _{amb} = -65°C to +80°C)	105°C
ac/dc (rectified)	3 W	Ex db IIC T5 Gb Ex tb IIIC T100°C Db (T _{amb} = -65°C to +55°C)	-
ac/dc (rectified)	3 W	Ex db IIC T6 Gb Ex tb IIIC T85°C Db (T _{amb} = -65°C to +40°C)	-
ac	9.5 VA	Ex db IIC T4 Gb Ex tb IIIC T135°C Db (T _{amb} = -65°C to +40°C)	90°C
ac	9.5 VA	Ex db IIC T3 Gb Ex tb IIIC T200°C Db (T _{amb} = -65°C to +55°C)	105°C



Certificate Annex IECEx
 Version: 9.0 Approval: Approved

Cable entry holes are provided as specified on the approved drawings for the accommodation of flameproof cable entry devices, with or without the interposition of a flameproof thread adapter. Unused entries are to be fitted with suitable certified flameproof stopping plugs.

The cable entry devices, thread adapters and stopping plugs shall be suitable for the equipment, the cable and the conditions of use and shall be certified as Equipment (not a Component).

When used in dust atmospheres, the flameproof cable entries or stopping plugs shall be selected and installed so that the dust tight (IP66) integrity of the enclosure is maintained.

The equipment may alternatively be supplied with an integral cable and gland.

Conditions of Manufacture

The following are conditions of manufacture:

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The inside of the centre tube assembly shall be subjected to a routine test of 1.5 times the defined/marked maximum working pressure. It shall be shown that the flameproof enclosure cannot become pressurised as a result of leakage of the pressurised medium from the centre tube assembly. The end-user shall be informed of the maximum working pressure of the centre tube assembly.
- iii. If supplied with integral cable and cable gland, the manufacturer shall ensure that the cable meets all the applicable requirements of IEC 60079-14 and that the cable gland is certified to IEC 60079-0 and IEC 60079-1 and provides a minimum degree of protection of IP6X. The cable gland and cable shall be suitable for an operating temperature as defined on Table A of drawing CV5358 sheet 3.

Specific Conditions of Use

The following are specific conditions of use:

- i. The dimensions of the flamepaths shall not be modified. In the event that the unit requires repair, it must be returned to the manufacturer.
- ii. The non-metallic paint/coating on the enclosure is considered to be a potential electrostatic charging hazard. The equipment shall be cleaned only with a damp cloth.

Festo / (Ross) Pneumatrol cross reference

Festo part number	Festo description	(Ross) Pneumatrol Type	(Ross) Pneumatrol new part number	(Ross) Pneumatrol old part number	(Ross) Pneumatrol Description
535614	MGXIAH-3/2-0.8-24DC-EX	EP000/ia/TB -20 Screw Driver	SV3016-SAS1	E13AXCAS0BA072	Cnomo Solenoid Aluminium, Mazak Housed Exia Solenoid 24vdc Screw driver MO, Festo Grey -20 ATEX/IECEX
535615	MGXDH-3/2-1.2-24DC-EX	EP000/d/TB -20 Screw Driver	SV3015-SAS-24VDC	E13AXCDS0BA072	Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 24vdc Screw driver MO, Festo Grey -20 ATEX/IECEX
535616	MGXDH-3/2-1.2-110AC-EX	EP000/d/TB -20 Screw Driver	SV3015-SAS-110VAC	E13AXCDS0TA072	Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 110vAc Screw driver MO, Festo Grey -20 ATEX/IECEX
535617	MGXDH-3/2-1.2-230AC-EX	EP000/d/TB -20 Screw Driver	SV3015-SAS-230VAC	E13AXCDS0UA072	Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 230vAc Screw driver MO, Festo Grey -20 ATEX/IECEX
8118341	MGXIAH-3/2-0.8-24DC-KS	EP000/ia/TB -20 Screw Driver	SV3016-SKS1	E13AXCAS0BA072	Cnomo Solenoid Aluminium, Mazak Housed Exia Solenoid 24vdc Screw driver MO, Festo Grey -20 KCS Approval
8118342	MGXDH-3/2-1.2-24DC-KS	EP000/d/TB -20 Screw Driver	SV3015-SKS-24VDC	E13AXCDS0BA072	Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 24vdc Screw driver MO, Festo Grey -20 KCS Approval
8118343	MGXDH-3/2-1.2-110AC-KS	EP000/d/TB -20 Screw Driver	SV3015-SKS-110VAC	E13AXCDS0TA072	Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 110vdc Screw driver MO, Festo Grey -20 KCS Approval
8118344	MGXDH-3/2-1.2-230AC-KS	EP000/d/TB -20 Screw Driver	SV3015-SKS-230VAC	E13AXCDS0UA072	Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 230vdc Screw driver MO, Festo Grey -20 KCS Approval
8118345	MGXDH-3/2-H-T-1.2-24DC-EX	EP000/d/TB -65 Push button	SV3015-LAP-24VDC	E13AXCDS0BA077	Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 24vdc Push button MO, Low Temp Festo Grey -65 ATEX/IECEX
8118346	MGXDH-3/2-H-T-1.2-110DC-EX	EP000/d/TB -65 Push button	SV3015-LAP-110VDC	E13AXCDD0DA077	Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 110vdc Push Button MO, Low temp Festo Grey -65 ATEX/IECEX
8118347	MGXIAH-3/2-H-T-0.8-24DC-EX	EP000/ia/TB -55 Push button	SV3016-LAP1		Cnomo Solenoid Aluminium, Mazak Housed Exia Solenoid 24vdc, Push button MO, Low temp Festo Grey -55c ATEX/IECEX
8157305	MGXDH-3/2-H-T-1.2-230AC-EX	EP000/d/TB -65 Push button	SV3015-LAP-230VAC		Cnomo Solenoid Aluminium, Stainless Steel Exd Solenoid 230vac Push Button MO, Low Temp Festo Grey -65 ATEX/IECEX

Sollten Sie weitere Dokumente oder Zertifikate benötigen, gehen Sie bitte auf die homepage von Ross Pneumatrol Limited, oder kontaktieren Sie den Support von Ross Pneumatrol Limited:
 If you need further documents oder certificates, please visit hompage of Ross Pneumatrol Limited, or contact Ross Pneumatrol Limited support:

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