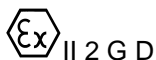




## EU Type Examination Certificate CML 15ATEX1120X Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Type EP000/d/TB Solenoid Assembly**
- 3 Manufacturer **Pneumatrol Limited**
- 4 Address **Oswaldtwistle  
Lancashire  
BB5 4WZ  
UK**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:  
EN 60079-0:2012  
EN 60079-1:2014  
EN 60079-31:2014
- 10 The equipment shall be marked with the following:



II 2 G D

Ex db IIB+H<sub>2</sub> T\* Gb

Ex tb IIIC T\* Db

Ta = -65°C to +\*°C

\* For temperature class, assigned maximum surface temperature and maximum ambient, refer to Description.



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## 11 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 d.c. or 9.5 VA a.c. 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 440V a.c. 50/60 Hz, or 6 V to 240V d.c. supplies.

A two way terminal block is fitted within the terminal compartment. A bridge rectifier may also be fitted so that the 3 W d.c. coil can be operated from an appropriate a.c. or d.c. supply.

Internal and external earthing facilities are provided.

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

Supply	Coil Rating (max)	Marking	Cable temperature
D.C.	3W	Ex db IIB+H <sub>2</sub> T6 Gb Ex tb IIIC T85°C Db (T <sub>amb</sub> = -65°C to +40°C)	-
D.C.	3W	Ex db IIB+H <sub>2</sub> T5 Gb Ex tb IIIC T100°C Db (T <sub>amb</sub> = -65°C to +55°C)	-
D.C.	3W	Ex db IIB+H <sub>2</sub> T4 Gb Ex tb IIIC T135°C Db (T <sub>amb</sub> = -65°C to +60°C)	85°C
D.C.	3W	Ex db IIB+H <sub>2</sub> T4 Gb Ex tb IIIC T135°C Db (T <sub>amb</sub> = -65°C to +80°C)	105°C
A.C./D.C. (rectified)	3W	Ex db IIB+H <sub>2</sub> T5 Gb Ex tb IIIC T100°C Db (T <sub>amb</sub> = -65°C to +55°C)	-
A.C./D.C. (rectified)	3W	Ex db IIB+H <sub>2</sub> T6 Gb Ex tb IIIC T85°C Db (T <sub>amb</sub> = -65°C to +40°C)	-
A.C.	9.5VA	Ex db IIB+H <sub>2</sub> T4 Gb Ex tb IIIC T135°C Db (T <sub>amb</sub> = -65°C to +40°C)	90°C
A.C.	9.5VA	Ex db IIB+H <sub>2</sub> T3 Gb Ex tb IIIC T200°C Db (T <sub>amb</sub> = -65°C to +55°C)	105°C

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.



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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) under the EC/EU Type Examination Certificate to the ATEX Directive.

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.

### **Variation 1**

This variation introduces the following modifications:

- i. To allow an increase of the maximum ambient temperature of one of the models listed in the table in the Description from +60°C to +80°C. The Description has been updated accordingly.
- ii. To update the certificate references to the 2014/34/EU ATEX Directive
- iii. Minor drawing modifications

### **12 Certificate history and evaluation reports**

<b>Issue</b>	<b>Date</b>	<b>Associated report</b>	<b>Notes</b>
0	21 Jan 2016	R715A/00	Report for the prime CML ATEX approval.
1	07 Oct 2016	R1574A/00	Introduction of Variation 1

Note: Drawings that describe the equipment or component are listed in the Annex.

### **13 Conditions of manufacture**

The following conditions are required of the manufacturing process for compliance with the certification.

- 13.1 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.

### **14 Special Conditions for Safe Use (Conditions of Certification)**

The following conditions relate to safe installation and/or use of the equipment.

- 14.1 The dimensions of the flamepaths shall not be modified. In the event that the unit requires repair, it must be returned to the manufacturer.
- 14.2 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.

## Certificate Annex



**Certificate Number** CML 15ATEX1120X  
**Equipment** Type EP000/d/TB Solenoid Assembly  
**Manufacturer** Pneumatrol Limited

The following documents describe the equipment or component defined in this certificate:

### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
CV5356	1 of 1	4	21/01/2016	Ex d Terminal Box Coil Assembly for IIB Gas Group
AV5357	1 of 1	4	21/01/2016	Label for EP000/EXD/ATEX for IIB Gas Group

### Issue 1

Drawing No	Sheets	Rev	Approved date	Title
CV5356	1 of 1	5	07 Oct 2016	Ex d Terminal Box Coil Assembly for IIB Gas Group
AV5357	1 of 1	5	07 Oct 2016	Label for EP000/EXD/ATEX For IIB Gas Group