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SIRCO CONTROLS LIMITED
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Ref: DoC/E(d)/UK Iss 1

UK DECLARATION OF CONFORMITY No. DoC/E(d)/UK

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended)**

⊕ II 3G Ex ec nC IIC T6 Gc Ta -20°C to +60°C

Certificate No. BAS22UKEX0248X

The EU-Type Examination Certificate and schedules apply to the **Sirco Type ATEX Series E(d)**
Range of Pressure and Temperature Switches compliant to:
EN IEC 60079-0:2018, EN IEC 60079-15:2019, EN IEC 60079-7:2015 + A1:2018

The Schedules apply to the variations in material and electrical ratings permitted by the Certifying Authority.

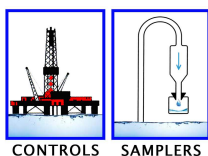
This EU Declaration of Conformity is issued under sole responsibility of Sirco Controls Ltd who are Approved by SGS Baseefa Limited to manufacture and affix the mark (Granted under specific rules) to several products. These products comply with the Certified design and the rules of the ATEX Directive and as such, the presence of the affixed label bearing the mark of SGS Baseefa Limited 1180 and the Certificate No. is sufficient proof of the Ex Type Examination Certificate and attached schedules existence. It is not, therefore, mandatory to supply copies of these documents.

Compliance with the Essential Health & Safety Requirements of the Directive has been assured by SGS Fimko Oy against the requirements of EN IEC 60079-0:2018, EN60079-15:2019, EN IEC 60079-7:2015 +A1:2018.



**Paul Yeomanson
MANAGING DIRECTOR**

**Place: Rochford
Date of Issue: 01.02.23**



Registered in England No. 672489
Registered Office: Charter House, 105 Leigh Road, Leigh on Sea, SS9 1JL



1 **TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended)**

3 Type Examination Certificate Number: **BAS22UKEX0248X**

4 Product: **Type ATEX E(d) Range of Pressure Switches**

5 Manufacturer: **Sirco Controls Limited**

6 Address: **Sweynes Industrial Estate, Ashingdon Road, Rochford, Essex, SS14 1RQ**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended).

The examination and test results are recorded in confidential Report No. **22(C)0482/2**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN IEC 60079-15:2019 EN IEC 60079-7:2015 + A1:2018

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified product and not to specific products subsequently manufactured.

12 The marking of the product shall include the following :

⊕ II 3G Ex ec nC IIC T6 Gc Ta -20°C to +60°C

SGS Baseefa Customer Reference No. **0997**

Project File No. **22/0482**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa
Limited

13

Schedule

14

Certificate Number BAS22UKEX0248X

15 Description of Product

Type ATEX E(d) Range of Pressure Switches rated at 250V a.c. 5A Inductive (0.75PF @ 50Hz), 30V d.c. 3A Inductive (100mH), 30V d.c. 5A resistive comprising a separate pressure unit, switch unit and terminal chamber bolted together to form the pressure switch assembly. All pressure units have the same mating dimensions to fit the switch unit. The pressure assembly may be a diaphragm, piston or bellows operated and in all cases the switch unit is sealed from the pressure unit and is protected against overpressure by a buffer plate.

The pressure chamber of the power unit may be made from Aluminium, Phosphor Bronze, Monel, Titanium, Hastelloy, Aluminium-Bronze, Incolloy, PTFE, PVDF or Stainless Steel and the diaphragm from PTFE, Stainless Steel, Buna N, Teflon FEP, EPDM, Tantalum, Monel or Viton. The pistons are Brass and the bellows Stainless Steel.

The movement of the diaphragm, pistons or bellows is transmitted into the Aluminium Switch Unit by a push rod and this compresses a range spring which has been pre-stressed by an adjustment screw. Springs with various rates are used to give different pressure ranges. The movement of the push rod is transmitted via a buffer spring to an angle lever which actuates either a Honeywell Type 91SE1 or Type 91SE1-3 enclosed-break Microswitch certified as KEMA 03ATEX1182U. The switch unit enclosure is sealed by means of a Stainless Steel cover and a Silicone Rubber gasket.

The micro-switch leads pass via a silicone sealant filled plastic tubing and are terminated in Weidmuller MK3/4/E for single switch option or MK3/6/E terminal block for twin or two switch options certified to TUV 18ATEX8209U which are housed in a Weidmuller type Klippon K1 terminal enclosure certified to IBExU12ATEX1145X which is mounted on the switch unit.

Optionally, two micro-switches may be mounted in the switch unit and either both operated simultaneously by the angle lever or one operated by the angle lever as a warning device and the other operated at a higher pressure by the buffer plate as a switch-off device

A code for the manufacturer's type reference of the pressure switches including pressure range, pressure chamber material, power unit model and diaphragm material used is shown in Drg No. A3-3978.

Each housing has provision for a single cable entry device and the thread form (M20 unless otherwise specified) is indicated on the housing. This is for the accommodation of a suitably certified flameproof cable entry device, with or without the interposition of a suitably certified flameproof thread adapter.

Variation 0.1

To allow for Type ATEX E(d) Range of Temperature Switches.

These are almost identical to the pressure switches but have bellows in place of the pressure chamber of the power unit. The bellows are connected to a sensing bulb via a fixed or flexible capillary. To achieve various measurement ranges the bellows-capillary sensor-unit is filled with liquids having different coefficients of expansion.

A code for the manufacturers type reference of the temperature switches including temperature range, bulb material and capillary type is shown in Drg No. A3-3978

16 Report Number

22(C)0482/2

17 Specific Conditions of Use

1. The ratings on the nameplate must not be exceeded.
2. For pressure switches the diaphragm material must be compatible with the process gas or liquid.
3. For temperature switches the T6 temperature class is based on the switch unit temperature only. The sensing bulb temperature will be the same as the maximum range of the process liquid of gas it is sensing.

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
13	LVD type requirements
14	Overloading of equipment (protection relays, etc.)
21 (1)	External effects
21 (2)	Aggressive substances, etc

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
A4-3976 Baseefa03ATEX0319X	1 of 1	C	22.11.22	Label