

1 **UK-TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 UK-Type Examination Certificate Number: **BAS21UKEX0843X**

4 Product: **Actuator Positioner Type IS200**

5 Manufacturer: **Bifold Fluidpower Limited**

6 Address: **Broadgate, Oldham Broadway Business Park, Chadderton, Oldham, Greater Manchester, OL9 9XA**

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, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Regulations.

The examination and test results are recorded in confidential Report No. **21(C)0683/2**

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

EN IEC 60079-0:2018 EN 60079-11:2012

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 UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

⊕ II 1G Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +60°C)

SGS Baseefa Customer Reference No. **1688**

Project File No. **21/0683**

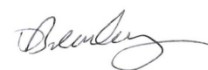
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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number BAS21UKEX0843X**

15 **Description of Product**

The Actuator Positioner Type IS200 is designed to provide control signals for a solenoid actuator, in response to a signal from a control unit in a non hazardous area, and to provide an optional actual position signal back to the control unit. It comprises electronic circuits on two printed circuit boards, contained in a plastic enclosure. On two opposite sides of the enclosure base are rows of screw terminals for field connections, and on the top surface of the enclosure are LED's, switches, push buttons and potentiometer adjustment screws. The assembly provides a degree of protection in excess of IP20.

Input and Output Parameters

Terminal 11 wrt 12 (main supply to the apparatus):

$$U_i = 28V, I_i = 200mA, P_i = 1.35W, C_i = 0 \text{ and } L_i = 0.$$

Terminal 20 wrt 21 (incoming command signal):

$$U_o = 28V, I_o = 7mA, U_i = 28V, P_i = 1.2W, C_i = 0 \text{ and } L_i = 0.$$

Terminal 18 wrt 19 (repeated position signal, nominal 0-5V or loop powered 4-20mA):

$$U_o = 28V, I_o = 200mA, P_o = 1.3W, U_i = 28V, I_i = 100mA, P_i = 1W, C_i = 12 \text{ nF and } L_i = 0.$$

Terminal 22 wrt 24 (supply to passive feedback potentiometer):

$$U_o = 10.5V, I_o = 200mA, U_i = 0, C_i = 33nF \text{ and } L_i = 0.$$

Terminal 23 wrt 24 (either feedback signal from passive potentiometer, or 4-20mA feedback signal):

$$U_o = 28V, I_o = 7mA, U_i = 28V, P_i = 1.2W, C_i = 0 \text{ and } L_i = 0.$$

Terminals 12, 19, 21 and 24 (the 0V of the apparatus) are linked together within the apparatus.

For terminals 1 to 4 (or 6 to 9, or 13 to 16):

Terminals 3 & 4 (or 8 & 9, or 15 & 16) are for connection to a supply, and 1 & 2 (or 6 & 7, or 13 & 14) are for the corresponding load connected to that supply.

Hence for each group of terminals: $U_i = U_o = 28V, I_i = I_o = 200mA, P_i = P_o = 1.35W, C_i = C_o \text{ and } L_i = L_o.$

Terminal groups 1 to 4, 6 to 9 and 13 to 16 form three separate circuits which are galvanically isolated from each other and from the other circuits.

16 **Report Number**

21(C)0683/2

17 **Specific Conditions of Use**

1. The apparatus housing is plastic which does not meet the conductivity requirements of EN IEC 60079-0:2018. Also the fixing screws on the top of the housing are connected to the 0V of the apparatus. Therefore the apparatus must be installed in an enclosure which is either metal not containing light metals, or is plastic meeting the conductivity requirements of EN IEC 60079-0:2018, and provides a degree of protection of at least IP20.

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
3374-010	1 of 1	E	23/02/2022	IS200 HART Actuator Positioner General Assembly
1357-015	1 of 1	I	23/02/2022	IS200 Actuator Positioner General Assembly

For the complete list of drawings associated with this certificate refer to Baseefa03ATEX0686X Issue 6.
These drawings are common to Baseefa03ATEX0686X.