

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate **Baseefa03ATEX0686X – Issue 6**
Number:

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

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 re-issued certificate extends EC Type Examination Certificate No. Baseefa03ATEX0686X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, 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 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 Annex II to the Directive.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See certificate history**

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 EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive 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:

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

SGS Fimko Oy Customer Reference No. **1688**


Project File No. **21/0683**

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Schedule

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Certificate Number Baseefa03ATEX0686X – Issue 6

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)0683/1

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
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

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

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
1357-001	1 of 1	E	30/12/03	IS200 Intrinsically Safe Positioner, Circuit Diagram
1357-003	1 of 1	E	07/01/2004	Parts List, IS200 Positioner
1357-002	1 of 1	C	02/12/2003	Bottom PCB, Tracks
1357-016	1 of 1	C	26/11/2003	IS200 Actuator Positioner, PCB Layouts (Component Positions)
2250-001	1 of 1	B	26/09/05	IS200 Intrinsically Safe Positioner, Circuit Diagram
2250-003	1 of 1	A	16/11/2005	Parts List, IS200 Positioner
2250-002	1 of 1	A	16/11/2005	IS200 Actuator Positioner, Base Printed Circuit Board P506, Ident and Track Layers
2250-016	1 of 1	A	16/11/2005	IS200 Actuator Positioner, PCB Layouts (Component Positions)
3374-003	1 of 1	D	13/08/2012	IS200 HART Intrinsically Safe Positioner
3374-004	1 of 1	D	18/04/2008	IS200HART Modem Board Circuit
3374-007	1 of 1	C	14/08/2012	Parts List: IS200 HART Positioner
3374-008	1 of 1	B	31/03/2008	IS200HART Parts List, Modem Board
3374-005	1 of 1	B	20/06/2008	IS200HART, P521 Main Board Layout
3374-006	1 of 1	D	20/06/2008	IS200HART, P520 Modem Board Layout
3374-011	1 of 1	C	20/06/2008	IS200HART Actuator Positioner Boards P500, P520, P521 Layouts
3374-032	1 of 1	B	28/05/2012	IS200 HART Actuator Positioner HART Modem Board P509
3374-033	1 of 1	B	14/08/2012	Parts List: IS200 / EX200 P509 HART Modem
3374-034	1 of 1	B	13/08/2012	LTC1257 Modem Circuit for IS200 H Positioner

20 Certificate History

Certificate No.	Date	Comments										
Baseefa03ATEX0686X	22 January 2004	The release of the prime certificate. The associated test and assessment is documented in Test Report No. 03(C)0872.										
Baseefa03ATEX0686X/1	19 December 2005	<p>To permit changes to the circuit and a change of parameters for terminals 18 and 19.</p> <p>Input and Output Parameters for terminal 18 wrt 19 (I_i and P_i are increased):</p> <p>Repeated position signal, nominal 0-5V or loop powered 4-20mA:</p> <p>$U_o = 28V$, $I_o = 200mA$, $P_o = 1.35W$, $U_i = 28V$, $I_i = 100mA$, $P_i = 1W$, $C_i = 33nF$ and $L_i = 0$.</p> <p>Report 05(C)0616 for Project 05/0616</p>										
Baseefa03ATEX0686X/2	2 July 2008	<p>To permit changes to the circuit connected to terminals 18 and 19 to form a new unit known as IS200HART. For this unit C_i for terminals 18 and 19 is zero and the parameters for terminals 18 and 19 become as shown below:</p> <p>$U_o = 28V$, $I_o = 200mA$, $P_o = 1.35W$, $U_i = 28V$, $I_i = 100mA$, $P_i = 1W$, $C_i = 0$ and $L_i = 0$.</p> <p>To confirm that both the IS200 and the IS200HART are suitable for ambient temperatures down to $-40^\circ C$ instead of the $-20^\circ C$ shown originally, and comply with the requirements of EN60079-0:2006, EN60079-11:2007 and EN60079-26:2007, so they may now be marked Ex II 1 G Ga Ex ia IIC T4 ($-40^\circ C \leq T_a \leq +60^\circ C$).</p> <p>To permit the IS200 to carry alternative name and company logo ACS604EEExia, Midland-ACS, and the IS200HART to carry alternative name and company logo ACS604EEExia HART, Midland-ACS.</p> <p>Report 08(C)0126 for Project 08/0126</p>										
Baseefa03ATEX0686X/3	8 October 2012	<p>To permit changes to the circuit connected to terminals 18 & 19.</p> <p>The terminal parameters for these terminals become:</p> <table style="margin-left: 40px;"> <tr> <td>$U_i = 28 V$</td> <td>$U_o = 28 V$</td> </tr> <tr> <td>$I_i = 100 mA$</td> <td>$I_o = 200 mA$</td> </tr> <tr> <td>$P_i = 1 W$</td> <td>$P_o = 1.3 W$</td> </tr> <tr> <td>$C_i = 12 nF$</td> <td></td> </tr> <tr> <td>$L_i = 0$</td> <td></td> </tr> </table> <p>Report 12(C)0504 for Project 12/0504</p>	$U_i = 28 V$	$U_o = 28 V$	$I_i = 100 mA$	$I_o = 200 mA$	$P_i = 1 W$	$P_o = 1.3 W$	$C_i = 12 nF$		$L_i = 0$	
$U_i = 28 V$	$U_o = 28 V$											
$I_i = 100 mA$	$I_o = 200 mA$											
$P_i = 1 W$	$P_o = 1.3 W$											
$C_i = 12 nF$												
$L_i = 0$												

Certificate No.	Date	Comments
Baseefa03ATEX0686X/4	2 October 2013	<p>To confirm the Actuator Positioner Type IS200 has been reviewed against the requirements of EN 60079-0:2012 and EN 60079-11:2012 in respect of the differences from EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2007 and that with the exception of the marking, none of these differences affect this equipment.</p> <p>The marking of the Actuator Positioner Type IS200 has been revised as follows in accordance with the requirements of EN 60079-0:2012.</p> <p>⊕ II 1G Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +60°C)</p>
Baseefa03ATEX0686X/5	20 March 2015	<p>This issue permits existing information (for example on Schedule Drawings) to be replaced by the revised certificate holders address. No other changes may be made to the certified design</p>
Baseefa03ATEX0686X Issue 6	19 April 2022	<p>This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate, confirms that the equipment meets the requirements of EN IEC 60079-0:2018 and additionally permits minor drawing changes that do not affect the original assessment.</p> <p>Test Report No. 21(C)0683/1. Project File No. 21/0683.</p>
For drawings applicable to each issue, see original of that issue.		