

1 **EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa03ATEX0098 – Issue 4**

4 Equipment or Protective System: **EL ELECTROPNEUMATIC POSITIONER**

5 Manufacturer: **KINETROL LIMITED**

6 Address: **Trading Estate, Farnham, Surrey, GU9 9NU, England**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa, Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential reports listed in Section 20.

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

EN 60079-0:2012+A11:2013 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 equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

⊕ II 1 G Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +70°C)

Baseefa Customer Reference No. **0622**

Project File No. **13/0757**

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On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa03ATEX0098 – Issue 4**

15 **Description of Equipment or Protective System**

The EL Electropneumatic Positioner is designed to drive a rotary or linear actuator to a position set by a 4 – 20 mA input signal and hold it there until the input signal changes.

The apparatus comprises a microprocessor based digital positioner circuit which controls a servo valve according to the 4 – 20 mA input signal and an optional angle retransmit circuit which provides a linear 4-20mA feedback signal which is electrically isolated from the positioner signal loop. The circuits are mounted on two PCBs which are located inside the positioner enclosure together with the position feedback potentiometer and the servo valve. There are also two optional limit switches (either micro-switches or Pepperl & Fuchs NJ 2-V3-N Inductive Proximity switches to Certificate No. PTB00ATEX2032X or IFM NS5002 Inductive Sensors to PTB01ATEX2191) which form two separate intrinsically safe circuits which are electrically isolated from the input and feedback signals.

External electrical connections are made via separate terminal blocks inside the positioner enclosure.

Input parameters:

4 - 20mA Signal

$U_i = 28V$	$C_i = 0$	or	$U_i = 25.2V$	$C_i = 0$
$I_i = 93.3mA$	$L_i = 0$		$I_i = 100mA$	$L_i = 0$
$P_i = 0.653W$			$P_i = 0.63W$	

Angle Retransmit circuit:

$U_i = 28V$	$C_i = 0$	or	$U_i = 25.2V$	$C_i = 0$
$I_i = 93.3mA$	$L_i = 0$		$I_i = 100mA$	$L_i = 0$
$P_i = 0.653W$			$P_i = 0.63W$	

Limit Switches (micro-switches):

$U_i = 28V$	$C_i = 0$
$I_i = 93.3mA$	$L_i = 0$
$P_i = 0.653W$	

Limit Switches (Pepperl & Fuchs NJ 2-V3-N Inductive Proximity switches to Certificate No. PTB00ATEX2032X)

$U_i = 16V$	$C_i = 40nF$
$I_i = 25mA$	$L_i = 50\mu H$
$P_i = 64mW$	

16 **Report Number**

See Certificate History.

17 **Specific Conditions of Use**

None.

18 **Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
91-158/A3	1	B	22.08.12	Digital PCB Surface Mount
91-158-001/A3	1	F	11.09.14	Digital PCB Surface Mount Assembled
91-159/A3	1	B	22.08.12	Isolated Angle Retransmit PCB Surface Mount
91-159-001/A3	1	D	11.09.14	Isolated Angle Retransmit Surface Mount
91-160/A3	1	L	26-02-14	IS EL Positioner Ex ia IIC T4 ATEX Approved Product Label
91-000-135/A1	1	F	15.09.14	Servo Valve Assembly Mk. 3
91-000-178/A3	1	G	29.07.13	Coil Assembly
52-000-349/A3	1	A	04.09.13	Monitor with Anti-Static Film (ATEX)

Current drawings also associated with this certificate:

Number	Sheet	Issue	Date	Description
91-000-001/A1	1	U	26-10-11	EL Positioner Assembly
91-000-010/A3	1	D	14-04-03	Angle Retransmit Assembly
91-000-082/A2	1	D	27-01-06	LS Option Assembly (Proximity Switches)
91-000-185/A2	1	C	21-03-06	LS Option (mechanical switches)
91-000-191/A2	1	E	23/11/07	IS Carrier Plate Assembly Moulded Coupling
91-000-200/A3	1	C	07-11-11	Wiring Diagram
91-000-208/A2	1	B	26-01-06	LS Option Assembly (Proximity Sensors)
91-000-210/A2	1	B	18-01-06	LS Option Assembly (Mechanical Limit Switches)
91-000-211/212/A2	1	C	23/11/07	05 & 07 Models Carrier Plate Assembly
91-017-001/A3	1	H	25-11-98	Basic Wound Coil (Low Inductance Variant)
91-048-001/02/A3	1	B	05-08-94	Top & Bottom IS Switch Assemblies
91-048-005/006/A3	1	B	31-10-07	Top & Bottom LS Switch Assemblies (Micro Switches)
91-161-001/A4	1	B	27.02.03	5V Regulator Demand & Feedback Amps Schematic
91-161-002/A4	1	B	27.02.03	MCU, Reset & Clock EEPROM, A/D, LEDs Schematic
91-162-001/A4	1	B	27.02.03	11.1V Regulators & Signal Circuits Schematic
91-162-002/A4	1	B	27.02.03	Current Controlled Switching Supply Circuit Schematic
91-162-003/A4	1	B	27.02.03	Positioner Interface Protection Circuits Schematics
91-168/A3	1	B	12-05-03	Extra Information Label for Inside Lid (Proximity Sensor Types)
91-176/A3	1	A	12-05-03	Extra Information Label for Inside Lid (Limit Switch Types)
91-177/A3	1	A	12-05-03	External Wiring Label for Inside Lid (Showing Optional Limit Switches)
91-179/A3	1	A	12-05-03	External Wiring Label for Inside Lid (Showing Optional Proximity Sensors)
650-098-8/9 A3	1	B	07-10-03	Switch Assemblies (IS Proximity, Top & Bottom)
SK3490	1	A	08-02-06	Anti-Static Cap

All the above drawings are common to and held with IECEx BAS 13.0117

20 Certificate History

Certificate No.	Date	Comments
Baseefa03ATEX0098	16 May 2003	The release of the prime certificate. The associated test and assessment is documented in Test Report No. 02(C)0445.
Baseefa03ATEX0098/1X	10 April 2006	To permit the use of an anti-static position indicator cap and use of the Positioner within combustible dust hazards. The associated test and assessment is documented in Test Report No. 05(C)0767.
Baseefa03ATEX0098 Issue 2	14 December 2011	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0: 2009 & EN 60079-11: 2007 (Dust approval is removed) including the revision of the marking in accordance with these standards. Also minor changes to drawings not affecting the intrinsic safety assessment.
Baseefa03ATEX0098 Issue 3	27 February 2014	This issue of the certificate confirms the current design meets the requirements of EN 60079-0: 2012 & EN 60079-11: 2012. Also minor changes to drawings not affecting the intrinsic safety assessment. IECEX certificate IECEX BAS 13.0117 is issued. The associated test and assessment is documented in IECEX Report GB/BAS/ExTR13.0251/00.
Baseefa03ATEX0098 Issue 4	14 April 2015	Minor changes to drawings. The associated test and assessment is documented in IECEX Report GB/BAS/ExTR15.0097/00.
For drawings applicable to each issue, see original of that issue.		