

(1) EU-TYPE EXAMINATION CERTIFICATE

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU**

(3) **EU Type Examination Certificate Number: KLEX 25 ATEX 0036X**

Issue: 0

(4) **Product: Rotex Smart Positioner POSIDAPT, Model: RTX Series**

(5) **Manufacturer: Rotex Manufacturers and Engineers Private Limited**

(6) **Address: R-852/853, MIDC, TTC Industrial Area, Rabale,
Navi Mumbai - 400 701, Maharashtra, INDIA**

(7) The product and any acceptable variation, thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The certification body KL Exert Certification, notified body No. 3057 in accordance with Article 17 and Article 21 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 product or 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 report no.: KLEX 25/12-001.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018, EN 60079-1:2014, IEC 60079-11:2023 and IEC 60079-31:2022

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

(11) This EU - Type Examination Certificate relates only to the technical design of the specified product in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate. Holders of EU type examination certificate are required to comply with the production control requirements defined in Article 13 of Directive 2014/34/EU.

(12) The marking of the product shall include the following:

For model with enclosure no. 9 :

II 2 G Ex db ia IIC T6/T5 Gb (-40°C ≤ Tamb ≤ +°C)**

II 2 D Ex ia tb IIIC T85°C Db IP66 (-40°C ≤ Tamb ≤ +°C)**

For model with enclosure no. 6 & 7:

II 1 G Ex ia IIC T6/T5 Ga (-40°C ≤ Tamb ≤ +°C)**

II 1 D Ex ia IIIC T₂₀₀ 80 °C...100 °C Da (-40°C ≤ Tamb ≤ +°C)**

(** - for detailed relation between ambient temperature range, temperature class refer to Table 1)



Managing Director:



Einar Thorén



Date of issue: 10/02/2026

F/136A-EQ, Rev. 00

Page 1 of 5

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KLEX 25 ATEX 0036X, Issue: 0

(13) SCHEDULE

(14) EU - Type Examination Certificate: **KLEX 25 ATEX 0036X** Issue: 0

(15) Description:

Rotex Smart Positioner POSIDAPT is designed to use in industrial process control to ensure that a control valve reaches and maintains the desired position precisely, as dictated by a control system. They act as an intermediary between the control system and the valve actuator.

The Rotex Positioner POSIDAPT Series is an electronically configurable loop powered Digital Positioner with an operating range of 4-20 mA. Equipment is tested and assessed for a lower ambient temperature of -40°C and it can also be marked with lower ambient of -20°C.

For model with enclosure no. 7 & 9: Electronic part of Rotex Smart Positioner POSIDAPT is enclosed in the flame proof enclosure with threaded cover (M190 x 1.5P) made up with stainless steel ASTM A351 CF8M consisting glass windows. Rotex Smart Positioner POSIDAPT is suitable for IIC gas group.

There are electronics boards mounted inside this housing to control/monitor the operation of the positioner which have been assessed for type of protection Ex ia. There is a provision to connect gauge block on pneumatic ports for pressure indication purpose. This gauge block is made of Stainless steel (SS316) material.

Rotex Smart Positioner POSIDAPT enclosure consists of 2 numbers of threaded entry holes of size M20 X 1.5P or 1/2" NPT for electrical field connections and 4 number of pneumatic entry ports or size either 1/4" BSP or 1/4" NPT.

Flame arrestors (sinter discs) of size 3 mm thick with diameter of 25 mm are installed on the pneumatic ports.

These flame arrestors are fixed by using the adhesive and additionally retained by the manifold and support mesh.

Enclosure also contains an entry internally at the bottom for breather (which contains multistep joint) and exhausts to the opposite side of cable entries externally. O-rings are used between manifold and enclosure housing. For remote mount option, Rotex Smart Positioner POSIDAPT will be supplied along with the cable. Cable termination

with positioner is the customer's responsibility.

For model with enclosure no. 6 : Housing and cover made of an aluminium alloy (ADC12 / LM6) is provided with M6 screws on four corners for tightening cover on housing. Both aforesaid cover and enclosure are sealed using a gasket. The cover has a flat glass window to view display without opening the cover. The housing is provided with two threaded cable entries of size M20x1.5P or 1/2" NPT for external connections. The housing is also provided with three pneumatic ports of size 1/4" BSP or 1/4" NPT, one for input and another two for output. There is a provision to connect gauge block on pneumatic ports for pressure indication purpose. This gauge block is made of Stainless steel (SS316) material with powder coating like housing & cover. There are electronics boards mounted inside this housing to control/monitor the operation of the positioner. The enclosure of "Positioner" provide an ingress protection IP2X to the electronics board inside it, additionally whole electronics board is encapsulated to eliminate any environmental effect on electronics and also to eliminate gas/dust contact with electronics.

The measuring function according to annex II paragraph 1.5.5 of the directive is not matter of this EU-type examination.

Table 1: Relation between type of protection, temperature class and ambient temperature range

Type of protection	Temperature class / Maximum surface temperature	Ambient temperature range
Ex db ia IIC	T6	-40°C ≤ Tamb ≤ +70°C
	T5	-40°C ≤ Tamb ≤ +80°C
Ex ia tb IIC	T85°C	-40°C ≤ Tamb ≤ +75°C
Ex ia IIC	T6	-40°C ≤ Tamb ≤ +60°C
	T5	-40°C ≤ Tamb ≤ +80°C
Ex ia IIIC	T ₂₀₀ 80°C	-40°C ≤ Tamb ≤ +60°C
	T ₂₀₀ 100°C	-40°C ≤ Tamb ≤ +80°C

Electrical Parameter:

4-20 mA input port (11, 12) and Position Transmitter port (21, 22) and VEXT_24V:

Ui = 30 V, Ii = 100 mA, Pi = 750 mW, Li = 0 mH, Ci = 0 µF



KL Exert Certification

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KLEX 25 ATEX 0036X, Issue: 0

Model Designation:

Table	A	B	C	D	E	F	G	H	I	J	K	
Example Code	RTX	9	4	1	2R	H	P	4R	*	A	*	RC001
PRODUCT CODE: A-B-C-D-E-F-G-H-I-J-K; example: RTX-9-5-1-2R-H-P-4R-A-RC001												

A	SERIES	POSIDAPT	RTX
B	MODEL	IPST – PARTIAL STROKING DEVICE	5
		EXPERT – BASIC DIAGNOSTICS	7
		SUPER – OFFLINE TEST AND DIAGNOSTICS	8
		ULTRA – ONLINE, OFFLINE TEST AND EXTENDED DIAGNOSTICS	9
C	ENCLOSURE	Ex ia ALUMINIUM COVER, ALUMINIUM BODY	6
		Ex ia STAINLESS STEEL COVER, STAINLESS STEEL BODY	7
		Ex d Ex ia STAINLESS STEEL COVER, STAINLESS STEEL BODY	9
D	SERVO	DOUBLE ACTING / SINGLE ACTING	1
		SINGLE ACTING (PORT4)**	2
		SINGLE ACTING (PORT2)**	3
		FAIL FREEZE	4
E	PNEUMATIC PORT CONNECTION	1/4" BSP	2G
		1/4" NPT	2R
F	COMMUNICATION	NONE	*
		HART	H
		FOUNDATION FIELDBUS	F
G	MODULE	NONE	*
		POSITION TRANSMITTER (4 to 20 mA)	P
		ALARM (DIGITAL I/O)	A
		POSITION TRANSMITTER (4 to 20 mA) + ALARM (DIGITAL I/O)	B
H	CABLE ENTRY	1/2" NPT (F)	4R
		M20 X 1.5 (F)	3M
I	TEMPERATURE	-20 °C to +80 °C (-4 °F to +176 °F)	FS
		-20 °C to +70 °C (-4 °F to +158 °F)	
		-40 °C to +80 °C (-40 °F to +176 °F)	
		-40 °C to +70 °C (-40 °F to +158 °F)	
J	CERTIFICATION	NONE	*
		ATEX	A
		PESO	C
		IECEX	I
K	REMOTE BLOCK	NONE	*
		3 METRES	RM03
		5 METRES	RM05
		7 METRES	RM07
		10 METRES	RM10
		20 METRES	RM20
		30 METRES	RM30
		45 METRES	RM45
		50 METRES	RM50
ACCESSORIES		NONE	*
		COUPLER FOR ROTARY ACTUATOR ISO 5211	RC001
		LINKAGE FOR STROKE UP TO 100MM, PIN ON STEM	PS100
		LINKAGE FOR STROKE UP TO 200MM, PIN ON STEM	PS200
		LINKAGE FOR STROKE UP TO 100MM, PIN ON LEVER	PL100



KL Exert Certification

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KLEX 25 ATEX 0036X, Issue: 0

	LINKAGE FOR STROKE UP TO 200MM, PIN ON LEVER	PL200
	BRACKET TYPE 1 KIT-MS	RC002
	BRACKET TYPE 1 KIT-SS304	RC003
	BRACKET TYPE 2 KIT-MS	RC004
	BRACKET TYPE 2 KIT-SS304	RC005
	IPTR MOUNTING KIT FOR ROTARY ACTUATOR	RC006
	COUPLER FOR SMART POSITIONER – CYLINDER APPLICATION	RC007
	LINKAGELESS ROTARY	LLROT
	LINKAGELESS LINEAR	LLLIN
SPECIAL VERSION	NONE	*
	SPECIAL CUSTOMIZATION	SUXX

Note 03:

1. FOR REMOTE MOUNT OPTION, SMART POSITIONER WILL BE SUPPLIED ALONG WITH THE CABLE. CABLE TERMINATION WITH POSITIONER IS THE CUSTOMER'S RESPONSIBILITY.
2. SPECIAL VERSION WILL INCLUDE SPECIFIC CUSTOMER REQUIREMENTS SUBJECT TO ASSESSMENT THAT THE Ex INTEGRITY IS NOT VOIDED AND REQUIREMENTS OF EN IEC 60079-0:2018, EN 60079-1:2014, IEC 60079-11:2023 and IEC 60079-31:2022. ROTEX WILL MAINTAIN RECORDS OF SUCH VERSIONS AND THE REVIEW THAT THE Ex PROTECTION IS NOT VOIDED
3. * - MAXIMUM AMBIENT TEMPERATURE CAN VARY BASED ON THE CERTIFICATION. PLEASE REFER PRODUCT NAMEPLATE FOR APPLICABLE TEMPERATURE RANGE

Routine test:

For model with enclosure no. 6, 7 & 9: Routine verification of encapsulation as part of the intrinsic safety shall be subjected to a routine verification as follows:

No damage shall be evident to encapsulation such as

- Cracks;
- non-homogeneous covering of the encapsulated;
- inadmissible shrinkage;
- swelling;
- decomposition;
- failure of adhesion (separation of any adhered parts) or flaking; and softening.

For model with enclosure no. 9: The smart positioner has not been subjected to 4 times overpressure test and hence manufacturer needs to conduct routine overpressure test at 16.8 bar on each unit for the period of 10 seconds in accordance with clause 16.1.2 of EN 60079-1:2014.

(16) Report:

- The examination and test results are recorded in confidential evaluation report no.:

Issue/Date	Evaluation report	Comment
Issue 0 on 10/02/2026	KLEX 25/12-001	The release of the prime certificate.

(17) Specific conditions of use:

1. Smart Positioner to be supplied power through certified Ex ia barrier having suitable appropriate output ratings.
2. Care should be taken during installation and cleaning to avoid risk of ignition due to electro-static discharge. Cleaning of non-metallic surface must be done with a damp cloth.
3. Smart positioner needed to be thermally isolated from any external source of heat so that the temperature on the surface of the enclosure does not exceed 80°C.
4. For model with enclosure no. 6: Smart positioner enclosure is made of light metals, and needs to be protected from ignition hazard due to impact and friction.
5. For model with enclosure no. 9:
 - a. The manufacturer has maintained more number of thread engagement of flameproof joint



KL Exert Certification

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KLEX 25 ATEX 0036X, Issue: 0

- than required by the standard. The user must refer to manufacturer before carrying out any repair or refurbishment to the equipment. The flame path thread engagement observed in approved drawing must never be modified. User to ensure all available threads for cover and cable entries are fully engaged and grub screw tightened wherever applicable.
- b. Where auxiliary apparatus is fitted that is not covered by this certificate the installer and/or user, as appropriate, must ensure that it is suitable for the conditions of use and that it does not invalidate this certification.
 - c. Smart positioner should not be energized without servo valve assembly is in place inside the Ex-d enclosure.
 - d. When single acting actuator is used then one of the air out pneumatic port will be closed by appropriate blanking plug.
 - e. It shall be ensured that the air supply to the pneumatic ports is taken from a non-hazardous area and shall not contain flammable gases. Connections with a torque value of 0.5 Nm as specified by the manufacturer.
 - f. Dust layers shall be prevented from building up on the outside surface of the enclosure, and the enclosure shall be routinely cleaned.

(18) Essential Health and Safety Requirements:

Met by compliance with the standards mentioned in item (9) and evaluation report in item (16).

(19) Remarks and additional information (Drawings and documents):

Operating Manual number: 1-01-04-C-17694 Version 00 Dated: 15.12.2025

Technical Documents					
Title:	Drawing No.:	Ver.	Rev. Level:	No. of sheets:	Date:
*RTX 5/7/8/9 POSIDAPT SERIES SCHEMATICS - POWER SUPPLY	1-01-04-C-14164	7	00	12	23.08.2025
*GERBER FOR RTX 5/7/8/9 (PCB DETAILS)	1-01-04-C-18537	-	00	18	30.12.2024
*BILL OF MATERIALS FOR PCB RTX 5/7/8/9	1-01-04-C-16314	-	00	10	30.12.2024
*Ex d - Ex ia SMART POSITIONER (POSIDAPT SERIES) ASSEMBLY DRAWING FOR ATEX & IECEx	1-01-04-C-18206	13	00	15	09.02.2026
*WORK INSTRUCTION FOR EPOXY COATING OF RTX SERIES MAIN BOARD AND OTHER PCB MODULES	PP-W-01	-	02	1	10.03.2024

END OF DOCUMENT