

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

#### **EX COMPONENT CERTIFICATE**

Certificate No.:	IECEx ITS 16.0002U	Page 1 of 4	Certificate history:
			Issue 0 (2016-03-02)

Status: Current Issue No: 1

Date of Issue: 2021-03-24

Applicant: Rose Systemtechnik GmbH

Erbeweg 13-5

D-32457 Porta Westfalica

Germany

Ex Component: Control Accessories - CA Series

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: Ex db and Ex tb

Marking: Ex db IIC Gb

Ex tb III C Db IP66

IECEx ITS 16.0002U

Approved for issue on behalf of the IECEx

Certification Body:

Position: Certification Officer

Signature:

(for printed version)

Date:

- 1. This certificate and schedule may only be reproduced in full.
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Certificate issued by:

Intertek Testing & Certification Limited ITS House, Cleeve Road Leatherhead Surrey, KT22 7SA United Kingdom





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Date of issue: 2021-03-24 Issue No: 1

Manufacturer: Rose Systemtechnik GmbH

Erbeweg 13 – 15 32457 Porta Westfalica

Germany Germany

Additional manufacturing locations:

ADDITIONAL MANUFACTURING

**LOCATION: SEE ANNEX** 

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

#### **TEST & ASSESSMENT REPORTS:**

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/ITS/ExTR16.0002/00 GB/ITS/ExTR16.0002/01

**Quality Assessment Report:** 

DE/EPS/QAR17.0003/31



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#### Ex Component(s) covered by this certificate is described below:

The components are a series of Control Accessories: Push Button Actuators - CA.PB.00000 Series, Rotary Actuators - CA.RA.00000 Series, LED Indicating lamp - CA.IL.00000 and Thermostat connector CA.TH.01 and CA.TH.02.

The Control Accessories can be varied in accordance with the requirements of Standards with respect to Group IIC, EPL Gb & Group IIIC, EPL Db for service temperature of "-60°C to +100°C".

#### SCHEDULE OF LIMITATIONS:

- 1. The end use of control accessories shall be in accordance with the manufacturer's ratings and instructions.
- 2. The control accessories are suitable for service temperature range of "-60°C to +100°C"
- 3. The actuators and indicating lamps are suitable for fixing in certified metallic enclosure with M22x1.5 6H threaded holes of adequate thickness to ensure at least 5 full thread engagement and minimum 8mm depth of engagement.
- 4. The control accessories are suitable for fixing in certified metallic enclosure of Ex db IIA, IIB, IIB+H2 or IIC of any volume whose routine tests are required to be performed at ≤20 bar. They are also suitable for fixing in certified metallic enclosure of Ex tb IIIA, IIIB or IIIC of any size
- 5. Control Accessories shall be used with moulded gasket of Silicone to ensure ingress protection of IP66.
- 6. The LED Indicating lamps are suitable for low risk of mechanical danger i.e. 2 Joules.
- 7. User shall perform earth continuity check between exposed metal part of control accessory and enclosure on which it is fixed.
- 8. Control Accessories i.e. Indicating lamps, Push button and Rotary actuators may pose risk of electrostatic discharge for Group III applications, hence clean with damp cloth only.



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#### **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

- Revision as per IEC 60079-0:2017.
- Changes in Type designation (Suffix "0" has been added).
- Minimum service temperature updated to "-60°C" instead of "-20°C".
- · Indicating lamp polycarbonate lens thickness increased.
- Addition of new control accessory Thermostat connector CA.TH.01 and CA.TH.02.
- Push button type Mushroom Stayput pull to release, MCCB operator knob replaced by two new types of knobs, Power switch and HRC MCB operator with new knob added as variation.
- Update of the drawings to reflect above changes and previously certified sheet 3 deleted as manufacturing (Related) details were in schedule drawing.
- · Added the following in the Condition of safe use:
  - · User shall perform earth continuity check between exposed metal part of control accessory and enclosure on which it is fixed.
  - Control Accessories i.e. Indicating lamps, Push button and Rotary actuators may pose risk of electrostatic discharge for Group III
    applications, hence clean with damp cloth only.

#### Annexes:

SFT-IECEx-OP-19f - Annex 1 for IECEx Certificate of Conformity.pdf SFT-IECEx-OP-19f - Annex 2 for IECEx Certificate of Conformity Add. Manufcaturing location\_1.pdf



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#### **DESCRIPTION OF COMPONENT**

The components are a series of Control Accessories: Push Button Actuators - CA.PB.00000 Series, Rotary Actuators - CA.RA.00000 Series, LED Indicating lamp - CA.IL.00000 and Thermostat connector CA.TH.01 and CA.TH.02.

The Indicating lamp lenses are made of polycarbonate. Barrel of actuators and indicating lamp are made of anodized aluminium and alternate material stainless steel. The pins of actuators are made of stainless steel. The actuators and indicating lamps are having M22x1.5 6g male threads for fixing. The Thermostat connectors made of stainless steel or brass and are having M20x1.5 6g or M25x1.5 6g threads for fixing.

Moulded gasket of Silicone is provided for Ingress Protection of IP 66.

The Control Accessories can be varied in accordance with the requirements of Standards with respect to Group IIC, EPL Gb & Group IIIC, EPL Db for service temperature of "-60°C to +100°C".

#### **Pushbutton Actuator CA.PB.00000 Series:**

CA	PB	00	0	0	0
		10- Shrouded Momentary	0-Standard	0-Green	0-Panel Mount
		20- Mushroom Momentary	1-Medium	1-Red	1-Base Mount
		21- Mushroom Stayput turn to release	2-Big	2-Yellow	
		22- Mushroom Stayput key to release		3-Blue	
		23- Mushroom Stayput pull to release		4-Black	
		80- 2 Position Selector		5-White	
		81- 2 Position Key Selector			
		82- 3 Position Selector			
		83- 3 Position Key Selector			
		XX-Any other variation			

#### **Rotary Actuator CA.RA.00000 Series:**

CA	RA	00	0	0	0
		00- MPCB operator	0-Standard	0-By Default	0-Panel Mount
		30- HRC MCB operator	1-Big		1-Base Mount
		40- Power Switch operator	2-Custom built		
		60- MCB operator			
		70- Switch operator			
		90- MCCB operator			
		XX- Any other variation			





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#### **LED Indicating lamp CA.IL.00000 series:**

CA	IL	00	0	0	0
		50- 24V AC/DC	0-Standard	0-Green	0-Panel Mount
		51- 110 - 240VAC	1-Medium	1-Red	1-Base Mount
		52- 230VAC/DC	2-Big	2-Yellow	
		XX- Any other variation		3-Blue	
				5-White	
				6-Amber	

Thermostat Connector Type: CA.TH.01 Type: CA.TH.02

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
Control Accessories - CA Series Sheet 1-3 of 3	Ex.PMI.CA.201	1	22.12.2020
Instruction Manual for Control Accessories - CA Series	IM.CA.12.2020	-	2020

Req	Required Manufacturer Routine Testing		
Test	Title/Description of Test	Standard and Clause	
1	A routine overpressure test shall be carried out by the manufacturer on each LED Indicating lamp barrel at a pressure of 20 bar / 290 PSI for a period of at least 10 seconds and test results must be recorded. The overpressure test shall be considered satisfactory if no permanent deformation or damage invalidating the type of protection observed, the joints shall in no place have been permanently enlarged and no leakage through the walls of the barrel & joint between polycarbonate lens and barrel is observed.  Whereas other Control Accessories CA series i.e. Push-Button Actuators CA.PB.00000 Series, Rotary Actuators CA.RA.00000 Series and Thermostat connector CA.TH.01 and CA.TH.02 are exempted from routine tests.	IEC 60079-1:2014 Clause 16	





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#### **Additional Manufacturing Locations**

Phoenix Mecano Kecsemet KFT Szent Istaván krt. 24 6000 Hungary

PM Komponenten N.V. Karrewegstraat 124 9800 Deinze Belgium

Phoenix Mecano B.V. Havenstraat 100 7005 AG Doetinchem The Netherlands

Phoenix Mecano S.E. Asia Pte. Ltd. 53 Ubi Ave 3 #04-01 Colourscan Building Singapore 408863

Phoenix Mecano (India) Private Limited Pirangut Industrial Area, Post Ghotawade Plot 388, Village Bhare, Taluka Mulshi Dist. Pune - 412115 India

Phoenix Mecano India Pvt. Ltd Plant III, Gat No 408, 410 & 412, Village – Urse, Taluka – Maval, Talegaon Urse Road, Dist. Pune – 410506, India

Mecano Components Co., Ltd/012 No.1001, Jiaqian Road, Nanxiang, Jiading District Shanghai P.R.C. 201802 China

Phoenix Mecano Inc. 7330 Executive Way Frederick MD 21704 USA

Phoenix Mecano Saudi Arabia LLC, Building no 3267, king Abdul Aziz Road Unit No1, Dharan 3451, Dammam, Kingdom of Saudi Arabia





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Rose Systemtechnik Middle East, P.O. Box 8993, Sharjah, U.A.E

