IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx EXA 16.0007X

Issue No: 1

Certificate history:
Issue No. 1 (2017-05-25)
Issue No. 0 (2016-04-01)

Status: **Current**

Date of Issue: **2017-05-25**

Applicant: **Palazzoli S.p.A.**
Via F. Palazzoli 31,
25128 Brescia (BS)
Italy

Equipment: **Switchgears (isolator switches and selector switches) of CAM-EX series**

Optional accessory: *type CAM-EX Code 272...EX and Code 282...EX*

Type of Protection: **nR, tb**

Marking:

Ex nR IIC T6...T5 Gc
Ex tb IIIC T85°C Db

Approved for issue on behalf of the IECEx Certification Body: Damir Korunić

Position: Director General

AGENCIJA ZA PROSTORE UGROŽENE EKSPLOZIVNOM ATMOSFEROM SVETA NEDELJA 3

Signature:
(for printed version)

Damir Korunić

Date: 2017-05-25

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Agencija za prostore ugrožene eksplozivnom atmosferom (Ex-Agencija)
Industrijska 25
HR-10431 Sveta Nedelja
Croatia

Ex-Agencija

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Manufacturer:	**Palazzoli S.p.A.** Via F. Palazzoli 31, 25128 Brescia (BS) **Italy**	

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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 Report:

HR/EXA/ExTR16.0006/00 HR/EXA/ExTR16.0006/01

Quality Assessment Report:

IT/IMQ/QAR14.0001/02

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The switchgears (isolator switches and selector switches) of CAM-EX series have aluminum alloy enclosure. Cover is fixed to the body by stainless steel screws, and the holding is guaranteed by a gasket. For details see Annex of this certificate.

Manufacturers's instruction for use No.C010069, Rev. 02 dated 2017.04.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The switchgears (isolator switches and selector switches) in metallic enclosures CAM-Ex series shall be installed in vertical position only.
- The enclosure is provided with an M12x1.5 cable gland that shall only be used as "test port" to verification of the type of protection 'nR' (see "Safety use and maintenance instructions").
- The blanking element of the test port shall be in position and the tightening torque shall be maintained in service. The tightening torque of the test port shall be in accordance with the requirements reported in the "Safety use and maintenance instructions". Removal of the blanking element of the test port is only permitted in controlled conditions to perform the periodic pressure test.
- Appropriate method of installation, maintenance and operation should prevent accumulation of static charge on the equipment because surface resistance of handle material is higher than 10^9 Ω.
- For ambient temperature above 60°C cable with higher temperature resistance shall be used according to table defined in this certificate and manufacturer's instruction for use.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Ambient temperature was changed to: -40°C to +65°C.

Material of internal operating shaft and gasket under handle was changed.

Annex:

IECEx_EXA16.0007_01_Switch_CAMMEX_Palazzoli ANNEX_final.pdf

The switchgears (isolator switches and selector switches) of CAM-EX series have aluminum alloy enclosure. Cover is fixed to the body by stainless steel screws, and the IP degree of protection is guaranteed by a gasket.

The switchgears of CAM-EX series are characterized depending on:
- Number of poles (2, 3, 4 or 6),
- Rated current and
- Enclosure dimensions.

The following tables show indentifying code of the switchgears of CAM-EX series.

Isolator switches:

Code	Poles	Rated current [A]	External dimensions [mm]	IP protection degree
272141EX	2	16	92 x 92 x 78	IP66 / IP67
272142EX	3		92 x 92 x 78	
272143EX	4		92 x 92 x 78	
272144EX	6		125 x 185 x 120	
272241EX	2	25	92 x 92 x 78	
272242EX	3		92 x 92 x 78	
272243EX	4		92 x 92 x 78	
272244EX	6		125 x 185 x 120	
272301EX	2	40	125 x 125 x 105	
272302EX	3		125 x 125 x 105	
272303EX	4		125 x 125 x 105	
272304EX	6		125 x 185 x 120	
282402EX	3	63	125 x 185 x 120	
282403EX	4		125 x 185 x 120	
282404EX	6		125 x 185 x 137	

Selector switches:

Code	Poles	Rated current [A]	External dimensions [mm]	IP protection degree
272146EX	3	16	125 x185 x 120	IP66 / IP67
272147EX	4	16	125 x185 x 120	
272246EX	3	25	125 x185 x 120	
272247EX	4	25	125 x185 x 120	
272306EX	3	40	125 x 185 x 120	
272307EX	4	40	125 x 185 x 137	
282406EX	3	63	125 x 185 x 137	
282407EX	4	63	252 x 185 x 138	IP65

Note: The versions with the lockable handle in different positions have a code composed of a first part which is the product code and the second part with an alphanumeric code which defines the type of locking: Ex. 272242EX**. This the second part with an alphanumeric code is not relevant to Ex-protection

Relation of T-class, Tmax, Tcable and maximum ambient temperature are given in following table:

Rated current	Number of poles	Tamb	T class	Max surface temperature	Tcable
16A	All	-40°C ÷ 55°C	T6	T85°C	/
		-40°C ÷ 65°C			90°C
25A	2, 3 or 4	-40°C ÷ 45°C	T6		/
		-40°C ÷ 65°C			100°C
	6	-40°C ÷ 40°C	T6		/
		-40°C ÷ 60°C	T5		100°C
40A	2, 3 or 4	-40°C ÷ 55°C	T6		/
		-40°C ÷ 65°C			90°C
	6	-40°C ÷ 55°C	T6		/
		-40°C ÷ 65°C			95°C
63A	All	-40°C ÷ 40°C	T6		/
		-40°C ÷ 55°C			100°C

Rated data:

Rated voltage	110/230/400/500 V ac
Rated current	16-25-40-63 A
Frequency	50 - 60 Hz
Insulation class	I
Ambient temperature	-40°C ≤ Ta ≤ +65°C
IP protection degree	IP66 / IP67 category 1 according to IEC 60529 or IP65 category 1 according to IEC 60529 (depends of equipment code)