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 16.0005X

Issue No: 1

Certificate history:
Issue No. 1 (2017-05-25)
Issue No. 0 (2016-02-22)

Status: **Current**

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

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

Equipment: **Switchgear type CAM-EX Code 292...EX**
Optional accessory:

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/ExTR16.0005/00 HR/EXA/ExTR16.0005/01

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 of CAM-EX series have thermosetting enclosure. Cover is fixed to the body by stainless steel screws, and the holding is guaranteed by a silicone gasket which permit to maintain the IP66 degree of protection. Handle switch is of category AC23A-AC3 for short circuit current ≥ 10kA.

For details see Annex of this certificate.

Manufacturer's instruction for use No.C010040, Rev.02 dated 2017.04.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Switch-disconnectors in thermosetting enclosures CAM-Ex series shall be installed in vertical position only.

- The enclosure is provided with a 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^{o}C cable with higher temperature resistance shall be used according to table defined in annex of 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^{O}C to +65^{O}C.

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

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Additional information:

Annex:

IECEx_EXA16.0005_01_Switch_CAMMEX_Palazzoli ANNEX_final.pdf

The switchgears of CAM-EX series have thermosetting enclosure. Cover is fixed to the body by stainless steel screws, and the holding is guaranteed by a silicone gasket which permit to maintain the IP66 degree of protection. Handle switch is of category AC23A-AC3 for short circuit current ≥ 10kA.

The switchgears of CAM-EX series are characterized depending on:

- Number of poles (2, 3 or 4)
- Rated current
- Enclosure dimensions

The following table show indentifying code of the switchgears of CAM-EX series:

Code	Poles	Rated current [A]	External dimensions [mm]
292101EX	2	16	92 x 125
292102EX	3		
292103EX	4		
292201EX	2	25	
292202EX	3		
292203EX	4		
292301EX	2	40	125 x 185
292302EX	3		
292303EX	4		
292411EX	2	63	
292412EX	3		
292413EX	4		

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. 292202EX**. 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	Tamb	T class	Max. surface temperature	Tcable
16A	-40°C ÷ 60°C	T6	T85°C	/
	-40°C ÷ 65°C			85°C
25A	-40°C ÷ 55°C	T6		/
	-40°C ÷ 65°C	T5		90°C
40A	-40°C ÷ 50°C	T6		/
	-40°C ÷ 65°C	T5		95°C
63A	-40°C ÷ 45°C	T6		/
	-40°C ÷ 60°C			95°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 category 1 according to IEC 60529