IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx TUN 15.0028X**

Certificate history:
Issue 1 (2018-10-10)
Issue 0 (2015-11-02)

Status: **Current**

Issue No: 2

Date of Issue: 2020-02-27

Applicant: **Duplomatic MS S.p.A**
Via Mario Re Depaolini, 24
Parabiago (MI) 20015
Italy

Equipment: **ON-OFF and proportional coils for potential explosive atmosphere**

Optional accessory:

Type of Protection: **db, tb**

Marking:
Ex db IIC T5 Gb (-40 °C Ta +55 °C)
Ex db IIC T4 Gb (-40 °C Ta +80 °C)
Ex db IIC T5 Gb (-60 °C Ta +55 °C)
Ex db IIC T4 Gb (-60 °C Ta +80 °C)
Ex tb III C T100 °C Db (-40 °C Ta +55 °C)
Ex tb III C T135 °C Db (-40 °C Ta +80 °C)
Ex tb III C T100 °C Db (-60 °C Ta +55 °C)
Ex tb III C T135 °C Db (-60 °C Ta +80 °C)
Ex db I Mb (-40 °C Ta +80 °C)

Approved for issue on behalf of the IECEx Certification Body: **Christian Roder**

Position: **Head of the IECEx Certification Body**

Signature:
(for printed version)

Date:

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 www.iecex.com or use of this QR Code.

Certificate issued by:

TÜV NORD CERT GmbH
Hanover Office
Am TÜV 1, 30519 Hannover
Germany

IECEx Certificate of Conformity

Certificate No.: **IECEx TUN 15.0028X**

Date of issue: 2020-02-27 Issue No: 2

Manufacturer: **Duplomatic MS S.p.A**
Via Mario Re Depaolini, 24
Parabiago (MI) 20015
Italy

Additional manufacturing locations:

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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

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:

DE/TUN/ExTR15.0039/00 DE/TUN/ExTR15.0039/01

Quality Assessment Report:

DE/TUR/QAR19.0020/00

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

ON-OFF and proportional coils for potential explosive atmosphere.

Model reference: C**22KX**2-*K9* / 10 / *

See attachment for further details.

SPECIFIC CONDITIONS OF USE: YES as shown below:
The cover screws are M5x16 class A4-80.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
The manufacturer name changed from Duplomatic Oleodinamica S.p.A. to Duplomatic MS S.p.A.

For the proportional coil type C*E22K*2-D09K9*/10/* the diameter of the copper wire changed from 0.6 mm to 0.56 mm and the resistance from 3.4 Ω to 3.77 Ω. See drawing No. 3 90810 F00/01.

Annex:

Attachment to IECEx TUN 15.0028X-issue 2.pdf

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Product:

The coils can be ON-OFF or PROPORTIONAL: versions ON-OFF behaviour is according to the principle "energized" or "de-energized", while versions PROPORTIONAL allow the modulation of the controlled variable in a continuous mode, proportionally to the current supplied by the solenoid.
The ON-OFF versions are available for current supply (DC) or alternate (RAC); the last one include a diode rectifier bridge.

The following type of coils are below described:

Aluminum/steel or steel coil with EPL Gb and Db and ambient temperature range -40 °C +55 °C:

- C22KXD2-*K9*/10/T5
- CE22KXD2-*K9*/10/T5
- CS22KXD2-*K9*/10/T5
- CSE22XKD2-*K9*/10/T5

Aluminum/steel or steel coil with EPL Gb and Db and ambient temperature range -40 °C +80 °C:

- C22KXD2-*K9*/10
- CE22KXD2-*K9*/10
- CS22KXD2-*K9*/10
- CSE22KXD2-*K9*/10

Stainless steel coil with EPL Gb and Db and ambient temperature range -60 °C +55 °C:

- CX22KD2-*K9*/10/T5
- CXE22KD2-*K9*/10/T5

Stainless steel coil with EPL Gb and Db and ambient temperature range -60 °C +80 °C:

- CX22KD2-*K9*/10
- CXE22KD2-*K9*/10

Aluminum/steel or steel coil with EPL Mb and ambient temperature range -40 °C +80 °C:

- C22KDM2-*K9*/10/*
- CE22KDM2-*K9*/10/*
- CS22KDM2-*K9*/10/*
- CSE22KDM2-*K9*/10/*

Details of Change:

The manufacturer name changed from Duplomatic Oleodinamica S.p.A. to Duplomatic MS S.p.A.

For the proportional coil type C*E22K*2-D09K9*/10* the diameter of the copper wire changed from 0.6 mm to 0.56 mm and the resistance from 3.4 Ω to 3.77 Ω. See drawing No. 3 90810 F00/01.

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Technical Data:

COIL DATA			POWER	NOMINAL VOLTAGE	NOMINAL CURRENT	AMBIENT TEMPERATURE
IECEx MARKING Ex d IIC T5 Gb - Ex d IIC T4 Gb Ex tb IIIC T100°C Db - Ex tb IIIC T135°C Db IP66/IP68						
DESCRIPTION	**COIL VERSION**	**SUFFIX**	[W] or [VA]	[V]	[A]	[°C]
C22KXD2-*K9*/10/* **CS22KXD2-*K9*/10/***	**DIRECT CURRENT**	**D***	5 ÷ 30	5 ÷ 240	0,05 ÷ 3	-40°C Ta +80°C (T4 - T135°C) -40°C Ta +55°C (T5 - T100°C)
	ALTERNATING CURRENT (RECTIFIED BY INTERNAL DIODE BRIDGE)	**R***				
CE22KXD2-*K9*/10/* **CSE22KXD2-*K9*/10/***	**PROPORTIONAL CURRENT**	**D***				
CX22KXD2-*K9*/10/*	**DIRECT CURRENT**	**D***	5 ÷ 30	5 ÷ 240	0,05 ÷ 3	-60°C Ta +80°C (T4 - T135°C) -60°C Ta +55°C (T5 - T100°C)
	ALTERNATING CURRENT (RECTIFIED BY INTERNAL DIODE BRIDGE)	**R***				
CXE22KXD2-*K9*/10/*	**PROPORTIONAL CURRENT**	**D***				

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COIL DATA			POWER	NOMINAL VOLTAGE	NOMINAL CURRENT	AMBIENT TEMPERATURE
IECEx MARKING Ex d I Mb IP66/IP68						
DESCRIPTION	**COIL VERSION**	**SUFFIX**	[W] or [VA]	[V]	[A]	[°C]
C22KXDM2-*K9*/10/* **CS22KXDM2-*K9*/10/***	**DIRECT CURRENT**	**D***	5 ÷ 30	5 ÷ 240	0,05 ÷ 3	-40°C Ta +80°C
	ALTERNATING CURRENT (RECTIFIED BY INTERNAL DIODE BRIDGE)	**R***				
CE22KXDM2-*K9*/10/* **CSE22KXDM2-*K9*/10/***	**PROPORTIONAL CURRENT**	**D***				

Warning label

"Warning – do not open when energized"

Entries in to the enclosures

The cable entries shall be according to the protection mode.
In case of protection mode "tb", the enclosure degree of protection IP66 or IP68 shall be maintained.

Special Conditions for Safe Use / Notes for Erection:

The cover screws are M5x16 class A4-80.