

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:

IECEx CES 11.0011X

Issue No: 1

Certificate history:

Issue No. 1 (2017-12-12)

Issue No. 0 (2012-04-27)

Status:

Current

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Date of Issue:

2017-12-12

Applicant:

CORTEM S.p.A.

Via Aquileia 10

I - 34070 Villesse (GO)

Italy

Equipment:

Socket devices series PY-... and Plugs series SPY-...

Optional accessory:

Type of Protection:

Flameproof enclosure "d", Dust ignition protection "t"

Marking:

Ex d IIC T6 Gb

Ex tb III C T76°C Db

IP65

Approved for issue on behalf of the IECEx

Mirko Balaz

Certification Body:

Position:

Head of IECEx CB

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 the Official IECEx Website.

Certificate issued by:

CESI
Centro Elettrotecnico
Sperimentale Italiano S.p.A.
Via Rubattino 54
20134 Milano
Italy





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Manufacturer:

CORTEM S.p.A. Via Aquileia 10 I - 34070 Villesse (GO)

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: 2007-10

Explosive atmospheres - Part 0:Equipment - General requirements

Edition:5

IEC 60079-1: 2007-04

Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:6

IEC 60079-31:2008

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

Edition:1

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:

IT/CES/ExTR11.0012/00

IT/CES/ExTR11.0012/01

Quality Assessment Report:

IT/CES/QAR06.0002/11



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Schedule

#### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Socket device series PY-\*\* and Plug series SPY-\*\* are suitable for cable connection in potentially explosive areas. Powering up of equipment is done by inserting the Plug, which acts on the internal circuit breaker.

The PY-\*\* series Socket outlets are provided by interlock device, so the Plug can be inserted when the switch is in "off" position and cannot be removed when the switch is in "on" position.

The PY-\*\* series Socket outlets are composed of a body complete with two cable/conduit entries, a threaded cover and a coupling that contains the insulated Socket with corresponding pins for various configurations.

The Plug is composed by a cylindrical body having threaded entry suitable for cable connection by means a cable gland or a certified stopping box. A ring complete with gasket is located on the Plug body to guarantee the mechanical coupling and the IP65 degree of protection with the Socked, once inserted. When the Plug is inserted the first pin making connection to the Socket is the earth pin, when the Plug is withdrawn the last pin making contact is the earth pin; this assembly characteristic ensures a ground connection always on.

The Sockets and Plugs are rated at 16/20A and 30/32A.

### Equipment identification:

- PY-xyz (Socket)
- SPY-xyz (Plug)
- o x- number of poles (2, 3 or 4)
- o y- max current range (16, 32)
- o z -colour

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

- The flamepaths are specified in the manufacturer drawings. For information regarding the dimensions of the flameproof joints the manufacturer shall be contacted.
- The condition of the installation of the Socket PY-\*\* and Plugs SPY-\*\* series are included within the Safety instructions. For a
  safe use these assembling instructions are to be followed precisely.
- The accessories used for cable entries into enclosures shall be subject of separate certification, suitable for type of protection Ex
  d and Ex tb and they should guarantee a minimum degree of protection IP 65 in compliance with the IEC 60529 Standard.



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### EQUIPMENT (continued):

#### Electrical characteristics

• Maximum rated voltage: 690 V.

• Maximum rated frequency: 500 Hz.

• Maximum rated current: 16/20 or 30/32 A.

• Pins number: from 3 to 5.

• Number of poles: two poles + earth, three poles + earth and three poles + neutral + earth

• Conductor sizes: PY/SPY-\*\* 16A: 4 mm2; PY/SPY-\*\* 32A: 6 mm2.

• Internal switch nominal current: PY-\*\* 16A: 25 A; PY-\*\* 32A: 40 A.

• Ambient temperature range: from -20°C to +52°C.

• Temperature Class: T6.

• Maximum surface temperature: T76°C.

• Degree of protection (IEC 60529): IP 65.

#### Warning label

- "Do not open when energized".



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

#### Variation 1.1.

Sockets PY-\*\* and Plugs SPY-\*\* series originally assessed for an Ambient temperature range of -20°C to +50°C have been reassessed to the new Ambient temperature range of -20°C to +52°C.

#### Variation 1.2.

The Sockets PY-\*\* and Plugs SPY-\*\* series have been updated to the engaged thread lengths regarding the tapered threads in compliance to the Clause 5.3 and Table no. 4 of IEC 60079-1 Standard.