



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 EUT 17.0030X

Issue No: 0

Certificate history:

[Issue No. 0 \(2017-11-10\)](#)

Status: **Current**

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Date of Issue: **2017-11-10**

Applicant: **ATAM S.p.A.**
Via Archimede, 7 - 20864 Agrate Brianza (MB)
Italy

Equipment: **Coil type 455GD**

Optional accessory:

Type of Protection: **Flameproof enclosure "d", dust-tight enclosure "t"**

Marking:

Ex db IIC T6...T4 Gb $-60^{\circ}\text{C} \leq \text{Ta} \leq +\text{XX}^{\circ}\text{C}$

Ex tb IIIC T85°C...T135°C Db $-60^{\circ}\text{C} \leq \text{Ta} \leq +\text{XX}^{\circ}\text{C}$

Ex db I Mb

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

Dionisio Bucchieri

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:

Eurofins Product Testing Italy S.r.l.
Via Cuornè,
n.21 - 10156 Torino
Italy



Product Testing



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Date of Issue: 2017-11-10 Page 2 of 4
Manufacturer: **ATAM S.p.A.**
Via Archimede, 7 - 20864 Agrate Brianza (MB)
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 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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:

[IT/EUT/ExTR17.0035/00](#)

Quality Assessment Report:

[IT/CES/QAR15.0002/02](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

For the equipment description see the document attached.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Flameproof joints are not intended to be repaired.

Use screws M5X10 quality A*-70 between body and cable entry flange.

The equipment has to be periodically cleaned in order to avoid dust accumulation > 5 mm.

See installation instruction document of the manufacturer for the installation of a proper cable gland in the threaded hole of enclosure (thread type and size: ½" NPT).

The maximum ambient temperature shall be in accordance with the table reported in the annex of this certificate.



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Additional information:

Annex:

[Annex to CoC.pdf](#)

Annex to certificate: IECEx EUT 17.0030X Issue N. 0 of 2017-11-10

Equipment description

The equipment is a coil designed to operate either with AC or DC supply; the equipment is composed of two main parts, the winding and the flame-proof/tight dust enclosure in which the winding is placed. The electrical connection to the supply is made through a cable gland screwed into the enclosure.

The coil type 455GD is a device suitable to be installed in zone 1 / zone 21 with type of protection Ex db IIC / Ex tb IIC and Ex db I for mine.

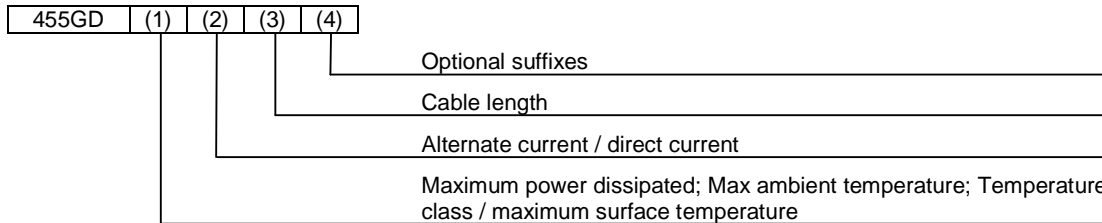
The coils are installed in a process where there is a fluid that can reach a maximum value in temperature equal to the maximum ambient temperature in which the coils are intended to be used.

The temperature class and the maximum surface temperature depend on the ambient temperature and on the maximum power that the coil can dissipate, as shown in the following table:

Temperature class / °C	Max. surface temperature / °C	Ambient temperature range / °C	Rated voltage / V	Max. current density / A/mm ²	Max. power at 20°C / W
T4	T135°C	-60 ÷ +70	6÷240 V _{AC} /V _{DC}	9.3	30
T4	T135°C	-60 ÷ +80	6÷240 V _{AC} /V _{DC}	6.3	14
T5	T100°C	-60 ÷ +60	6÷240 V _{AC} /V _{DC}	6.3	14
T5	T100°C	-60 ÷ +70	6÷240 V _{AC} /V _{DC}	5.5	10
T6	T85°C	-60 ÷ +55	6÷240 V _{AC} /V _{DC}	5.5	10

Due to the fact that the maximum surface temperature does not exceed the limit of 150°C, the equipment can be used in mines where a coal dust layer may be deposited on the external surfaces of the equipment.

Type designation



- (1): 0 = Pmax: 30W; Tamb max: 70°C; T4 / T135°C; 1 = Pmax: 14W; Tamb max: 80°C; T4 / T135°C; 2 = Pmax: 14W; Tamb max: 60°C; T5 / T100°C; A = Pmax: 10W; Tamb max: 70°C; T5 / T100°C; B = Pmax: 10W; Tamb max: 55°C; T6 / T85°C.
- (2): 0 = AC; 1 = DC.
- (3): xx = xx meters of cable; 00 = version without cable.
- (4): Suffixes that do not affect the equipment and the type of protection.

Electrical parameters:

Rated voltage: 6÷240 V_{DC} or 6÷240 V_{AC}
 Frequency (AC): 50/60 Hz
 Max. dissipated power at 20°C (W): 10 W or 14 W or, 30 W
 Degree of protection: IP66/IP67

Warning label

Warning – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
 Warning – T_{cable}: 105°C

Routine test

Routine tests are not required because the enclosures have passed the overpressure test with a static pressure equal to 4 times reference pressure.