



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 INE 13.0054X issue No.:0 Certificate history:

Status: **Current**

Date of Issue: **2013-10-14** Page 1 of 3

Applicant: **COELBO S.r.l.**
Via Santa Margherita, 83
I-20861 Brugherio (MB)
Italy

Electrical Apparatus: **Limit switches series FCL...**
Optional accessory:

Type of Protection: **d and tb**

Marking: **Ex d I Mb**
Ex d IIB+H2 T6 Gb
Ex tb IIIC T85°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Thierry HOUEIX

Position:

Ex Certification Officer

Signature:
(for printed version)

Date:

2013-10-14



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](http://www.iecex.com).

Certificate issued by:

INERIS
Institut National de l'Environnement Industriel
et des Risques
BP n2
Parc Technologique ALATA
F-60550 Verneuil-En-Halatte
France



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Manufacturer: **COELBO S.r.l.**
Via Santa Margherita, 83
I-20861 Brugherio (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 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition: 1	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:

[FR/INE/ExTR13.0054/00](#)

Quality Assessment Report:

[IT/CES/QAR10.0009/03](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Limit switches series FCL... consist of a flameproof enclosure including an electrical contact. The enclosures are made in light alloy EN AB-44100 for using in Groups IIB+H2 and IIIC. This equipment is also available in stainless steel AISI316L or brass OT58B for using in Groups I, IIB+H2 and IIIC. The enclosures get the degrees of protection IP65 in accordance with the IEC 60529 standard.

CONDITIONS OF CERTIFICATION: YES as shown below:

The gaps and diametrical clearances of the different flamepaths are less than the values specified in the table of the IEC 60079-1 standard.

The width of the flameproof joints is superior than the values specified in the tables of the IEC 60079-1 standard.



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Annexe: IECEx INE 13.0054X_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

Maximum supply voltage : 500 Vac or 250 Vdc
Maximum intensity : 15 A
Nominal frequency : 50/60Hz

MARKING

Marking has to be readable and indelible; it has to include the following indications:

A- Limit switches in light alloy:

- COELBO Srl
- I - 20861 Brugherio (MB)
- FCL... (1)
- IECEx INE 13.0054X
- (Serial number)
- Ex d IIB+H2 T6 Gb
- Ex tb IIIC T85°C Db IP65
- $-50^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$
- Use only screws with minimum of quality A2-70
- Warning: DO NOT OPEN WHEN ENERGIZED

(1) Type is completed by numbers and /or letters corresponding to manufacturing variations.

B- Limit switches in stainless steel or brass:

- COELBO Srl
- I - 20861 Brugherio (MB)
- FCL... (1)
- IECEx INE 13.0054X
- (Serial number)
- Ex d I Mb
- Ex d IIB+H2 T6 Gb
- Ex tb IIIC T85°C Db IP65
- $-50^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$
- Use only screws with minimum of quality A2-70
- WARNING: DO NOT OPEN WHEN ENERGIZED

(1) Type is completed by numbers and /or letters corresponding to manufacturing variations.

ROUTINE EXAMINATIONS AND TESTS

In accordance with § 16.2 of the IEC 60079-1 standard, the equipment defined above is exempted of routine test in owing to the fact that it has undergone a static type test at 4 times the reference pressure under 34.9 bar for ambient down to -50°C .