



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 LOM 18.0006X

Issue No: 0

Certificate history:

Issue No. 0 (2018-10-23)

Status: **Current**

Page 1 of 3

Date of Issue: **2018-10-23**

Applicant: **TECFLUID, S.A**
C/ Narcís Monturiol 33
08960 Sant Just Desvern
Spain

Equipment: **Flow and level meters Types SC250*/SM250/DP65/DP500/LP8***

Optional accessory:

Type of Protection: **Intrinsic safety "ia"**

Marking: Ex ia IIC T6...T4 Ga

Ex ia IIIC T*°C Da

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

Javier García Torrent

Position:

Certification Committee

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

Certificate issued by:

Laboratorio Oficial J.M. Madariaga (LOM)
TECNOGETAFE
C/ Eric Kandel, 1
28906 Getafe (Madrid)
Spain





IECEX Certificate of Conformity

Certificate No: IECEx LOM 18.0006X Issue No: 0

Date of Issue: **2018-10-23** Page 2 of 3

Manufacturer: **TECFLUID, S.A**
C/ Narcís Monturiol 33
08960 Sant Just Desvern
Spain

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 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 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*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:

[ES/LOM/ExTR18.0002/00](#)

Quality Assessment Report:

[ES/LOM/QAR17.0005/00](#)



IECEX Certificate of Conformity

Certificate No: IECEx LOM 18.0006X

Issue No: 0

Date of Issue: 2018-10-23

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The product series of variable area flow meters and level indicators are intended to measure fluids in pipelines in potentially explosive atmospheres. They are based on a section of pipe through which a fluid goes through. In variants SC250*, SM250, and LP8* by displacing a float and in variants DP65 and DP500 by moving a disk, which is attached to a torsion spring.

Adjacent to the section of the pipe the enclosure containing the flow/level reading system is placed. The displacement is measured by magnetic coupling which moves a measuring dial. The movement of the needle can act on limit switch elements or been associated with Hall effect sensor in the variants with transmitter TH7*.

The enclosure of all series is the same and can be made of three different materials (aluminium, stainless steel and polypropylene). Those made from aluminium and polypropylene contain a plastic window. In the stainless steel variants this window is made of glass.

SPECIFIC CONDITIONS OF USE: YES as shown below:

In variants with TH7 transmitter programming via USB interface can only be done in safe area following the manufacturer's instructions.

Annex:

[IECEX LOM 18.0006X_Annex.pdf](#)



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Certificate No: IECEx LOM 18.0006X

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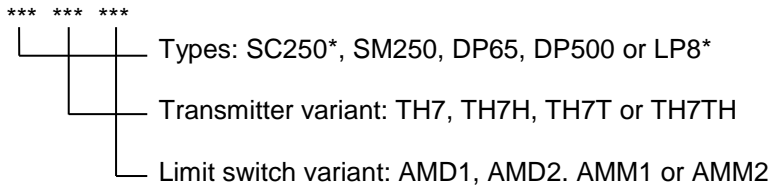
Codification of variants

Types and variants:	SC250	Flow meter with conical float
	SC250 *	Flow meter with conical float and spring
		H → Horizontal mounting
		V → Vertical mounting
	SM250	Flow meter with cylindrical float
	DP65	Impact disc flow meter
	DP500	Impact disc flow meter
	LP8 *	Float level meter.
		0 → Flanged mounting
		1 → Threaded mounting

The equipment with two wire signal transmitter includes and electronic circuit called HALLTEC VII with four variants:

TH7	4-20 mA transmitter
TH7H	4-20 mA transmitter compatible with the HART protocol
TH7T	4-20 mA transmitter with 9 digit display for totalizing
TH7TH	4-20 mA transmitter compatible with the HART protocol and totalizer

Type codification



The limit switch can be either certified NAMUR inductive sensors, or been free contacts considering as simple apparatus.

Specific parameters of the type of protection

With transmitter TH7* Not encapsulated	With transmitter TH7* Encapsulated	AMD sensors	Incorporating AMM microswitches	
			Ex ia IIC T6 Ga	Ex ia IIIC T135°C Da
Ex ia IIC T4 Ga	Ex ia IIC T6 Ga Ex ia IIIC T85°C Da	Ex ia IIC T6 Ga Ex ia IIIC T*°C Da	Ex ia IIC T6 Ga	Ex ia IIIC T135°C Da
<i>Ui</i> : 30 V <i>Ci</i> : 57.3 nF <i>Pi</i> : (*) W	<i>Ui</i> : 30 V <i>Ci</i> : 57.3 nF <i>Pi</i> : (*) W	Same as AMD sensor parameters	Without parameters	<i>Ii</i> : 250 mA <i>Pi</i> : (*) W

(*) *Pi* depend on ambient temperature and the service temperature. This service temperature *Ts* includes the maximum ambient temperature +40°C (-20°C ≤ *Ta* ≤ +40°C) and any possible process temperature.



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Temperature class

TH7* not encapsulated	TH7* encapsulated	Ts (°C)	Pi (W)
T4	T6	40	1
		60	0.8
		80	0.6

Surface temperature

With microswitches	Ts (°C)	Pi (W)
T135 °C	40	0.750
	60	0.683
	80	0.616