



(1) **EU-Type Examination Certificate**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 2014/34/EU**

(3) Certificate number: **SEV 18 ATEX 0143**

(4) Product: Float switch  
Type MS1 EX

(5) Manufacturer: Grundfos Holding A/S

(6) Address: Poul Due Jensens Vej 7, 8850 Bjerringbro, DENMARK

(7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Eurofins, notified body No. 1258, in accordance with article 17 of Directive 2014/34/EU of the European parliament and of the council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no 18-Ex-0050.40

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

**EN 60079-0:12 + A11:13**

**EN 60079-11:12**

**EN 60079-26:15**

Except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign «X» is placed after the certificate number, it indicates that the product is subjected to special conditions for safe use specified in the schedule to this certificate.

(11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:



**II 1G Ex ia IIC T6 Ga**

**Eurofins Electrosuisse Product Testing AG**  
**Notified Body ATEX**

Martin Plüss  
Product Certification

(13)

## Appendix

(14)

EU-Type Examination Certificate no. SEV 18 ATEX 0143

**(15) Description of product**

The MS1 Ex float switch can be used in a certified, intrinsically safe circuit electrical system for control and regulation of liquid levels in Zones 0, 1 and 2 Ex-areas. The level controller may be used in zone 0, zone 1 and zone 2 as well as in gas groups IIA, II B and IIC, where an explosion hazard exists due to combustible materials in temperature classes T1 to T6.

Ratings:

$U_i$	=	40 V
$I_i$	=	100 mA
$C_i$	=	0 nF + 0.11 nF/m (connection cable)
$L_i$	=	0 $\mu$ H + 0.35 $\mu$ H/m (connection cable)

Rated ambient temperature range -20 °C to + 80 °C

**(16) Report number** 18-Ex-0050.40**(17) Specific conditions of use**

None

**(18) Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
None	

**(19) Drawings and Documents**

See test report "Manufacturer's Documents"







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

Certificate No.: IECEx SEV 18.0015

Issue No: 0

Certificate history:

Issue No. 0 (2018-07-03)

Status: **Current**

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Date of Issue: **2018-07-03**

Applicant: **Grundfos Holding A/S**  
Poul Due Jensens Vej 7  
8850 Bjerringbro  
**Denmark**

Equipment: **MS1 Ex**

Optional accessory:

Type of Protection: **ia**

Marking:  
Ex ia IIC T6 Ga

Approved for issue on behalf of the IECEx  
Certification Body:

Martin Plüss

Position:

Manager Product Certification

Signature:  
(for printed version)

Date:

2018-07-03

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:

**Eurofins Electrosuisse Product Testing AG**  
Luppenstrasse 3  
CH-8320 FEHRALTORF  
Switzerland



Electrosuisse  
Product Testing



# IECEX Certificate of Conformity

Certificate No: IECEX SEV 18.0015 Issue No: 0  
Date of Issue: **2018-07-03** Page 2 of 3  
Manufacturer: **Grundfos Holding A/S**  
Poul Due Jensens Vej 7  
8850 Bjerringbro  
**Denmark**

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:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-26 : 2014-10</b> Edition:3.0	Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga

*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:

[CH/SEV/ExTR18.0017/00](#)

Quality Assessment Report:

[NL/DEK/QAR16.0018/01](#)



# IECEx Certificate of Conformity

Certificate No: IECEx SEV 18.0015

Issue No: 0

Date of Issue: 2018-07-03

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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

Float switch MS1 EX

The MS1 Ex float switch can be used in a certified, intrinsically safe circuit electrical system for control and regulation of liquid levels in Zones 0, 1 and 2 Ex-areas. the level controller may be used in zone 0, zone 1 and zone 2 as well as in gas groups IIA, II B and IIC, where an explosion hazard exists due to combustible materials in temperature classes T1 to T6.

Ratings: Only for connection to a certified intrinsically safe circuit with:

$U_i \leq 40 \text{ V}$

$I_i \leq 100 \text{ mA}$

$C_i \leq 0 \text{ nF} + 0.11 \text{ nF/m}$  (connection cable)

$L_i \leq 0 \text{ }\mu\text{H} + 0.35 \text{ }\mu\text{H/m}$  (connection cable)

Rated ambient temperature range  $-20 \text{ }^\circ\text{C}$  to  $+80 \text{ }^\circ\text{C}$

**SPECIFIC CONDITIONS OF USE: NO**

