



IECEx TEST REPORT COVER

ExTR Reference Number..... :	US/FMG/ExTR16.0002/01
ExTR Free Reference Number	
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Date of issue	27 October 2017
Ex Testing Laboratory (ExTL)	FM Approvals LLC
Address	PO Box 9102, 1151 Boston-Providence Turnpike, Norwood, MA, 02062-9102
Ex Certification Body (ExCB)	As above
Address	As above
Applicant's name	ABB, Inc. – BU Measurement Products
Address	125 East County Line Road Warminster, PA 18974 USA
Standards associated with this ExTR package	IEC 60079-0:2011, 6 th Edition IEC 60079-11:2011, 6 th Edition
Clauses considered	All clauses considered
Related Amendments, Corrigenda or ISHs	N/A
Test item description	MS10 Level Switch
Model/type reference	MS10.a.b.c.d.e.f.g Level Switch
Code (e.g. Ex __ II__ T__)..... :	Ex ia IIC T6 Ga Ta = -40°C to +80°C
Rating	Entity Parameters: Ui=100V , li = 750mA, Pi = 1.7W, Ci = 0, Li = 0

ExTR Package Contents

Assembled ExTR documents and Additional reference material:

IECEx Test Report Cover

Manufacturer's name: ABB, Inc. – BU Measurement Products
 Address: 125 East County Line Road
 Warminster, PA 18974
 USA

Trademark:



Certificate No. (optional): IECEx FMG 16.0002X

QAR Reference No. (optional):

Particulars: Test item vs. Test requirements

Classification of installation and use : Stationary

Ingress protection : IP66, IP67

Rated ambient temperature range (°C)..... : -40°C to +80°C

General remarks:

The test results presented in this ExTR package relate only to the item or product tested.

- "(See Attachment #)" refers to additional information appended to the ExTR package.
- "(See appended table)" refers to a table appended to the ExTR package.
- Throughout this ExTR package, a point is used as the decimal separator.
- *Where the term "N/A" appears in any part of an ExTR package, it indicates that the associated issue was considered "Not applicable" to the involved evaluation.*
- *In accordance with IECEx 02, a Receiving ExCB may request a sample of the Ex equipment and copies of the documentation referred to in an ExTR Cover.*

The technical content of this ExTR package shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL.

General product information:

Functionality

The MS10 Level Switch measures the level of a liquid using a pivoting stainless steel float with an integral magnet to activate a reed switch. The body of the apparatus is in the form of a threaded connector, to facilitate fitting into pipework or tank walls. The reed switch is considered to be simple apparatus. The MS10 Level Switch may optionally be fitted with a variety of extended supports for the float and the reed switch. The reed switch is fitted with unterminated leads for user connection.

Mechanical

The MS10 Level Switch is made of a solid stainless steel housing which is available in a selection of process connection threads of various flange sizes and one ½-NPT conduit entry. Because of this construction the enclosure is considered to comply with IEC 60529 for IP66 and IP67. The IP rating is not relied upon for the hazardous area protection.

MS10.a.b.c.d.e.f.g Level Switch

Entity Parameters

Ui = 100V, Ii = 700mA, Pi = 1.7W, Ci = 0, Li = 0

a = Process Connection 15, 20, WP, FL, T2 or S2.

b = Flange Process Connection Material: X, 316 or CST

c = Process Connection Size/Rating/Type: xxx (representing specific type, material & rating from SLG-0001-1 Flange Designation Chart).

d = Tag with Customer Specified Information: X or NT.

e = Insertion Length EXT1, EXT2, EXT3, EXT4 or EXTN (custom insertion length N = 6½ to 14 in / 168 to 356 mm).

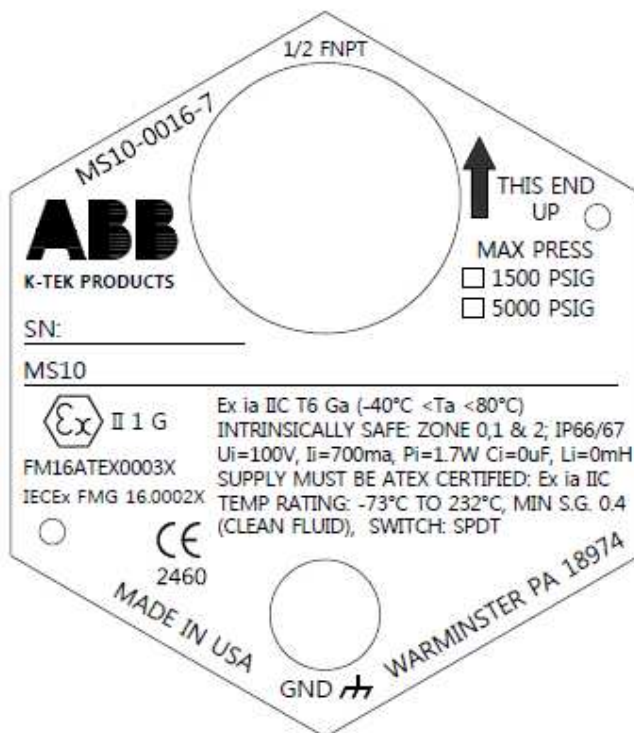
f = High Pressure Option: X, HP, 1, 2, 3, 4 or 5.

g = Approvals: E1, E2

Details of change (applicable only when revising an existing ExTR package):

Transfer of the product and related certificates to a different division of ABB and related documentation.

Copy of Marking Plate:



Details regarding 'trade agent' / 'local assembler' application in accordance with OD 203:

N/A

In accordance with OD 024, testing not fully performed by ExTL staff at the above ExTL address:

N/A

National differences considered as part of this evaluation:

N/A

"Specific Conditions of Use" / "Schedule of Limitations":

1. The supply connection for the apparatus is by an unterminated lead, and when installed, the connection must have an ingress protection level of at least IP20.
2. The apparatus may be fitted with a titanium float. This must be taken into account during installation.

Routine tests:

None

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Technical Documents		
Title:	Drawing No.:	Rev. Level:
* MS10 ATEX & IECEx INTRINSICALLY SAFE NAMETAG	MS10-0016-7	H
MS10 SERIES CERTIFICATION	MS10-0062-1	D
MODEL OPTION CODE (IS)	MS10-0303-1	NC
MS10 EXPLOSIVE ATMOSPHERES OPTION CODES	MS10-0303-2	A
INSTALLATION DRAWING I.S.	MS10-0923-2	C
ASSEMBLY, MS10 REED SWITCH	MS10-1000-1	J
* INSTALLATION AND OPERATION MANUAL	OI/MS10-EN	F

Note: An * is included before the title of documents that are new or revised.