

FM Approvals
1151 Boston Providence Turnpike
P.O. Box 9102 Norwood, MA 02062 USA
T: 781 762 4300 F: 781-762-9375 www.fmaprovals.com

CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

3000-Mbcdefgh. M-Series Magnetic Flowmeter

NI-IS / I / 2 / ABCD / T3 Ta = 50°C;
S-IS / II / 2 / FG / T3 Ta = 50°C; Type 4X/6P/IP66/IP67
I / 2 / AEx nA ia IIC T3 Ta = 50°C

- b = Liner material R, T, P, H, or S.
- c = Electrodes H, S, G, T, or R.
- d = End flange D or S.
- e = Entry M or N.
- f = Number of electrodes T or F.
- g = Detector size 6, 8, 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, or 600.
- h = Supply Voltage H or L

3000-Rbcdefgh. M-Series Magnetic Flowmeter Amplifier.

NI / I / 2 / ABCD / T3 Ta = 50°C - MAG-DS-00493-EN;
S-IS / II / 2 / FG / T3 Ta=50°C – MAG-DS-00493-EN;
I / 2 / AEx nA [ia] IIC T3 Ta = 50°C – MAG-DS-00493-EN; Type 4X/6P/IP66/IP67

- b = Liner material R, T, P, H, or S.
- c = Electrodes H, S, G, T, or R.
- d = End flange D or S.
- e = Entry M or N.
- f = Number of electrodes T or F.
- g = Detector size 6, 8, 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, or 600.
- h = Supply Voltage H or L

3000-Rbcdefgh. M-Series Magnetic Flowmeter Detector.

NI-IS / I / 2 / ABCD / T3 Ta = 50°C; Type 4X/6P/IP66/IP67;

To verify the availability of the Approved product, please refer to www.approvalguide.com or www.roofnav.com

S-IS / II / 2 / FG / T3 Ta=50°C
I / 2 / AEx nA ia IIC T3 Ta = 50°C

- b = Liner material R, T, P, H, or S.
- c = Electrodes H, S, G, T, or R.
- d = End flange D or S.
- e = Entry M or N.
- f = Number of electrodes T or F.
- g = Detector size 6, 8, 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150, 200, 250, 300, 350, 400, 450, 500, or 600.
- h = Supply Voltage H or L

4000-Mbcdefgh. M-Series Magnetic Flowmeter

XP-IS-S / I / 1 / BCD / T4 Ta = 50°C;
DIP-IS / II / 1 / EFG / T4 Ta = 50°C; Type 4X/IP66
I / 1 / AEx d e ia IIC T4 Ta = 50°C

- b = Liner material R, T, P, H, or S.
- c = Electrodes H, S, G, T, or R.
- d = End flange D or S.
- e = Entry M or N.
- f = Number of electrodes T or F.
- g = Detector size 6, 8, 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150, 200, 250, or 300.
- h = Supply Voltage H or L

4000-Rbcdefgh. M-Series Magnetic Flowmeter Amplifier.

XP-AIS-S / I / 1 / BCD / T4 Ta = 50°C – MAG-DS-00558-EN;
DIP-AIS / II / 1 / EFG / T4 Ta = 50°C – MAG-DS-00558-EN;
I / 1 / AEx d [ia] IIC T4 Ta = 50°C – MAG-DS-00558-EN; Type 4X/IP66;

- b = Liner material R, T, P, H, or S.
- c = Electrodes H, S, G, T, or R.
- d = End flange D or S.
- e = Entry M or N.
- f = Number of electrodes T or F.
- g = Detector size 6, 8, 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150, 200, 250, or 300.
- h = Supply Voltage H or L

4000-Rbcdefgh. M-Series Magnetic Flowmeter Detector.

XP-IS-S / I / 1 / BCD / T4 Ta = 50°C;
DIP-IS / II / 1 / EFG / T4 Ta = 50°C; Type 4X/IP66
I / 1 / AEx d e ia IIC T4 Ta = 50°C

- b = Liner material R, T, P, H, or S.
- c = Electrodes H, S, G, T, or R.
- d = End flange D or S.
- e = Entry M or N.
- f = Number of electrodes T or F.
- g = Detector size 6, 8, 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 150, 200, 250, or 300.
- h = Supply Voltage H or L

To verify the availability of the Approved product, please refer to www.approvalguide.com or www.roofnav.com

Equipment Ratings:

Model 3000

Nonincendive for use in Class I Division 2 Groups ABC and D with intrinsically safe electrode circuits for Class I Division 1 Groups ABC and D; Suitable for use in Class II Division 2 Groups F and G with intrinsically safe electrode circuits for Class I Division 1 Groups ABC and D; Type of protection 'n' for use in Class I Zone 2 Groups IIC with intrinsically safe electrode circuits for Class I Zone 0 Group IIC; indoor and outdoor (Type 4X,6P,IP66,IP67) hazardous (classified) locations; Temperature class T3 at an ambient temperature of 50°C.

Model 4000

Explosionproof for use in Class I Division 1 Groups BC and D with intrinsically safe electrode circuits for Class I Division 1 Groups ABC and D; Flameproof for use in Class I Zone 1 Groups IIC with intrinsically

safe electrode circuits for Class I Zone 0 Group IIC and increased safety coils for Class I Zone 1 Group IIC; indoor and outdoor (Type 4X,IP66)hazardous (classified) locations; Temperature class T3 at an ambient temperature of 50°C.

FM Approved for:

Badger Meter, Inc.
Milwaukee, WI 53223 USA

To verify the availability of the Approved product, please refer to www.approvalguide.com or www.roofnav.com

This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	2011
Class 3610	2010
Class 3611	2004
Class 3615	2006
Class 3810	2005
ANSI/ISA 60079-0	2013
ANSI/ISA 60079-1	2009
ANSI/ISA 60079-7	2009
ANSI/ISA 60079-11	2014
ANSI/ISA 60079-15	2012
IEC 60529	2013
NEMA Pub. 250	2003

Original Project ID: 3015930

Approval Granted: August 19, 2004

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3022318	March 16, 2005		
3021961	July 28, 2005		
3027740	August 3, 2006		
100629	July 7, 2010		
3051329	May 13, 2015		

FM Approvals LLC



J.E. Marquedant
Manager, Electrical Systems

13 May 2015

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com or www.roofnav.com