



Member of the FM Global Group

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

CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

Liquicap M, FMI51-Rbcdefghi or FMI52-Rbcdefghi. Level Probe.

XP-AIS / I / 1 / ABCD / T5 Ta = 70°C; Type 4X/Type 6P, IP66/IP67/IP68;
DIP-AIS / II,III / 1 / EFG / T5 Ta = 60°C; Type 4X/Type 6P, IP66/IP67/IP68;
NI / I / 2 / ABCD / T5 Ta = 70°C

- b = Inactive length L3: any single letter or number.
- c = Active probe length L1: any single letter or number.
- d = Process connection: any triple letter or number.
- e = Electronic / Output / Display: A, B or C.
- f = Housing, material: 1, 3, 4, 5 or 6.
- g = Cable entry: A, B, C, D, E or F.
- h = Type of probe: 1, 2, 3, 4 or 5.
- i = Additional options: A, B, C, D, E, F(not verified by FM), S(not verified by FM), or Y.

Liquicap M, FTI51-Rbcdefghij or FTI52-Rbcdefghij. Level Probe

XP-AIS / I / 1 / ABCD / T5 Ta = 70°C; Type 4X/Type 6P, IP66/IP67/IP68;
DIP-AIS / II,III / 1 / EFG / T5 Ta = 60°C; Type 4X/Type 6P, IP66/IP67/IP68;
NI / I / 2 / ABCD / T5 Ta = 70°C

For option f = 5 (the number 5 must be selected for option g)

- b = Inactive length L3: any single letter or number.
- c = Active probe length L1: any single letter or number.
- d = Insulation L2: any single letter or number.
- e = Process connection: any triple letter or number.
- f = Electronic / Output / Display: 1, 2, 4, 5, 7 or 8.
- g = Housing, material: 1, 3, 4, 5 or 6
- h = Cable entry: A, B, C, or D.
- i = Type of probe: 1, 2, 3, 4 or 5.
- j = Additional options: A, B, C, D, E, F(not verified by FM), S(not verified by FM), or Y.

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



Member of the FM Global Group

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

FM Approvals HLC
04/13

Liquicap M, FMI51-Pbcdefghi or FMI52-Pbcdefghi. Level Probe.

IS / I,II,III / 1 / ABCDEFG / T* — 960007607; Entity*; Type 4X/Type 6P, IP66/IP67/IP68;

I/0/AEx ia IIC T* - 960007607; Entity*; IP66 / IP67 / IP68;

I/2/AEx ic IIC T* - 960007607; Entity*; IP66 / IP67 / IP68;

NI / I / 2 / ABCD / T* — 960007607; NIFW*; Type 4X/Type 6P, IP66/IP67/IP68;

S/ II, III / 2 / EFG / T* — 960007607; NIFW*; Type 4X/Type 6P, IP66/IP67/IP68

*For Entity Parameters, Nonincendive Field Wiring Parameters, and temperature class reference control drawings 960007607.

For option f = 1, 4, or 5 (environmental rating is Type 6P and IP68)

b = Inactive length L3: any single letter or number.

c = Active probe length L1: any single letter or number.

d = Process connection: any triple letter or number.

e = Electronic / Output / Display: A, B or C.

f = Housing, material: 1, 3, 4, 5, or 6

g = Cable entry: A, B, C, D, E or F.

h = Type of probe: 1, 2, 3, 4, or 5.

i = Additional options: A, B, C, D, E, F(not verified by FM), S(not verified by FM), or Y.

Liquicap M, FTI51-Pbcdefghij. or FTI52-Pbcdefghij. Level Probe

IS / I,II,III / 1 / ABCDEFG / T* — 960007607; Entity*; Type 4X/Type 6P, IP66/IP67/IP68;

I/0/AEx ia IIC T* - 960007607; Entity*; IP66 / IP67 / IP68;

I/2/AEx ic IIC T* - 960007607; Entity*; IP66 / IP67 / IP68;

NI / I / 2 / ABCD / T* — 960007607; NIFW*; Type 4X/Type 6P, IP66/IP67/IP68;

S/ II, III / 2 / EFG / T* — 960007607; NIFW*; Type 4X/Type 6P, IP66/IP67/IP68

*For Entity Parameters, Nonincendive Field Wiring Parameters, and temperature class reference control drawings 960007607

For option g = 1, 4, or 5 (environmental rating is Type 6P and IP68)

b = Inactive length L3: any single letter or number.

c = Active probe length L1: any single letter or number.

d = Insulation L2: any single letter or number.

e = Process connection: any triple letter or number.

f = Electronic / Output / Display: 1, 2, 4, 5, 7 or 8.

g = Housing, material: 1, 3, 4, 5 or 6.

h = Cable entry: A, B, C, or D.

i = Type of probe: 1, 2, 3, 4, or 5.

j = Additional options: A, B, C, D, E, F(not verified by FM), S(not verified by FM), or Y.

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



Member of the FM Global Group

Equipment Ratings:

Explosionproof for use in a Class I, Division 1, Group A, B, C & D; Dust-Ignitionproof for use in a Class II, III, Division 1, Group E, F & G indoor/ outdoor hazardous (classified) locations, utilizing a Type 4X, Type 6P, IP66 IP67, and a IP68 enclosure rating. With an intrinsically safe sensor connection. Temperature for Explosionproof is class T5 at 70°C. Temperature for Dust-Ignitionproof is T5 at 60°C when the F13 and F27 enclosures are used and T5 at 70°C when the T13 enclosure is used.

AND

Intrinsically Safe for use in Class I, II, III, Division 1, Groups A, B, C, D, E, F, & G; Class I, Zone 0 AEx ia, Group IIC; Class I, Zone 2 AEx ic, Group IIC; Nonincendive with Nonincendive Field Wiring for use in Class I, II, III, Division 2, Groups A, B, C, D, E, F, & G; indoor/outdoor hazardous (classified) locations, utilizing a Type 4X, Type 6P, IP66, IP67, and a IP68 enclosure rating. The examination was based on the installation of the apparatus being installed in accordance with control drawings 960007607. Temperature class T6 at 60°C

FM Approved for:

Endress & Hauser GmbH + Co. KG
Hauptstrasse 1
D-79689 Maulburg, Germany

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

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

Class 3600	2011
Class 3810	2005
Class 3611	2004
Class 3610	2010
Class 3615	2006
NEMA 250	1991
ANSI/IEC 60529	2004
ANSI/ISA 60079-0	2005
ANSI/ISA 60079-11	2010
ANSI/ISA 60079-15	2007
ANSI/ISA 60079-1	2005

Original Project ID: 3025403

Approval Granted: September 29, 2006

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
081504	June 23, 2008		
080227	December 1, 2008		
3034077	December 19, 2008		
3038656	April 6, 2010		
3043369	August 19, 2011		
130808	March 11, 2014		

FM Approvals LLC



J. E. Marquedant
Group Manager, Electrical

11 March 2014
Date

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