

FM Approvals
1151 Boston Providence Turnpike
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CERTIFICATE OF COMPLIANCE

ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

FMR53a-bcdefghi. Micropilot S Level Instrument.

IS / I,II,III / 1 / ABCDEFG / T6 Tmed = 55°C Ta = 55°C; I / 0 / IIC / T6 Tmed = 55°C Ta = 55°C —
960397-1045; Entity;

DIP / II,III / 1 / EFG / T6 Tmed = 55°C Ta = 55°C

NI / I / 2 / ABCD / T6 Tmed = 55°C Ta = 55°C — 960397-1045; NIFW;

Enclosure Type 4X; 6P

Supply Circuit:

$V_{max} = 30 \text{ V dc}$, $I_{max} = 300 \text{ mA}$, $P_i = 1.0 \text{ W}$, $C_i = 16 \text{ nF}$, $L_i = 40 \text{ } \mu\text{H}$.

Signal Circuit:

$V_{max} = 30 \text{ V dc}$, $I_{max} = 300 \text{ mA}$, $P_i = 1.0 \text{ W}$, $C_i = 13 \text{ nF}$, $L_i = 9 \text{ } \mu\text{H}$.

a = Type of antenna 0 (horn antenna), 1 (rod antenna), 2 (planar antenna) or 3 (parabolic antenna).

b = Certificate S.

c = Size of antenna/gasket material; any single letter or number.

d = Process connection; any three letter/number combination representing standard industrial process connections.

e = Output and operation; A (4-20 mA HART with/without display VU331).

f = Enclosure C (Aluminum T12 housing).

g = Cable entry 1 (pg13.5), 2 (M20×1.5), 3 (G 1/2") or 4 (NPT 1/2").

h = Weight + measure approvals not safety related, not verified by FM: any single letter or number.

i = Additional options/certificates not safety related, not verified by FM: any single letter or number.



Member of the FM Global Group

FMR540-abcdefghi. Micropilot S Level Instrument.

IS / I,II,III / 1 / ABCDEFG / T6 Tmed = 60°C Ta = 60°C; I / 0 / IIC / T6 Tmed = 60°C Ta = 60°C — 960007207; Entity;

DIP / II,III / 1 / EFG / T6 Tmed = 60°C Ta = 60°C

NI / I / 2 / ABCD / T6 Tmed = 60°C Ta = 60°C — 960007207; NIFW;

Enclosure Type 4X; 6P

Supply Circuit:

$V_{max} = 30 \text{ V dc}$, $I_{max} = 300 \text{ mA}$, $P_i = 1.0 \text{ W}$, $C_i = 16 \text{ nF}$, $L_i = 40 \text{ } \mu\text{H}$.

Signal Circuit:

$V_{max} = 30 \text{ V dc}$, $I_{max} = 300 \text{ mA}$, $P_i = 1.0 \text{ W}$, $C_i = 13 \text{ nF}$, $L_i = 9 \text{ } \mu\text{H}$.

a = Certificate: S.

b = Size and Type of antenna/gasket material: 5 (horn antenna), 6 (parabolic antenna), E (100mm/4" horn antenna), G (200mm/8" parabolic antenna), or H (250mm/10" parabolic antenna).

c = Antenna extension: 1 (w/o), 2 (150mm/6"), 3 (250mm/10") 4 (450mm/18"), 9 (value to be specific).

d = Process connection; any three letter/number combination representing standard industrial process connections.

e = Output and operation; A (4-20 mA HART with/without display VU331).

f = Enclosure C (Aluminum T12 housing).

g = Cable entry 1 (pg13.5), 2 (M20×1.5), 3 (G 1/2") or 4 (NPT 1/2").

h = Weight + measure approvals not safety related, not verified by FM: any single letter or number.

i = Additional options/certificates not safety related, not verified by FM: any single letter or number.

Equipment Ratings:

Intrinsically Safe for use in Class I, II, III, Division 1, Groups A, B, C, D, E, F, & G; and Class I, Zone 0, Group IIC, IIB, IIA indoor/outdoor hazardous (classified) locations. Also 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 enclosure ratings. The examination was based on the apparatus being installed in accordance with control drawings 960007207 or 960397-1045. Temperature class as indicated on the control drawing

AND

Dust-Ignitionproof for use in a Class II, III, Division 1, Group E, F & G indoor/ outdoor hazardous (classified) locations,

FM Approved for:

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

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

Class 3600	1998
Class 3810	1989
Class 3611	2004
Class 3610	1999
NEMA 250	1991

Original Project ID: 3005776

Approval Granted: February 3, 2000

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3028517	May 17, 2007		
070531	July 25, 2007		
100824	November 17, 2010		

FM Approvals LLC



 James E. Marquedant
 Group Manager, Electrical

17 November 2010
 Date