CERTIFICATE OF CONFORMITY

1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** **FM19CA0023X**
3. **Equipment:** **Micropilot FMR5X Level Detectors**
   (Type Reference and Name)
4. **Name of Listing Company:** **Endress+Hauser SE +Co KG**
5. **Address of Listing Company:** **Haupstrasse 1**
   79689 Maulburg
   Germany
6. The examination and test results are recorded in confidential report number:

   3049342 dated 20th November 2013

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and Plus Other documents:

   CSA-C22.2 No. 0: 2010, CSA C22.2 No. 0.5: 2012, CSA-C22.2 No. 25: 2004, CSA-C22.2 No. 30: 2012, CSA-C22.2 No. 94.2:2015, CSA C22.2 No. 213: 2017, CSA-C22.2 No. 60529: 2005, CAN/CSA-C22.2 No. 60079-0:2019, CAN/CSA-C22.2 No. 60079-1:2016, CAN/CSA C22.2 No. 60079-11:2014, CAN/CSA-C22.2 No. 60079-26:2016, CAN/CSA-C22.2 No. 61010-1:2012, ISA 12.27.01:2003

8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. Equipment Ratings:

    Intrinsically Safe for Class I, II, III Division 1, Groups A, B, C, D, E, F, and G; Intrinsically Safe for Class I, Zone 0, Ex ia IIC T* Ga; Explosionproof and Intrinsically Safe for Class I, Division 1, Groups A, B, C, and D; Associated Intrinsically Safe for Class I, II, III Division 1, Groups A, B, C, D, E, F, and G; Dust-

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

18 February 2021
Date

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

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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ignitionproof and Intrinsically Safe for Class II, III, Division 1, Groups E, F, and G; Nonincendive with Non-Incendive Field Wiring for Class I, Division 2, Groups A, B, C, and D; Flameproof and Intrinsically Safe with Intrinsically Safe Outputs for Class I, Zone 0/1, Ex ia/db [ia Ga] IIC T* Ga/Gb; For Outdoor use (Type 4X / 6P, IP66/68) with an ambient temperature rating of -50°C to +80°C. Dual Seal.

11. The marking of the equipment shall include:

IS CL I, DIV 1, GP A-D, T* T**; Entity XA01116F and XA01118F; Type 4X/6P, IP66/68

IS CL I, II, III, DIV 1, GP A-G, T* T**; Entity XA01116F and XA01118F; Type 4X/6P, IP66/68

Cl 1 Zn 0 Ex ia IIC T* Ga T**; Entity XA01117F and XA01119F;

XP-IS, CL I DIV 1, GP A-D, T* T**; Entity XA01117F and XA01119F; Type 4X/6P, IP66/68

DIP-IS, CL II, III DIV 1, GP E-G, T* T**; Entity XA01119F; Type 4X/6P, IP66/68

AIS CL I, II, III DIV 1, GP A-G, T* T**; Entity XA01116F, XA01118F, XA01117F, and XA01119F; Type 4X/6P, IP66/68

DIP CL II, III, DIV 1, GP E-G, T* T**; Type 4X/6P, IP66/68

CL I Zn 0/1 Ex ia/db [ia Ga] IIC T* Ga/Gb T**; Entity XA01117F and XA01119F; Type 4X/6P, IP66/68

NI CL I, DIV 2, GP A-D, T* T**; NIFW XA01116F and XA01118F; Type 4X/6P, IP66/68

Dual Seal

T*, T** = Refer to XA01116F, XA01118F, XA01117F and XA01119F
for t-code and temperature class related information.

12. **Description of Equipment:**

General - The microwave unit Micropilot, type FMR5x is used for the contactless, continuous measurement of liquid and solid media in hazardous locations with gas or dust atmospheres. Short microwave impulses are radiated from the antenna, reflected by the medium surface and picked up again by the antenna. The delay time between radiation and receiving is measured and converted into a signal to calculate the level.

Construction - The microwave unit Micropilot, type FMR5x come in three different housings: 1) GT19 which is a plastic dual compartment, 2) GT18 stainless steel 316L dual compartment, and 3) GT20 Aluminum coated dual compartment enclosure. The enclosures come with various gland, threaded, and plug type openings.

Ratings - The microwave unit Micropilot, type FMR5x ratings are as follows:

Electrical data						
I/O Interface						
Approval Code (010)	**Power supply / Output (I/O Interface)**			**Protection**	**Electrical data/maximum values**	
	Code (020)	**Mode (functional)**	**Module Transmis-sion Code (TRC)**		**Supply/output (terminals 1 and 2)**	**Supply/output (terminals 3 and 4)**

SCHEDULE

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FA,FF FB	A	4..20mA HART (IO210)	21/31	Intrinsically safe	U_i = 30 V [4] I_i = 300 mA P_i = 1 W L_i = 0 µH C_i = 12 nF	non-existent
FB,FF				Nonincendive	U_i = 35 V [8] I_i = N/A [5] P_i = N/A L_i = 0 µH C_i = 12 nF	non-existent
FA,FF FB	A	4..20mA HART (IO211) [3]	02/22	Intrinsically safe	U_i = 30 V [4] I_i = 300 mA P_i = 1 W L_i = 0 µH C_i = 5 nF	not used
FB,FF				Nonincendive	U_i = 35 V [4] I_i = N/A [5] P_i = N/A L_i = 0 µH C_i = 5 nF	not used
FC,FD	A	4..20mA HART (IO212) [3]	03/23	Explosionproof / Flameproof	U_N = 35 V DC [2] U_m = 250 V I_{nom} = 4 ... 20 mA I_{max} = 22 mA P_{nom} = 0,7 W	not used
FD,FE				Dust-ignitionproof		
FD				Nonincendive		
FA,FF FB 8A [1]	B	4..20mA HART+ switch (IO211)	02/22	Intrinsically safe	U_i = 30 V [4] I_i = 300 mA P_i = 1 W L_i = 0 µH C_i = 5 nF	U_i = 30 V [4] I_i = 300 mA P_i = 1W L_i = 0 µH C_i = 6 nF
FB,FF				Nonincendive	U_i = 35 V [4] I_i = N/A [5] P_i = N/A L_i = 0 µH C_i = 5 nF	U_i = 35 V [4] I_i = N/A [5] P_i = 1W L_i = 0 µH C_i = 6 nF
FC,FD,8A [1]	B	4..20mA HART+ switch (IO212)	03/23	Explosionproof / Flameproof	U_N = 35 V DC [2] U_m = 250 V I_{nom} = 4 ... 20 mA I_{max} = 22 mA P_{nom} = 0,7 W	U_N = 35 V DC [2] U_m = 250 V P_{nom} = 0,7 W
FD,FE,8A [1]				Dust-ignitionproof		
FD				Nonincendive		
FA,FF FB 8A [1]	C	4..20mA HART+ 4..20mA (IO214)	04/24	Intrinsically safe	U_i = 30 V [4] I_i = 300 mA P_i = 1 W L_i = 0 µH C_i = 30 nF	U_i = 30 V [4] I_i = 300 mA P_i = 1 W L_i = 0 µH C_i = 30 nF
FB,FF				Nonincendive	U_i = 30 V [6] I_i = N/A [5] P_i = N/A L_i = 0 µH C_i = 30 nF	U_i = 30 V [6] I_i = N/A [5] P_i = N/A L_i = 0 µH C_i = 30 nF
FC,FD,8A [1]	C	4..20mA HART+ 4..20mA	05/25	Explosionproof / Flameproof	U_N = 30 V DC [2] U_m = 250 V I_N = 4 ... 20 mA	U_N =30 V DC [2] U_m = 250 V I_N = 4 ... 20 mA
FD,FE,8A [1]				Dust-ignitionproof		

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FD		(IO215)		Nonincendive	I_{max} = 22 mA P_N = 0,7 W	I_{max} = 22 mA P_N = 0,7 W
FA,FB,FF	**E,G**	Fieldbus + switch (IO220)	26/28	Intrinsically safe	U_i = 17.5 V [7] I_i = 550 mA P_i = 5.5 W L_i = 10 µH C_i = 5 nF or U_i = 30 V [6] I_i = 300 mA P_i = 1.2 W L_i = 10 µH C_i = 5 nF	passive: U_i = 30 V [6] I_i = 300 mA P_i = 1.0 W L_i = 0 µH C_i = 6 nF U_o = negligible low I_o = negligible low P_o = negligible low
FB,FF				Nonincendive	U_i = 17.5 V [7] I_i = N/A [5] P_i = N/A L_i = 10 µH C_i = 5 nF or U_i = 32 V [8] I_i = N/A [5]	passive: U_i = 35 V [6] I_i = 300 mA P_i = 0.7/0.85/1.0 W [9] L_i = 0 µH C_i = 6 nF U_o = negligible low I_o = negligible low P_o = negligible low
FC,FD	**E,G**	Fieldbus + switch (IO221)	27/29	Explosionproof / Flameproof	U_N = 9..32 V dc [2] U_m = 250 Vac $P_N \leq$ 880 mW	U_N = 10.4..35 V dc [2] U_m = 250 Vac P_N = 0.7/0.85/1.0 W [9]
FD,FE				Dust-ignitionproof		
FD				Nonincendive		
FC,FD	**L**	4-wire DC + 4..20mA HART (IO410)	08	Explosionproof / Flameproof	U_N = 10.4 ... 48 V dc[2] U_m = 250 V I_N = 112 mA I_{max} = 300 mA P_N = 1328 mW	U_N = 22 V dc[2] U_m = 250 V I_{max} = 22 mA
FD,FE				Dust-ignitionproof		
FD				Nonincendive		
FC,FD	**K**	4-wire AC + 4..20mA HART (IO411)	09	Explosionproof / Flameproof	U_N = 90 ...253 V ac[2] 50/60 Hz; U_m = 250 V I_N = 25 mA I_{max} = 160 mA P_N = 1540 mW	U_N = 22 V dc[2] U_m = 250 V I_{max} = 22 mA
FD,FE				Dust-ignitionproof		
FD				Nonincendive		

Notes:
1) Multiple marking; type of protection selected for first installation must be indicated and may not be changed.
2) Specifies maximum value, which includes 10% safety margin for typical power line variations.
3) For application / certificates which need I/O module with galvanic separation and use of 4...20 mA HART in 1-channel Mode (switch terminals closed).
4) For connection to an intrinsically safe circui,t with the following maximum values.
5) Current controlled circuit.
6) For connection to intrinsically safe (energy limited) circuits with the following maximum values.
7) For connection to an intrinsically safe FISCO circuit with the following maximum values.

8) For connection to a NI circuit with the following maximum values.
9) Different Pi values are applicable resulting in different maximum surface temperatures, refer to thermal data.

Micropilot FMR50-aabcdeff + (options)

aa	**Approval:** FA IS CL I DIV 1, GP A-D, T* FB IS CL I, II, III DIV 1, GP A-G, T* CL I Zn0 Ex ia IIC T* Ga NI CL I DIV 2, GP A-D, T* FC XP-IS CL I DIV 1, GP A-D, T* AIS CL I DIV 1, GP A-D, T* FD XP-IS CL I DIV 1, GP A-D, T* CL I Zn0/1 Ex ia/db [ia Ga] IIC T* Ga/Gb DIP-IS CL II, III DIV 1, GP E-G, T* NI CL I DIV 2, GP A-D, T* AIS CL I,II,III DIV 1, GP A-G, T* 8A IS CL I, II, III DIV 1, GP A-G, T6-T3 XP-IS CL I, DIV 1, GP A-D, T6-T3 DIP-IS CL II, III DIV 1, GP E-G, T6-T3 AIS CL I, II, III DIV 1, GP A-G [Ex ia]
b	**Power Supply; Output:** A 2-wire; 4-20mA HART B 2-wire; 4-20mA HART, switch output C 2-wire; 4-20mA HART, 4-20mA E 2-wire; FOUNDATION Fieldbus, switch output G 2-wire; 4-20mA PROFIBUS PA, switch output K 4-wire 90-253VAC, 4-20mA HART L 4-wire 10.4-48VDC, 4-20mA HART Y Special Version (not relevant for safety)
c	**Display, Operation:** A W/o LCD, via communication C LCD SD02, push button + data backup function E LCD SD03, touch control + data backup function L Prepared for display FHX50 + M12 connection M Prepared for display FHX50 + custom connection N Prepared for display FHX50 + NPT½ thread, custom connection Y Special Version (not relevant for safety)
d	**Housing:** A GT19 dual compartment, Plastics PBT B GT18 dual compartment, 316L C GT20 dual compartment, Alu coated Y Special Version (not relevant for safety)
e	**Electrical Connection:** A Gland M20, IP66/68 Type 4X/6P B Thread M20, IP66/68 NEMA4X/6P C Thread G½, IP66/68 Type 4X/6P D Thread NPT½, IP66/68 Type 4X/6P I Plug M12, IP66/68 Type 4X/6P M Plug 7/8", IP66/68 Type 4X/6P Y Special Version (not relevant for safety)

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ff	**Antenna:** BM Horn 40mm/1-1/2", PVDF encapsulated, -40…130°C/-40...266°F BN Horn 80mm/3", PP cladded, -40…80°C/-40...176°F BR Horn 100mm/4", PP cladded, -40…80°C/-40...176°F YY Special version, not relevant for safety
(options)	NF Bluetooth (Plus Other Options) Not relevant for safety

Micropilot FMR51-aabcdeffgg + (options)

aa	**Approval:** FA IS CL I DIV 1, GP A-D, T* FB IS CL I, II, III DIV 1, GP A-G, T* CL I Zn0 Ex ia IIC T* Ga NI CL I DIV 2, GP A-D, T* FD XP-IS CL I DIV 1, GP A-D, T* CL I Zn0/1 Ex ia/db [ia Ga] IIC T* Ga/Gb DIP-IS CL II, III DIV 1, GP E-G, T* NI CL I DIV 2, GP A-D, T* AIS CL I,II,III DIV 1, GP A-G, T* FE DIP CL II, III DIV 1, GP E-G, T* AIS CI, I, II, III DIV 1, GP A-G T* 8A IS CL I, II, III DIV 1, GP A-G, T6-T3 XP-IS CL I, DIV 1, GP A-D, T6-T3 DIP-IS CL II, III DIV 1, GP E-G, T6-T3 AIS CL I, II, III DIV 1, GP A-G [Ex ia]
b	**Power Supply; Output:** A 2-wire; 4-20mA HART B 2-wire; 4-20mA HART, switch output C 2-wire; 4-20mA HART, 4-20mA E 2-wire; FOUNDATION Fieldbus, switch output G 2-wire; 4-20mA PROFIBUS PA, switch output K 4-wire 90-253VAC, 4-20mA HART L 4-wire 10,4-48VDC, 4-20mA HART Y Special Version (not relevant for safety)
c	**Display, Operation:** A W/o LCD, via communication C LCD SD02, push button + data backup function E LCD SD03, touch control + data backup function L Prepared for display FHX50 + M12 connection M Prepared for display FHX50 + custom connection N Prepared for display FHX50 + NPT½ thread, custom connection Y Special Version (not relevant for safety)
d	**Housing:** A GT19 dual compartment, Plastics PBT B GT18 dual compartment, 316L C GT20 dual compartment, Alu coated Y Special Version (not relevant for safety)
e	**Electrical Connection:** A Gland M20, IP66/68 Type 4X/6P

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	B Thread M20, IP66/68 NEMA4X/6P C Thread G½, IP66/68 Type 4X/6P D Thread NPT½, IP66/68 Type 4X/6P I Plug M12, IP66/68 Type 4X/6P M Plug 7/8", IP66/68 Type 4X/6P Y Special Version (not relevant for safety)
ff	**Antenna:** BA Horn 40mm/1-1/2" BB Horn 50mm/2” BC Horn 80mm/3" BD Horn 100mm/4" FA Parabolic 200mm/8" FB Parabolic 250mm/10" YY Special version, not relevant for safety
gg	**Seal:** A5 Viton GLT, -40…150°C/-40…302°F C1 Kalrez, -20…150°C/-4…302°F D2 Graphite, -196...450°C/-321…842°F (HT) D3 Graphite, -40…250°C/-40…482°F (XT) Y9 Special version, not relevant for safety
(options)	NF Bluetooth JN Ambient Temperature -50°C (Plus Other Options) Not relevant for safety

Micropilot FMR52-aabcdeff + (options)

aa	**Approval:** FA IS CL I DIV 1, GP A-D, T* FB IS CL I, II, III DIV 1, GP A-G, T* CL I Zn0 Ex ia IIC T* Ga NI CL I DIV 2, GP A-D, T* FD XP-IS CL I DIV 1, GP A-D, T* CL I Zn0/1 Ex ia/db [ia Ga] IIC T* Ga/Gb DIP-IS CL II, III DIV 1, GP E-G, T* NI CL I DIV 2, GP A-D, T* AIS CL I,II,III DIV 1, GP A-G, T* 8A IS CL I, II, III DIV 1, GP A-G, T6-T3 XP-IS CL I, DIV 1, GP A-D, T6-T3 DIP-IS CL II, III DIV 1, GP E-G, T6-T3 AIS CL I, II, III DIV 1, GP A-G [Ex ia]
b	**Power Supply; Output:** A 2-wire; 4-20mA HART B 2-wire; 4-20mA HART, switch output C 2-wire; 4-20mA HART, 4-20mA E 2-wire; FOUNDATION Fieldbus, switch output G 2-wire; 4-20mA PROFIBUS PA, switch output K 4-wire 90-253VAC, 4-20mA HART L 4-wire 10.4-48VDC, 4-20mA HART Y Special Version (not relevant for safety)

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c	**Display, Operation:** A W/o LCD, via communication C LCD SD02, push button + data backup function E LCD SD03, touch control + data backup function L Prepared for display FHX50 + M12 connection M Prepared for display FHX50 + custom connection N Prepared for display FHX50 + NPT½ thread, custom connection Y Special Version (not relevant for safety)
d	**Housing:** A GT19 dual compartment, Plastics PBT B GT18 dual compartment, 316L C GT20 dual compartment, Alu coated Y Special Version (not relevant for safety)
e	**Electrical Connection:** A Gland M20, IP66/68 Type 4X/6P B Thread M20, IP66/68 NEMA4X/6P C Thread G½, IP66/68 Type 4X/6P D Thread NPT½, IP66/68 Type 4X/6P I Plug M12, IP66/68 Type 4X/6P M Plug 7/8", IP66/68 Type 4X/6P Y Special Version (not relevant for safety)
ff	**Antenna** BO Horn 50mm/2", -40…200°C/-40…392°F, flush mount BP Horn 80mm/3", -40…200°C/-40…392°F, flush mount YY Special version, not relevant for safety
(options)	NF Bluetooth JN Ambient Temperature -50°C (Plus Other Options) Not relevant for safety

Micropilot FMR53-aabcdeff + (options)

aa	**Approval:** FA IS CL I DIV 1, GP A-D, T* FB IS CL I, II, III DIV 1, GP A-G, T* CL I Zn0 Ex ia IIC T* Ga NI CL I DIV 2, GP A-D, T* FD XP-IS CL I DIV 1, GP A-D, T* CL I Zn0/1 Ex ia/db [ia Ga] IIC T* Ga/Gb DIP-IS CL II, III DIV 1, GP E-G, T* NI CL I DIV 2, GP A-D, T* AIS CL I,II,III DIV 1, GP A-G, T* 8A IS CL I, II, III DIV 1, GP A-G, T6-T3 XP-IS CL I, DIV 1, GP A-D, T6-T3 DIP-IS CL II, III DIV 1, GP E-G, T6-T3 AIS CL I, II, III DIV 1, GP A-G [Ex ia]
b	**Power Supply; Output:** A 2-wire; 4-20mA HART B 2-wire; 4-20mA HART, switch output C 2-wire; 4-20mA HART, 4-20mA E 2-wire; FOUNDATION Fieldbus, switch output

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	G 2-wire; 4-20mA PROFIBUS PA, switch output K 4-wire 90-253VAC, 4-20mA HART L 4-wire 10.4-48VDC, 4-20mA HART Y Special Version (not relevant for safety)
c	**Display, Operation:** A W/o LCD, via communication C LCD SD02, push button + data backup function E LCD SD03, touch control + data backup function L Prepared for display FHX50 + M12 connection M Prepared for display FHX50 + custom connection N Prepared for display FHX50 + NPT½ thread, custom connection Y Special Version (not relevant for safety)
d	**Housing:** A GT19 dual compartment, Plastics PBT B GT18 dual compartment, 316L C GT20 dual compartment, Alu coated Y Special Version (not relevant for safety)
e	**Electrical Connection:** A Gland M20, IP66/68 Type 4X/6P B Thread M20, IP66/68 NEMA4X/6P C Thread G½, IP66/68 Type 4X/6P D Thread NPT½, IP66/68 Type 4X/6P I Plug M12, IP66/68 Type 4X/6P M Plug 7/8", IP66/68 Type 4X/6P Y Special Version (not relevant for safety)
ff	**Antenna** CA Rod 390mm/15", PTFE fully insulated, max 100mm/4" nozzle height CB Rod 540mm/21", PTFE fully insulated, max 250mm/10" nozzle height YY Special version, not relevant for safety
(options)	NF Bluetooth (Plus Other Options) Not relevant for safety

Micropilot FMR54-aabcdeffgg + (options)

aa	**Approval:** FA IS CL I DIV 1, GP A-D, T* FB IS CL I, II, III DIV 1, GP A-G, T* CL I Zn0 Ex ia IIC T* Ga NI CL I DIV 2, GP A-D, T* FC XP-IS CL I DIV 1, GP A-D, T* AIS CL I DIV 1, GP A-D, T* FD XP-IS CL I DIV 1, GP A-D, T* CL I Zn0/1 Ex ia/db [ia Ga] IIC T* Ga/Gb DIP-IS CL II, III DIV 1, GP E-G, T* NI CL I DIV 2, GP A-D, T* AIS CL I,II,III DIV 1, GP A-G, T* 8A IS CL I, II, III DIV 1, GP A-G, T6-T3 XP-IS CL I, DIV 1, GP A-D, T6-T3 DIP-IS CL II, III DIV 1, GP E-G, T6-T3 AIS CL I, II, III DIV 1, GP A-G [Ex ia]

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b	**Power Supply; Output:** A 2-wire; 4-20mA HART B 2-wire; 4-20mA HART, switch output C 2-wire; 4-20mA HART, 4-20mA E 2-wire; FOUNDATION Fieldbus, switch output G 2-wire; 4-20mA PROFIBUS PA, switch output K 4-wire 90-253VAC, 4-20mA HART L 4-wire 10.4-48VDC, 4-20mA HART Y Special Version (not relevant for safety)
c	**Display, Operation:** A W/o LCD, via communication C LCD SD02, push button + data backup function E LCD SD03, touch control + data backup function L Prepared for display FHX50 + M12 connection M Prepared for display FHX50 + custom connection N Prepared for display FHX50 + NPT½ thread, custom connection Y Special Version (not relevant for safety)
d	**Housing:** A GT19 dual compartment, Plastics PBT B GT18 dual compartment, 316L C GT20 dual compartment, Alu coated Y Special Version (not relevant for safety)
e	**Electrical Connection:** A Gland M20, IP66/68 Type 4X/6P B Thread M20, IP66/68 NEMA4X/6P C Thread G½, IP66/68 Type 4X/6P D Thread NPT½, IP66/68 Type 4X/6P I Plug M12, IP66/68 Type 4X/6P M Plug 7/8", IP66/68 Type 4X/6P Y Special Version (not relevant for safety)
ff	**Antenna** BN Horn 80mm/3", PP cladded, -40…80°C/-40...176°F BR Horn 100mm/4", PP cladded, -40…80°C/-40...176°F YY Special version, not relevant for safety
gg	**Seal** A7 Viton, -20…150°C/-4…302°F A8 Viton, -40…200°C/-40…392°F B4 EPDM, -40...150°C/-40...302°F C2 Kalrez, -20…150°C/-4…302°F, conductive media max 150°C/302°F D1 Graphite, -196...280°C/-321...536°F (XT) D2 Graphite, -196...400°C/-321…752°F (HT) Y9 Special version, not relevant for safety
(options)	NF Bluetooth JN Ambient Temperature -50°C (Plus Other Options) Not relevant for safety

Micropilot FMR56-aabcdeff + (options)

aa	**Approval:** FA IS CL I DIV 1, GP A-D, T*

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	FB IS CL I, II, III DIV 1, GP A-G, T* CL I Zn0 Ex ia IIC T* Ga NI CL I DIV 2, GP A-D, T* FC XP-IS CL I DIV 1, GP A-D, T* AIS CL I DIV 1, GP A-D, T* FD XP-IS CL I DIV 1, GP A-D, T* CL I Zn0/1 Ex ia/db [ia Ga] IIC T* Ga/Gb DIP-IS CL II, III DIV 1, GP E-G, T* NI CL I DIV 2, GP A-D, T* AIS CL I,II,III DIV 1, GP A-G, T* FE DIP CL II, III DIV 1, GP E-G, T* AIS Cl, I, II, III DIV 1, GP A-G T* 8A IS CL I, II, III DIV 1, GP A-G, T6-T3 XP-IS CL I, DIV 1, GP A-D, T6-T3 DIP-IS CL II, III DIV 1, GP E-G, T6-T3 AIS CL I, II, III DIV 1, GP A-G [Ex ia]
b	**Power Supply; Output:** A 2-wire; 4-20mA HART B 2-wire; 4-20mA HART, switch output C 2-wire; 4-20mA HART, 4-20mA E 2-wire; FOUNDATION Fieldbus, switch output G 2-wire; 4-20mA PROFIBUS PA, switch output K 4-wire 90-253VAC, 4-20mA HART L 4-wire 10.4-48VDC, 4-20mA HART Y Special Version (not relevant for safety)
c	**Display, Operation:** A W/o LCD, via communication C LCD SD02, push button + data backup function E LCD SD03, touch control + data backup function L Prepared for display FHX50 + M12 connection M Prepared for display FHX50 + custom connection N Prepared for display FHX50 + NPT½ thread, custom connection Y Special Version (not relevant for safety)
d	**Housing:** A GT19 dual compartment, Plastics PBT B GT18 dual compartment, 316L C GT20 dual compartment, Alu coated Y Special Version (not relevant for safety)
e	**Electrical Connection:** A Gland M20, IP66/68 Type 4X/6P B Thread M20, IP66/68 NEMA4X/6P C Thread G½, IP66/68 Type 4X/6P D Thread NPT½, IP66/68 Type 4X/6P I Plug M12, IP66/68 Type 4X/6P M Plug 7/8", IP66/68 Type 4X/6P Y Special Version (not relevant for safety)

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ff	**Antenna** BN Horn 80mm/3", PP cladded, -40…80°C/-40...176°F BR Horn 100mm/4", PP cladded, -40…80°C/-40...176°F YY Special version, not relevant for safety
(options)	NF Bluetooth (Plus Other Options) Not relevant for safety

Micropilot FMR57-aabcdeffgg + (options)

aa	**Approval:** FA IS CL I DIV 1, GP A-D, T* FB IS CL I, II, III DIV 1, GP A-G, T* CL I Zn0 Ex ia IIC T* Ga NI CL I DIV 2, GP A-D, T* FD XP-IS CL I DIV 1, GP A-D, T* CL I Zn0/1 Ex ia/db [ia Ga] IIC T* Ga/Gb DIP-IS CL II, III DIV 1, GP E-G, T* NI CL I DIV 2, GP A-D, T* AIS CL I,II,III DIV 1, GP A-G, T* FE DIP CL II, III DIV 1, GP E-G, T* AIS CI, I, II, III DIV 1, GP A-G T* 8A IS CL I, II, III DIV 1, GP A-G, T6-T3 XP-IS CL I, DIV 1, GP A-D, T6-T3 DIP-IS CL II, III DIV 1, GP E-G, T6-T3 AIS CL I, II, III DIV 1, GP A-G [Ex ia]
b	**Power Supply; Output:** A 2-wire; 4-20mA HART B 2-wire; 4-20mA HART, switch output C 2-wire; 4-20mA HART, 4-20mA E 2-wire; FOUNDATION Fieldbus, switch output G 2-wire; 4-20mA PROFIBUS PA, switch output K 4-wire 90-253VAC, 4-20mA HART L 4-wire 10.4-48VDC, 4-20mA HART Y Special Version (not relevant for safety)
c	**Display, Operation:** A W/o LCD, via communication C LCD SD02, push button + data backup function E LCD SD03, touch control + data backup function L Prepared for display FHX50 + M12 connection M Prepared for display FHX50 + custom connection N Prepared for display FHX50 + NPT½ thread, custom connection Y Special Version (not relevant for safety)
d	**Housing:** A GT19 dual compartment, Plastics PBT B GT18 dual compartment, 316L C GT20 dual compartment, Alu coated Y Special Version (not relevant for safety)
e	**Electrical Connection:** A Gland M20, IP66/68 Type 4X/6P Encl. B Thread M20, IP66/68 NEMA4X/6P

	C Thread G½, IP66/68 Type 4X/6P Encl. D Thread NPT½, IP66/68 Type 4X/6P Encl. I Plug M12, IP66/68 Type 4X/6P Encl. M Plug 7/8", IP66/68 Type 4X/6P Encl. Y Special Version (not relevant for safety)
ff	**Antenna** BC Horn 80mm/3" BD Horn 100mm/4" FA Parabolic 200mm/8" FB Parabolic 250mm/10" YY Special version, not relevant for safety
gg	**Seal** A6 Viton GLT, -40…200°C/-40…392°F D4 Graphite, -40…400°C/-40…752°F (HT) Y9 Special version, not relevant for safety
(options)	NF Bluetooth (Plus Other Options) Not relevant for safety

13. **Specific Conditions of Use:**

1. The flamepaths of the equipment are not intended to be repaired. Consult the manufacturer if repair of the flamepath joints is necessary.
2. Refer to the manufacturer's instructions to reduce the potential of an electrostatic charging hazard on the equipment enclosure.
3. For enclosures made of Aluminum avoid impacts that can cause sparking. Refer to applicable control drawing for Instructions.
4. For Division 2 installations do not disconnect equipment unless power has been switched off.
5. Factory Sealed, Explosionproof Seals not required. Refer to applicable control drawing for Instructions.
6. Refer to Control Drawing for T-code and temperature class related information.

14. **Test and Assessment Procedure and Conditions:**

This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.

15. **Schedule Drawings**

A copy of the technical documentation has been kept by FM Approvals.

16. **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
20th November 2013	Original Issue.

SCHEDULE

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11th June 2019	Supplement 1: Report Reference: – PR451219 dated 11th June 2019. Changes listed below: 1) Updated Company name to “Endress+Hauser SE+Co. KG” 2) FMR51, FMR52 and FMR54 are available in -50°C ambient versions. 3) Updated Standards 4) Add Bluetooth module to list of options. 5) Add Display option “N” to all FMR5x model codes. 6) Add Antenna Options “FA” and “FB” to FMR51 7) Removed options that were not relevant for safety from the model codes. 8) Update the listing to match the labels and certificates. Correct any errors.
18th February 2021	Supplement 2: Report Reference: – PR456794 dated 18th February 2021. Description of Change: 1) Addition of new radar module, HF26C 2) Update of sensor module HF26L, changing type designation to HF26-L3 3) Use of an Optional RF attenuation disk for type FMR50 4) CAN/CSA C22.2 No. 213 updated to 2017 5) CAN/CSA C22.2 No. 60079-0 updated to Edition 4:2019