

CERTIFICATE OF CONFORMITY

1. **HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
2. **Certificate No:** FM17US0131X
3. **Equipment:** Deltabar FMD71, FMD72 Differential
(Type Reference and Name) Pressure Transmitter
4. **Name of Listing Company:** Endress+Hauser SE+Co. KG
5. **Address of Listing Company:** Hauptstrasse 1,
Postfach 1261
Maulburg D79689
Germany
6. The examination and test results are recorded in confidential report number:

3045873 dated 26th June 2012
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2022, FM Class 3610:2021, FM Class 3611:2021, FM Class 3615:2021,
FM Class 3810:2021, ANSI/ISA 61010-1:2012, ANSI/UL 60079-0:2020 ANSI/UL 60079-1:2015,
ANSI/UL 60079-11:2018, ANSI/UL 121201:2019, ANSI/NEMA 250:2008, ANSI/IEC 60529:2004
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.

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

8 December 2022

Date

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

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FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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US Certificate Of Conformity No: FM17US0131X

10. Equipment Ratings:

Explosionproof with Intrinsically safe Outputs for Class I, Division 1, Groups A, B, C and D; Flameproof for Class I, Zone 1, AEx db [ia] IIC hazardous (classified) locations; Intrinsically Safe for Class I, Division 1, Groups A, B, C, and D hazardous (classified) locations; Class I, Zone 0, AEx ia IIC hazardous (classified) locations; Nonincendive for Class I, Division 2, Groups A, B, C, and D hazardous (classified) locations; Class I, Zone 2, IIC hazardous (classified) locations; indoors and outdoors (Type 4, 4X, 6P, IP66/68) with a temperature rating and ambient temperature range of T6: $-40^{\circ}\text{C} < T_a < +40^{\circ}\text{C}$, T4: $-40^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$, T6: $-40^{\circ}\text{C} < T_a < +50^{\circ}\text{C}$ (Nonincendive only) T3: $-40^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$ (High temp. options NB or NC only).

11. The marking of the equipment shall include:

DELTABAR FMD71

XP-AIS CLI, Div.1, Gp A, B, C, D; T6...T3; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 $T_a = -40^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – XA00629P

CL I, Zone 0,1, AEx db [ia] IIC; T6...T3; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 $T_a = -40^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – XA00629P

Int.Safe CL I, Div. 1, Gp. A, B, C, and D; T6...T3; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 $T_a = -40^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – XA00628P

CL I, Zone 0,1 AEx ia IIC; T6...T3; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 $T_a = -40^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – XA00628P

Nonincendive for CLI, Div 2, Gp A, B, C, and D; T6...T3; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+50^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 $T_a = -40^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – NIFW per XA00668P

CL I, Zone 2, IIC; T6...T3; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+50^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 $T_a = -40^{\circ}\text{C} < T_a < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – NIFW per XA00668P

DELTABAR FMD72

XP-AIS CLI, Div.1, Gp A, B, C, D; T6...T4; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – XA00625P

CL I, Zone 0,1, AEx db [ia] IIC; T6...T4; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – XA00625P

Int. Safe for CLI, Div. 1, Gp. A, B, C, and D; T6...T4; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – XA00624P

CL I, Zone 0,1, AEx ia IIC; T6...T4; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – XA00624P

Nonincendive for CLI, Div 2, Gp A, B, C, and D; T6...T4; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+50^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – NIFW per XA00669P

CL I, Zone 2, IIC; T6...T4; T6/T4 $T_a = -40^{\circ}\text{C}$ to $+50^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – NIFW per XA00669P

12. Description of Equipment:

General - Deltabar FMD71 or FMD72 is an electrical differential pressure transmitter. It consists of one enclosure containing the 4...20mA HART electronic and two pressure sensors connected by cables to the main enclosure. Each sensor measures the pressure at his mounting position (e.g. on the bottom or on top of a vessel) and communicates the digital signal to the main electronics. Here the two pressure signals are computed, the differential pressure is calculated and provided as a 4...20mA HART output signal.

Construction – The FMD71 and FMD72 can have aluminium or stainless steel main enclosures with the option to have sensor modules with metal pressure sensors (FMD72) or ceramic pressure sensors (FMD71). Each sensor module is mounted to a sensor module housing which contains an electronic communications board with

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electrical cable connections to the main enclosure.

Ratings:

Operating Temperature Ranges:

T6, $-40^{\circ}\text{C} < T_a < 40^{\circ}\text{C}$ with a process temperature of $< 80^{\circ}\text{C}$.

T4, $-40^{\circ}\text{C} < T_a < 70^{\circ}\text{C}$ with a process temperature of $< 125^{\circ}\text{C}$. The FMD71 high temperature version has a process temperature of $< 135^{\circ}\text{C}$.

The FMD71 high temperature version has a process temperature of $< 150^{\circ}\text{C}$ for a T3 temperature code code with an ambient temperature of $-40^{\circ}\text{C} < T_a < 70^{\circ}\text{C}$.

Electrical data:

XP-AIS version (Ex db [ia]): $U_i = 45\text{VDC}$; $P_i = 1.05\text{W}$

IS version (Ex ia): $U_i = 30\text{VDC}$; $I_i = 300\text{mA}$; $P_i = 1\text{W}$; $C_i = 11.8\text{nF}$; $L_i = 0$

NI(NIFW) version: $U_i = 45\text{VDC}$; $C_i = 11.8\text{nF}$; $L_i = 0$

DELTABAR FMD71-abcdefghijklmnp+qrstuvwxyz Differential Pressure Transmitter

a = Approval: FA, FB, FD

b = Electronic: 2

c = Display, operation; 4, 5, 8

d = Enclosure: A, B, C (not for XP, Ex d), 3

e = Enclosure sensormodule: A, B

f = Electrical connection: A (not for XP, Ex d), B, C, D, Y(IS only)

g = pressure range sensor 1 (HP): pressure ranges up to 40bar, any dual letter/number combination

h = pressure range sensor 2 (LP): pressure ranges up to 40bar, any dual letter/number combination

i = accuracy: any single letter or number

k = calibration, units: any single letter or number

l = cable length sensor-transmitter: any dual letter representing cable length up to 50m

m = cable length sensor-sensor: any dual letter representing cable length up to 100m

n = process connection sensor 1 (HP): any triple letter/number combinations representing standard industrial process connections

o = process connections sensor 2 (LP): any triple letter/number combinations representing standard industrial process connections

p = seal: any single letter or number

q = language: any dual letter or none

r = calibration: any dual letter/number combination or none

s = service: any dual letter/number combination or none

t = test, protocol: any dual letter/number combination or none

u = accessories, mounted: none, NB-high temp. version, NA-overvoltage protection, NC-cond. tight version

v = accessories, enclosed: any dual letter/number combination or none

w = alternative cover seal: any dual letter / number combination or none

x = software version: any dual letter/number combination or none

y = customer specific marking: any dual letter/number combination or none

DELTABAR FMD72-abcdefghijklmnpq+rstuvwxyz Differential Pressure Transmitter

a = Approval: FA, FB, FD

b = Electronic: 2

c = Display, operation; 4, 5, 8

d = Enclosure: A, B, C (not for XP, Ex d), 3

e = Enclosure sensormodule: A, B

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f = Electrical connection: A (not for XP, Ex d), B, C, D, Y(IS only)
g = pressure range sensor 1 (HP): pressure ranges up to 40bar, any dual letter/number combination
h = pressure range sensor 2 (LP): pressure ranges up to 40bar, any dual letter/number combination
i = accuracy: any single letter or number
k = calibration, units: any single letter or number
l = cable length sensor-transmitter: an dual letter representing cable length up to 50m
m = cable length sensor-sensor: any dual letter representing cable length up to 100m
n = process connection sensor 1 (HP): any triple letter/number combinations representing standard industrial process connections
o = process connections sensor 2 (LP): any triple letter/number combinations representing standard industrial process connections
p = material diaphragm: any single letter or number
q = fillmedia: any single letter or number
r = Language: any dual letter or none
s = Calibration: any dual letter/number combination or none
t = Service: any dual letter/number combination or none
u = Test, protocol: any dual letter/number combination or none
v = Accessories, mounted: none or NA-overvoltage protection
w = Accessories, enclosed: any dual letter/number combination or none
x = alternative cover seal: any dual letter / number combination or none
y = Software version: any dual letter/number combination or none
z = customer specific marking: any dual letter/number combination or none

13. Specific Conditions of Use:

1. Consult the manufacturer for dimensional information on the flameproof joints for repair.
2. The Deltabar FMD71, FMD72 sensors can be installed in the boundary wall between an area EPL Ga and the less hazardous area, EPL Gb. In this configuration, the process connection is installed in EPL Ga, while the sensor housing is installed in EPL Gb.
3. Potential Electrostatic discharging Hazard, cleaning of the painted surface should be done with a damp cloth.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

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:

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Date	Description
26 th June 2012	Original Issue.
10 th July 2014	<u>Supplement 1:</u> Report Reference: – 3050092 dated 10 th July 2014. Description of the Change: <ul style="list-style-type: none">• Removal of the Endress+Hauser Suzhou China manufacturing site• Addition of the T17 housing (for Sanitary applications) for non Ex d and non XP versions• Addition of terminal blocks with and without overvoltage protection based on the Cerabar S design• revision of the main electronics for the HART communication signal generator (non safety related)
18 th December 2017	<u>Supplement 2:</u> Report Reference: – 3061226 dated 18 th December 2017. Description of the Change: <ul style="list-style-type: none">• Addition of new display VU340-2• Alternative potting material Silgel 612 for terminal block• Optional anodized aluminum nameplates• Minor updates to order codes.• Update standards to latest editions• Added specific conditions of use.
26 th October 2020	<u>Supplement 3:</u> Report Reference: – RR225353 dated 26 th October 2020. Description of the Change: <ul style="list-style-type: none">• Updated ANSI/UL 60079-0 to 7th edition dated 2020. FM3600 updated to 2018, FM3610 updated to 2018, FM 3615 updated to 2018, FM3611 updated to 2018, FM 3810 updated to 2018. Added ANSI/UL 121201:2018 standard
8 th December 2022	<u>Supplement 4:</u> Report Reference: – RR235094 dated 8 th December 2022. Description of the Change: <ol style="list-style-type: none">1) Alternate PCB layout for sensor electronics due to change in component (D100)2) FM3600 updated to latest edition (2022)3) FM3610, FM3611, FM3615 and FM3810 updated to latest edition (2021)

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CERTIFICATE OF CONFORMITY

1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** FM17CA0071X
3. **Equipment:** Deltabar FMD71, FDM72 Differential
(Type Reference and Name) Pressure Transmitter
4. **Name of Listing Company:** Endress+Hauser SE+Co. KG
5. **Address of Listing Company:** Hauptstrasse 1,
Postfach 1261
Maulburg D79686
Germany
6. The examination and test results are recorded in confidential report number:

3045873 dated 26th June 2012
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

CSA-C22.2 No. 0-M91:R2015, CSA-C22.2 No. 30:R2012,
CSA-C22.2 No. 213-17, CSA-C22.2 No. 94:R2011,
CSA-C22.2 No. 60529:2015, 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. 61010-1:R2012
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:**

Explosionproof with Intrinsically safe Outputs for Class I, Division 1, Groups A, B, C and D; Flameproof for Class I, Zone 1, Ex db [ia] IIC hazardous locations; Intrinsically Safe for Class I, Division 1, Groups A, B, C, and D hazardous locations; Class I, Zone 0, Ex ia IIC hazardous locations; Nonincendive for Class I, Division 2, Groups

Certificate issued by:



J.E. Marquedant
VP, Manager - Electrical Systems

26 October 2020

Date

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

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A, B, C, and D hazardous locations; Class I, Zone 2, IIC hazardous locations; indoors and outdoors (Type 4, 4X, 6P, IP66/68) with a temperature rating and ambient temperature range of T6: $-40^{\circ}\text{C} < \text{Ta} < +40^{\circ}\text{C}$, T4: $-40^{\circ}\text{C} < \text{Ta} < +70^{\circ}\text{C}$, T6: $-40^{\circ}\text{C} < \text{Ta} < +50^{\circ}\text{C}$ (Nonincendive only). T3: $-40^{\circ}\text{C} < \text{Ta} < +70^{\circ}\text{C}$ (High temp. options NB or NC only).

11. The marking of the equipment shall include:

DELTABAR FMD71

XP-AIS CLI, Div.1, Gp A, B, C, D; T6...T3; T6/T4 Ta = -40°C to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 Ta = $-40^{\circ}\text{C} < \text{Ta} < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – XA00629P

CL I, Zone 0,1, Ex db [ia] IIC; Ga/Gb T6...T3; T6/T4 Ta = -40°C to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 Ta = $-40^{\circ}\text{C} < \text{Ta} < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – XA00629P

Int. Safe CL I, Div. 1, Gp. A, B, C, and D; T6...T3; T6/T4 Ta = -40°C to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 Ta = $-40^{\circ}\text{C} < \text{Ta} < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – XA00628P

CL I, Zone 0,1, Ex ia IIC; Ga/Gb T6...T3; T6/T4 Ta = -40°C to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 Ta = $-40^{\circ}\text{C} < \text{Ta} < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – XA00628P

Nonincendive for CLI, Div 2, Gp A, B, C, and D; T6...T3; T6/T4 Ta = -40°C to $+50^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 Ta = $-40^{\circ}\text{C} < \text{Ta} < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – NIFW per XA00668P

CL I, Zone 2, IIC; T6...T3; T6/T4 Ta = -40°C to $+50^{\circ}\text{C}/+70^{\circ}\text{C}$, T3 Ta = $-40^{\circ}\text{C} < \text{Ta} < +70^{\circ}\text{C}$ (options NB or NC only); Type 4, 4X, 6P, IP66/68 – NIFW per XA00668P

DELTABAR FMD72

XP-AIS CLI, Div.1, Gp A, B, C, D; T6...T4; T6/T4 Ta = -40°C to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – XA00625P

CL I, Zone 0,1, Ex db [ia] IIC; Ga/Gb T6...T4; T6/T4 Ta = -40°C to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – XA00625P

Int. Safe CLI, Div. 1, Gp. A, B, C, and D; T6...T4; T6/T4 Ta = -40°C to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – XA00624P

CL I, Zone 0,1 Ex ia IIC; Ga/Gb T6...T4; T6/T4 Ta = -40°C to $+40^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – XA00624P

Nonincendive for CLI, Div 2, Gp A, B, C, and D; T6...T4; T6/T4 Ta = -40°C to $+50^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – NIFW per XA00669P

CL I, Zone 2, IIC; T6...T4; T6/T4 Ta = -40°C to $+50^{\circ}\text{C}/+70^{\circ}\text{C}$; Type 4, 4X, 6P, IP66/68 – NIFW per XA00669P

12. **Description of Equipment:**

General - Deltabar FMD71 or FMD72 is an electrical differential pressure transmitter. It consists of one enclosure containing the 4...20mA HART electronic and two pressure sensors connected by cables to the

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main enclosure. Each sensor measures the pressure at his mounting position (e.g. on the bottom or on top of a vessel) and communicates the digital signal to the main electronics. Here the two pressure signals are computed, the differential pressure is calculated and provided as a 4...20mA HART output signal.

Construction – The FMD71 and FMD72 can have aluminium or stainless steel main enclosures with the option to have sensor modules with metal pressure sensors (FMD72) or ceramic pressure sensors (FMD71). Each sensor module is mounted to a sensor module housing which contains an electronic communications board with electrical cable connections to the main enclosure.

Ratings:

Operating Temperature Ranges:

T6, $-40^{\circ}\text{C} < T_a < 40^{\circ}\text{C}$ with a process temperature of $< 80^{\circ}\text{C}$.

T4, $-40^{\circ}\text{C} < T_a < 70^{\circ}\text{C}$ with a process temperature of $< 125^{\circ}\text{C}$. The FMD71 high temperature version has a process temperature of $< 135^{\circ}\text{C}$.

The FMD71 high temperature version has a process temperature of $< 150^{\circ}\text{C}$ for a T3 temperature code with an ambient temperature of $-40^{\circ}\text{C} < T_a < 70^{\circ}\text{C}$.

Electrical data:

XP-AIS version (Ex db [ia]): $U_i = 45\text{VDC}$; $P_i = 1.05\text{W}$

IS version (Ex ia): $U_i = 30\text{VDC}$; $I_i = 300\text{mA}$; $P_i = 1\text{W}$; $C_i = 11.8\text{nF}$; $L_i = 0$

NI version: $U_i = 45\text{VDC}$; $C_i = 11.8\text{nF}$; $L_i = 0$

DELTABAR FMD71-abcdefghijklmnp+qrstuvwxy Differential Pressure Transmitter

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c = Display, operation; 4, 5, 8

d = Enclosure: A, B, C (not for XP, Ex d), 3

e = Enclosure sensormodule: A, B

f = Electrical connection: A (not for XP, Ex d), B, C, D, Y (IS only)

g = pressure range sensor 1 (HP): pressure ranges up to 40bar, any dual letter/number combination

h = pressure range sensor 2 (LP): pressure ranges up to 40bar, any dual letter/number combination

i = accuracy: any single letter or number

k = calibration, units: any single letter or number

l = cable length sensor-transmitter: any dual letter representing cable length up to 50m

m = cable length sensor-sensor: any dual letter representing cable length up to 100m

n = process connection sensor 1 (HP): any triple letter/number combinations representing standard industrial process connections

o = process connections sensor 2 (LP): any triple letter/number combinations representing standard industrial process connections

p = seal: any single letter or number

q = language: any dual letter or none

r = calibration: any dual letter/number combination or none

s = service: any dual letter/number combination or none

t = test, protocol: any dual letter/number combination or none

u = accessories, mounted: none, NB-high temp. version, NA-overvoltage protection, NC-cond. tight version

v = accessories, enclosed: any dual letter/number combination or none

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w = alternative cover seal: any dual letter / number combination or none
x = software version: any dual letter/number combination or none
y = customer specific marking: any dual letter/number combination or none

DELTABAR FMD72-abcdefghijklmnpq-rstuvwxyz Differential Pressure Transmitter

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e = Enclosure sensormodule: A, B
f = Electrical connection: A (not for XP, Ex d), B, C, D, Y(IS only)
g = pressure range sensor 1 (HP): pressure ranges up to 40bar, any dual letter/number combination
h = pressure range sensor 2 (LP): pressure ranges up to 40bar, any dual letter/number combination
i = accuracy: any single letter or number
k = calibration, units: any single letter or number
l = cable length sensor-transmitter: an dual letter representing cable length up to 50m
m = cable length sensor-sensor: any dual letter representing cable length up to 100m
n = process connection sensor 1 (HP): any triple letter/number combinations representing standard industrial process connections
o = process connections sensor 2 (LP): any triple letter/number combinations representing standard industrial process connections
p = material diaphragm: any single letter or number
q = fillmedia: any single letter or number
r = Language: any dual letter or none
s = Calibration: any dual letter/number combination or none
t = Service: any dual letter/number combination or none
u = Test, protocol: any dual letter/number combination or none
v = Accessories, mounted: none or NA-overvoltage protection
w = Accessories, enclosed: any dual letter/number combination or none
x = alternative cover seal: any dual letter / number combination or none
y = Software version: any dual letter/number combination or none
z = customer specific marking: any dual letter/number combination or none

13. Specific Conditions of Use:

1. Consult the manufacturer for dimensional information on the flameproof joints for repair.
2. The Deltabar FMD71, FMD72 sensors can be installed in the boundary wall between an area EPL Ga and the less hazardous area, EPL Gb. In this configuration, the process connection is installed in EPL Ga, while the sensor housing is installed in EPL Gb.
3. Potential Electrostatic discharging Hazard, cleaning of the painted surface should be done with a damp cloth.

14. Test and Assessment Procedure and Conditions:

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

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

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SCHEDULE



Canadian Certificate Of Conformity No: FM17CA0071X

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
26 th June 2012	Original Issue.
10 th July 2014	<u>Supplement 1:</u> Report Reference: – 3050092 dated 10 th July 2014. Description of the Change: <ul style="list-style-type: none">• Removal of the Endress+Hauser Suzhou China manufacturing site• Addition of the T17 housing (for Sanitary applications) for non Ex d and non XP versions• Addition of terminal blocks with and without overvoltage protection based on the Cerabar S design• revision of the main electronics for the HART communication signal generator (non safety related)
18 th December 2017	<u>Supplement 2:</u> Report Reference: – 3061226 dated 18 th December 2017. Description of the Change: <ul style="list-style-type: none">• Addition of new display VU340-2• Alternative potting material Silgel 612 for terminal block• Optional anodized aluminum nameplates• Minor updates to order codes.• Updated standards to latest editions• Added Specific Conditions of Use.
26 th October 2020	<u>Supplement 3:</u> Report Reference: – RR225353 dated 26 th October 2020. Description of the Change: <ul style="list-style-type: none">• Updated CSA C22.2 60079-0 to 4th edition dated 2019. Removed CSA C22.2 No. 142-M1987-R2014 and CSA-C22.2 No. 157-92:R2012 from list of standards. Updated CSA-C22.2 No. 213 to 2017.

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