

420-0004-648	Shrt. of 14	1	APPD BY SGA
ISSUE	EDO NO.	APPD	DATE
1	8-23-105	SGA	9-22-2023



Member of the FM Global Group

CERTIFICATE OF CONFORMITY

1. HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS

2. Certificate No: **FM23US0053X**

3. Equipment:
(Type Reference and Name) **Universal V Level Transmitter**

4. Name of Listing Company: **AMETEK Drexelbrook**

5. Address of Listing Company:
**205 Keith Valley Rd,
Horsham, Pennsylvania 19044, USA**

6. The examination and test results are recorded in confidential report number:

PR466231 dated 21st August 2023

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

**FM 3600:2022, FM 3610:2021, FM 3611:2021, FM 3615:2022, FM 3616:2022, FM 3810:2021, NEMA 250:2003,
ANSI/UL 60079-0:2020, ANSI/UL 60079-1:2015, ANSI/UL 60079-11:2018, ANSI/IEC 60529:2020,
ANSI/UL 61010-1:2019, ANSI/UL 121201:2021**

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:

See Annex for Equipment Ratings

11. The marking of the equipment shall include:

See Annex for Equipment Markings

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

18 September 2023

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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12. Description of Equipment:

GENERAL - The model series Universal V Level Transmitter is a two-wire capacitance to current transmitter which provides a 4-20mA current output signal proportional to a change in capacitance at the probe terminals. It is designed to be used in conjunction with the AMETEK-Drexelbrook Series 700 Capacitance Probes. The transmitter circuitry is contained on five printed circuit boards and housed in an aluminium housing. Terminals are supplied, and appropriately marked, for power connections and also connection to the sensing probes. A majority of the board set is encapsulated in potting material. The electronic circuitry is contained in a combination of 5 circuit boards. One of these boards, the Probe Board, is mounted in the main housing and serves as the interface for the probe to the potted electronic module. The remaining 4 circuit boards are assembled in a plastic housing which is potted. The potted assembly contains a Terminal, Display, Power, and Bridge board. There are 3 variations of this potted assembly to service 3 different applications. For these three assemblies, the only differences are different component inclusion/exclusions on the Bridge board.

The ambient operating temperature range of the transmitter is -40°C to 75°C. The enclosure provides ingress protection ratings of Type 4, 4x and IP66

Electrical Ratings:

The transmitter electronics operate on a supply of 16 to 30 Vdc with an output range of 4-20 mA.

See Annex for intrinsic safety Entity parameters

See Annex for Model Codes

13. Specific Conditions of Use:

See Annex

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:

Date	Description
21 August 2023	Original Issue.

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US Certificate Of Conformity No: FM23US0053X

Date	Description
18 September 2023	<u>Supplement 1:</u> Report Reference: RR238374 dated 18 September 2023. Description of the Change(s): Model Code Updates

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ANNEX

Vab101cd00ef Universal V Level Transmitter Integral

Equipment Ratings:

Intrinsically Safe for Class I, II, III Division 1, Groups ABCDEFG in accordance with Control Drawing 420-0004-640-CD
 Intrinsically Safe for Class I, Zone 0 Group IIC in accordance with Control Drawing 420-0004-640-CD
 Nonincendive for Class I, Division 2, Groups ABCD

Markings:

IS Class I, II, III Division 1, Groups ABCDEFG T4 - 420-0004-640-CD
 Class I, Zone 0, AEx ia IIC T4 Ga - 420-0004-640-CD
 Class I, Division 2, Groups ABCD T4
 Ta = -40°C to +75°C
 Type 4, 4X; IP66

Description of Equipment:

Entity Parameters:

V_{max} = 30V, I_{max} = 140mA, P_{max} = 1W, C_i = 0μF, L_i = 0μH

Vab101cd00ef Universal V Level Transmitter Integral

a = Type: P, L, C, T or M

b = Frequency and Phasing: 0, 1, 2 or 3

c = Entries: 0 or 2

d = Surge/Noise Suppression: 0 or 1

e = Sensing Element: R00, R01, R02, R03, R04, R05, 201, 202, 203, 204, 205, 206, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 601, 603, 604, 605, 606, 607, 608, 609, 610, 611, 613, 703, 705, 706, 708, 709, 713, 714, 715, 722, S12, S13, S14, S16, S18, S42, S43, S44, S46, S48, ZZZ*

f = 24 character numbering system that does not affect safety

ZZZ* = Special sensing element

700- any 7 digit numeric combination

Notes:

1. Maximum process temperature 290°C
2. Maximum sensor capacitance < 1μF
3. Maximum insertion length Rigid Sensor 30 feet (9.144 meters)
4. Maximum insertion length Flexible sensor 2000 feet (609.6 meters)
5. Sensing element enclosure IP66 (IP rating does not apply to special sensors supplied without a 285-series sensing element enclosure)

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

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Specific Conditions of Use:

1. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
2. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

Vab101cd01ef Universal V Level Transmitter Integral (Dual Seal Option)

Equipment Ratings:

Intrinsically Safe for Class I, II, III Division 1, Groups ABCDEFG in accordance with Control Drawing 420-0004-640-CD
 Intrinsically Safe for Class I, Zone 0 Group IIC in accordance with Control Drawing 420-0004-640-CD
 Nonincendive for Class I, Division 2, Groups ABCD

Markings:

IS Class I, II, III Division 1, Groups ABCDEFG T4 - 420-0004-640-CD
 Class I, Zone 0, AEx ia IIC T4 Ga - 420-0004-640-CD
 Class I, Division 2, Groups ABCD T4
 Ta = -40°C to +75°C
 Type 4, 4X; IP66

Description of Equipment:

Entity Parameters:

V_{max} = 30V, I_{max} = 140mA, P_{max} = 1W, C_i = 0µF, L_i = 0µH

Vab101cd01ef Universal V Level Transmitter Integral (Dual Seal Option)

a = Type: P, L, C, T or M

b = Frequency and Phasing: 0, 1, 2 or 3

c = Entries: 0 or 2

d = Surge/Noise Suppression: 0 or 1

e = Sensing Element: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 201, 202, 203, 204, 205, 206, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 601, 603, 604, 605, 606, 607, 608, 609, 610, 611, 613, S02, S03, S04, S06, S08

f = 24 character numbering system that does not affect safety

Specific Conditions of Use:

1. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.

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2. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

Vab101cde0fg Universal V Level Transmitter Remote

Equipment Ratings:

Intrinsically Safe for Class I, II, III Division 1, Groups ABCDEFG in accordance with Control Drawing 420-0004-640-CD
 Intrinsically Safe for Class I, Zone 0 Group IIC in accordance with Control Drawing 420-0004-640-CD
 Nonincendive for Class I, Division 2, Groups ABCD

Markings:

IS Class I, II, III Division 1, Groups ABCDEFG T4 - 420-0004-640-CD
 Class I, Zone 0, AEx ia IIC T4 Ga - 420-0004-640-CD
 Class I, Division 2, Groups ABCD T4
 Ta = -40°C to +75°C
 Type 4, 4X; IP66

Description of Equipment:

Entity Parameters:

V_{max} = 30V, I_{max} = 140mA, P_{max} = 1W, C_i = 0μF, L_i = 0μH

Vab101cde0fg Universal V Level Transmitter Remote

a = Type: P, L, or C

b = Frequency and Phasing: 0, 1, 2 or 3

c = Entries: 0 or 2

d = Surge/Noise Suppression: 0, 1, 2, 3, 4, 5, 6, 7 or D

e = Cable options: 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S or Z

f = Sensing Element: R09, 000, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 513, 601, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, S02, S03, S04, S06, S08 or ZZZ*

g = 24 character numbering system that does not affect safety

ZZZ* = Special sensing element

700- any 7 digit numeric combination

Notes:

1. Maximum process temperature 290°C
2. Maximum sensor capacitance < 1μF
3. Maximum insertion length Rigid Sensor 30 feet (9.144 meters)
4. Maximum insertion length Flexible sensor 2000 feet (609.6 meters)

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

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5. Sensing element enclosure IP66 (IP rating does not apply to special sensors supplied without a 285-series sensing element enclosure)

Specific Conditions of Use:

1. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
2. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

Vab101cde1fg Universal V Level Transmitter Remote (Dual Seal Option)

Equipment Ratings:

Intrinsically Safe for Class I, II, III Division 1, Groups ABCDEFG in accordance with Control Drawing 420-0004-640-CD

Intrinsically Safe for Class I, Zone 0 Group IIC in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Markings:

IS Class I, II, III Division 1, Groups ABCDEFG T4 - 420-0004-640-CD

Class I, Zone 0, AEx ia IIC T4 Ga - 420-0004-640-CD

Class I, Division 2, Groups ABCD T4

Ta = -40°C to +75°C

Type 4, 4X; IP66

Description of Equipment:

Entity Parameters:

V_{max} = 30V, I_{max} = 140mA, P_{max} = 1W, C_i = 0µF, L_i = 0µH

Vab101cde1fg Universal V Level Transmitter Remote (Dual Seal Option)

a = Type: P, L or C

b = Frequency and Phasing: 0, 1, 2 or 3

c = Entries: 0 or 2

d = Surge/Noise Suppression: 0, 1, 2, 3, 4, 5, 6, 7 or D

e = Cable options: 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S or Z

f = Sensing Element: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 601, 603, 604, 605, 606, 607, 608, 609, 610, 611, 613, S02, S03, S04, S06, S08

g = 24 character numbering system that does not affect safety

Specific Conditions of Use:

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1. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
2. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

Vab102cd00ef Universal V Level Transmitter Integral

Equipment Ratings:

Explosion-proof and Intrinsically Safe for Class I, Division 1, Groups CD in accordance with Control Drawing 420-0004-640-CD

Flameproof and Intrinsically Safe for Class I, Zone 1, AEx/Ex db ia IIB in accordance with Control Drawing 420-0004-640-CD

Dust-ignitionproof and Intrinsically Safe for Class II, III, Division 1, Groups EFG in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Markings:

XP-IS Class I, Division 1, Groups CD T4 - 420-0004-640-CD

Class I, Zone 1, AEx db ia IIB T4 Gb - 420-0004-640-CD

DIP-IS Class II, III, Division 1, Groups EFG T4 - 420-0004-640-CD

Class I, Division 2, Groups ABCD T4

Ta = -40°C to +75°C

Type 4, 4X; IP66

Description of Equipment:

Vab102cd00ef Universal V Level Transmitter Integral

a = Type: P, L, C, T or M

b = Frequency and Phasing: 0, 1, 2 or 3

c = Entries: 0 or 2

d = Surge/Noise Suppression: 0 or 1

e = Sensing Element: R11, R12, R13, R14, R15, 201, 202, 203, 204, 205, 206, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 502, 503, 504, 505, 506, 507, 508, 510, 511, 512, S12, S13, S14, S16, S18, S42, S43, S44, S46, S48

f = 24 character numbering system that does not affect safety

Specific Conditions of Use:

1. Consult the manufacturer if dimensional information on the flameproof joints is necessary
2. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel

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

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is excluded.

3. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

Vab102cd01ef Universal V Level Transmitter Integral (Dual Seal Option)

Equipment Ratings:

Explosion-proof and Intrinsically Safe for Class I, Division 1, Groups CD in accordance with Control Drawing 420-0004-640-CD

Flameproof and Intrinsically Safe for Class I, Zone 1, AEx/Ex db ia IIB in accordance with Control Drawing 420-0004-640-CD

Dust-ignitionproof and Intrinsically Safe for Class II, III, Division 1, Groups EFG in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Markings:

XP-IS Class I, Division 1, Groups CD T4 - 420-0004-640-CD

Class I, Zone 1, AEx db ia IIB T4 Gb - 420-0004-640-CD

DIP-IS Class II, III, Division 1, Groups EFG T4 - 420-0004-640-CD

Class I, Division 2, Groups ABCD T4

Ta = -40°C to +75°C

Type 4, 4X; IP66

Description of Equipment:

Vab102cd01ef Universal V Level Transmitter Integral (Dual Seal Option)

a = Type: P, L, C, T or M

b = Frequency and Phasing: 0, 1, 2 or 3

c = Entries: 0 or 2

d = Surge/Noise Suppression: 0 or 1

e = Sensing Element: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 201, 202, 203, 204, 205, 206, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, S02, S03, S04, S06, S08

f = 24 character numbering system that does not affect safety

Specific Conditions of Use:

1. Consult the manufacturer if dimensional information on the flameproof joints is necessary
2. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
3. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

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Vab102cde0fg Universal V Level Transmitter Remote

Equipment Ratings:

Explosion-proof for Class I, Division 1, Groups CD with Intrinsically Safe connections to Class I, II, III, Division 1, Groups ABCDEFG in accordance with Control Drawing 420-0004-640-CD

Flameproof for Class I, Zone 1 with Intrinsically Safe connections to Class I, Zone 0, AEx db [ia Ga] IIB in accordance with Control Drawing 420-0004-640-CD

Dust-ignitionproof for Class II, III Division 1, Groups EFG with Intrinsically Safe connections to Class I, II, III, Division 1, Groups ABCDEFG in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Markings:

XP-AIS Class I, Division 1, Groups CD T4 - 420-0004-640-CD

Class I, Zone 1, AEx db [ia Ga] IIB T4 Gb - 420-0004-640-CD

DIP-AIS Class II, III, Division 1, Groups EFG T4 - 420-0004-640-CD

Class I, Division 2, Groups ABCD T4

Ta = -40°C to +75°C

Type 4, 4X; IP66

Description of Equipment:

Vab102cde0fg Universal V Level Transmitter Remote

a = Type: P, L or C

b = Frequency and Phasing: 0, 1, 2 or 3

c = Entries: 0 or 2

d = Surge/Noise Suppression: 0, 1, 2, 3, 4, 5, 6, 7 or D

e = Cable options: 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S or Z

f = Sensing Element: R09, 000, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 513, 601, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, S02, S03, S04, S06, S08, ZZZ*

g = 24 character numbering system that does not affect safety

ZZZ* = Special sensing element

700- any 7 digit numeric combination

Notes:

1. Maximum process temperature 290°C
2. Maximum sensor capacitance < 1µF
3. Maximum insertion length Rigid Sensor 30 feet (9.144 meters)
4. Maximum insertion length Flexible sensor 2000 feet (609.6 meters)
5. Sensing element enclosure IP66 (IP rating does not apply to special sensors supplied without a 285-series sensing element enclosure)

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

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SCHEDULE

US Certificate Of Conformity No: FM23US0053X

Specific Conditions of Use:

1. Consult the manufacturer if dimensional information on the flameproof joints is necessary
2. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
3. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

Vab102cde1fg Universal V Level Transmitter Remote (Dual Seal Option)

Equipment Ratings:

Explosion-proof for Class I, Division 1, Groups CD with Intrinsically Safe connections to Class I, II, III, Division 1, Groups ABCDEFG in accordance with Control Drawing 420-0004-640-CD

Flameproof for Class I, Zone 1 with Intrinsically Safe connections to Class I, Zone 0, AEx db [ia Ga] IIB in accordance with Control Drawing 420-0004-640-CD

Dust-ignitionproof for Class II, III Division 1, Groups EFG with Intrinsically Safe connections to Class I, II, III, Division 1, Groups ABCDEFG in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Markings:

XP-AIS Class I, Division 1, Groups CD T4 - 420-0004-640-CD

Class I, Zone 1, AEx db [ia Ga] IIB T4 Gb - 420-0004-640-CD

DIP-AIS Class II, III, Division 1, Groups EFG T4 - 420-0004-640-CD

Class I, Division 2, Groups ABCD T4

Ta = -40°C to +75°C

Type 4, 4X; IP66

Description of Equipment:

Vab102cde1fg Universal V Level Transmitter Remote (Dual Seal Option)

a = Type: P, L or C

b = Frequency and Phasing: 0, 1, 2 or 3

c = Entries: 0 or 2

d = Surge/Noise Suppression: 0, 2, 3, 4, 5, 6, 7 or D

e = Cable options: 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S or Z

f = Sensing Element: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 601, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, S02, S03, S04, S06, S08

g = 24 character numbering system that does not affect safety

Specific Conditions of Use:

1. Consult the manufacturer if dimensional information on the flameproof joints is necessary

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

T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

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2. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
3. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

VDa109bc00de Universal V Level Transmitter Integral (Remote Density Communications Module)

Equipment Ratings:

Universal V-CM

Explosion-proof and Intrinsically Safe for Class I, Division 1, Groups CD in accordance with Control Drawing 420-0004-640-CD

Flameproof and Intrinsically Safe for Class I, Zone 1, AEx db ia IIB in accordance with Control Drawing 420-0004-640-CD

Dust-ignitionproof and Intrinsically Safe for Class II, III, Division 1, Groups EFG in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Universal IV Remote Density Communications Module

Explosion-proof for Class I, Division 1, Groups CD in accordance with Control Drawing 420-0004-640-CD

Flameproof for Class I, Zone 1, AEx db ia IIB in accordance with Control Drawing 420-0004-640-CD

Dust-ignitionproof for Class II, III, Division 1, Groups EFG in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Markings:

Universal V-CM

XP-IS Class I, Division 1, Groups CD T4 - 420-0004-640-CD

Class I, Zone 1, AEx db ia IIB T4 Gb - 420-0004-640-CD

DIP-IS Class II, III, Division 1, Groups EFG T4 - 420-0004-640-CD

Class I, Division 2, Groups ABCD T4

Ta = -40°C to +75°C

Type 4, 4X; IP66

Universal IV Remote Density Communications Module

XP Class I, Division 1, Groups CD T4 - 420-0004-640-CD

Class I, Zone 1, AEx db IIB T4 Gb - 420-0004-640-CD

DIP Class II, III, Division 1, Groups EFG T4 - 420-0004-640-CD

Class I, Division 2, Groups ABCD T4

Ta = -40°C to +75°C

Type 4, 4X; IP66

Description of Equipment:

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VDa109bc00de Universal V Level Transmitter Integral (Remote Density Communications Module)

a = Frequency and Phasing: 0 or R*

b = Entries: 0 or 2

c = Surge/Noise Suppression: 0 or 1

d = Sensing Element: R11, R12, R13, R14, R15, 201, 202, 203, 204, 205, 206, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 501, 502, 503, 504, 505, 506, 507, 508, 510, 511, 512, S12, S13, S14, S16, S18, S42, S43, S44, S46, S48

e = 24 character numbering system that does not affect safety

R* = Retrofit

Specific Conditions of Use:

1. Consult the manufacturer if dimensional information on the flameproof joints is necessary
2. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
3. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

VDa109bc01de Universal V Level Transmitter Integral (Remote Density Communications Module & Dual Seal Option)

Equipment Ratings:

Universal V-CM

Explosion-proof and Intrinsically Safe for Class I, Division 1, Groups CD in accordance with Control Drawing 420-0004-640-CD

Flameproof and Intrinsically Safe for Class I, Zone 1, AEx db ia IIB in accordance with Control Drawing 420-0004-640-CD

Dust-ignitionproof and Intrinsically Safe for Class II, III, Division 1, Groups EFG in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Universal IV Remote Density Communications Module

Explosion-proof for Class I, Division 1, Groups CD in accordance with Control Drawing 420-0004-640-CD

Flameproof for Class I, Zone 1, AEx db ia IIB in accordance with Control Drawing 420-0004-640-CD

Dust-ignitionproof for Class II, III, Division 1, Groups EFG in accordance with Control Drawing 420-0004-640-CD

Nonincendive for Class I, Division 2, Groups ABCD

Markings:

Universal V-CM

XP-IS Class I, Division 1, Groups CD T4 - 420-0004-640-CD

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

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SCHEDULE

US Certificate Of Conformity No: FM23US0053X

Class I, Zone 1, AEx db ia IIB T4 Gb - 420-0004-640-CD
 DIP-IS Class II, III, Division 1, Groups EFG T4 - 420-0004-640-CD
 Class I, Division 2, Groups ABCD T4
 Ta = -40°C to +75°C
 Type 4, 4X; IP66

Universal IV Remote Density Communications Module

XP Class I, Division 1, Groups CD T4 - 420-0004-640-CD
 Class I, Zone 1, AEx db IIB T4 Gb - 420-0004-640-CD
 DIP Class II, III, Division 1, Groups EFG T4 - 420-0004-640-CD
 Class I, Division 2, Groups ABCD T4
 Ta = -40°C to +75°C
 Type 4, 4X; IP66

Description of Equipment:

VDa109bc01de Universal V Level Transmitter Integral (Remote Density Communications Module & Dual Seal Option)

a = Frequency and Phasing: 0 or R*

b = Entries: 0 or 2

c = Surge/Noise Suppression: 0 or 1

d = Sensing Element: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 201, 202, 203, 204, 205, 206, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, S02, S03, S04, S06, S08

e = 24 character numbering system that does not affect safety

R* = Retrofit

Specific Conditions of Use:

1. Consult the manufacturer if dimensional information on the flameproof joints is necessary
2. In locations requiring EPL Ga or Da equipment, care must be taken when installing the aluminum enclosure, that even in the event of rare incidents, an ignition source due to impact or friction between the enclosure and iron/steel is excluded.
3. The enclosure contains non-metallic enclosure parts. To prevent the risk of electrostatic sparking, the non-metallic surface should be cleaned with a damp cloth

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