1 # EU-TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective systems intended for use in Potentially Explosive Atmospheres - Directive 2014/34/EU**

3 **EU-Type Examination Certificate No:** **FM14ATEX0049X**

4 **Equipment or protective system: (Type Reference and Name)** **R*L2-****, R*L2-0***, R*T2-*0**, R*T2-00**, S*R*L2-****, S*R*L2-0***, S*R*T2*0**, and S*R*T2-00** IntelliPoint RF Transmitter with Integral and Remote Sensor**

5 **Name of Applicant:** **AMETEK Drexelbrook**

6 **Address of Applicant:** **205 Keith Valley Road, Horsham, PA 19044 United States of America**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Europe Ltd, notified body number 2809 in accordance with Article 17 of Directive 2014/34/EU of 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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

3051517 dated 8th January 2015

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-11:2012, EN 60079-26:2015, EN 60079-31:2014 and EN 60529:1991+A1:2000+A2:2013

10 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.

11 This EU-Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

Digitally signed by Richard Zammitt
DN: cn=Richard Zammitt, o, ou=FM Approvals Europe Limited, email=richard.zammitt@fmapprovals.com, c=IE

Richard Zammitt
Certification Manager, FM Approvals Europe Ltd.

Issue date: 10th March 2020

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420-0004-497		Sht 1 of 8	ISSUE 8
ISSUE	**EDO NO**	**APPD**	**DATE**
8	3-20-112	SGA	3-25-20

SCHEDULE

to EU-Type Examination Certificate No. FM14ATEX0049X

12 The marking of the equipment or protective system shall include:

IntelliPoint Transmitter with Remote Sensor
II 2 (1) G Ex d [ia Ga] IIC T5…T2 Gb -30°C ≤ Tamb ≤ +70°C; IP66
II 2 (1) D Ex tb [ia Da] IIIC T90°C Db -30°C ≤ Tamb ≤ +70°C; IP66

IntelliPoint Transmitter with Integral Sensor
II 2 (1) G Ex d [ia Ga] IIC T5…T2 Gb -30°C ≤ Tamb ≤ +70°C; IP66
II 2 (1) D Ex tb [ia Da] IIIC T90°C Db -30°C ≤ Tamb ≤ +70°C; IP66

IntelliPoint Two-Wire Transmitter with Remote Sensor
II 1 G Ex ia IIC T5…T2 Ga -30°C ≤ Tamb ≤ +70°C; IP66
II 1 D Ex ia IIIC T90°C Da -30°C ≤ Tamb ≤ +70°C; IP66

IntelliPoint Two-Wire Transmitter with Integral Sensor
II 1 G Ex ia IIC T5…T2 Ga -30°C ≤ Tamb ≤ +70°C; IP66
II 1 D Ex ia IIIC T90°C Da -30°C ≤ Tamb ≤ +70°C; IP66

SIL IntelliPoint Transmitter with Remote Sensor
II 2 (1) G Ex d [ia Ga] IIC T5…T2 Gb -30°C ≤ Tamb ≤ +70°C; IP66
II 2 (1) D Ex tb [ia Da] IIIC T90°C Db -30°C ≤ Tamb ≤ +70°C; IP66

SIL IntelliPoint Transmitter with Integral Sensor
II 2 (1) G Ex d [ia Ga] IIC T5…T2 Gb -30°C ≤ Tamb ≤ +70°C; IP66
II 2 (1) D Ex tb [ia Da] IIIC T90°C Db -30°C ≤ Tamb ≤ +70°C; IP66

SIL IntelliPoint Two-Wire Transmitter with Remote Sensor
II 1 G Ex ia IIC T5…T2 Ga -30°C ≤ Tamb ≤ +70°C; IP66
II 1 D Ex ia IIIC T90°C Da -30°C ≤ Tamb ≤ +70°C; IP66

SIL IntelliPoint Two-Wire Transmitter with Integral Sensor
II 1 G Ex ia IIC T5…T2 Ga -30°C ≤ Tamb ≤ +70°C; IP66
II 1 D Ex ia IIIC T90°C Da -30°C ≤ Tamb ≤ +70°C; IP66

700-*, IntelliPoint Sensors
II 1 G Ex ia IIC T5…T2 Ga -30°C ≤ Tamb ≤ +70°C; IP66
II 1 D Ex ia IIIC T90°C Da -30°C ≤ Tamb ≤ +70°C; IP66

13 **Description of Equipment or Protective System:**

The IntelliPoint RF Point Level System (RxLx) and IntelliPoint RF Two-Wire Point Level System (RxTx) consist of a transmitter, a 700 series level sensor and a 380 series connecting cable used for the remote version of the sensor. The system using the remote sensor may also include an RF filter. The transmitter provides intrinsically safe outputs to the sensing elements. It converts a capacitive level measurement into a relay contact signal. The 700 Series Sensors are passive devices having a capacitance of less than 1µF. The SIL version of the IntelliPoint RF Two-Wire Point Level System (SxTx) is identical to the RxTx.

Operation Temperature Ranges:
The ambient operating temperature range of the The IntelliPoint RF Point Level System (RxLx) and IntelliPoint RF Two-Wire Point Level System (RxTx) is -30°C to +70°C. Process temperature range is -30°C to +230°C.

Electrical data:
The IntelliPoint RF Point Level System transmitter is powered by a maximum voltage of 250VAC and has a maximum power rating of 2.0W. The IntelliPoint RF Two-Wire Point Level System transmitter is powered by a maximum voltage of 30VDC and has a maximum power rating of 1.0W.

SCHEDULE

to EU-Type Examination Certificate No. FM14ATEX0049X

Model Options:

RaL2-bcde. IntelliPoint Transmitter with Remote Sensor.
a = Calibration: N, M, H, G, L, T, V, or P.
b = Cable Length: 1 – 9, A – K.
c = Relays: 1 or 2.
d, e = Sensing Elements: 00, 02 – 04, 06, 07, 09 – 22, 24 – 28, 31 – 40, 50 – 53, 55, 60 – 62, 64, 66, 72, 73, 80 – 83, 85, 90 – 94, or ZZ.

RaL2-0bcd. IntelliPoint Transmitter with Integral Sensor.
a = Calibration: N, M, H, G, L, T, V, or P.
b = Relays: 1 or 2.
c, d = Sensing Element: 00, 02 - 04, 07, 28, 91 – 93.

RaT2-b0cd. IntelliPoint Two-Wire Transmitter with Remote Sensor.
a = Calibration: N, M, H, G, L, T, V, or P.
b = Cable Length: 1 – 9, A – K.
c, d = Sensing Element: 00, 02 – 04, 06, 07, 09 – 22, 24 – 28, 31 – 40, 50 – 53, 55, 60 – 62, 64, 66, 72, 73, 80 – 83, 85, 90 – 94, or ZZ.

Energy Limitation Parameters:
Ui = 30V, Ii = 140 mA, Pi = 1 W, Ci = 0, Li = 145 µH

RaT2-00bc. IntelliPoint Two-Wire Transmitter with Integral Sensor.
a = Calibration: N, M, H, G, L, T, V, or P.
b, c = Sensing Element: 00, 02 - 04, 06, 07, 09, 11 - 19, 21, 22, 24, 25, 28, 72, 73, 86, 87, 90 - 93, or ZZ.

Energy Limitation Parameters:
Ui = 30V, Ii = 140 mA, Pi = 1 W, Ci = 0, Li = 145 µH

SaRbL2-cdef. IntelliPoint Transmitter with Remote Sensor.
a = SIL Level: SIL evaluation not performed by FM Approvals
b = Calibration: N, H, L, T, V, or P.
c = Cable Length: 1 – 9, A – K.
d = Relays: 1 or 2.
e, f = Sensing Element: 00, 02, 04, 06, 07, 09, 11 – 21, 24 – 28, 60 – 62, 64, 66, 72, 73, 85, 90 – 94.

SaRbL2-0cde. IntelliPoint Transmitter with Integral Sensor.
a = SIL Level: SIL evaluation not performed by FM Approvals
b = Calibration: N, H, L, T, V, or P.
c = Relays: 1 or 2.
d, e = Sensing Element: 00, 02, 04, 07, 28, 91 – 93

SaRbT2c0de. SIL IntelliPoint Two-Wire Transmitter with Remote Sensor.
a = SIL Level: SIL evaluation not performed by FM Approvals
b = Calibration: N, H, L, T, V, or P.
c = Cable Length: 1 – 9, A – K.
d, e = Sensing Element: 00, 02, 04, 06, 07, 09, 11 – 21, 24 – 28, 60 – 62, 64, 66, 72, 73, 85, 90 – 94.

Energy Limitation Parameters:
Ui = 30V, Ii = 140 mA, Pi = 1 W, Ci = 0, Li = 145 µH

SCHEDULE

to EU-Type Examination Certificate No. FM14ATEX0049X

SaRbT2-00cd. SIL IntelliPoint Two-Wire Transmitter with Integral Sensor.
a = SIL Level: SIL evaluation not performed by FM Approvals
b = Calibration N, H, L, T, V, or P.
c, d = Sensing Element: 00, 02, 04, 06, 07, 09, 11 - 19, 21, 24, 25, 28, 72, 73, 86, 87, 90 – 93.

Energy Limitation Parameters:
Ui = 30V, Ii = 140 mA, Pi = 1 W, Ci = 0, Li = 145 µH

700-a, IntelliPoint Sensors.
a = Any 7 digit numeric combination maintaining the limits of 420-0004-146-CD or 420-0004-175-CD.

14 **Specific Conditions of Use:**

IntelliPoint Transmitter with Remote Sensor, IntelliPoint Transmitter with Integral Sensor, SIL IntelliPoint Transmitter with Remote Sensor, SIL IntelliPoint Transmitter with Integral Sensor

1. The equipment shall not be applied in an explosive dust atmosphere where high electrostatic charging processes are present that could result in propagating brush discharges. See CLC/TR 60079-32-1 for additional guidance.
2. Consult the manufacturer if dimensional information on the flameproof joints is necessary.

IntelliPoint Two-Wire Transmitter with Remote Sensor, IntelliPoint Two-Wire Transmitter with Integral Sensor, SIL IntelliPoint Two-Wire Transmitter with Remote Sensor, SIL IntelliPoint Two-Wire Transmitter with Integral Sensor

1. The enclosure contains aluminum and is considered a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.
2. The equipment shall not be applied in an explosive dust atmosphere where high electrostatic charging processes are present that could result in propagating brush discharges. See CLC/TR 60079-32-1 for additional guidance.

15 **Essential Health and Safety Requirements:**

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

16 **Test and Assessment Procedure and Conditions:**

This EU-Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

17 **Schedule Drawings**

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by the Notified Body.

Note – The attached list references the original project ID 3012481 The examination and test result recorded in confidential report number 3051517 dated 8th January 2015 were carried out as a supplement to original project ID 3012481.

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SCHEDULE

to EU-Type Examination Certificate No. FM14ATEX0049X

18 **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
23rd January 2015	Original Issue.
2nd April 2015	Supplement 1: Report Reference: – RR200198 dated 16th March 2015. Description of the Change: Correction of drawing revision examined under original project.
9th November 2015	Supplement 2: Report Reference: RR202740 dated 4th November 2015. Description of change: Minor changes to circuitry and associated drawing.
18th October 2016	Supplement 3: Report Reference: – RR206692 dated 17th October 2016. Description of the Change: Minor changes to manufacturing process, circuitry and associated drawing. Updated certificate to EU format.
19th January 2017	Supplement 4: Report Reference: – RR208106 dated 18th January 2017. Description of the Change: Minor updates to documentation.
25th July 2017	Supplement 5: Report Reference: – RR210041 dated 25th July 2017. Description of the Change: Minor changes to circuitry
22nd February 2018	Supplement 6: Report Reference: – RR212335 dated 7th February 2018. Description of the Change: Adding line-powered SIL versions, added additional sensors. Updated standards EN60079-1 and EN60079-26 to latest edition.
25th September 2018	Supplement 7: Report Reference: – RR214288 dated 30th July 2018. Description of the Change: Component replacement with equivalent part. Added EPLs to Section 12 of this certificate. Specific conditions of use added.
26th March 2019	Supplement 8: Description of the Change: Certificate transferred from FM Approvals Ltd., notified body no. 1725, to FM Approvals Europe Ltd., notified body no. 2809. The date of EN60079-31 was corrected from 2013 to 2014 (the error occurred in Supplement 6).
01st August 2019	Supplement 9: Report Reference: – RR219025 dated 30th July 2019. Description of the Change: Minor drawing and documentation changes.
10th March 2020	Supplement 10: Report Reference: – RR222602 dated 10th March 2020. Description of the Change: Minor component change and update to all manuals.

Blueprint Report

AMETEK Drexelbrook (1000001466)

Class No **3610**

Original Project I.D. *3012481*

Certificate I.D. *FM14ATEX0049X*

Drawing No.	Revision Level	Drawing Title	Last Report
250-0001-075	4	O-Ring 4" I. D. x 4 3/16 O.D. x 3/32	3051517
260-0002-520	13	105mm Dual Compartment Housing Base, M20 Hubs	3051517
260-0002-521	11	M105 Dual Compartment Housing Lid	3051517
260-0002-539	4	Dual Compartment Housing with Pins, 3/4 NPT Hubs	3051517
260-0002-540	5	Housing Assembly 3/4 NPT	3051517
260-0002-541	4	Dual Compartment Housing with Pins, M20 Hubs	3051517
260-0002-542	6	Dual Compartment Housing with Pins, M20 Hubs	3051517
269-0001-165	2	Lid Lock Down Slotted Tab for Dual Compartment Housing	3051517
270-0101-685	3	Label Wiring Diagram for Power Supply In Dual Compartment Enclosure	3051517
270-0101-704	8	ATEX Label For IntelliPoint with Universal Power Supply, RF Point Level Control, Integral	RR212488
270-0101-739	7	ATEX Label for Dual Compartment Enclosure with Universal Power Supply and RF Point Level	RR212488
270-0101-742	4	ATEX Label, Remote Sensors	RR212488
270-0101-746	7	ATEX Label For 2-Wire IntelliPoint, Integral	RR212488
270-0101-749	6	ATEX Label for 2-Wire IntelliPoint, Remote	RR212488
285-0001-062	4	Remote Sensor Enclosure, Condulet Assembly	3051517
285-0001-063	4	Remote Sensor Enclosure, Condulet Assembly	3051517
285-0001-064	3	Remote Sensor Enclosure, Condulet Assembly	3051517
285-0001-065	3	Remote Sensor Enclosure, Condulet Assembly	3051517
311-0001-081	1	Zener Diode 2.5 V	3051517
311-0001-082	1	Zener Diode 5.6 V	3051517
311-3001-002	3	Diode	3051517
311-3001-031	2	Zener Diode 6.2 V	3051517
312-0010-100	2	Optocoupler	3051517
320-0002-022	5	RF Transformer	3051517
320-0002-046	4	Isolation Transformer for Universal Transformer Board	3051517
320-0002-049	4	Transformer Oscillator (25 KHz)	RR222602
320-0002-061	1	Isolation Transformer for Universal Transformer Board	3051517
321-0001-021	1	Ungapped Core	3051517
322-0001-030	5	Inductor Ferrite Bead with Leads	3051517
322-0001-043	1	Inductor	3051517
322-0001-046	1	Inductor Ferrite Bead with Leads	3051517
332-0002-045	3	PCB Relay 2 Form C 12VDC Coil	3051517
345-0010-013	2	Bobbin	3051517
352-0004-005	4	Line Bushing M16 X 1.5	3051517
352-0004-007	2	Line Bushing Assembly	3051517
376-0001-031	2	200 Ma Fuse	3051517
376-0001-039	1	160 mA Fuse	3051517
376-0001-040	3	Thermal Cut Off Axial Type	RR214288
377-0001-019	8	Universal Probe Spark Protect Assembly	3051517
377-0005-001	2	Transient Suppressor	3051517
380-9000-097	7	Cable Assembly, Peek to RCA, 6 1/2" Long, Gold Plated RCA Phono Plug	3051517
383-0001-763	8	Fabrication RF Point Level Micro Board	RR208106
383-0001-768	6	Fabrication, 2-Wire Point Level Power Supply, Transformer Board	RR208106
383-0001-778	05	Printed Wiring Board, Relay Board	RR212355
383-0001-779	07	Printed Wiring Board, Transformer Board	RR212355
383-0048-030	3	Fabrication, 2 Wire Loop Input Board	RR208106
385-0001-381	5	Assembly Remote IntelliPoint RF Filter (Base Board)	3051517
385-0001-543	1	Top Shell Assembly	3051517
385-0048-003	17	Assembly RF Point Level Micro Board	RR210041
385-0048-005	5	Unpotted Power Supply Assembly	3051517
385-0048-006	3	Potted Assembly	3051517
385-0048-007	10	Assembly, 2-Wire Point Level Power Supply Transformer Board	3051517
385-0048-010	12	Assembly RF Point Level Micro Board Set Point Adjustable	RR210041

385-0048-017	4	Line Powered Unpotted Power Supply with Gold Contact Alarm Relay	3051517
385-0048-019	9	Assembly, RF Point Level Micro Board High Sensitivity	RR210041
385-0048-020	9	Assembly, RF Point Level Micro Board High Sensitivity Set Point Adjustable	RR210041
385-0048-021	4	Relay Board Assembly	3051517
385-0048-022	12	Assembly Universal Power Supply Amendment Transformer Board	RR206692
385-0048-030	04	Schematic & BOM, 2-Wire Loop Input Board	RR206692
385-0048-031	1	2-Wire Unpotted Power Supply Assembly	3051517
385-0048-032	1	2-Wire Potted Power Supply Assembly	3051517
385-0048-050	2	ASSEMBLY RF POINT LEVEL SIL MICRO BOARD	RR210041
385-0048-054	2	ASSEMBLY RF POINT LEVEL SIL MICRO BOARD 700-5-594 SE	RR210041
388-0001-026	1	Potting Shell	3051517
388-0001-031	2	Potting Shell	3051517
388-0001-065	2	Universal Power Supply Top Shell	3051517
401-0016-024	4	Final Assembly Remote IntelliPoint RF Filter	3051517
420-0004-146-CD	09	ATEX Control Drawing for IntelliPoint	RR214288
420-0004-175-CD	10	ATEX Control Drawing for 2-Wire IntelliPoint	RR214288
440-1602-817	7	Artwork RF Point Level Micro Board	3051517
440-1602-824	5	Artwork, Transformer Board IntelliPoint Two-Wire Power Supply	3051517
440-1602-825	3	Artwork (Primary Side), 2-Wire Loop Input Board	3051517
440-1602-832	4	Artwork Relay Board	3051517
440-1602-833	6	Artwork Transformer Board	3051517
440-1602-946	02	Artwork, 2 Wire Loop Input Board	RR206692
700-1202-001-XX	9	3 Terminal Perm-A-Seal Sensing Element	3051517
745-0314-040-A0	3	Molded Sensing Element	3051517
745-0330-040-XX	12	Crimped Sensing Element	3051517
960-0001-087	2	Polycast 159 A\B Epoxy	3051517
960-0001-089	2	Material Top Shell (Valox)	3051517
960-0001-102	1	Loctite 564	3051517
RMLXX1-LM	18	User Manual, IntelliPoint RF RML Series Line Powered	RR222602
RMTXX1-LM	15	User Manual, IntelliPoint RF RMT Series Two-Wire	RR222602
RNLXX1-LM	25	User Manual, IntelliPoint RF RNL Series Line Powered	RR222602
RNTXX1-LM	21	User Manual, IntelliPoint RF Series Two-Wire	RR222602
RXLX-0XXX-XXXX	18	Line Powered Integral	RR219025
RXLX-XXXX-XXXX	21	Line Powered Remote	RR219025
RXTX-0XXX-XXXX	16	2-Wire IntelliPoint Integral	RR219025
RXTX-XXXX-XXXX	18	2-Wire IntelliPoint Remote	RR219025
SXRXLX-0XXX-XXXX	01	Line Powered Integral (SIL)	RR212355
SXRXLX-XXXX-XXXX	01	Line Powered Remote (SIL)	RR212355
SXRXLXX1-LM	04	User Manual, SIL Intellipoint RF SXRXL Series Line Powered	RR222602
SXRXTX-0XXX-XXXX	06	2-Wire IntelliPoint Integral (SIL)	RR212355
SXRXTX-XXXX-XXXX	05	2-Wire IntelliPoint Remote (SIL)	RR212355
SXRXTXX1-LM	04	User Manual, SIL Intellipoint RF SXRXT Series Two-Wire	RR222602

FM Ref: 3051517

Date: 10th March 2020

Ms. JoAnn Gerhart
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Dear Ms. Gerhart

ATEX EU Type Examination Certificate FM14ATEX0049X- 9

I am pleased to confirm that the **R*L2-****, R*L2-0***, R*T2-*0**, R*T2-00**, S*R*L2-****, S*R*L2-0***, S*R*T2*0**, and S*R*T2-00** IntelliPoint RF Transmitter with Integral and Remote Sensor** has been certified under Annex III of the ATEX Directive and in accordance with the rules of the ATEX Certification Scheme.

Your copy of the updated certificate (at supplement 10) is enclosed.

Please retain all the above documents in a safe and secure location as they represent the evidence upon which the compliance of the above product is based and you may be required to produce them, if challenged by a duly appointed authority, in support of your claims of compliance with the ATEX Directive. Please also ensure that the scope of the technical file is extended to include the details of the model variants as this is a condition of the ATEX Directive.

Certification is dependent upon continued conformity with all of the requirements of the ATEX Certification Scheme as set out in the latest edition of the scheme rules. Please read these rules carefully and contact us if you have any questions.

Yours sincerely,

Digitally signed by Richard Zammitt
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Richard Zammitt
Certification Manager
FM Approvals Europe Limited