CERTIFICATE OF CONFORMITY

1. **HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS**
2. **Certificate No:** **FM19CA0109X**
3. **Equipment:** **Model IDT Series Pressure Transmitters**
   (Type Reference and Name) **Pressure Transmitter**
4. **Name of Listing Company:** **AMETEK PMT Products.**
5. **Address of Listing Company:** **205 Keith Valey Road**
   Horsham, PA 19044
   USA
6. The examination and test results are recorded in confidential report number:

   3051489 dated 26th January 2015
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. 25:R2014,CSA C22.2No. 213:2004
   CSA-C22.2 No. 94:R2011, CSA-C22.2 No. 60529:R2010,
   CAN/CSA-C22.2 No. 60079-0:2011, CAN/CSA-C22.2 No. 60079-11:2014,CAN/CSA E60079-15:2012
   CAN/CSA-C22.2 No. 1010-1:2004
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.
10. Equipment Ratings:
    Type DIP and DIC Pressure Transmitters:

    Intrinsically safe for Class I, II, III, Division 1, Groups A, B, C, D, E, F and G; Class I, Zone 0, Group IIC, Temperature class T4 -40°C≤ Ta ≤ 80°C / T6 -40°C≤ Ta ≤ 60°C; Entity; IP60, IP65, IP67, IP68, Type 4X Type 6P (per Option d).

Certificate issued by:

J. E. Marquedant
VP, Manager - Electrical Systems

4 March 2020
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
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com

420-0004-627		Sht 1 of 5	ISSUE 1
ISSUE	**EDO NO**	**APPD**	**DATE**
1	4-20-101	SGA	4-3-20

SCHEDULE

Canadian Certificate Of Conformity No: FM19CA0109X

Type DD2 and DD3 Type Pressure Transmitters:

Nonincendive for use in Class I, Division 2, Groups A, B, C and D; Class II, III, Groups E,F and G; Non-Sparking for Class I, Group IIC, Temperature class T4 -40°C≤ Ta ≤ 80°C/ T6 -40°C≤ Ta ≤ 60°C; IP65, IP67, IP68, Type 4X Type 6P (per Option d).

11. The marking of the equipment shall include:

Type DIP and DIC Pressure Transmitters
Class I, II, III, Division 1, Groups A,B, C, D, E,F,G; T4 -40°C≤ Ta ≤ 80°C/ T6 -40°C≤ Ta ≤ 60°C; Entity

Class I, Zone 0, Ex ia IIC T4, -40°C≤ Ta ≤ 80°C/ T6 -40°C≤ Ta ≤ 60°C; Entity

Type 4X, Type 6P (per Option d), IP60, IP65, IP67, IP68

Type DD2 and DD3 Type Pressure Transmitters

Class I, Division 2, Groups A, B, C and D; T4 -40°C≤ Ta ≤ 80°C/ T6 -40°C≤ Ta ≤ 60°C

Class II,III, Division 2, Groups E, F, G, T4 -40°C≤ Ta ≤ 80°C/ T6 -40°C≤ Ta ≤ 60°C

Class I, Zone 2, Ex nA IIC T4 Gb -40°C≤ Ta ≤ 80°C/ T6 -40°C≤ Ta ≤ 60°C

Type 4X, Type 6P (per Option d), IP65, IP67, IP68

12. **Description of Equipment:**

The IDT Series Pressure Transmitters are for use in hazardous locations with various pressure ranges, pressure ports and electrical connectors. They are primarily for pressure line monitoring of gases or liquids used in manufacturing, oil and gas exploration. The electronic circuitry consists of a power board and a compensation board. There is a transmitter housing with a sensor at one end and an electrical connection side at the other end. The transmitter housing with optional connectors as identified by model code option “d” include:

1. Oleumtech 6 Pin connector
2. NPT male
3. Submersible Transmitter with standard grommet
4. Submersible Transmitter with small grommet
5. Sealcon Strain relief

The modules consists of 2 printed circuit boards (PCB’s); a power board and a compensation board. They are available with potting compound or conformal coating. Transmitter units with potting have a T6 rating at a maximum ambient of 60°C. Units with conformal coating have a T4 rating at a maximum ambient of
80°C. The product utilizes 1-6V and 4-20mA signal output for pressure ranges of 0-5,000 psi (0-345 bar).

The submersible units were tested at and are rated for a minimum ambient of -40°C. The manufacturer labels some of the submersible models with -25°C which is deemed acceptable.

SCHEDULE

Canadian Certificate Of Conformity No: FM19CA0109X

Electrical
Entity Parameters: (4-20mA circuit) Division 1 / Zone 0
Vmax = 28V, Imax = 100mA, Pi = 0.7W, Ci= 45nF, Li = 2.5uH.

Electrical Parameters (4-20mA circuit) Division 2 / Zone 2
V = 11-28V, 100mA Input, 4-20mA Output

Entity Parameters: (1-6V circuit) Division 1 / Zone 0
Vmax = 15V, Imax = 148mA, Pi = 0.7W, Ci = 97nF, Li = 2.5uH

Electrical Parameters (1-6V circuit) Division2/ Zone 2
V= 8–15V,148mA Input, 0-6V Output

Mechanical
The product is made of stainless steel housing and has a cable connection port on the top side of the unit. The product is approximately 5.5" in height, 1.25" in diameter and weighs less than 1 pound. The product has working pressure ranges of 0 psi – 5,000 psi (0 – 345 bar).

The ANSI Seal was not evaluated as part of this certification.

The CS1 model was evaluated without the mating connector. The mating connector needs to be properly sealed to the housing for IP6X protection to be valid.

Dabcdefghjkl. Pressure Transmitter.
a=Protection Type IP (Division 1/Zone 0 potted T6@60°C rating), IC (Division 1/Zone 0 coated T4@80°C rating)
b= Electrical Input/Output B, C, D, E, F
b = B:
Entity Parameters: Vmax = 28V, Imax = 100mA, Pi = 0.7W, Ci = 45nF, Li = 2.5uH. Control Drawing #BK750542
b = C, D, E, F:
Entity Parameters: Vmax = 15V, Imax = 148mA, Pi = 0.7W, Ci = 97nF, Li = 2.5uH.Control Drawing#BK750543
c= Construction Type B,T(Not a Safety critical option)
d = Electrical Connections:
CS1 – IP60, BN01(no Type or IP rating), M01(no Type or IP rating)
PT1, PT2, PT3, PT4, PT5, PT6 – IP65, Type 4X HM2 - IP67, Type 4X
NV1,NV2,NV3,NV4,NV5,NV6,NV7,NV8,NV9,NVA,CV1,CV2,CV3,CV5,CV6 – IP68, Type 6P
e=Cable Length AA,AB,AC,AD,AE,AF,AZ,BA,BB,BC,BD,BE,BF,BG,BZ,
f= D, N, S, Seal Options Not evaluated per ANSI 12.27.01 by FM
g= Sensing Port 01, 02,03,04,05,06,07,08,07-99
h= Fill Fluid F, M, S,A-Z
j= Diaphragm Material H1, H2, M1, M2, S1, S2,A1-Z2
k= Measurement Type A, C, E, G, V, S,A-Z
l= Pressure Ranges up to 0-5000 psi, 0-345 bar

Dabcdefghjkl. Pressure Transmitter.

SCHEDULE

Canadian Certificate Of Conformity No: FM19CA0109X

a=Protection Type D2(Division 2/Zone 2 T6@60°C), D3(Division 2/Zone 2 T4@80°C) b= Electrical Input/Output B, C, D, E,F
c= Construction Type B,T(Not a Safety critical option) d = Electrical Connections:

PT4, PT5,PT6 – IP65, Type 4X HM2 - IP67, Type 4X, CV1,CV2,CV3,CV5, CV6 – IP68,Type 6P
e=Cable Length AA,AB,AC,AD,AE,AF,AZ,BA,BB,BC,BD,BE,BF,BG,BZ
f= N None, Seal Not evaluated per ANSI 12.27.01 by FM g= Sensing Port 01, 02,03,04,05,06,07,08,07-99
h= Fill Fluid F, M, S, A-Z
j= Diaphragm Material H1, H2, M1, M2, S1, S2, A1-Z2 k= Measurement Type A, C, E, G, V, S, A-Z
l= Pressure Ranges up to 0-5000 psi, 0-345 bar

13. **Specific Conditions of Use:**
Type DIP and DIC Pressure Transmitters

1. The maximum permitted operating temperature of the Ametek IDT series Pressure Transducers is 80 °C for the conformal coated versions and 60°C for the potted versions. To avoid the effects of process temperature and other thermal effects care shall be taken to ensure that the "Electronics Temperature" does not exceed the maximum of 80 °C for the conformal coated versions and 60°C for the potted versions.
2. The models with the non-metallic parts near cable entry will need to be protected from exposure to UV radiation.
3. Model Option CS1 connector needs to be properly sealed for IP6X protection to be valid.
4. For Model Option d= BN01 plug type XXX and appropriately sized cable shall be used in accordance with the control drawings BK750542 or BK750543 to complete electrical connection to maintain the Hazardous Locations rating.
5. For Model Option d= M01 Plug type XX and appropriately sized cable shall be used in accordance with the control drawings BK750542 or BK750543 shall be used to complete electrical connection to maintain the Hazardous Locations rating.

Type DD2 and DD3 Type Pressure Transmitters

1. The maximum permitted operating temperature of the Ametek IDT series Pressure Transducers is 80 °C for the conformally coated versions and 60°C for the potted versions. To avoid the effects of process temperature and other thermal effects care shall be taken to ensure that the "Electronics Temperature" does not exceed the maximum of 80 °C for the conformally coated versions and 60°C for the potted versions.
2. The models with the non-metallic parts near cable entry will need to be protected from exposure to UV radiation.

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.

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

SCHEDULE

Canadian Certificate Of Conformity No: FM19CA0109X

16. **Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
26th January 2015	Original Issue.
13th February 2015	Supplement 1: Report Reference: – Project ID 3051489 R1 dated 13th February 2015.
4th March 2020	Supplement 2: Report Reference: – RR222339 Dated 4th March 2020. Description of the Change: Addition of connector options BN1 and M01. Modification of lower ambient to -11C for these options.

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