



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX UL 18.0086** Page 1 of 4 [Certificate history:](#)
Status: **Current** Issue No: 2 [Issue 1 \(2019-10-30\)](#)
[Issue 0 \(2018-09-14\)](#)
Date of Issue: 2020-01-21
Applicant: **Dwyer Instruments Inc.**
102 Indiana Highway 212
Michigan City, IN 46360
United States of America
Equipment: **Pressure Transducers, Models IS626-**-GH-P*-E*-S1-ATEX-****, SBLTX-*****-*.***-*.****-ATEX-***, PBLTX-*****-*.***-*.***-ATEX-*****
Optional accessory:
Type of Protection: **Intrinsic safety "ia"**
Marking: Ex ia IIC T4 Ga
Ex ia IIIC T135°C Da
*-20°C ≤ Tamb ≤ +65°C
*When nomenclature item 'V' for Cable Type = 'PU' for Polyether Polyurethane for models SBLTX-*****-*.***-*.****-ATEX-*** and PBLTX-*****-*.***-*.***-ATEX-***

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2020-01-21

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





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Manufacturer: **Dwyer Instruments Inc.**
102 Indiana Highway 212
Michigan City, IN 46360
United States of America

Additional manufacturing locations: **W.E. Anderson A Division of Dwyer Instruments Inc.**
250 Highgrove, Grandview
MO 64030
United States of America

Proximity Controls Inc. A Div. of Dwyer Instruments Inc.
1431 State Highway 210 East
Fergus Falls, MN 56537
United States of America

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[US/UL/ExTR18.0099/00](#)

[US/UL/ExTR18.0099/01](#)

[US/UL/ExTR18.0099/02](#)

Quality Assessment Report:

[CA/CSA/QAR09.0006/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Models IS626, SBLTX and PBLTX transducers all consist of a similar stainless steel tube assembly that houses the main board and sensor board assembly. The tube assembly is completely encapsulated up to a ground clip within the transducers. The Models IS626, SBLTX and PBLTX are intended to be interfaced with a third party listed intrinsically safe associated apparatus that is suitable for the intended application. The Models PBLTX and SBLTX are submersible transducers that include a breather tube within the provided wiring that is to be terminated within the hazardous area. What differs between the Model IS626, SBLTX, and PBLTX transducers is the overall external construction and the intended end user application of the transducers. See the nomenclature as follows for the available options.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Updated documentation, and alternate construction for Models IS626, SBLTX, and PBLTX.

Issue 2: Revision to nomenclature for the model IS626, model SBLTX, and model PBLTX.

Annex:

[Annex to IECEx UL 18.0086 Issue 2.pdf](#)



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TYPE DESIGNATION

Nomenclature:

Model IS626:

<u>IS626</u>	-	<u>**</u>	-	<u>GH</u>	-	<u>P*</u>	-	<u>E*</u>	-	<u>S1</u>	-	<u>ATEX</u>	-	<u>****</u>																																																
		<u>I</u>		<u>II</u>		<u>III</u>		<u>IV</u>		<u>V</u>		<u>VI</u>		<u>VII</u>																																																
<p>I. Sensing range for the device</p> <p>a. ** where ** is one of the numeric characters defined within the table below that represent the sensing configuration for the device:</p> <table border="1"> <thead> <tr> <th>**</th> <th></th> <th>Sensing Range</th> <th>**</th> <th></th> <th>Sensing Range – Cont.</th> </tr> </thead> <tbody> <tr> <td>06</td> <td>=</td> <td>0 – 5 PSIG</td> <td>13</td> <td>=</td> <td>0 – 300 PSIG</td> </tr> <tr> <td>07</td> <td>=</td> <td>0 – 15 PSIG</td> <td>14</td> <td>=</td> <td>0 – 500 PSIG</td> </tr> <tr> <td>08</td> <td>=</td> <td>0 – 30 PSIG</td> <td>22</td> <td>=</td> <td>0 – 600 PSIG</td> </tr> <tr> <td>09</td> <td>=</td> <td>0 – 50 PSIG</td> <td>24</td> <td>=</td> <td>0 – 250 PSIG</td> </tr> <tr> <td>10</td> <td>=</td> <td>0 – 100 PSIG</td> <td>25</td> <td>=</td> <td>0 – 400 PSIG</td> </tr> <tr> <td>11</td> <td>=</td> <td>0 – 150 PSIG</td> <td>27</td> <td>=</td> <td>0 – 25 PSIG</td> </tr> <tr> <td>12</td> <td>=</td> <td>0 – 200 PSIG</td> <td></td> <td>=</td> <td></td> </tr> </tbody> </table>															**		Sensing Range	**		Sensing Range – Cont.	06	=	0 – 5 PSIG	13	=	0 – 300 PSIG	07	=	0 – 15 PSIG	14	=	0 – 500 PSIG	08	=	0 – 30 PSIG	22	=	0 – 600 PSIG	09	=	0 – 50 PSIG	24	=	0 – 250 PSIG	10	=	0 – 100 PSIG	25	=	0 – 400 PSIG	11	=	0 – 150 PSIG	27	=	0 – 25 PSIG	12	=	0 – 200 PSIG		=	
**		Sensing Range	**		Sensing Range – Cont.																																																									
06	=	0 – 5 PSIG	13	=	0 – 300 PSIG																																																									
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11	=	0 – 150 PSIG	27	=	0 – 25 PSIG																																																									
12	=	0 – 200 PSIG		=																																																										
<p>II. Enclosure housing of the device</p> <p>a. GH = General purpose stainless steel housing for the device.</p> <p>III. Process fitting that the device is constructed with</p> <p>a. P1 = 0.25 in. NPT Male</p> <p>b. P2 = 0.25 in. NPT Female</p> <p>c. P3 = 0.25 in. BSPT Male</p> <p>IV. Electrical connection</p> <p>a. E1 = 3 foot factory wiring with strain relief</p> <p>b. E2 = 6 foot factory wiring with strain relief</p> <p>c. E3 = 9 foot factory wiring with strain relief</p> <p>d. E6 = M12 Bendix Connection</p> <p>V. Output configuration of transducer</p> <p>a. S1 = Output configuration of 4-20 mA for the transducer.</p> <p>VI. Configuration</p> <p>a. ATEX = ATEX/IECEx Compliant Configuration</p> <p>VII. Additional options may include any of the following (Optional):</p> <p>a. Blank = No options added</p> <p>b. AT = Aluminum tag included on the wiring harness. To be removed prior to installation of the device.</p> <p>c. NIST = NIST calibration certificate provided with the device.</p>																																																														



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Model SBLTX:

SBLTX	-	*****	-	*	-	***	-	*	-	****	-	ATEX	-	***
		I		II		III		IV		V		VI		VII
I.		Sensor range												
	a.	***** where ***** is one to five numeric characters that represent the following sensing range:												
		i. When item 'I' = BLANK, item 'I' = 3 to 400 PSI												
		ii. When item 'I' = M, item 'I' = 2.2 to 280 M WC												
II.		Sensing range unit												
	a.	BLANK = PSI												
	b.	M = Metric												
III.		Cable length												
	a.	*** where *** is one to three numeric characters that represent the following cable length:												
		i. When item 'V' = BLANK, item 'III' = 1 to 470 Feet (143 Meters)												
		ii. When item 'V' = ETFE, item 'III' = 1 to 275 Feet (84 Meters)												
IV.		Cable length unit												
	a.	BLANK = Feet												
	b.	M = Meters												
V.		Cable type - conductor jacket material												
	a.	BLANK = Polyether Polyurethane												
	b.	ETFE = Ethylene Tetraflouroethylene												
VI.		Configuration												
	a.	ATEX = ATEX/IECEX Compliant Configuration												
VII.		Additional options may include either warranty options and/or any one of the process fittings (Optional)												
	a.	BLANK = Standard Warranty												
	b.	2YR = 2 Year Warranty												
	c.	P1 = 0.25 in. NPT Male Process Fitting												
	d.	P2 = 0.25 in. NPT Female Process Fitting												
	e.	P3 = 0.25 in. BSPT Male Process Fitting												
	f.	P4 = 0.25 in. BSPT Female Process Fitting												



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PARAMETERS RELATING TO THE SAFETY

Ambient Temperature range:

$$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +80^{\circ}\text{C}$$

$$-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +65^{\circ}\text{C}$$

*For models SBLTX-*****-**-***-**-*****-ATEX-*** and PBLTX-*****-**-***-**-***-ATEX-*** when nomenclature item 'V' for Cable Type = 'PU' for Polyether Polyurethane

Input:

Terminals 1, 4 = 10 - 28 VDC, 4-20 mA

Input entity parameters:

Model: IS626-**-GH-P*-E*-S1-ATEX-****	
Ui	≤ 28 VDC
Ii	≤ 93 mA
Pi	≤ 651mW
Ci	= 0.0381 μF
Li	= 19.52 μH

Models SBLTX-*****-**-***-**-*****-ATEX-***, and PBLTX-*****-**-***-**-***-ATEX-***	
Ui	≤ 28 VDC
Ii	≤ 93 mA
Pi	≤ 651mW
Ci	= 0.037 μF + C _{SBLTX CABLE} OR C _{PBLTX CABLE}
Li	= 15.92 μH + L _{SBLTX CABLE} OR L _{PBLTX CABLE}



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MARKING

Models IS626-**-GH-P*-E1-S1-ATEX-****, IS626-**-GH-P*-E2-S1-ATEX-****, and IS626-**-GH-P*-E3-S1-ATEX-****

DWYER INSTRUMENTS, INC.
MICHIGAN CITY, IN 46360 U.S.A.
PRESSURE TRANSDUCER

Dwyer

MODEL: _____
RANGE: _____
CAUTION: PRESSURE LIMIT 2x RANGE

OPERATING TEMP: -20 TO 80°C (-4 TO 176°F)
SUPPLY: 10-28VDC == RED(+) BLACK (-); OUTPUT: 4-20MA

CE 0518 Ex

II 1 G Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 80°C)
II 1 D Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 80°C)
DEMKO 18 ATEX 2080

Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 80°C)
Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 80°C)
IECEx UL 18.0086
WARNING - DO NOT OPEN WHEN ENERGIZED
WARNING - READ INSTRUCTION MANUAL

ENTITY PARAMETERS:			
Ui	Ii	Ci	Li
28VDC	93mA	0.0381µF	19.52µH

DATE CODE: _____

Model IS626-**-GH-P*-E6-S1-ATEX-****

DWYER INSTRUMENTS, INC.
MICHIGAN CITY, IN 46360 U.S.A.
PRESSURE TRANSDUCER

Dwyer

MODEL: _____
RANGE: _____
CAUTION: PRESSURE LIMIT 2x RANGE

OPERATING TEMP: -20 TO 80°C (-4 TO 176°F)
SUPPLY: 10-28VDC == PIN# 1(+) PIN# 4 (-); OUTPUT: 4-20MA

CE 0518 Ex

II 1 G Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 80°C)
II 1 D Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 80°C)
DEMKO 18 ATEX 2080

Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 80°C)
Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 80°C)
IECEx UL 18.0086
WARNING - DO NOT OPEN WHEN ENERGIZED
WARNING - READ INSTRUCTION MANUAL

ENTITY PARAMETERS:			
Ui	Ii	Ci	Li
28VDC	93mA	0.0381µF	19.52µH

DATE CODE: _____



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Model SBLTX-****-*.***-*.____-ATEX-***

MERCROID DATE CODE:

DIV. OF DWYER INSTRUMENTS, INC.

MICHIGAN CITY, IN 46360 U.S.A.

SUBMERSIBLE LEVEL TRANSDUCER

MODEL:

RANGE:

CAUTION: PRESSURE LIMIT 2x RANGE



OPERATING TEMP: -20 TO 65°C (-4 TO 149°F)

SUPPLY: 10-28VDC == RED(+) BLACK (-); OUTPUT: 4-20MA

CE 0518 Ex

II 1 G Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 65°C)

II 1 D Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 65°C)

DEMKO 18 ATEX 2080

Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 65°C)

Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 65°C)

IECEx UL 18.0086

CABLE TYPE = POLYURETHANE

CABLE LENGTH =

ADD 96pF/FT (315pF/M) TO Ci VALUE FOR TOTAL Ci

ADD 346nH/FT (1.135µH/M) TO Li VALUE FOR TOTAL Li

ENTITY PARAMETERS: (NOT INC. CABLE)			
Ui	Ii	Ci	Li
28VDC	93mA	0.037µF	15.92µH

Model SBLTX-****-*.***-*.____-ETFE-ATEX-***

MERCROID DATE CODE:

DIV. OF DWYER INSTRUMENTS, INC.

MICHIGAN CITY, IN 46360 U.S.A.

SUBMERSIBLE LEVEL TRANSDUCER

MODEL:

RANGE:

CAUTION: PRESSURE LIMIT 2x RANGE



OPERATING TEMP: -20 TO 80°C (-4 TO 176°F)

SUPPLY: 10-28VDC == RED(+) BLACK (-); OUTPUT: 4-20MA

CE 0518 Ex

II 1 G Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 80°C)

II 1 D Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 80°C)

DEMKO 18 ATEX 2080

Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 80°C)

Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 80°C)

IECEx UL 18.0086

CABLE TYPE = ETFE

CABLE LENGTH =

ADD 162pF/FT (532pF/M) TO Ci VALUE FOR TOTAL Ci

ADD 340nH/FT (1.116µH/M) TO Li VALUE FOR TOTAL Li

ENTITY PARAMETERS: (NOT INC. CABLE)			
Ui	Ii	Ci	Li
28VDC	93mA	0.037µF	15.92µH



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Model PBLTX-****-_*-***-_*-PU-ATEX-***

MERCROID DATE CODE:

DIV. OF DWYER INSTRUMENTS, INC. 

MICHIGAN CITY, IN 46360 U.S.A.

SUBMERSIBLE LEVEL TRANSDUCER

MODEL:

RANGE:

CAUTION: PRESSURE LIMIT 2x RANGE

OPERATING TEMP: -20 TO 65°C (-4 TO 149°F)

SUPPLY: 10-28VDC == RED(+) BLACK (-); OUTPUT: 4-20MA

CE 0518 

II 1 G Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 65°C)

II 1 D Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 65°C)

DEMKO 18 ATEX 2080

ENTITY PARAMETERS: (NOT INC. CABLE)			
Ui	Ii	Ci	Li
28VDC	93mA	0.037µF	15.92µH

CABLE TYPE = POLYURETHANE

CABLE LENGTH =

ADD 96pF/FT (315pF/M) TO Ci VALUE FOR TOTAL Ci

ADD 346nH/FT (1.135µH/M) TO Li VALUE FOR TOTAL Li

Model PBLTX-****-_*-***-_*-__-ATEX-***

MERCROID DATE CODE:

DIV. OF DWYER INSTRUMENTS, INC. 

MICHIGAN CITY, IN 46360 U.S.A.

SUBMERSIBLE LEVEL TRANSDUCER

MODEL:

RANGE:

CAUTION: PRESSURE LIMIT 2x RANGE

OPERATING TEMP: -20 TO 80°C (-4 TO 176°F)

SUPPLY: 10-28VDC == RED(+) BLACK (-); OUTPUT: 4-20MA

CE 0518 

II 1 G Ex ia IIC T4 Ga (-20°C ≤ Tamb ≤ 80°C)

II 1 D Ex ia IIIC T135°C Da (-20°C ≤ Tamb ≤ 80°C)

DEMKO 18 ATEX 2080

ENTITY PARAMETERS: (NOT INC. CABLE)			
Ui	Ii	Ci	Li
28VDC	93mA	0.037µF	15.92µH

CABLE TYPE = ETFE

CABLE LENGTH =

ADD 162pF/FT (532pF/M) TO Ci VALUE FOR TOTAL Ci

ADD 340nH/FT (1.116µH/M) TO Li VALUE FOR TOTAL Li