TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA00003J2
Revision No:
1

This is to certify:

that the Pressure Transmitter

with type designation(s)
BoT series

issued to
Barksdale, Inc.
Los Angeles, CA, USA

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Temperature	**D**
Humidity	**B**
Vibration	**B**
EMC	**A**
Enclosure	**B**

Issued at **Hamburg** on **2026-02-20**
This Certificate is valid until **2029-12-05**.
DNV local unit: **Long Beach**

for **DNV**

Approval Engineer: **Jens Dietrich**

Product description

The pressure transmitters are using the following type key, limited to 18 letters.
If the order code exceeds 18 letters, "-" will be removed.

Order code example: BT5-T4-11BG-P9-C-K, Variants:

Base Model	
BT3	1-5 VDC analog output
BT4	0.5-4.5 VDC ratiometric analog output
BT5	4-20 mA analog output
BT6	0-10 VDC analog output
Electrical Connection	
-H3	PVC Shielded & jacketed #24 AWG Cable (1 meter)
-H4	Mini-DIN 43650 Type "C"
-T4	M12 circular connector
-T5	Standard DIN 43650 Type 'A"
-T6	Aptiv/Delphi Metripack 150 Series
-D3	3-Pin Deutsch Connector - DT04-3P
-D4	4-pin Deutsch Connector - DT04-4P
-T9	T4 with European pinning

Pressure Ranges		Bar Vac. range
-23	0-29.9" of 8 Hg (0-1 bar)	
-27	0-1 psi (0-0.1 bar)	
-25	0-5 psi (0-0.3 bar)	
-38	0-7 psi (0-0.5 bar)	
-01	0-15 psi (0-1 bar)	
-39	0-25 psi (0-1.6 bar)	-1 - 0.6 bar
-21	0-30 psi (0-2 bar)	-1 - 1.0 bar
-40	0-36 psi (0-2.5 bar)	-1 - 1.5 bar
-03	0-50 psi (0-3.0 bar)	-1 - 2.0 bar
-22	0-60 psi (0-4 bar)	-1 - 3.0 bar
-41	0-87 psi (0-6 bar)	-1 - 5.0 bar
-04	0-100 psi (0-7 bar)	-1 - 6.0 bar
-05	0-150 psi (0-10 bar)	-1 - 9.0 bar
-06	0-200 psi (0-14 bar)	-1 - 13.0 bar
-42	0-230 psi (0-16 bar)	-1 - 15.0 bar
-07	0-300 psi (0-20 bar)	-1 - 19.0 bar
-43	0-360 psi (0-25 bar)	-1 - 24.0 bar
-08	0-500 psi (0-35 bar)	
-44	0-580 psi (0-40 bar)	
-45	0-725 psi (0-50 bar)	
-46	0-870 psi (0-60 bar)	
-10	0-1000 psi (0-70 bar)	
-11	0-1500 psi (0-100 bar)	

-12	0-2000 psi (0-138 bar)
-47	0-2300 psi (0-160 bar)
-13	0-3000 psi (0-200 bar)
-48	0-3600 psi (0-250 bar)
-14	0-4000 psi (0-300 bar)
-15	0-5000 psi (0-345 bar)
-16	0-6000 psi (0-400 bar)
-17	0-7500 psi (0-520 bar)
-36	0-9000 psi (0-600 bar)
-18	0-10.000 psi (0-700 bar)
Pressure Unit and Type	
G	PSI - Sealed gauge pressure (standard)
A	PSI - Absolute pressure
BG	Bar - Sealed gage pressure
BA	Bar - Absolute Pressure (ranges start from 1 Bar)
V	PSI - compound pressure range
BV	Bar - Compound Pressure Range
Process Connection	
Blank	1/4" NPT male
-P1	7/16-20 UNF female (JIC 37°)
-P3	7/16-20 UNF male (JIC 37°)
-P9	G1/4 male (gasket seal)
-P2	7/16-20 SAE #4 ORB
-P7	1/8" NPT male
-P17	9/16 - 8 (SAE #6, O-RING)
-P11	G1/2 male(gasket seal)
-P16	G1/2 Flush mount
-P18	M12 X 1.5
-P19	G1/4 EN 837
-P20	G1/2 EN 837
Accuracy	
-C	±0.5% FSO
-P	±0.25% FSO
-W	±0.25% FSO
-M	±0.5% FSO
Options	
Blank	Standard
-Z1	Cleaned for oxygen service
-0(x)	Custom Voltage Output
-01	1 – 6 VDC
-02	0.5 – 4.5 VDC (non ratiometric)
-03	0 – 6 VDC

-04	0 – 10 VDC
-05	1 – 10 VDC
-06	1 – 11 VDC
-07	0 – 11 VDC
-08	0 – 5 VDC
-09	0.5 – 5.5 VDC
-10	0.2 – 10 VDC
-Z17	Larger pressure port orifice
-A	+6 ft cable
-B	+10ft cable
-C	+15ft cable
-D	Custom length of free leads
-SXXY	Special pressure range XX = significant digits Y = number of trailing zeros Example: 130 psi -> S131
-Q1…999	Custom and proprietary options
-U	UL approval
-K	DNV approved pressure transducer

Approval conditions

The Type Approval covers hardware listed under Product description based on DNV Pt.4 Ch.9 Sec.5. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Product certificate

If specified in the Rules, ref. Pt.4 Ch.9 Sec.1, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After certification the clause for software control will be put into force.

Software control

All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes is to be forwarded to DNV for evaluation and approval before implemented on board. Certification of modified functionality may be required for the particular vessel.

Application/Limitation

Verification of intrinsic safety (Ex-protection) is not covered by this certificate and needs to be proven by a certificate from a notified body as required for the respective application.

Tests carried out

Applicable tests according to DNV CG-0339, August 2021.

Marking of product

Manufacturer name, model number, pressure range, proof pressure, electrical ratings, date code.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications

- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE