

TYPE APPROVAL CERTIFICATE

Certificate no .: TAA000027H **Revision No:** 2

This is to certify: that the Pressure Switch

with type designation(s) DPD1T, D1T, DPD2T, D2T Series

issued to **Barksdale GmbH** Reichelsheim (Wetterau), Hessen, Germany

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.

Location classes:

Temperature D Humidity В Vibration Α EMC B/C* (IP65) Enclosure

Issued at Hamburg on 2024-05-02

This Certificate is valid until 2029-04-25. DNV local unit: Augsburg

Approval Engineer: Holger Jansen

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD



for DNV

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



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Product description

Differential Pressure Switches DPD1T, DPD2T Series Pressure Switch D1T, D2T Series

Base configuration	Limit Switch	Adjustable range	
DPD1T	-H, -GH	3SS	2 mbar to 0,2 bar
or	or	18SS	30 mbar to 1,20 bar
DPD2T	-M, -GM	80SS	30 mbar to 5,5 bar
		150SS	100 mbar to 10,3 bar
	-H, -GH	3SS	2 mbar to 0,2 bar
	or	18SS	30 mbar to 1,24 bar
D1T	-M, -GM	80SS	30 mbar to 5,5 bar
or D2T		150SS	100 mbar to 10,3 bar
	-B	2SS-GL	1 mbar to 0.11 bar
		3SS-GL	2 mbar to 0,2 bar
		18SS-GL	30 mbar to 1,20 bar
		80SS-GL	30 mbar to 5,5 bar
		150SS-GL	100 mbar to 10,3 bar

Wetted parts: (1.4578, 17-7PH)

Output: 1 c/o-contact (D1T..), 2 c/o-contacts (D2T..) Max. contact rating: 3A, 480Vac; 0.5A, 28Vdc 3A, 480Vac; 0.25A, 250Vdc 0.1A, 30Vac; 0.1A, 30Vdc 1A, 125Vac, 1A, 24Vdc 10A, 250Vac, 0.03A; 250Vdc

Application/Limitation

The Type Approval covers hardware listed under Product description. 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.

"-H":

"-M"

"-GM"

"-GH"

"-B"

Location classes: Enclosure Categorie "C*": applies only to types with painted housing

Type Approval documentation

Data sheets:	D1T/D2T; 923-1484 Rev. L		
	DPD1T/DPD2T; 923-1490 Rev. J		
Drawings:	923-0309 Rev. G (pages 6, 11+12)		
	DNV Evaluation report 210570		
	Technical documentation 7.500 4.70		
	Operating characteriscics HI-P Dia-Seal Piston Models, DwgNo. C98134		
Test reports:	RMS 1-12/93 page 1-26 and addendum 1-01/94 page 1-10		
	FH Hamburg Test Report No. U. 014-93-94		
	RST No. P50-19-0042-en, 2019-03-07		
	Environmental test report 081070 / 130171		
	VDE No. 19375-9000-4001/A1A		
Type Approval Accessment Papert 2024 04 03			

Type Approval Assessment Report 2024-04-03

Tests carried out

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



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Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number

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