



## Translation

### (1) **EU-Type Examination Certificate**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Certificate Number** TÜV 22 ATEX 322922 X **Issue:** 00

(4) for the product: Pressure switch type „s. Marking“

(5) of the manufacturer: **Barksdale GmbH**

(6) Address: Dorn-Assenheimer Str. 27  
61203 Reichelsheim  
Germany

Order number: 8003044369

Date of issue: See date of signature

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in the confidential ATEX Assessment Report No. 22 203 322922.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018/AC:2020-02** **EN 60079-11:2012**

except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design, and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the product shall include the following:

 **See "Marking" for details**

TÜV NORD CERT GmbH, Am TÜV 1, 45307 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The deputy head of the notified body

(13) **SCHEDULE**


(14) **EU-Type Examination Certificate No. TÜV 22 ATEX 322922 X**

**Issue 00**

(15) **Description of product:**

The pressure switches type **DPD1T-xxxxxSS-ST1-EXI**, **DPD1T-xxxxxSS-xxx-EXI**, **DPD2T-xxxxxSS-ST2-EXI**, **DPD2T-xxxxxSS-ST3-EXI**, **DPD2T-xxxxxSS-xxx-EXI**, **KLM-xxx-xx-K2-x-x-EXI**, **KLM-xxx-xx-xx-x-x-EXI**, **KLM-xxx-xx-S1-x-x-EXI**, **KLK-xxx-xx-K2-x-x-EXI**, **KLK-xxx-xx-xx-x-x-EXI**, **KLK-xxx-xx-S1-x-x-EXI**, **D1X-xxxxxSS-xxx-EXI**, **D2X-xxxxxSS-xxx-EXI**, **B1T-xxxxxSS-xxx-EXI**, **B1T-xxxxxSS-ST1-EXI**, **B2T-xxxxxSS-xxx-EXI**, **B2T-xxxxxSS-ST1-EXI**, **B2T-xxxxxSS-ST3-EXI**, **P1H-xxxxx-xx-xx-x-EXI**, **P1X-xxxxx-xx-xx-x-EXI**, **E1H-xxxxxxx-xx-x-EXI**, **E1H-xxxxxxx-xx-x-ST1-EXI**, **E1H-xxxxxxx-PLS-x-EXI**, **B1X-xxxxxSS-xxx-EXI** and **B2X-xxxxxSS-xxx-EXI** are used for monitoring and controlling processes with maximum or minimum pressures. When minimum or maximum pressures are reached, an electrical signal is triggered by a microswitch.

**Marking:**

	<b>II 1 G Ex ia IIC T6 Ga or II 1 D Ex ia IIIC T<sub>200</sub>100°C Da</b>	<b>DPD1T-xxxxxSS-xxx-EXI, DPD2T-xxxxxSS-xxx-EXI, KLM-xxx-xx-K2-x-x-EXI, KLM-xxx-xx-xx-x-x-EXI, KLK-xxx-xx-K2-x-x-EXI, KLK-xxx-xx-xx-x-x-EXI, D1X-xxxxxSS-xxx-EXI, D2X-xxxxxSS-xxx-EXI, B1T-xxxxxSS-xxx-EXI, B2T-xxxxxSS-xxx-EXI, P1H-xxxxx-xx-xx-x-EXI, P1X-xxxxx-xx-xx-x-EXI B1X-xxxxxSS-xxx-EXI, B2X-xxxxxSS-xxx-EXI</b>
	<b>II 1 G Ex ia IIB T6 Ga or II 1 D Ex ia IIIC T<sub>200</sub>100°C Da</b>	<b>DPD1T-xxxxxSS-ST1-EXI, DPD2T-xxxxxSS-ST2-EXI, DPD2T-xxxxxSS-ST3-EXI, KLM-xxx-xx-S1-x-x-EXI, KLK-xxx-xx-S1-x-x-EXI, B1T-xxxxxSS-ST1-EXI, B2T-xxxxxSS-ST1-EXI, B2T-xxxxxSS-ST3-EXI</b>
	<b>II 1 G Ex ia IIC T6 Ga</b>	<b>E1H-xxxxxxx-xx-x-EXI</b>
	<b>II 1 G Ex ia IIB T6 Ga</b>	<b>E1H-xxxxxxx-xx-x-ST1-EXI, E1H-xxxxxxx-PLS-x-EXI</b>

Type code:

<b>DPD</b>	<b>x</b>	<b>T</b>	<b>xx</b>	<b>xxx</b>	<b>SS</b>	-	<b>xxx</b>	-	<b>xxx</b>	-	<b>EXI</b>
											<b>Option</b>
											<b>EXI</b> ATEX (Ex ia)
											<b>GL</b> Germanischer Lloyd (Marine approval)
											<b>UL</b> Underwriter's Laboratories
											<b>FE</b> Epoxy resin paint
											<b>Electrical connections</b>
											<b>ST1</b> cube plug DIN EN 175301-803 A(former DIN 43650)(IIB)
											<b>ST3</b> Connector Amphenol (Tuchel) according to EN 43651 E 6-pin (only for 2 switching points version) (IIB)
											( ) Wago terminal or screw connection internal
											<b>Material of the medium-contacting parts</b>
											<b>SS</b> VA-Steel,17.7 PH / SS304
											<b>Pressure ranges</b>
											<b>3</b> 0,02...0,20 bar
											<b>18</b> 0,050...1,20 bar
											<b>80</b> 0,400...5,40 bar
											<b>150</b> 0,70...10,2 bar
											<b>Micro switch contact</b>
											<b>B</b> B-Micro switch (see datasheet for microswitch data)
											<b>C</b> C-Micro switch (see datasheet for microswitch data)
											<b>H</b> H-Micro switch (see datasheet for microswitch data)
											<b>GH</b> GH-Micro switch (see datasheet for microswitch data)
											<b>J</b> J-Micro switch (see datasheet for microswitch data)
											<b>M</b> M-Micro switch (see datasheet for microswitch data)
											<b>GM</b> GM-Micro switch (see datasheet for microswitch data)
											<b>S</b> S-Micro switch (see datasheet for microswitch data)
											<b>Housing type</b>
											<b>T</b> Aluminum enclosure, old and new form
											<b>Number of switching points</b>
											<b>1</b> 1 switch point
											<b>2</b> 2 switch points

KLM - xxx - xx - xx - x - x - EXI

**Option**

**HP** High Pressure

**EXI** ATEX Approval

**Membrane material**

**V** FKM/FPM – Membrane

**N** CR - Membrane

**E** EDM - Membrane

**()** NBR - Membrane

**Micro switch**

**1** Silver contact

**2** Gold contact

**Electrical connection**

- A1** Flat connector DIN 46244 6,3; green
- A2** Flat connector DIN 46244 6,3; blue
- A3** 3 Flat connector DIN 46244 6,3; green
- A4** 3 Flat connector DIN 46244 6,3; blue
- A5** 3 x 6,3 AMP-3-way connector
- K1** EPD-Cable 3xAWG20
- K2** Silicone Cable 3x0,5
- K3** PUR-Cable 3x0,5
- K4** PU-Cable 2x0,75
- K5** Silicone Cable 4x0,5
- K6** PVC-Cable 2x0,5
- V1** VG 95234 Plug-in connector Form A
- V2** VG 95328 Plug-in connector
- V3** VG 95234 Plug-in connector Form F
- V5** CA3101E10SL-3P Plug-in connector
- M1** MS 8525 Plug-in connector
- S1** EN 175301-803 C, 3 pole (IIB)
- STO** Special connector

**Process connection**

- M1** Pressure connection M12 x 1,5
- M2** Pressure connection M14 x 1,5
- M3** Pressure connection M16 x 1,5

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**M4** Pressure connection M18 x 1,5

**G1** G1/4"

**U1** 7/16-20 UNF

**Pressure step code**

**001** Special setting range

**006** 1-6 Bar

**025** 5-25 Bar

**040** 20-40 Bar

**KLK** - **xxx** - **xx** - **xx** - **x** - **x** - **EXI**

**Option**

**EXI** ATEX Approval

**O-Ring material**

**V** FKM/FPM – Membrane

**N** CR - Membrane

**E** EDM - Membrane

**()** NBR - Membrane

**Micro switch**

**1** Silver contact

**2** Gold contact

**Electrical connection**

**A1** Flat connector DIN 46244 6,3; green

**A2** Flat connector DIN 46244 6,3; blue

**A3** 3 Flat connector DIN 46244 6,3; green

**A4** 3 Flat connector DIN 46244 6,3; blue

**A5** 3 x 6,3 AMP-3-way connector

**K1** EPD-Cable 3xAWG20

**K2** Silicone Cable 3x0,5

**K3** PUR-Cable 3x0,5

**K4** PU-Cable 2x0,75

**K5** Silicone Cable 4x0,5

**K6** PVC-Cable 2x0,5

**V1** VG 95234 Plug-in connector Form A

**V2** VG 95328 Plug-in connector

**V3** VG 95234 Plug-in connector Form F

<b>V5</b>	CA3101E10SL-3P Plug-in connector
<b>M1</b>	MS 8525 Plug-in connector
<b>S1</b>	EN 175301-803 C, 3 pole (IIB)
<b>STO</b>	Special connector
<b>Process connection</b>	
<b>M1</b>	Pressure connection M12 x 1,5
<b>M2</b>	Pressure connection M14 x 1,5
<b>M3</b>	Pressure connection M16 x 1,5
<b>M4</b>	Pressure connection M18 x 1,5
<b>G1</b>	G1/4"
<b>U1</b>	7/16-20 UNF
<b>F1</b>	Flange 40x40 LK44
<b>Pressure step code</b>	
<b>xxx</b>	Special setting range
<b>100</b>	3-100 Bar
<b>300</b>	60-300 Bar
<b>400</b>	150-400 Bar

<b>D</b>	<b>x</b>	<b>X</b>	<b>xx</b>	<b>xxx</b>	<b>SS</b>	-	-	<b>xxx</b>	-	<b>EXI</b>
<b>Option</b>										
<b>EXI</b> ATEX (Ex ia)										
<b>GL</b> Germanischer Lloyd (Marine approval)										
<b>UL</b> Underwriter's Laboratories										
<b>P2</b> 1/2" NPT IG VA-Membrane										
<b>FE</b> Epoxy resin paint										
<b>Electrical connections</b>										
<b>()</b> Wago terminal or screw connection internal										
<b>Material of the medium-contacting parts</b>										
<b>SS</b> VA-Steel, 17.7 PH / SS304										
<b>Pressure ranges</b>										
<b>2</b> 0,005...0,11 bar										
<b>3</b> 0,012...0,20 bar										
<b>18</b> 0,050...1,20 bar										
<b>80</b> 0,300...5,50 bar										
<b>150</b> 0,500...10,3 bar										
<b>3</b> -0,006...-0,20 bar										
<b>18</b> -0,040...-1,00 bar										
<b>Micro switch contact</b>										
<b>B</b> B-Micro switch (see datasheet for microswitch data)										
<b>C</b> C-Micro switch (see datasheet for microswitch data)										
<b>H</b> H-Micro switch (see datasheet for microswitch data)										
<b>GH</b> GH-Micro switch (see datasheet for microswitch data)										
<b>J</b> J-Micro switch (see datasheet for microswitch data)										

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**Schedule to EU-Type Examination Certificate No. TÜV 22 ATEX 322922 X**

**Issue 00**

				<b>M</b>	M-Micro switch (see datasheet for microswitch data)
				<b>GM</b>	GM-Micro switch (see datasheet for microswitch data)
				<b>S</b>	S-Micro switch (see datasheet for microswitch data)
				<b>Housing type</b>	
				<b>X</b>	Ex d enclosure
				<b>Number of switching points</b>	
<b>1</b>					1 switch point
<b>2</b>					2 switch points
<b>B</b>	<b>x</b>	<b>T</b>	<b>xx</b>	<b>xxx</b>	<b>SS</b> - <b>xxx</b> - <b>xxx</b> - <b>EXI</b>
					<b>Option</b>
					<b>EXI</b> ATEX (Ex ia)
					<b>GL</b> Germanischer Lloyd (Marine approval)
					<b>UL</b> Underwriter's Laboratories
					<b>FE</b> Epoxyresin paint
					<b>Electrical connections</b>
				<b>ST1</b>	cube plug DIN EN 175301-803 A(former DIN 43650)(IIB)
				<b>ST3</b>	Connector Amphenol (Tuchel) according to EN 43651 E 6-pin ( <b>only for 2 switching points version</b> ) (IIB)
				<b>( )</b>	Wago terminal or screw connection internal
					<b>Material of the medium-contacting parts</b>
				<b>SS</b>	VA-Steel,17.7 PH / SS304
					<b>Pressure ranges</b>
				<b>12</b>	4,8...82 bar
				<b>32</b>	13,7...220 bar
				<b>48</b>	22,4...330 bar
				<b>65</b>	30,3...448 bar
				<b>120</b>	79,3...827 bar
				<b>180</b>	79,3...950 bar
					<b>Micro switch contact</b>
				<b>B</b>	B-Micro switch (see datasheet for microswitch data)
				<b>C</b>	C-Micro switch (see datasheet for microswitch data)
				<b>H</b>	H-Micro switch (see datasheet for microswitch data)
				<b>G</b>	
				<b>H</b>	GH-Micro switch (see datasheet for microswitch data)
				<b>J</b>	J-Micro switch (see datasheet for microswitch data)
				<b>M</b>	M-Micro switch (see datasheet for microswitch data)
				<b>G</b>	
				<b>M</b>	GM-Micro switch (see datasheet for microswitch data)
				<b>S</b>	S-Micro switch (see datasheet for microswitch data)
					<b>Housing type</b>
				<b>T</b>	Aluminum enclosure, old and new form
					<b>Number of switching points</b>
<b>1</b>					1 switch point
<b>2</b>					2 switch points

<b>P</b>	<b>1</b>	<b>x</b>	<b>xx</b>	<b>xxxx</b>	<b>xx</b>	-	<b>xx</b>	-	<b>x</b>	-	<b>EXI</b>
	<b>Option</b>										
	<b>EXI</b> ATEX (Ex ia)										
	<b>Membrane material</b>										
	<b>()</b> Buna-N										
	<b>T</b> PTFE										
	<b>V</b> FKM/FPM										
	<b>Process connection</b>										
	<b>()</b> Aluminium 1/4" NPT IG										
	<b>P2</b> 1/2" NPT Steel, 1.4401										
<b>Material of the medium-contacting parts</b>											
<b>SS</b> VA-Steel, 17.7 PH / SS304											
<b>()</b> Aluminum											
<b>Pressure ranges</b>											
<b>30</b> 0,03...2,0 bar											
<b>85</b> 0,2...5,8 bar											
<b>340</b> 0,4...23,0 bar											
<b>600</b> 1,70...40,0 bar											
<b>1600</b> 27,0...101,0 bar											
<b>Micro switch contact</b>											
<b>B</b> B-Micro switch (see datasheet for information)											
<b>GB</b> GB-Micro switch (see datasheet for information)											
<b>H</b> H-Micro switch (see datasheet for information)											
<b>GH</b> GH-Micro switch (see datasheet for information)											
<b>M</b> M-Micro switch (see datasheet for information)											
<b>GM</b> GM-Micro switch (see datasheet for information)											
<b>J</b> J-Micro switch (see datasheet for information)											
<b>K</b> K-Micro switch (see datasheet for information)											
<b>Housing type</b>											
<b>X</b> Aluminum enclosure, explosion proof											
<b>H</b> Aluminum enclosure, galvanized steel cover											
<b>Number of switching points</b>											
<b>1</b> 1 switch point											



E 1 H - XX XXX XX - XX - x - EXI

**Options**

EXI ATEX (Ex ia)  
RD Manual reset with G-microswitch connector 3-pole EN 175 301-801-A **(IIB) only with E1H**  
ST1  
GE12 Steel cover

**Membrane material**

() Buna-N  
T PTFE  
V FKM/FPM  
N CR  
E EPDM

**Material of the medium-contacting parts**

() Anodized aluminum  
SS VA steel, 17.7 PH / SS304  
PL Polysulfone 40% glass fiber **(IIB)**  
S

**Process connection**

P4 1/4" NPT female ( standard on E1H)  
P6 1/8" NPT female with 1/2" NPT male (standard for E1S)  
P6- P6 from PLS (only up to 17 bar)  
PLS  
P7 G 1/4 IG

**Pressure ranges**

VA  
C Vacuum -0,2...-0,82 bar  
15 0,04...1,0 bar  
90 0,2...5,0 bar  
250 0,70...16,0 bar  
500 1,72...4,0 bar

**Micro switch contact**

B B-Micro switch (see datasheet for information)  
H H-Micro switch (see datasheet for information)  
G  
H GH-Micro switch (see datasheet for information)  
M M-Micro switch (see datasheet for information)  
G  
M GM-Micro switch (see datasheet for information)  
R R-Micro switch (see datasheet for information)

**Housing type**

H Aluminum enclosure

**Number of switching points**

1 1 switch point

<b>B</b>	<b>x</b>	<b>X</b>	<b>xx</b>	<b>xxx</b>	<b>SS</b>	-	<b>xxx</b>	-	<b>xxx</b>	-	<b>EXI</b>
<p><b>Option</b></p> <p><b>EXI</b> ATEX (Ex ia)  <b>GL</b> Germanischer Lloyd (Marine approval)  <b>UL</b> Underwriter's Laboratories  <b>FE</b> Epoxyresin paint</p>											
<p><b>Electrical connections</b></p> <p>( ) Wago terminal or screw connection internal</p>											
<p><b>Material of the medium-contacting parts</b></p> <p><b>SS</b> VA-Steel, 17.7 PH / SS304</p>											
<p><b>Pressure ranges</b></p> <p><b>12</b> 4,8...82 bar  <b>32</b> 13,7...220 bar  <b>48</b> 22,4...330 bar  <b>65</b> 30,3...448 bar  <b>120</b> 79,3...827 bar  <b>180</b> 79,3...950 bar</p>											
<p><b>Micro switch contact</b></p> <p><b>B</b> B-Micro switch (see datasheet for microswitch data)  <b>C</b> C-Micro switch (see datasheet for microswitch data)  <b>H</b> H-Micro switch (see datasheet for microswitch data)  <b>G</b>  <b>H</b> GH-Micro switch (see datasheet for microswitch data)  <b>J</b> J-Micro switch (see datasheet for microswitch data)  <b>M</b> M-Micro switch (see datasheet for microswitch data)  <b>G</b>  <b>M</b> GM-Micro switch (see datasheet for microswitch data)  <b>S</b> S-Micro switch (see datasheet for microswitch data)</p>											
<p><b>Housing type</b></p> <p><b>X</b> Ex d enclosure</p>											
<p><b>Number of switching points</b></p> <p><b>1</b> 1 switch point  <b>2</b> 2 switch points</p>											

**Electrical data**

Power supply

In type of protection intrinsic safety Ex ia IIB/IIC/IIIC  
only for the connection to certified intrinsically safe circuits  
Maximum values:

$U_i = 28 \text{ V}$

$I_i = 50 \text{ mA}$

$P_i = 0.84 \text{ W}$

Effective internal capacitance

$C_i$  is negligibly small

Effective internal inductance

$L_i$  is negligibly small

**Thermal data:**

Permissible ambient temperature range during operation:  $-40 \text{ °C} \leq T_a \leq +75 \text{ °C}$

**Schedule to EU-Type Examination Certificate No. TÜV 22 ATEX 322922 X      Issue 00**

- (16) Drawings and documents are listed in the ATEX Assessment Report No. 22 203 322922
- (17) **Specific Conditions for Use:**
1. The size of the nameplate exceeds the permissible area and can therefore be electrostatically charged:  
For IIC Ga uses the pressure switches have to be installed and used in such a way, that electrostatic charging from operation, maintenance and cleaning is excluded.  
For the use in explosive dust atmospheres process-related electrostatic charges, e.g. due to passing media have to be excluded.
  2. All metallic parts of the devices have to be included in the local potential equalization.
  3. The intrinsically safe circuit of the device is connected to the earth potential, therefore potential equalization has to exist in the entire area of the installation of the intrinsically safe circuit.
  4. The housings of the devices consist of more than 10% aluminum, therefore in EPL Ga applications the installation has to be carried out in such a way, that ignition hazard due to impact or friction can be excluded.
- (18) **Essential Health and Safety Requirements:**  
No additional ones.

- End of EU-Type Examination Certificate -