

Marine Products



The experts for Monitoring and Control

- ▶ Pressure
- ▶ Level
- ▶ Temperature
- ▶ Flow
- ▶ Valves

Control
every move

Barksdale®
CONTROL PRODUCTS

CRANE

Barksdale, Inc./Barksdale GmbH
A Subsidiary of Crane Co.



Barksdale – Engineering the Future

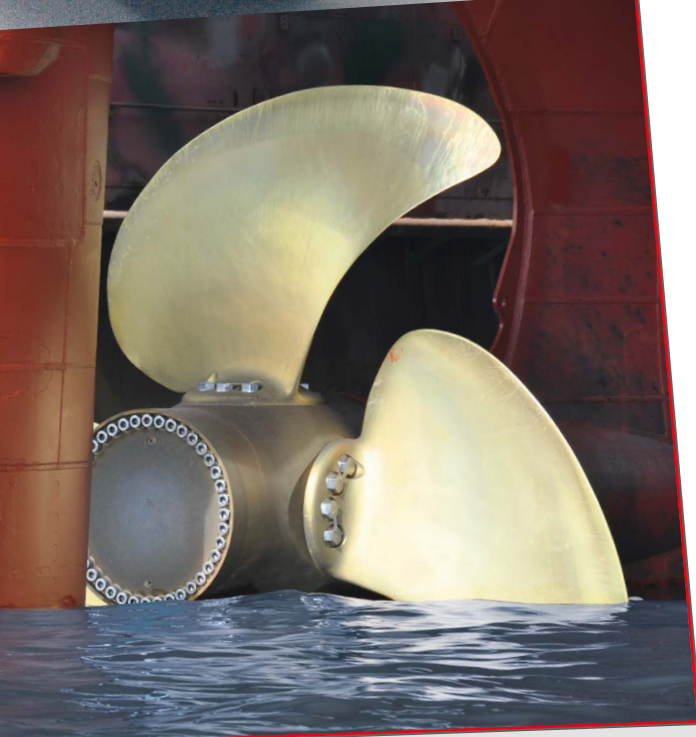


Today's markets demand suppliers that are flexible and dynamic – for innovative new products, efficient management and comprehensive customer service. Our products cover the full range of mechanical and electronic pressure, temperature, level and flow control for liquid and gaseous media. With premium product solutions, they provide the highest standards of performance and reliability for the most challenging control tasks in any manufacturing environment.

Barksdale has the advantage of over 60 years market experience, a global distribution network and is part of the Crane Co. family, one of the world's largest manufacturers of engineered products.











These facts guarantee you a perfect solution. The special environment of shipbuilding demands specific quality of the measurement products. Certified with the common marine approvals, Barksdale products are used every day in all areas of shipbuilding and onboard ships on the world's oceans.

With our experience, know-how and our personal involvement we provide solutions tailored to your desires and demands. Barksdale offers the most widely recognized approvals on select models.



Overview – Marine Approvals



											
Mechanical Pressure Switches	B1T / B2T			■				■	■	■	
	D1T / D2T		■	■		■		■	■	■	
	DPD1T / DPD2T			■		■		■	■	■	
	E1H			■				■	■		
	KLK / KLM	■		■		■		■	■		
	Series 8000	■		■	■	■		■	■	■	
	Series 9000	■		■	■	■					
Electronic	Switch	BPS3000	■								
	Indicator	UAS3V3	■								
		UDS3V3	■								
	Pressure Transducer	UPA2		■							
	Temperature Transducer	UTA2		■							
		UTF2		■							
Level Control	Bypass Level Indicator	BNA-S21/ S22									
		BNA-S31/ S32									
		BNA-S35/ S36	■		■	■ *		■	■		
		BNA-S41/ S42									
		BNA-S45 /S46			■			■	■		
		BNA-S51 /S52									
	Bilge Guards	UNS-VA/SB-VA52	■		■						
		UNS-VA/SB1-VA52									
		UNS-VA/SB4	■		■	■	■	■	■		
		UNS-VA/SB5									
	Level Switches	UNS1000-S	■		■	■	■	■	■		
		UNS2000-S	■		■	■	■	■	■		
	Tank Level Indicators	USE3000	■		■			■	■		
		USE3200	■		■			■	■		
Flow		BFS-10-N	■		■				■		■
		BFS-10-Air	■						■		■
		BFS-30	■		■				■		■
		BFS-40			■				■		■
Other	Transmitters for Level Indicators	XM/XMi	■			■		■	■		
		XT/XTi	■			■		■	■		
	Limit Switch	GK03	■		■	■					

*only S22, S36

In the right direction – with safe solutions

Electronic Level Measuring

- ▶ For continuous level and gauge measuring
- ▶ Measuring height 0.6...200m WC
- ▶ Probe material CuNiFe alloy or stainless steel
- ▶ Resistant against seawater
- ▶ Linearity 0.35 % resp. 0.25 % f.s.
- ▶ Rugged, reliable and long term stability
- ▶ Option: High temperature version "HT" 125°C
- ▶ Approved models available:
DNV-GL, MIL (on request)
- ▶ Mounting in the tank as submersible probe with cable, with a stainless steel pipe extension or by fastening with a mounting clamp.

Applications

Continuous level measuring for fuel, black and grey water tanks, also for more viscous media (sludges) due to flush diaphragm, bilge controlling, ballast monitoring



Level Switches

- ▶ Single and multi level switches (SPST or SPTD reeds)
- ▶ Metal and stainless steel versions, high corrosion resistance
- ▶ Protection class IP54...IP68
- ▶ Approved models available:
ATEX, GL, BV, RINA, MIL (on request)

Applications

Level and gauge measuring of tanks and vessels with liquids like fresh water, ballast water, fuels, oils etc., bilge controlling, pump controller

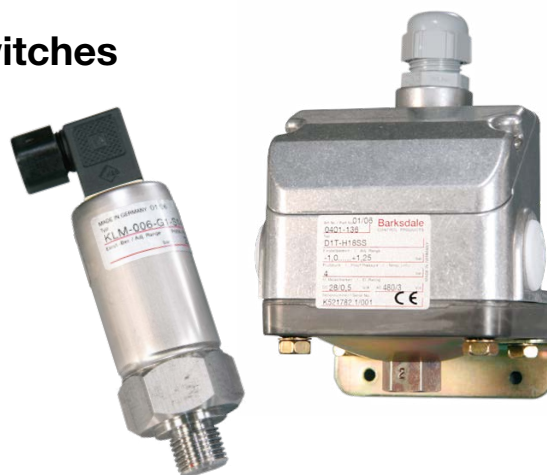


Piston and Diaphragm Pressure Switches

- ▶ Adjustment ranges from -1 to 40 bar
- ▶ Repeatability: $\pm 1\%$ at constant temperature
- ▶ Protection class IP65, IP66
- ▶ Approved models available
ATEX, DNV-GL, SIL3

Applications

Ship building, machine and tool engineering, pump control, refrigerant monitoring



Compact Pressure Switches

- ▶ Adjustment ranges: 1 – 600 bar
- ▶ Repeatability: $\pm 1\%$ / $\pm 2\%$
- ▶ Protection class: IP56 / IP67
- ▶ Compact, rugged, economical
- ▶ Regular process connections
- ▶ Approved models available:
ATEX, LR, BV, DNV-GL, RINA, SIL3, MIL (on request)

Applications

Mobile and industrial hydraulics, brake system control, test bed and apparatus engineering, heavy industry



Electronic Pressure Switch with LCD display

- ▶ For pressure monitoring
- ▶ Up to 2 switching outputs, analogue output 4 – 20mA or 0 – 10V
- ▶ IO-Link compatible
- ▶ Protection class IP65, IP67
- ▶ Pressure ranges:
0... 1 bar to 0... 10 bar absolute pressure
-1... 10 bar to 0... 600 bar relative pressure
- ▶ Display: 4-digit 14-segment LED display, digit height 9 mm
- ▶ Microprocessor controlled, self-monitoring / TBC for BPS
- ▶ All parameters programmable via keypad
- ▶ Rotatable 320° display & electrical connection
- ▶ Accuracy class 0.5% f.s.
- ▶ Approved models available: BV

Applications

Hydraulics and pneumatics, pump controller



Fullsteam ahead – with high flexibility

Electronic Pressure and Temperature Sensor UPA2, UTA2 / UTF2

- ▶ For pressure and temperature monitoring
- ▶ Pressure ranges: 0...200 mbar up to 0...800 bar
- ▶ Absolute and relative pressure ranges
- ▶ Temperature ranges: -30 °C...+150 °C
- ▶ Zero and span adjustable
- ▶ Rugged stainless steel version
- ▶ Protection class IP65/IP67
- ▶ Approved models available: GL, MIL (on request)

Applications

Pressure and temperature measuring and transmitting to separate monitoring systems, monitoring of parameters in hydraulic and pneumatic aggregates and plants



Mechanical Temperature Switch

- ▶ Measure ranges: -45 °C...+316 °C
- ▶ For fluids and gases
- ▶ Temperature environmental compensation
- ▶ For minimal to high contact loads
- ▶ Approved models available: ATEX, DNV-GL

Applications

Power packs, heat exchanger, heat tracing, control of cooling water

Tank Level Gauging USE 3000

- ▶ Continuous level monitoring with/without auxiliary power (up to 3000 mm)
- ▶ Incremental accuracy $\pm 4,2$ mm (R08), $\pm 6,4$ mm (R12)
- ▶ Metal versions
- ▶ Integrated transmitter option
- ▶ Protection class up to IP68
- ▶ Approved models available: ATEX, BV, DNV-GL, RINA

Applications

Continuous level and gauge measuring of tanks and vessel with liquids like fresh water, ballast water, fuels, oils etc., shipbuilding, offshore





Bypass Level Indicator

- ▶ Continuous level indication, purely mechanical, no power needed
- ▶ Temperatures up to +320 °C
- ▶ Pressures up to 250 bar
- ▶ Metal versions
- ▶ Mounting tank side by-pass or tank top
- ▶ Optional transmitter 4...20 mA, also with ATEX available
- ▶ Lengths up to max. 5700 mm in one piece for some options available

- ▶ Approved models available: ATEX, BV, DNV-GL, RINA, MIL (on request)

Applications

Replaces sightglasses, level monitoring where legibility up to 30m is needed, oil, fuel tanks, demineralized water tanks

Flow Switches

- ▶ Pipe sizes G1/4"... G1 1/2"
- ▶ Stainless steel or nickel plated brass
- ▶ Displacer-in-tube design
- ▶ Calibrated scale with optional viscosity compensation up to 600 cSt available
- ▶ Optional visual indication

- ▶ SPST or SPDT output
- ▶ Approved models available ATEX, BV, DNV-GL, ABS

Applications

Flow control in liquids and gases, lubrication and cooling, system protection



Valves

- ▶ OEM Valve line up to 200 bar
- ▶ Original Shear-Seal® technology
- ▶ Low pressure drop
- ▶ Tolerates contaminants
- ▶ Spring return option

Applications

Hydraulic presses, military equipment, paper mill controls, pipe forming, railroad maintenance equipment

Barksdale develops sustainable solutions – for your market segment



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