

423, 425, 426 Transducers

General Industrial Transducer Series 423, 425, 426



T4 Option

H3 Option



- ✦ Diffused Silicon Sensor for High Accuracy and Reliability
- ✦ Rugged Stainless Steel Enclosure
- ✦ Superior Surge Voltage Protection and EMI/RFI Immunity
- ✦ Built-in High Pressure Snubber

Barksdale's **Series 423 and 426 Transducers and 425 Transmitters** are general purpose, industrial grade transducers, ideal for use in general industrial applications when a robust transducer is required. Wetted parts are constructed of 17-4PH and 300 Series Stainless Steel, with NEMA 4 enclosures constructed of 304 Stainless Steel. These units feature a stable, diffused silicon sensor, that achieves .25% accuracy, have pressure ranges from 0-10,000 psi and are available in 5V, 10V or 4-20MA outputs. High pressure snubbers are standard on units at 2,000 psi and above. Optional surge voltage protection to 6kV is available. A variety of process fittings and electrical connections are available to meet your needs.

423, 425, 426 Transducers

Play It Safe with Barksdale Transducers

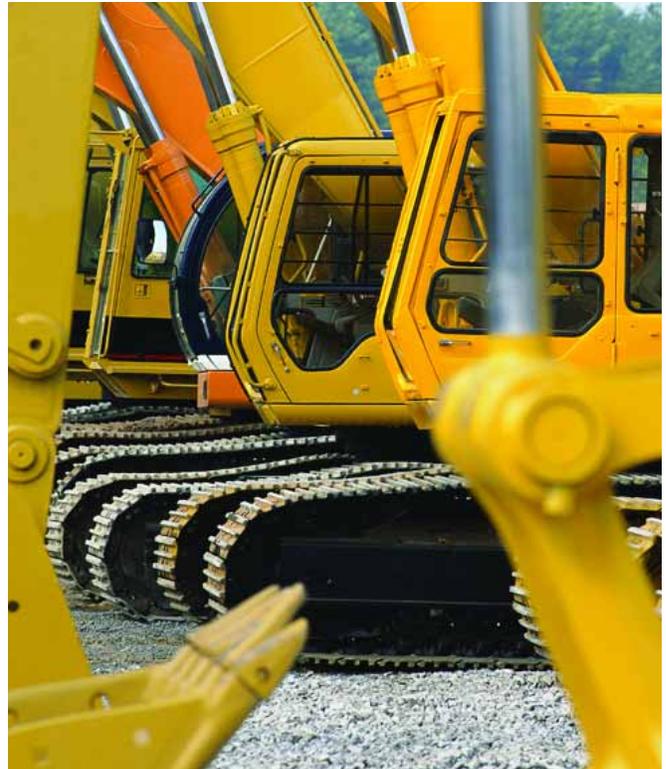
When looking to fill your pressure sensor requirements, choose **Barksdale Transducers and Transmitters**. Our products are designed to meet your stringent requirements for accuracy, repeatability and versatility and provide the ideal solution to precisely control your system's variables and enjoy improved performance of your equipment.

Barksdale Transducers and Transmitters are developed for optimum performance. Our proven diffused silicon sensor technology provides an unbeatable combination of .25% accuracy, output ranges from 30 Hg (vacuum) to 10,000 psi, shock and vibration resistance, noise protection and long term stability. With Barksdale transducers and transmitters, you can count on long life and trouble-free operations and all at an attractive price.

Typical Transducer/Transmitter Applications

Choose **Barksdale Transducers and Transmitters** to meet your requirements in:

- Oil Pressure Hydraulics
- Cranes
- Presses
- Gas Metering
- Vacuum Machinery Packaging
- HVAC



In addition to our standard line of transducers and transmitters, Barksdale also has a complete line of explosion proof, intrinsically safe and non-incendive transducers and transmitters for hazardous locations where flammable gases, vapors, liquids or dust particles are present.

Need Something Special?

Our transducers and transmitters can be custom designed to meet your special requirements. Call us. We're just a phone call away. 1-800-835-1060.

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Performance Characteristics

Accuracy (LH & R)	±0.25% FSO
Long Term Stability	±0.5% FSO of calibration curve
Typical Life	100 million cycles
Proof Pressure	2 times rated pressure or 13,000 psi max. (884 bar), whichever is less
Warranty	3 years

Input

423	
Excitation Voltage	9 to 30 VDC (unregulated)
Supply Current	15 mA maximum (no load)
426	
Excitation Voltage	14 to 30 VDC (unregulated)
Supply Current	15 mA maximum (no load)
425	
Excitation Voltage	12 to 30 VDC (unregulated)
Loop Resistance	1500 ohms maximum

Output

423	
Output	0.5 to 5.5 VDC
Full Scale Output	5.0 VDC ± 0.8%
Zero Output	0.5 VDC ± 0.4%
426	
Output	1 to 11 VDC
Full Scale Output	10 VDC ± 0.4%
Zero Output	1.0 VDC ± 0.2%
425	
Output	4 to 20 mA
Full Scale Output	16 mA ± 0.4%
Zero Output	4 mA ± 0.2%

Physical

Weight	
423 & 426	7.4 oz. (221 grams) to 1000 psi 9.9 oz. (281 grams) 1,000 psi and higher
425	7.4 oz. (210 grams) to 1000 psi 9.4 oz. (266 grams) 1,000 psi and higher
Wetted Parts	
Enclosure	17-4 PH & 300 Series Stainless Steel
Pressure Connection	NEMA 4, 304 Stainless Steel
Electrical Connection	1/4"-18 NPT male 22 awg, PVC jacketed, shielded cable, (1 m) long with integral strain relief and ground

Environmental

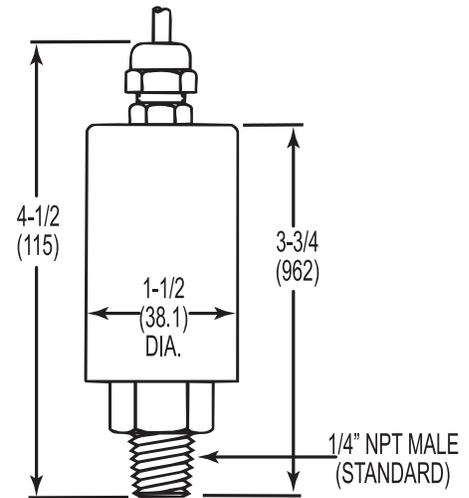
Temperature Ranges	
Operating	0° to 160°F (-18° to 71°C)
Compensated	30° to 160°F (1° to 71°C)
Storage	-40° to 185°F (-40° to 85°C)
Temperature Shift	
Zero & Span	±1% FSO (max.) over compensated range
Vibration	
Shock	15 g's, 10-2000 Hz, MIL-STD 202 50 g's, 11 mS, MIL-STD 202 Method 213, Cond. G.

Built-in Protection

- Conducted & Radiated RF emissions/interference to EN 55011
- IEC 801-2 Level 3 ESD (6 kV contact, 8 kV air)
- IEC 801-3 Level 3 Radiated RF field (80-1000 MHz at 10 V/m)
- IEC 801-4 Electrical fast transient/burst (1 kV)
- IEC 801-6 Level 3 conducted susceptibility 150 kHz-80 MHz 10 V rms
- Pressure snubber standard on 2000 psi & above

Standard Options

- S - Voltage surge protection, IEC 801-5 level 4 surge to 4 kV
 - T2 - 4-pin Bendix PT02A-8-4P less mating electrical connector
 - T4 - Hirschman ELST 412 PG9 less mating electrical connector
 - H4 - Subminiature DIN connection 43650 type
 - P1- 7/16-20 UNF female process connector
 - NX4 - NEMA 4X enclosure
- Consult factory for other options and design variations not listed.



Wiring Code			
Voltage - Series 423, 426			
A	1	Red	+ Excitation
B	3	White	+ Output
C	2	Black	Common
D	4	Bare	Drain
Milliamp - Series 425			
A	1	Red	+ Excitation
B	2	Black	- Excitation
D	4	Bare	Drain

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General Industrial Transducer

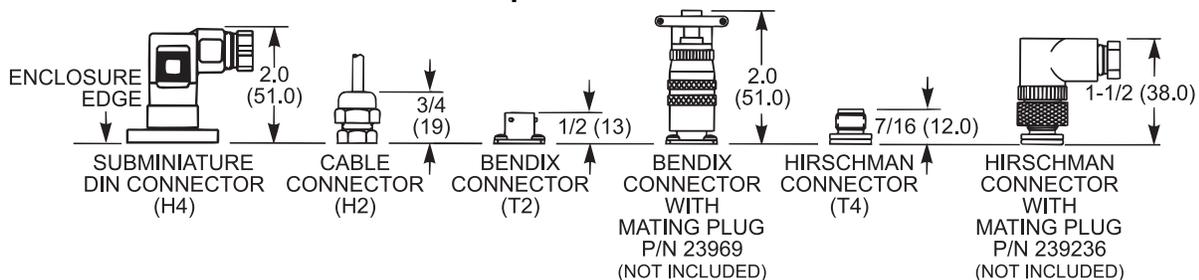
Series 423, 425, 426

Base Model	423	0.5 - 5.5 VDC Analog Output
	425	4 - 20 mA Analog Output
	426	1 - 11 VDC Analog Output
Electrical Termination	H3	Shielded & jacketed cable, 1 meter
	H4	Subminiature DIN connector, 43650 type
	H5	Shielded & jacketed cable with 1/2" NPT male conduit connector
	T2	Bendix connector, PT02A-8-4P (less mating plug)
	T4	M12 "Hirschman" connector, model ELST 412 PG9 (less mating plug)
Pressure Range	-23	0 - 29.9 In. Hg Vacuum
	-25	0 - 5 PSI (0 - .34 bar)
	-01	0 - 15 PSI (0 - 1 bar)
	-21	0 - 30 PSI (0 - 2 bar)
	-22	0 - 60 PSI (0 - 4 bar)
	-03	0 - 50 PSI (0 - 3.4 bar)
	-04	0 - 100 PSI (0 - 6.8 bar)
	-05	0 - 150 PSI (0 - 10.2 bar)
	-06	0 - 200 PSI (0 - 13.6 bar)
	-07	0 - 300 PSI (0 - 20.4 bar)
	-08	0 - 500 PSI (0 - 34 bar)
	-19	0 - 600 PSI (0 - 40.8 bar)
	-10	0 - 1000 PSI (0 - 68 bar)
	-11	0 - 1500 PSI (0 - 102 bar)
	-12	0 - 2000 PSI (0 - 136 bar)
	-13	0 - 3000 PSI (0 - 204 bar)
	-14	0 - 4000 PSI (0 - 272 bar)
	-15	0 - 5000 PSI (0 - 340 bar)
	-16	0 - 6000 PSI (0 - 408 bar)
-17	0 - 7500 PSI (0 - 510 bar)	
-18	0 - 10,000 PSI (0 - 680 bar)	
Options	-A	Absolute pressure range - OPTIONAL (Max. pressure 300 PSI)
	-Z15	Calibration in Bar
	-WXXX	Extra cable length - XX = length in inches
	-ZXXY	Non-standard pressure range; See note 1
	-Z1	Cleaned for oxygen service
	-E	External zero and span adjustment
	-S	6 kV surge voltage protection (Model 425 only)
	-P1	7/16-20 UNF-2B female pressure connection
	-P3	7/16-20 UNF-2B male pressure connection
	-P4	1/2" NPT male pressure connection
-P5	1/2" NPT female pressure connection	
-P6	1/4" NPT female pressure connection	
-P7	1/8"-27 NPT male pressure connection	

Example: 425 H3 -04 100 psi transducer with 4-20 mA output and 1 meter shielded cable

Note 1: Non-standard pressure range option: Add suffix -ZXXY where XX = significant digits and Y = number of trailing zeros. Example: 130 psi calibration: add -Z131

Standard and Optional Electrical Connections



Barksdale

CONTROL PRODUCTS

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