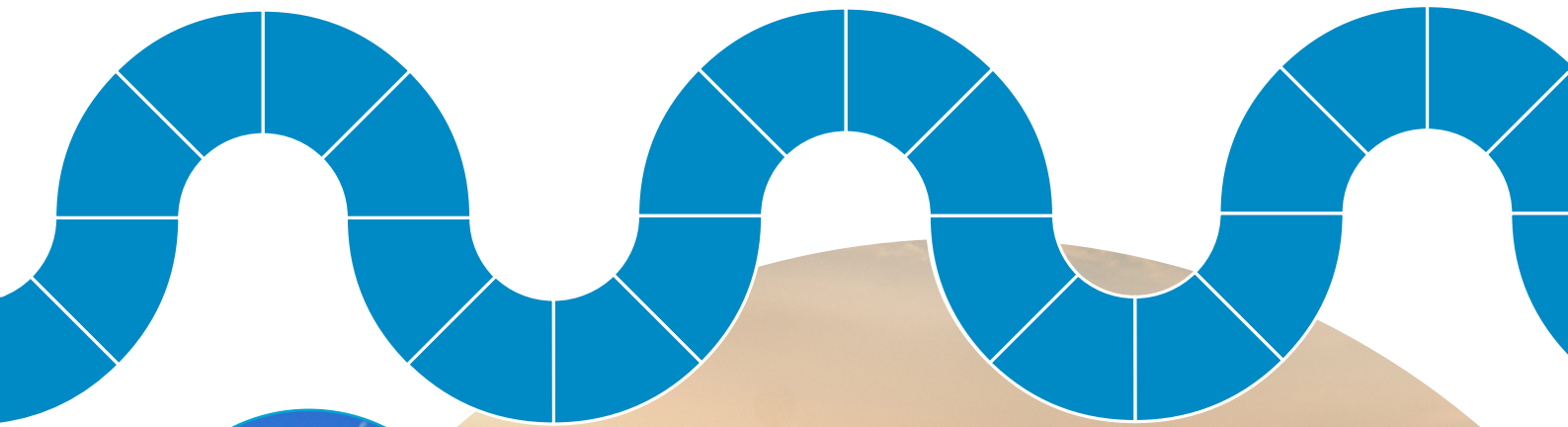


# DUST MONITORING SOLUTIONS

Managing dust requires dust monitoring



Sintrol provides high quality, customer oriented dust measurement solutions, improving its customer's processes and monitoring their particulate emissions.

Sintrol dust monitors reduce discovery time for filter malfunctions, thereby, reducing maintenance costs, preventing equipment contamination and product loss, and ultimately increasing plant availability. Sintrol dust monitors are of the highest quality and most advanced technology. They are easy to use, virtually maintenance free, and can be used in numerous industries worldwide.

### Why choose Sintrol Dust Monitor?

- QAL1 certified and Ex certified instruments available
- Low maintenance and spare parts costs
- Reliable and durable due to no moving parts
- Easy to commission due to one sided installation and no alignments
- Not affected by vibrations or temperature
- Local display with status indication

### Applications we serve:

- Emissions Measuring QAL1
- Process Measurement
- Filter Leak Detection
- Workplace Air Monitoring
- Wet Stack Monitoring



## Sintrol product portfolio



**S100 series**  
For filter leak detection



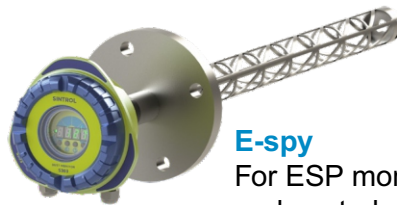
**S200 series**  
For filter and process monitoring



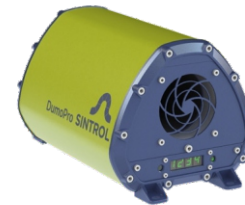
**S300 series**  
For process and emissions monitoring



**S305QAL**  
Certified emissions monitor



**E-spy**  
For ESP monitoring and control



**DumoPro**  
For workplace air monitoring



**EXO**  
For wet gas extractive dust measurement



## GROUP OFFICES

### FINLAND WORLD- WIDE

Helsinki  
Tel. +358 9 5617 360  
info@sintrol.com  
www.sintrol.fi  
www.sintrol.com

### UKRAINE Subsidiary

Kiev city  
Tel. +380 442803392  
ua@sintrol.com

### INDIA Representative Office

New Delhi  
Tel. +91 9811676061  
india@sintrol.com

### CHINA Representative Office

Beijing  
Tel. +86 1 87888681  
china@sintrol.com  
cn.sintrol.com

### JAPAN Representative Office

Tokyo  
Tel. +81 90 8585 1301  
japan@sintrol.com





# BxS Series

## Perfectly equipped for the future

### Wide range of applications

The extended BxS Series has been designed for maximum flexibility in a wide range of industrial applications and environments.

### Industry 4.0 ready

All devices of the BxS Series are IO-Link capable. Continuous communication from the control station to the sensor, data exchange during operation, plug & play capability, automatic device identification and remote parameter setting are just a few benefits of the communication standard.



**BPS3000**  
Pressure Switch



**BTS3000**  
Temperature Switch



**BTLS2000**  
Temperature / Level Switch



**BLS3000/BLS2000**  
Level Switch



**BDS3000**  
Differential Pressure Switch

# Industrial Transducer

## BOT Series

Data Sheet

### Features

- Heavy-duty, rugged construction with 316 and 17-4 stainless steel for superior corrosion resistance
- Up to 23X rating over-pressure protection to protect against pressure hammering and burst pressures
- Advanced digital electronics reduce the effects of EMI/EMC according to IEC 61000 standards and provide excellent long-term stability
- Thermally compensated sensors ensure high accuracy over wide temperature ranges to mitigate thermal errors on sensitive components
- Modular design platform to support fully customizable pressure ranges, mechanical or electrical connections, and other application-specific requirements



Exactly What OEMs Want...Without the Wait

### Applications

- General industrial equipment
- Pumps and compressors
- Mobile hydraulic equipment
- Off-highway vehicles
- Irrigation equipment systems
- Medical gas systems

### General Specifications

Supply	BT2: 10 VDC BT3: 7 to 33 VDC BT4: 4.5 to 5.5 VDC ratiometric BT5: 8 to 33 VDC BT6: 12 to 33 VDC
Output	BT2: 100 mv/V BT3: 1 to 5 VDC BT4: 0.5 to 4.5 VDC ratiometric BT5: 4 to 20 mA BT6: 0 to 10 VDC
Pressure Range	0 to 6,000 psi (-C Class) 0 to 9,000 psi (-P Class) 0 to 3,000 psi (-W Class)
Operating Temperature	-40 to 212 °F (-40 to 100 °C)
Compensated Temperature Range	-P, -W Class: 0 to 165 °F (-18 to 74 °C) -C Class: 77 to 185 °F (25 to 85 °C)
Accuracy (BFSL@25°C)	-P, -W Class: ± 0.25% FSO -C Class: ± 0.5% FSO
Proof Pressure	2X Pressure range
Zero Offset	± 1% FSO (P,W) ± 2% FSO (C)
Span Offset	± 1% FSO
Lifecycle	1M pressure cycles
Long-Term Stability	± 0.2% FSO (per year, typical)
Response Time	<5 ms
Supply Current	15 mA maximum (no load)

### Environmental Specifications

Shock	50 g's, 11 ms, MIL-STD 202 Method 213, Cond. G										
Vibration	15 g's, 10 to 2,000 Hz, MIL-STD 202										
Storage Temperature	-40 to 257 °F (-40 to 125 °C)										
Media Temperature	-40 to 257 °F (-40 to 125 °C)										
Wetted Materials	17-4 PH SS, NBR (-P class) 316 SS, ceramic, Viton® (-C Class) 316 SS all welded construction (-W Class)										
Ingress Protection	IP67 (-H3, -T4) IP65 (-H4, -T5, -T6, -D3, -D4)										
Reverse Polarity and Miswiring Protection	Yes										
Enclosure	NEMA 4X										
Approvals	UL 508, UL 61010-1										
Compliance	REACH, RoHS, CE										
Weight	450 g (approximately)										
EMC/ESD Compliance	IEC 61000-4-2: Electrostatic discharge (ESD) IEC 61000-4-3: Radiated immunity IEC 61000-4-4: Burst (fast transient) IEC 61000-4-5: Surge IEC 61000-4-6: Conducted RF IEC 61326-1: CISPR 16-1 and CISPR 16-2										
Media Compatibility	<table border="1"> <tr> <td>Medical</td> <td>Medical gases* (O<sub>2</sub>, air, CO<sub>2</sub>, N<sub>2</sub>), instrument air</td> </tr> <tr> <td>Pumps</td> <td>Water, hydraulic fluid</td> </tr> <tr> <td>Compressors</td> <td>Compressed air</td> </tr> <tr> <td>HVAC</td> <td>Refrigerants (R-410A)</td> </tr> <tr> <td>Transportation</td> <td>Brake fluids, coolants, diesel fuel, engine oil</td> </tr> </table>	Medical	Medical gases* (O <sub>2</sub> , air, CO <sub>2</sub> , N <sub>2</sub> ), instrument air	Pumps	Water, hydraulic fluid	Compressors	Compressed air	HVAC	Refrigerants (R-410A)	Transportation	Brake fluids, coolants, diesel fuel, engine oil
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Pumps	Water, hydraulic fluid										
Compressors	Compressed air										
HVAC	Refrigerants (R-410A)										
Transportation	Brake fluids, coolants, diesel fuel, engine oil										

\*Requires Z1 Option





# Real performance

The Barksdale product range is comprehensive. In addition to electronic switches we offer a comprehensive range of mechanical solutions. A brief overview:

## Pressure

### The compact

Measuring ranges:  
0,6 ... 600 bar / 2 ... 400 bar  
CETOP connection 40 x 40 mm  
(8000 series) or 30 x 30 mm  
Front (Series 9000)  
Modular design

Applications:  
OEM applications, mobile and industrial hydraulics, test bench,  
drilling equipment, press control, heavy industry, shipbuilding

100% functional test  
Protection class IP65/IP68  
Models with the following  
approvals available: Ex ia,  
cULus, Lloyd's Register, RINA,  
BV, ABS, SIL3, EAC-Ex



### The classics

Measuring ranges:  
Metal Diaphragm Pressure Switch  
(DT): -0.006 ... -1 bar (vacuum)  
and 0.005 ... 10.3 bar,  
Bourdon tube Pressure switch  
(BT): 4.8... 950 bar  
Extremely precise switching  
system

Protection class IP65  
Switching point during the  
operation with reference  
instrument adjustable  
Models with the following  
approvals available:  
Ex ia, cULus, DNV-GL,  
SIL3, EAC-Ex

Applications:  
Machine and tool construction, pump control, refrigerant monitoring,  
chemical industry, shipbuilding

### The Ex-protected

Measuring ranges:  
Metal Diaphragm Pressure Switch  
(DX): -0.0006... -1 bar (vacuum)  
and 0.012... 10.3 bar  
Bourdon tube Pressure switch  
(BX): 5.3... 496 bar  
High repetition accuracy  
Protection class IP65  
Switching point during the

Applications:  
Chemical process industry, power plants,  
injection moulding, machine construction

operation with reference  
instrument adjustable  
Stainless steel version  
Temperature range:  
-40 °C ... + 75 °C  
Models with the following  
approvals available:  
Ex ia, Ex d, cULus, DNV-GL,  
SIL3, EAC-Ex



# Temperature

## The robust ones for Ex applications

Single switch T1X and double switch T2X with remote sensor  
 Single switch L1X local mount type  
 Setting ranges:  
 T1X/T2X: -45 °C ... + 66 °C  
 to +160 °C ... +316°C  
 L1X: -45 °C... +24 °C  
 to +160°C ... +232°C

Flame proof housing  
 Protection class IP65 and NEMA 4/7/9  
 Switching point step less adjustable  
 Models with the following approvals available:  
 Ex ia, Ex d, UL, CSA, SIL2, EAC-EX

Applications:  
 Temperature monitoring and control in industry, shipbuilding, rail vehicles, chemical and oil industry, offshore



# Level

## The Diverse

Plastic, stainless steel and brass versions  
 Max. lengths up to 3000 mm  
 Max. Operating Temperature:  
 -40 °C ... + 150°C  
 Various float and thread designs

IP65/IP67/IP68,  
 (IP54 on request)  
 Models with the following approvals available:  
 Ex ia, cULus, BV, DNV-GL, Lloyd Register, EAC-EX

Applications:  
 Mechanical engineering, mobile and industrial hydraulics, bilge monitoring, pump monitoring, shipbuilding, yacht building



# Flow

## The flexibles

Measuring ranges:  
 0,0005 ... 0.06 l/ min to 35 ...  
 250 l/min for water  
 0,6 ... 2.2 NI/min to 200 ...  
 650 NI/min for gas  
 High switching accuracy

Switching point infinitely variable  
 Models available with the following approvals:  
 EX ia, DNV-GL, ABS, EAC-EX

Applications:  
 Measurement and monitoring of liquids and gases, e.g. in cooling and hydraulic systems, measuring and testing equipment, pumps

