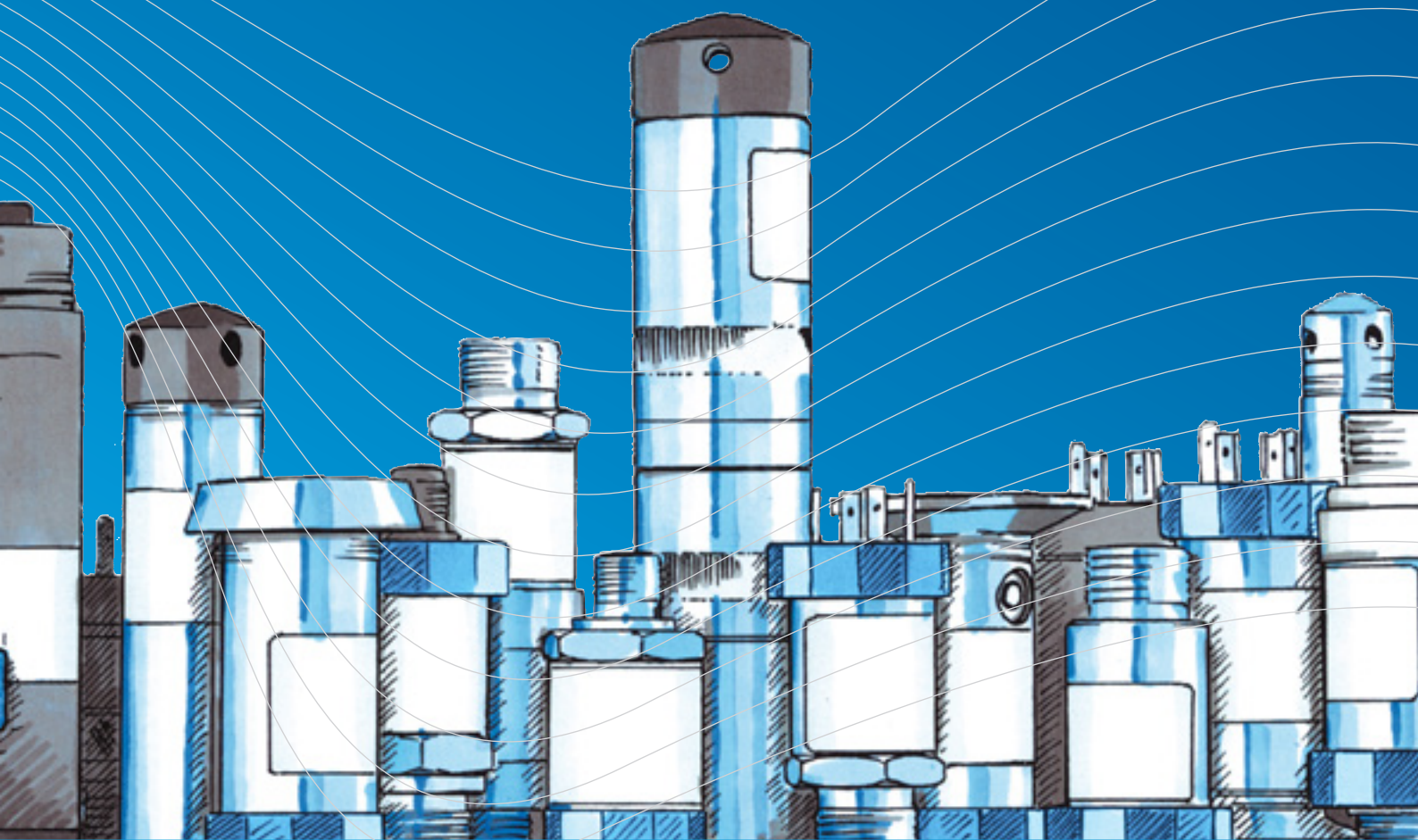


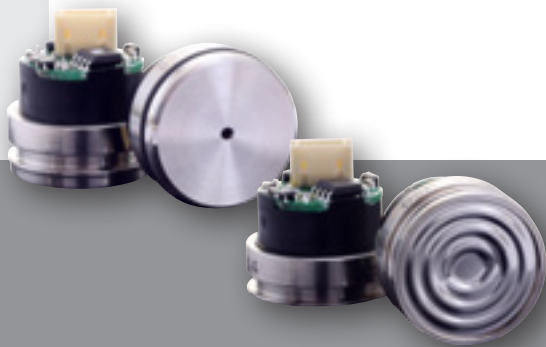
PRODUCT OVERVIEW



SENSOR TECHNOLOGIES

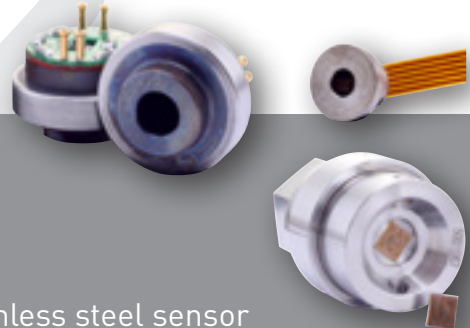
The requirements on pressure and level measuring devices are various and, in addition to intelligent design solutions, require most of all appropriate sensor technology.

1



stainless steel silicon sensor

2



stainless steel sensor

type DSP 210 without media isolation ($\varnothing = 18$ mm)

pressure ranges: 0 ... 20 mbar to 0 ... 7 bar

application: gases, compressed air,
liquids and non-aggressive media

type DSP 410 / DSP 411 / DSP 414 ($\varnothing = 18$ mm) with stainless steel diaphragm

pressure ranges: 0 ... 100 mbar to 0 ... 600 bar

application: gaseous and liquid media compatible
with stainless steel

type DSP 413 / DSP 415 ($\varnothing = 15$ mm) with stainless steel diaphragm

pressure ranges: 0 ... 400 mbar to 0 ... 600 bar

application: for submersible probes $\varnothing = 17$ mm
as well as for pressure transmitters
with G 1/2" flush and hydraulic
applications

type microfused

pressure ranges: 0 ... 3.5 bar to 0 ... 700 bar

application: hydraulic and oxygen applications

type thinfilm-sensor

pressure ranges: 0 ... 60 bar to 0 ... 2200 bar

application: hydraulic applications

type strain gauge

pressure ranges: 0 ... 1000 bar to 0 ... 6000 bar

application: hydraulic applications,
high dynamic pressure

BD|SENSORS is one of the few companies worldwide using four elements of modern pressure measurement, offering sensors produced by BD|SENSORS itself or by partner companies with BD|SENSORS know-how.

3



thickfilm ceramic sensor

4



capacitive ceramic sensor

type DSK 511 with flush diaphragm
($\varnothing = 18$ mm)

pressure ranges: 0 ... 0.5 bar to 0 ... 600 bar

application: for aggressive media and oxygen;
with flush diaphragm preferred
for highly viscous or contaminated media

type DSK 516 with flush diaphragm
($\varnothing = 15$ mm)

pressure ranges: 0 ... 0.5 bar to 0 ... 50 bar

application: for submersible probes $\varnothing 17$ mm
and pressure transmitter with
G 1/2" flush

type DSK 611 in monolithic design
($\varnothing = 18$ mm)

pressure ranges: 0 ... 2 bar to 0 ... 400 bar

application: OEM products with excellent price /
performance ratio

type DSK 703 M
($\varnothing = 32.4$ mm)

pressure ranges: 0 ... 60 mbar to 0 ... 20 bar

type DSK 720 M
($\varnothing = 18$ mm)

pressure ranges: 0 ... 100 mbar to 0 ... 50 bar

application: preferred for hydrostatic level
measurement as screw-in transmitter
or submersible probes, a.o. for
aggressive media (acids, lyes, etc.)



PRESSURE AT THE HIGHEST LEVEL

„Successful medium-sized companies are not successful because they are active in many areas, but rather because they concentrate on one area and do it better than anyone else“

This is our philosophy. That's why BDESENSORS has concentrated on electronic pressure measurement technology from the beginning.

With our unremitting product and quality strategy we have been successful in becoming a major player on the world market for electronic pressure sensing devices within a few years.

With 260 employees at 4 locations in Germany, the Czech Republic, Russia and China BD|SENSORS has solutions from 0.1 mbar to 6000 bar:

- pressure sensors, pressure transducers
pressure transmitters
- electronic pressure switches
- pressure measuring devices with display and
switching outputs
- hydrostatic level probes

Two pressure transmitters and a submersible probe, based on a stainless steel silicon sensor were the beginning. Today the range extends to more than 70 standard products, from economical OEM devices to high-end products with HART® communication or field bus interface.

In addition we have developed hundreds of customer-specific applications, underlining the competence and flexibility of BD|SENSORS. The excellent price/performance ratio of our products is proof of the fact that we are able to meet the toughest demand: Being a problem-solver for our customers.

For large production batches as well as for small production numbers, no matter for what medium or external factors, with almost any mechanical or electrical connection - we solve your problem

flexibly, quickly and cost-efficiently.

INDEX

PRESSURE 6-19

LEVEL 20-27

SWITCH 28-33

EVALUATION 34-39

SPECIAL VERSIONS 40

NEW PRODUCTS 41

APPLICATIONS 42-43

4 ARGUMENTS 44



PRESSURE

PRESSURE TRANSMITTER	7 - 15
DIFFERENTIAL PRESSURE TRANSMITTER	16 - 17
DIGITAL PRESSURE GAUGE	18 - 19

APPLICATIONS

- hydraulics
- pneumatics
- process monitoring and process engineering
- control systems
- tool construction / presses / injection moulding machines
- power supply and distribution




PRECISION

stainless steel sensor / ceramic sensor

process, oil and gas industry

XMP i

XMP ci

nominal pressure	0 ... 400 mbar to 0 ... 600 bar (XMP i) (turn-down 1:10 adjustable) 0 ... 160 mbar to 0 ... 20 bar (XMP ci) (turn-down 1:5 adjustable)
accuracy (according to IEC 60770)	0.1 % FSO (XMP i) 0.1 / 0.2 % FSO (XMP ci)
process connection	inch and NPT threads, DRD, flange
housing	two chamber aluminium die cast case stainless steel field housing
option	display and operating module flameproof enclosure cooling element up to 300 °C (XMP i) diaphragm 99.9 % Al ₂ O ₃ (XMP ci)
application	  















stainless steel sensor / ceramic sensor

hygienic applications

xlact i

xlact ci

nominal pressure	0 ... 400 mbar to 0 ... 40 bar (xlact i) (turn-down 1:10 adjustable) 0 ... 160 mbar to 0 ... 20 bar (xlact ci) (turn-down 1:5 adjustable)
accuracy (according to IEC 60770)	0.1 % FSO (xlact i) 0.1 / 0.2 % FSO (xlact ci)
process connection	G1" cone, G1 1/2" flush, clamp, dairy pipe, Varivent®, DRD, flange
characteristics	hygienic version, display and operating module cooling element up to 300 °C (xlact i) diaphragm 99.9 % Al ₂ O ₃ (xlact ci)
option	IS-version
application	    



Hygienic Design







PRECISION

stainless steel sensor

laboratory techniques, food and beverage

DMP 331 Pi




nominal pressure	0 ... 400 mbar to 0 ... 40 bar
accuracy (according to IEC 60770)	0.1% FSO
characteristics	excellent temperature response 0.04 % FSO / 10K, process connections suitable for hygienic application, vacuum resistant
option	IS-version, communication interface for adjustment of offset, span and damping
application	  



stainless steel sensor

laboratory, environmental industry

DMP 331 i
DMP 333 i

nominal pressure	0 ... 400 mbar to 0 ... 40 bar (DMP 331 i) 0 ... 60 bar to 0 ... 600 bar (DMP 333 i)
accuracy (according to IEC 60770)	0.1% FSO
characteristics	digital electronics for linearisation and active temperature compensation (temperature error 0.02% / 10 K), with communication interface for offset and span adjustment
option	IS-version, digital output RS 485 ModBus RTU
application	  




INDUSTRY

stainless steel sensor without media isolation

HVAC

DMP 343

nominal pressure	0 ... 10 mbar to 0 ... 1000 mbar
accuracy (according to IEC 60770)	0.35% FSO
option	IS-version, compact field housing
application	 



extreme low pressure



INDUSTRY

stainless steel sensor

plant and machine engineering

DMP 320

- nominal pressure 0 ... 100 mbar to 0 ... 600 bar
- accuracy 0,1 % FSO
(according to IEC 60770)
- characteristics extremely fast response time ≤ 0.5 ms,
internal sample rate 10 kHz,
excellent thermal behaviour,
outstanding long term stability

application



fast response time



stainless steel sensor

plant and machine engineering

DMP 321

- nominal pressure 0 ... 100 mbar to 0 ... 600 bar
- accuracy 0.1 / 0.25 % FSO
(according to IEC 60770)
- characteristics compact design,
perfect thermal behaviour,
excellent long-term stability

option

IS-version, pressure sensor welded

application



improved
signal behavior



stainless steel sensor

hydraulics

DMP 339

- nominal pressure 0 ... 60 bar to 0 ... 600 bar
- accuracy 0.35 % FSO
(nach IEC 60770)
- characteristics G1/4" flush (\varnothing 8 mm)
- option IS-version

application



flush



INDUSTRY

stainless steel sensor, welded

medical technology, hydraulics

DMP 335

nominal pressure	0 ... 6 bar to 0 ... 600 bar
accuracy (according to IEC 60770)	0.5 % FSO
characteristics	suitable for oxygen application, resistant against pressure peaks
option	IS-version
application	



high overpressure capability



stainless steel sensor, welded

plant and mechanical engineering

DMP 334

nominal pressure	0 ... 600 bar to 0 ... 2200 bar
accuracy (according to IEC 60770)	0.5 % FSO
option	IS-version, compact field housing, adjustability of span and offset
application	



high pressure



strain gauge

oil and gas industry

DMP 304

nominal pressure	0 ... 2000 bar to 0 ... 6000 bar
accuracy (according to IEC 60770)	0.25 / 0.5 % FSO
characteristics	adjustability of offset and span via external potentiometers pressure port 9/16 UNF
option	IS-version
application	



ultra high pressure



INDUSTRY

ceramic sensor

universal applications

DMK 331

nominal pressure 0 ... 400 mbar to 0 ... 600 bar

accuracy 0.5 % FSO

(according to IEC 60770)

option IS-version,
compact field housing,
pressure port PVDF,
oxygen application,
pressure port G 1/2" flush

application



aggressive media



ceramic sensor

laboratory techniques, biogas plants

DMK 351

nominal pressure 0 ... 40 mbar to 0 ... 20 bar

accuracy 0.25 / 0.35 % FSO

(according to IEC 60770)

option IS-version,
compact field housing,
diaphragm 99.9 % Al_2O_3

application



high overpressure capability



ceramic sensor

plant and mechanical engineering / laboratory

DMK 387

nominal pressure 0 ... 400 mbar to 0 ... 50 bar

accuracy 0.25 / 0.35 % FSO

(according to IEC 60770)

option IS-version,
field housing,
diaphragm of 99.9 % Al_2O_3

recommended for viscous, pasty and contaminated media

application



INDUSTRY

ceramic sensor / stainless steel sensor

marine / shipbuilding / offshore

DMK 457

DMP 457

nominal pressure	0 ... 400 mbar to 0 ... 600 bar (DMK 457) 0 ... 100 mbar to 0 ... 600 bar (DMP 457)
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
option	IS-version, compact field housing, submersible version
recommended for	viscous, pasty and polluted media (DMK 457) low and high pressure measurement of gases, fluids and media which are compatible with stainless steel and silicon oil (DMP 457)

application



ceramic sensor

marine / shipbuilding / offshore

DMK 456

nominal pressure	0 ... 40 mbar to 0 ... 20 bar
accuracy (according to IEC 60770)	0.1 / 0.25 % FSO
special feature	IS-version (temperature class T6), stainless steel field housing
option	diaphragm 99.9 % Al_2O_3 thread or flange version

application



robust housing



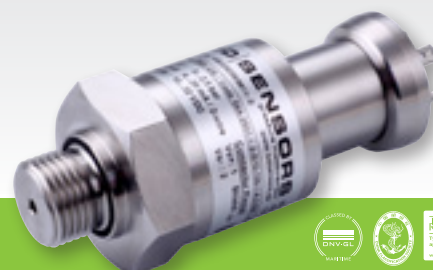
ceramic sensor

marine / shipbuilding / offshore

DMK 458

nominal pressure	0 ... 40 mbar to 0 ... 20 bar
accuracy (according to IEC 60770)	0.1 / 0.25 % FSO
special feature	stainless steel field housing
option	IS-version (temperature class T4), diaphragm 99.9 % Al_2O_3 , pressure port of CuNiFe

application






INDUSTRY

stainless steel

hygienic applications

DMP 331 P

nominal pressure	0 ... 100 mbar to 0 ... 40 bar
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
process connection	G½", G¾", G1" flush, dairy pipe, clamp, Varivent
option	IS-version, compact field housing, FDA conforming filling fluid, cooling element up to 300 °C
application	  





flush



ceramic sensor

hygienic applications

DMK 331 P

nominal pressure	0 ... 60 bar to 0 ... 400 bar
accuracy (according to IEC 60770)	0.5 % FSO
process connection	G½" / G¾" / G1" flush
option	compact field housing, FDA conforming filling fluid, cooling element up to 300 °C
application	 





flush



ceramic sensor

hygienic applications

DMK 351 P

nominal pressure	0 ... 40 mbar to 0 ... 20 bar
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
process connection	G1 ½" flush, clamp, dairy pipe, Varivent®, flange
option	IS-version, compact field housing, diaphragm 99.9 % Al ₂ O ₃
application	 



high overpressure capability



OEM

stainless steel sensor, welded

mobile hydraulics

17.600 G

17.609 G

nominal pressure 0 ... 6 bar to 0 ... 600 bar (17.600 G)
0 ... 6 bar to 0 ... 60 bar (17.609 G)

accuracy 0.5 % FSO
(according to IEC 60770)

output signal 4 ... 20 mA / 2L
0 ... 10 V / 3L
10 ... 90 % of V_s / 3L rat.

pressure port G 1/4", 1/4" NPT, G 1/2", 7/16 UNF

application



Heavy Duty / refrigeration



stainless steel sensor without media isolation

plant and mechanical engineering

18.600 G

nominal pressure 0 ... 100 mbar to 0 ... 6 bar

accuracy 0.5 % FSO
(according to IEC 60770)

output signal 4 ... 20 mA / 2-wire
0 ... 10 V / 3-wire
10 ... 90 % of V_s / 3-wire rat.

pressure port G 1/4", 1/4" NPT, G 1/2"

application



pneumatics



stainless steel sensor

general industrial applications

18.601 G

nominal pressure 0 ... 100 mbar to 0 ... 6 bar

accuracy 0.5 % FSO
(according to IEC 60770)

output signal 4 ... 20 mA / 2-wire
0 ... 10 V / 3-wire
10 ... 90 % of V_s / 3-wire rat.

pressure port G 1/4", 1/4" NPT, G 1/2"

application



low pressure








OEM

stainless steel sensor

general industrial application

18.605 G

nominal pressure	0 ... 1 mH ₂ O to 0 ... 10 mH ₂ O
accuracy (according to IEC 60770)	0.5 % FSO
output signal	4 ... 20 mA / 2-wire 0 ... 10 V / 2-wire 10 ... 90 % of V _S / 3-wire rat.
pressure port	G 1/4" with PVC cable
application	    





submersible

ceramic sensor

universal application

26.600 G

nominal pressure	0 ... 1 bar to 0 ... 400 bar
accuracy (according to IEC 60770)	0.5 % FSO
output signal	4 ... 20 mA / 2-wire 0 ... 10 V / 3-wire 10 ... 90 % of V _S / 3-wire rat.
pressure port	G 1/4", 1/4" NPT, G 1/2"
option	oil and grease free version
application	 





standard



ceramic sensor

universal application

30.600 G

nominal pressure	0 ... 1,6 bar to 0 ... 250 bar
accuracy (according to IEC 60770)	1 % FSO
output signal	4 ... 20 mA / 2-wire 0 ... 10 V / 3-wire 10 ... 90 % of V _S / 3-wire rat.
pressure port	G 1/4", 1/4" NPT
application	 



low cost



DIFFERENTIAL PRESSURE TRANSMITTER

For differential pressure measurement

Pressure ranges: 0 ... 1 mbar to 0 ... 70 bar

Thanks to different sensor technologies combined with compact aluminium die-cast cases or plastic housings, our differential pressure transmitters may be used for numerous fluids and gases, e. g. for monitoring ventilation ducts, filters and fans in HVAC areas as well as for level measurement in closed pressurized tanks.



PRECISION

stainless steel sensor

process, oil and gas industry

XMD

nominal pressure 0 ... 75 mbar to 0 ... 20 bar

accuracy 0.1 % FSO
(according to IEC 60770)

characteristics IS-version,
turn-down 1:10,
aluminium die-cast case

process connection internal thread 1/4" – 18 NPT

option display and operating module, flameproof enclosure,
chemical seals assembly

application



fluids + gases

HART®

INDUSTRY

stainless steel sensor

plant and mechanical engineering

DMD 331

nominal pressure 0 ... 0.2 bar to 0 ... 16 bar

differential pressure 0 ... 20 mbar to 0 ... 16 bar

accuracy 0.5 % FSO
(according to IEC 60770)

characteristics compact design, wet / wet
mechanically robust and reliable at dynamic
pressure as well as with shock and vibration

option IS-version

application



fluids + gases

INDUSTRY

stainless steel sensor

plant and mechanical engineering

DMD 831

differential pressure	0 ... 1 bar to 0 ... 70 bar
accuracy (according to IEC 60770)	1 % FSO BFSL
characteristics	display and pressure port rotatable, up to 2 contacts, turn-down 1:10

application



fluids + gases

silicon sensor

plant and mechanical engineering

DMD 341

nominal pressure	0 ... 6 mbar to 0 ... 1000 mbar
accuracy (according to IEC 60770)	0.35 / 1 / 2 % FSO
option	display and switching module with up to 2 contacts

application



gases

silicon sensor

HVAC

DPS 200

DPS 300

differential pressure	0 ... 6 mbar to 0 ... 1000 mbar (DPS 200) 0 ... 1.6 mbar to 0 ... 1000 mbar (DPS 300)
accuracy (according to IEC 60770)	1 % FSO BFSL
characteristics	adjustable ranges (DPS 300)
option (DPS 300)	contacts automatic zero adjustment square root extraction

application



gases and compressed air

With a great variety of mechanical and electrical connections, BD|SENSORS offers a new generation of digital pressure gauges for different applications. Due to the two sensor technologies in use (stainless steel sensor or ceramic sensor), our digital pressure gauges are suitable for nearly all fluids, pasty media and gases.

The display module is rotatable, so that a clear readability is guaranteed even in unusual installation positions.



PRECISION

stainless steel sensor

test and calibration equipment / leak testing

DM 01

DL 01

nominal pressure	0 ... 100 mbar to 0 ... 400 bar
accuracy (according to IEC 60770)	0.05 % FSO BFSL
characteristics	stainless steel housing $\varnothing = 100$ mm, data logger function, modular sensor concept
LC- display	graphic LC-display 128 x 64 pixel with background illumination
pressure port	inch, NPT threads
option	IS-version, accredited calibration certificate service case with accessories USB-interface
application	



modular concept



INDUSTRY

stainless steel sensor / ceramic sensor

BAROLI 02
BAROLI 05

nominal pressure 0 ... 100 mbar to 0 ... 600 bar (BAROLI 02)
0 ... 400 mbar to 0 ... 600 bar (BAROLI 05)

accuracy 0.125 % FSO BFSL (BAROLI 02)
(according to IEC 60770) 0.25 % FSO BFSL (BAROLI 05)

LC- display 4.5-digit 7-segment display,
6-digit 14-segment additional display

process connection inch, NPT threads

application


housing rotatable


stainless steel sensor / ceramic sensor

BAROLI 02 P
BAROLI 05 P

nominal pressure 0 ... 100 mbar to 0 ... 40 bar (BAROLI 02 P)
0 ... 60 bar to 0 ... 400 bar (BAROLI 05 P)

accuracy 0.125 / 0.25 % FSO BFSL (BAROLI 02 P)
(according to IEC 60770) 0.25 % FSO BFSL (BAROLI 05 P)

LC-display 4.5-digit 7-segment display,
6-digit 14-segment additional display

process connection G 1/2" flush, G 1" flush,
dairy pipe, clamp

application


flush


OEM

ceramic sensor / stainless steel sensor plant and mechanical engineering

DM 10
DM 17

nominal pressure 0 ... 1,6 bar to 0 ... 250 bar (DM10)
0 ... 6 bar to 0 ... 600 bar (DM 17)

accuracy 0.5 % FSO BFSL
(according to IEC 60770)

characteristic adjustable housing

LC-display 4,5-digit 7-segment display

pressure port G 1/2" EN 837, G 1/4" EN 837, 1/4" NPT

function min-/max-function with reset-function

application


low-cost




LEVEL

HYDROSTATIC LEVEL PROBES

21 - 26

SCREW-IN TRANSMITTERS

27

APPLICATIONS

- ground water monitoring
- depth and level measurement in wells
- drinking water systems
- level monitoring in open and closed tanks
- storm water systems
- pump and booster stations
- water treatment plants
- tank farms / fuel storage
- recycling of process water

HYDROSTATIC LEVEL PROBES

The hydrostatic level probes made by BD|SENSORS are suitable for measuring the level of liquid and pasty media of all kind.

The separable submersible probes LMP 308 / LMP 808 / LMK 358 / LMK 858 are a speciality; the cable part can be separated from the sensor head effortlessly and without tools. This is an enormous advantage for many of our customers during assembly as well as when performing service and maintenance.

Special versions, such as integrated overvoltage protection, temperature sensor or data logger are just as much a part of our standard program as the communication version with RS-485 interface or HART®-protocol.




PRECISION

stainless steel sensor

energy industry, environmental industry

LMP 308 i

level	0 ... 4 mH ₂ O to 0 ... 200 mH ₂ O
housing material	stainless steel 1.4404 (316 L)
accuracy (according to IEC 60770)	0.1% FSO
special feature	cable part and sensor head separable
option	IS-version, cable protection via corrugated pipe
recommended for	



**separable stainless
steel probe**




ø 35 mm



ceramic sensor

environmental industry

LMK 358 H

level	0 ... 60 cmH ₂ O to 0 ... 100 mH ₂ O
housing material	stainless steel 1.4404 (316 L)
accuracy (accuracy to IEC 60770)	0.1 / 0.2 % FSO
special feature	HART® communication
option	IS-version, cable protection via corrugated pipe, diaphragm 99.9 % Al ₂ O ₃
recommended for	  



**separable stainless
steel probe**

ø 39,5 mm

HART® 

PRECISION

ceramic sensor

chemical industry, environmental industry

LMK 382 H

level 0 ... 60 cmH₂O to 0 ... 200 mH₂O

housing material stainless steel 1.4404 (316 L)

accuracy 0.1 / 0.2 % FSO
(according to IEC 60770)

special feature HART® communication

option IS-version,
flange version,
diaphragm 99.9 % Al₂O₃

recommended for



ø 39.5 mm

**stainless steel
probe**
HART®

ceramic sensor

marine / shipbuilding / offshore

LMK 458 H

level 0 ... 60 cmH₂O to 0 ... 200 mH₂O

housing material stainless steel 1.4404 (316 L), CuNiFe

accuracy 0.1 / 0.2 % FSO
(according to IEC 60770)

special feature HART® communication

option IS-version; diaphragm 99.9 % Al₂O₃
screw-in or flange version

recommended for



ø 39.5 mm

HART®


STANDARD

stainless steel sensor

energy industry, environmental industry

LMP 305

level 0 ... 1 mH₂O to 0 ... 250 mH₂O

housing material stainless steel 1.4404 (316 L)

accuracy 0.25 / 0.35 % FSO
(according to IEC 60770)

special feature suitable for level measurement in 1" pipes

recommended for



ø 19 mm



**stainless steel
probe**

STANDARD

stainless steel sensor

energy industry, environmental industry

LMP 307**LMP 307 T**

level	0 ... 1 mH ₂ O to 0 ... 250 mH ₂ O
temperature	0 ... 30 °C to 0 ... 70 °C (LMP 307 T)
housing material	stainless steel 1.4404 (316 L)
accuracy	0.1 / 0.25 / 0.35 % FSO (LMP 307)
(according to IEC 60770)	0.25 / 0.35 / 0.5 % FSO (LMP 307 T)
	1° (LMP 307 T)
option (LMP 307)	IS-version cable protection via corrugated pipe
recommended for	 



ø 26.5 mm

stainless steel
probe



SIL



stainless steel sensor

energy industry, environmental industry

LMP 308**LMP 808**

level	0 ... 1 mH ₂ O to 0 ... 250 mH ₂ O (LMP 308) 0 ... 1 mH ₂ O to 0 ... 100 mH ₂ O (LMP 808)
housing material	stainless steel 1.4404 (316 L)
accuracy	0.1 / 0.25 / 0.35 % FSO (LMP 308)
(according to IEC 60770)	0.25 / 0.35 % FSO (LMP 808)
option	IS-version (LMP 308) cable protection via corrugated pipe (LMP 308) cable protection via PVC-pipe (LMP 808)
special feature	cable part and sensor head separable
recommended for	 



ø 35 mm

separable probe

SIL



ceramic sensor

energy industry, environmental industry

LMK 306

level	0 ... 6 mH ₂ O to 0 ... 200 mH ₂ O
housing material	stainless steel 1.4404 (316 L)
accuracy	0.5 % FSO
(according to IEC 60770)	
special feature	for level measurement in ¾" pipes
recommended for	



ø 17 mm



stainless steel probe

STANDARD

ceramic sensor

energy industry, environmental industry

LMK 307**LMK 307 T**

level	0 ... 4 mH ₂ O to 0 ... 250 mH ₂ O
temperature	0 ... 30 °C to 0 ... 70 °C (LMK 307 T)
housing material	stainless steel 1.4404 (316 L)
accuracy	0.5 % FSO
(according to IEC 60770)	1°C (LMK 307 T)
option	IS-version
recommended for	  






ø 26.5 mm

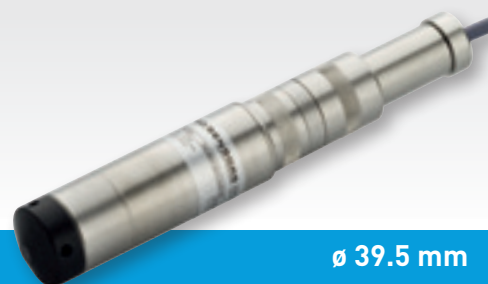
stainless steel
probe

ceramic sensor

energy industry, environmental industry

LMK 358

level	0 ... 40 cm H ₂ O to 0 ... 100 mH ₂ O
housing material	stainless steel 1.4404 (316 L)
accuracy	0.25 / 0.35 % FSO
(according to IEC 60770)	
special feature	cable protection via corrugated pipe, cable part and sensor head separable
option	IS-version, diaphragm 99.9 % Al ₂ O ₃
recommended for	  





ø 39.5 mm

separable stainless
steel probe

ceramic sensor

energy industry, environmental industry

LMK 382

level	0 ... 40 cmH ₂ O to 0 ... 200 mH ₂ O
housing material	stainless steel 1.4404 (316 L)
accuracy	0.25 / 0.35 % FSO
(according to IEC 60770)	
option	IS-version, flange version, diaphragm 99.9 % Al ₂ O ₃ , mounting with stainless steel pipe
recommended for	   



ø 39.5 mm

stainless steel probe






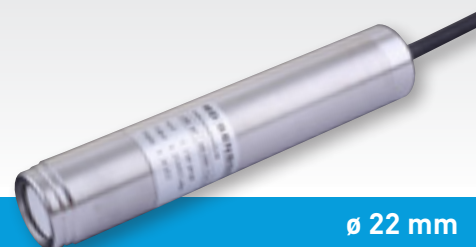
STANDARD

ceramic sensor

energy industry, environmental industry

LMK 387

level	0 ... 1 mH ₂ O to 0 ... 200 mH ₂ O
housing material	stainless steel 1.4404 (316 L)
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
option	IS-version, mounting with stainless steel pipe
recommended for	  



ø 22 mm





stainless steel probe



ceramic sensor

marine / shipbuilding / offshore

LMK 458

level	0 ... 40 cmH ₂ O to 0 ... 200 mH ₂ O
housing material	stainless steel 1.4404 (316 L), CuNiFe
accuracy (according to IEC 60770)	0.1 / 0.25 % FSO
special feature	permissible temperature up to 125 °C, chemical resistance against seawater and HFO
option	IS-version; diaphragm 99.9 % Al ₂ O ₃ ; screw-in and flange version
recommended for	   



ø 39.5 mm



ceramic sensor

chemical and environmental industry

LMK 806

level	0 ... 6 mH ₂ O bis 0 ... 200 mH ₂ O
housing material	PVC (grey)
accuracy (according to IEC 60770)	0.5 % FSO
special feature	suitable for level measurement in 3/4" pipes
recommended for	 



ø 21 mm

plastic probe

STANDARD

ceramic sensor

chemical industry, environmental industry

LMK 807level 0 ... 4 mH₂O to 0 ... 100 mH₂O

housing material PVC grey

accuracy 0.5 % FSO

(according to IEC 60770)

option FKM, EPDM, FFKM seals

recommended for



ø 35 mm

plastic probe

SIL

ceramic sensor

chemical industry, environmental industry

LMK 809level 0 ... 0.4 mH₂O to 0 ... 100 mH₂O

housing material PP or PVDF

accuracy 0.25 / 0.35 % FSO

(according to IEC 60770)

special feature diaphragm 99.9 % Al₂O₃,
chemical resistance

option prepared for mounting with pipe extension

recommended for



ø 45 mm

plastic probe

ceramic sensor

chemical industry, environmental industry

LMK 858level 0 ... 0.4 mH₂O to 0 ... 100 mH₂O

housing material PVC grey

accuracy 0.25 / 0.35 % FSO

(according to IEC 60770)

special feature cable part and sensor head separable
chemical resistanceoption cable protection via PVC-pipe,
diaphragm 99.9 % Al₂O₃

recommended for





ø 45 mm

separable
plastic probe

stainless steel sensor

plant and mechanical engineering

LMP 331





nominal pressure	0 ... 100 mbar to 0 ... 40 bar
level	0 ... 1 mH ₂ O to 0 ... 400 mH ₂ O
accuracy (according to IEC 60770)	0.1 / 0.25 / 0.35 % FSO
pressure port	G 3/4" flush
option	IS-version, compact field housing
recommended for	 



ceramic sensor

plant and mechanical engineering

LMK 331

nominal pressure	0 ... 400 mbar to 0 ... 60 bar
level	0 ... 4 mH ₂ O to 0 ... 600 mH ₂ O
accuracy (according to IEC 60770)	0.5 % FSO
pressure port	G 3/4" flush for pasty and contaminated media
option	IS-version, pressure port PVDF, compact field housing
recommended for	   







aggressive media



ceramic sensor

environmental industry, renewable energy

LMK 351

nominal pressure	0 ... 40 mbar to 0 ... 20 bar
level	0 ... 0.4 mH ₂ O to 0 ... 200 mH ₂ O
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
pressure port	G1 1/2" flush
option	IS-version, pressure port PVDF or stainless steel diaphragm 99.9 % Al ₂ O ₃ compact field housing
recommended for	   



aggressive media





SWITCH

PRESSURE SWITCH WITH DISPLAY 29 - 32

PRESSURE SWITCH WITHOUT DISPLAY 33

APPLICATIONS

- mobile hydraulics
- dry running protection
- flow monitoring
- grease monitoring
- gas compressors
- test and construction engineering

PRESSURE SWITCH

with display

Due to the simple handling as well as the variety of software features (switching points and hysteresis freely configurable, delay function, min/max-value data storage, display and analogue output signal scalable, etc.) the DS 200 / DS 400 series is especially suitable as an intelligent pressure switch for general plant and machine construction and the processing industry.

output signal:

2-wire (4 ... 20 mA) or 3-wire (0 ... 10 V),
up to 4 contacts




electrical connection:




various plugs

(e. g. DIN or circular plug) or cable outlet

Depending on the requirements, the universal pressure measuring devices with display and switching contacts can be used as :

- pressure transmitter
- electronic pressure switch
- digital pressure gauge

stainless steel sensor / ceramic sensor		universal application	DS 400	DS 401
nominal pressure	0 ... 100 mbar to 0 ... 600 bar (DS 400) 0 ... 400 mbar to 0 ... 600 bar (DS 401)			
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO (DS400) 0.5 % FSO (DS 401)			
characteristics	up to 2 contacts, 4-digit LED-display in ball housing, rotatable and configurable display module			
pressure port	inch and NPT threads			
option	IS-version, pressure port PVDF (DS 401)			
application			robust version 	

stainless steel sensor		Anlagen- und Maschinenbau	DS 300
nominal pressure	0 ... 100 mbar to 0 ... 600 bar		
accuracy	0.35 % FSO		
(according to IEC 60770)			
characteristics	indication of measured values on a 4-digit LED display, rotatable and configurable display module, parameter settings via IO-Link or menu (VDMA-conform)		
pressure port	inch and NPT-threads		
application			
		IO-link interface	 

PRESSURE SWITCH




with display

stainless steel sensor / ceramic sensor

universal applications

DS 200

DS 201



nominal pressure	0 ... 100 mbar to 0 ... 600 bar (DS 200) 0 ... 400 mbar to 0 ... 600 bar (DS 201)
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO (DS 200) 0.5 % FSO (DS 201)
characteristics	up to 4 contacts, 4-digit LED-display, rotatable and configurable display module
pressure port	inch and NPT threads
option	IS-version
application	  



stainless steel sensor, welded

medical technology, oxygen application

DS 202

nominal pressure	0 ... 6 bar to 0 ... 600 bar
accuracy (according to IEC 60770)	0.5 % FSO
characteristics	up to 4 contacts, 4-digit LED-display, rotatable and configurable display module,
pressure port	inch and NPT threads
option	IS-version oxygen version
application	   




**high
overpressure capability**



stainless steel sensor without media isolation

HVAC

DS 210

nominal pressure	0 ... 10 mbar to 0 ... 1000 mbar
accuracy (according to IEC 60770)	0.35 % FSO
characteristics	up to 4 contacts, 4-digit LED-display, rotatable and configurable display module
pressure port	inch and NPT threads
option	IS-version
application	  




low pressure



thinfilm sensor

plant and machine engineering / mobile hydraulics

DS 214

nominal pressure	0 ... 600 bar bis 0 ... 2200 bar
accuracy (according to IEC 60770)	0.35 % FSO
characteristics	up to 4 contacts, rotatable and configurable display module
pressure port	G 1/2" EN 837, M20x1,5
application	

very high
pressure

stainless steel sensor, welded

hydraulics, oxygen application

DS 217

nominal pressure	0 ... 6 bar to 0 ... 600 bar
accuracy (according to IEC 60770)	0.5 % FSO
characteristics	up to 2 contacts, 4-digit LED-display, rotatable and configurable display module
pressure port	G 1/2", G 1/4", 1/4" NPT
application	 





OEM



ceramic sensor

pneumatics, hydraulics

DS 230

nominal pressure	0 ... 2 bar to 0 ... 400 bar
accuracy (according to IEC 60770)	1.5 % FSO
characteristics	up to 2 contacts, 4-digit LED-display, rotatable and configurable display module
pressure port	G 1/4", 1/4" NPT
application	 



OEM





PRESSURE SWITCH

with display

silicon sensor

heating and air conditioning

DS 233

nominal pressure	0 ... 6 mbar to 0 ... 1000 bar
accuracy (according to IEC 60770)	0.35 % FSO
characteristics	aluminium housing, LED display, rotatable and configurable display module
pressure port	G 1/8" internal
application	 







**gases and
compressed air**

stainless steel sensor / ceramic sensor

hygienic version

DS 200 P

DS 201 P



nominal pressure	0 ... 100 mbar to 0 ... 40 bar (DS 200 P) 0 ... 60 bar to 0 ... 400 bar (DS 201 P)
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO (DS 200 P) 0.5 % FSO (DS 201 P)
characteristics	up to 4 contacts, 4-digit LED-display, rotatable and configurable display module
pressure port	inch thread (flush), dairy pipie, clamp (DS 200 P)
option	cooling element up to 300 °C (DS 201 P)
application	   



stainless steel sensor

hygienic applications

DS 400 P

nominal pressure	0 ... 100 mbar to 0 ... 40 bar
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
characteristics	up to 2 contacts, 4-digit LED-display, rotatable and configurable display module
pressure port	inch thread (flush), dairy pipe, clamp
option	IS-version, cooling element up to 300 °C
application	  



hygienic design

PRESSURE SWITCH

without display

The pressure switches DS 4 and DS 6 were designed also for OEMs (original equipment manufacturers). These electronic pressure switches are used in hydraulic and pneumatic applications for monitoring and controlling the pressure via switching outputs.



The 1 or 2 freely programmable contacts whose status is indicated by differently coloured LED's can be configured quickly and comfortably either by the optionally available tools P-Set (PC software and programming adapter) or via the programming device P6.



silicon sensor

pneumatics

DS 4

nominal pressure	0 ... 1 bar up to 0 ... 10 bar
contacts	1 or 2
pressure port	G 1/8" internal thread, M5 internal thread
characteristics	configurable via PC or programming device
application	 






compact version

ceramic sensor

hydraulics

DS 6

nominal pressure	0 ... 2 bar to 0 ... 400 bar
contacts	1 or 2
pressure port	G 1/4"
option	oil and grease free, oxygen version
characteristics	configurable via PC or programming device
application	  



high pressure



EVALUATION

DISPLAYS

35 - 37

DATA LOGGER

38

APPLICATIONS

- in situ display for pressure, temperature and level

- in situ display at pumping stations

- display panel for silo battery

- combined level and temperature measurement in heated container

- pressure regulation of hydraulic circuits

- filter monitoring

- pressure and level measurement in biogas plants

- pressure regulation / monitoring of test stands

In order to correctly interpret analogue signals, display and evaluation devices are indispensable. Besides the classic version with display and analogue outputs (PA 430, ASM 430), BDISENSORS offers with the process displays of CIT-series an evaluation device that can be combined with our pressure measuring devices and hydrostatic submersible probes and is furthermore also suitable for acquiring for example temperature and potentiometer signals.

The multifunctional process transmitter CIT 400 has been exclusively developed for supplying 2- and 3-wire sensors with current signal and for acquiring measuring results. Two different types of housing and a combination of independent limit contacts and a freely configurable analogue output are available. We are therefore able to offer you solutions for nearly every measurement task.

plug-on display, self powered

PA 430

display	4-digit LED display, display and housing rotatable
signal input	4 ... 20 mA / 2-wire 0 ... 10 V / 3-wire
characteristics	adjustable housing
option	IS-version, up to 2 freely configurable contacts
dimensions	47 x 47 x 68 mm (W x H x D)


with contacts


field display

PA 440

display	4-digit LC-display
signal input	4 ... 20 mA / 2-wire 0 ... 10 V / 3-wire
option	IS-version up to 2 freely configurable contacts
dimensions	plastic housing 120 x 80 x 57 mm (W x H x D) aluminium housing 125 x 80 x 57 mm (W x H x D)


with contacts




SPECIAL DEVICES

NEW PRODUCTS

BD|SENSORS offers besides the classic analogue pressure and level transmitters also devices with digital interfaces. The basis is the interface standard RS 485, which has a high electromagnetic immunity due to the symmetric signal transmission, and which is suitable for a max. wire length of up to 1 km.

Besides these characteristics, the network capability is an important criterion, which is why the RS 485 standard is among other things the basis for the different PROFIBUS interfaces. BD|SENSORS uses ModBus RTU as communication protocol.

Among high-quality standard sensors and pressure transmitters, BD|SENSORS has always been a synonym for flexible customer-oriented product solutions. There is seldom a challenge that we cannot meet – we want to offer the products that you really need in your application.

You have the feeling that your requirements cannot be fulfilled by our current product line? Please contact us!

strain gauge

oil and gas industry

HU 300

nominal pressure 0... 5000 psi to 0 ... 15000 psi

accuracy 0.5 % FSO
(according to IEC 60770)

electrical connection MIL/ Bendix connection, cable outlet, Glenair (on request)

pressure port WECO® 2" (1502)
WECO® 2" (2002/2202)

application



hammer union



ceramic sensor

marine / shipbuilding / offshore

EP 500

nominal pressure 0 ... 60 mbar to 0 ... 20 bar

accuracy 0.2 % FSO
(according to IEC 60770)

pressure port G 1/4", hose connection

characteristics with communication interface
for offset, span and damping adjustment

application




air-bubbling



stainless steel sensor

plant and machine engineering

DCT 531

nominal pressure	0 ... 0.1 bar to 0 ... 400 bar
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
output signal	RS485 with Modbus RTU protocol
characteristics	perfect thermal behaviour, excellent long term stability
option	pressure port G 1/2" flush, pressure sensor welded
application	 





RS485 Modbus RTU

stainless steel sensor

plant and machine engineering

DCT 532

nominal pressure	0 ... 0.1 bar to 0 ... 400 bar
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
output signal	i ² C, bus frequency max. 400 kHz, configuration of data format, interrupt signal
characteristics	perfect thermal behaviour, excellent long term stability
option	pressure port G 1/2" flush, pressure sensor welded
application	 



i²C interface

stainless steel sensor

plant and machine engineering

DCT 533

nominal pressure	0 ... 0.1 bar to 0 ... 400 bar
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO
output signal	IO-link according to specification V 1.1, data transfer 38.4 kBaud, smart sensor profile
characteristics	perfect thermal behaviour, excellent long term stability
option	pressure port G 1/2" flush, pressure sensor welded
application	 



IO-link interface





heavy industry

The heavy industry sector – in particular the mining, heavy chemical, iron and steel industries – places high demands on the housing, the electronics and the sensor element. No problem for BD|SENSORS, as our pressure transmitters can withstand even the roughest process conditions and are characterized by

- high mechanical stability (shock and vibration resistance)
- ATEX approval (ia = intrinsically safe version, xd = flameproof enclosure)
- dust ATEX zone 20
- SIL (construction of pressure transmitters acc. to international safety standard)



environmental industry - water and waste water

BD|SENSORS sets standards in industrial and domestic water treatment with its elaborate selection of pressure and level measurement devices. Whether drinking water, sludge or aggressive waste water is concerned – the demands on our hydrostatic submersible probes could not be more diverse.

By using specific sensor technologies and robust housing materials (PP, PVC, PVDF, stainless steel etc.) as well as seal and cable sheath materials in combination with many years of experience, we assist you in choosing the correct transmitter type for your application.



chemical and petrochemical industry

From the production of colors and varnishes to synthetic fabrics, from the distillation to the storage in tanks – an accurate monitoring and exact dosage is essential for the safety and maximum productivity in chemical and petrochemical plants.

Precise measurements of our pressure and level transmitters in crucial places result in a saving of time, a higher productivity and reliability in the later production stages. We answer all your questions and provide individual solutions!



oil and gas industry

The oil and gas industry becomes more and more important, as resources are activated, new oil and gas fields are exploited and existing plants are modified in order to cover the worldwide demand for oil and natural gas. For improving the efficiency of those plants, higher and higher requirements are placed to component suppliers. BD|SENSORS offers safe electronic pressure and level measurement devices by:

- carefully selecting and using oil and seawater resistant metal alloys and cable sheath materials
- globally accepted approvals as GL, DNV, ATEX, UL etc.
- high reliability (SIL certification)
- abrasion-resistant pressure sensors
- ingress protection rates of IP 68 and higher.



energy industry / renewable energies

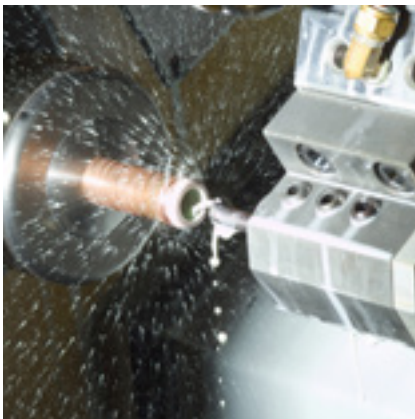
A high efficiency, reliability and economic efficiency are the fundamental requests that plant construction companies have in energy management. Whether fossil fuels, wind or water power, solar or geothermal energy – system components such as pressure and level transmitters with an outstanding life expectancy and precision are of importance here.



food and luxury food industry

Due to rising demands on the hygienic conditions in the food and luxury food sector, our pressure and level transmitters are part of a hygienic concept and have to comply with the specific process requirements such as materials, CIP/ SIP capable sensors, surface roughness, adaption and design of process connections acc. to 3A standard and EHEDG as well as elastomeric seals.

BD|SENSORS offers with its pressure transmitters, pressure switches and level probes the complete equipment for measurements under alternating conditions or for cyclic cleaning and sterilization processes.



plant and mechanical engineering

The plant and mechanical engineering sector is situated in a complex global environment. To be successful in this branch, reliability and flexibility in the measurement task (pressure ranges, accuracy, electrical and mechanical connections), on-time deliveries as well as the processing of output signals are in the center of interest.

As a reliable supplier of electronic pressure measurement devices, BD|SENSORS offers complete and practical solutions for companies and measurement tasks of all kind. With our customized products, we are able to convert your challenge into an efficient process control.



marine / shipbuilding / offshore

The electronic pressure and level transmitters such as DMK 458, DMP 457 and LMK 458 face extreme mechanical and climatic conditions on board of ships, harbor terminals, wind power stations, drilling rigs etc. BD|SENSORS offers with its wide product range solutions for requirements such as:

- resistance against seawater
- vibration resistance and long-term stability
- high safety aspect also in hazardous areas as well as an overcharging protection for chemicals and LPG
- stability at extreme temperature changes
- highest accuracy on draught measurement
- marine approvals such as GL (Germanischer Lloyd) and DNV (Det Norske Veritas).

COMPETENCE

Industrial pressure measurement technology
from 0.1 mbar up to 6000 bar

- pressure transmitters, electronic pressure switches
or hydrostatic level probes
- OEM or high-end products
- standard products or customized solutions

BD|SENSORS has the right pressure measuring device at the
right price.

PRICE / PERFORMANCE

pressure measurement at the highest level

The concentration on electronic pressure transmitter has led to
extraordinary efficiency and economical pricing.

BD|SENSORS is certain to be one of the most economical
suppliers on the world market, given equal technical and
commercial conditions.

RELIABILITY

projectable delivery times and strict
observance of deadlines

Short delivery times and firm deadlines, even for special
designs, make BD|SENSORS a reliable partner for our
customers.

BD|SENSORS reduces the level of your stock-keeping and
increases your profitability.

FLEXIBILITY

We have special solutions for your individual
requirement.

We solve your problem in industrial pressure measurement
quickly and economically, not only with large-scale
production lines, but also for smaller requirements.

BD|SENSORS is especially flexible when technical support and
quick assistance are required in service case as well as for
rush orders.



“A successful cooperation to our customer's full satisfaction is our motivation - developing together high-quality competitive pressure and level transmitters. Customer-specific solutions, reliability and flexibility combined with an excellent price/performance ratio make us a competent partner for pressure measurement at the highest level.”




















KNOW-HOW

Know-how is the foundation for successfully producing high-quality electronic pressure measurement devices.









Modern equipment in development and production together with reliable partners are the basic units which make this foundation strong.

- ISO 9001 certified
- state-approved metrology center
- accredited calibration laboratory
- EMC-lab for norm-conforming tests
- state-of-the-art CNC production
- CIM production

INDUSTRIES

	plant and machine engineering
	chemical and biochemical industry
	energy industry
	renewable energy
	semiconductor industry / cleanroom technology
	HVAC
	hydraulics
	refrigeration
	calibration techniques
	laboratory techniques
	medical technology
	food and beverage
	hydraulics
	oil and gas industry
	pharmaceutical industry
	marine / shipbuilding / offshore
	heavy industry
	environmental industry
	packaging and paper industry

MEDIA

	sewage
	aggressive media
	colours
	gases
	fuels and oils
	pasty and viscous media
	oxygen
	water



DISTRIBUTION WORLDWIDE
HEADQUARTERS OF BD|SENSORS GROUP

BD | SENSORS GmbH
BD-Sensors-Straße 1
95199 THIERSTEIN
GERMANY

Tel.: +49 9235 9811-0
Fax: +49 9235 9811-11

www.bdsensors.de
info@bdsensors.de

DISTRIBUTION EASTERN EUROPE

BD | SENSORS s.r.o.
Hradištská 817
687 08 BUCHLOVICE
CZECH REPUBLIC

Tel.: +420 572 411-011
Fax: +420 572 411-497

www.bdsensors.cz
sale@bdsensors.cz

DOWNLOAD THIS PROSPECT

