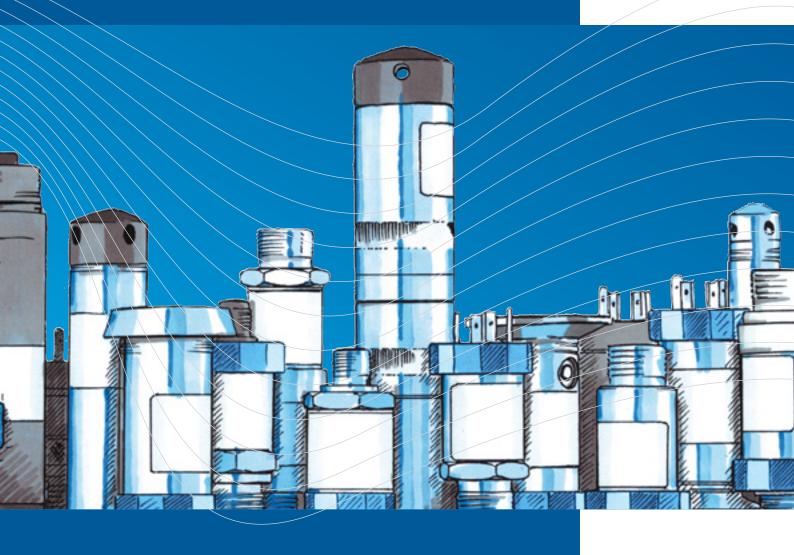
# **PRODUCT OVERVIEW**





## 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.





# type DSP 210 without media isolation $[\emptyset = 18 \text{ mm}]$

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 ( $\emptyset$ = 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 ( $\emptyset$ = 15 mm) with stainless steel diaphragm

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

application: for submersible probes  $\emptyset = 17 \text{ mm}$ 

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.



thickfilm ceramic sensor



capacitive ceramic sensor

# type DSK 511 with flush diaphragm $[\emptyset = 18 \text{ mm}]$

pressure ranges:  $0 \dots 0.5$  bar to  $0 \dots 600$  bar

application: for aggressive media and oxygen; with flush diaphragm preferred

for highly viscuous or contaminated media

# type DSK 516 with flush diaphragm $[\emptyset = 15 \text{ mm}]$

pressure ranges:  $0 \dots 0.5$  bar to  $0 \dots 50$  bar

application: for submersible probes Ø 17 mm

and pressure transmitter with

G 1/2" flush

# type DSK 611 in monolithic design $[\emptyset = 18 \text{ mm}]$

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

application: OEM products with excellent price /

performance ratio

# type DSK 703 M (Ø = 32.4 mm)

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

# type DSK 720 M

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.)





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:	

$\rightarrow$	pressure	sensors,	pressure	transducers
	pressure	transmitt	ters	

- → 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 customerspecific applications, underlining the competence and flexibility of BDISENSORS. 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.

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LEVEL	20-27
SWITCH	28-33
EVALUATION	34-39
EVALUATION  SPECIAL VERSIONS	<b>34-39</b> 40
SPECIAL VERSIONS	40

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.



# **PRESSURE**

PRESSURE TRANSMITTER	7 - 15
DIFFERENTIAL PRESSURE TRANSMITTER	16 - 15
DIGITAL PRESSURE GALIGE	18 - 19

## **APPLICATIONS**

- → hydraulics
- $\rightarrow$  pneumatics
- → process monitoring and process engineering
- ightarrow control systems
- → tool construction / presses / injection moulding machines
- ightarrow 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 0.1 % FSO (XMP i)

(according to IEC 60770) 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<sub>2</sub>O<sub>3</sub> (XMP ci)

application









### stainless steel sensor / ceramic sensor

hygienic applications

x|act i

x|act ci

nominal pressure 0 ... 400 mbar to 0 ... 40 bar (x|act i)

(turn-down 1:10 adjustable)

0 ... 160 mbar to 0 ... 20 bar (x|act ci)

(turn-down 1:5 adjustable)

accuracy 0.1 % FSO (x|act i)

(according to IEC 60770) 0.1 / 0.2 % FSO (x|act 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 (x|act i) diaphragm 99.9 % Al<sub>2</sub>O<sub>3</sub> (x|act ci)

option IS-version













## PRESSURE TRANSMITTER

#### **PRECISION**

#### stainless steel sensor

laboratory techniques, food and beverage

**DMP 331 Pi** 

nominal pressure

0 ... 400 mbar to 0 ... 40 bar

accuracy

0.1% FSO

(according to IEC 60770)

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 331i) 0 ... 60 bar to 0 ... 600 bar (DMP 333 i)

accuracy

0.1% FS0

(according to IEC 60770)

characteristics

digital electronics for linearisation and active temperature compensationn (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







#### **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  $\leq 0.5$  ms,

internal sample rate 10 kHz, excellent thermal behaviour, outstanding long term stability

application







#### stainless steel sensor

plant and machine engineering

**DMP 321** 

**DMP 339** 

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









hydraulics

nominal pressure 0 ... 60 bar to 0 ... 600 bar

accuracy

stainless steel sensor

0.35 % FSO

(nach IEC 60770)

0.00 /0100

characteristics

G1/4" flush (Ø 8 mm)

option

S-version









## PRESSURE TRANSMITTER

#### **INDUSTRY**

#### stainless steel sensor, welded

medical technology, hydraulics

**DMP 335** 

nominal pressure

0 ... 6 bar to 0 ... 600 bar

accuracy

0.5 % FSO

(according to IEC 60770)

characteristics suitable for oxygen application,

resistant against pressure peaks

option application









#### stainless steel sensor, welded

plant and mechanical engineering

**DMP 334** 

nominal pressure

(according to IEC 60770)

0 ... 600 bar to 0 ... 2200 bar

accurcay

0.5 % FSO

IS-version,

option

compact field housing,

adjustability of span and offset

application







**DMP 304** strain gauge oil and gas industry

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



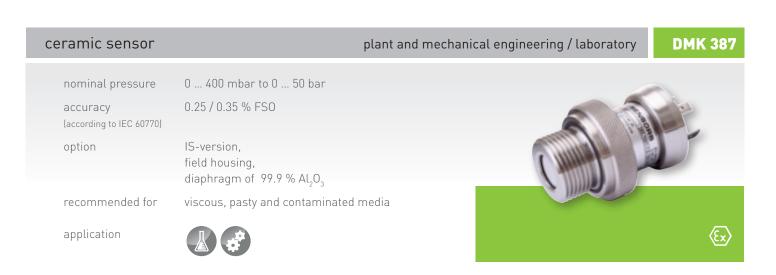




#### **INDUSTRY**

#### **DMK 331** ceramic sensor universal applications 0 ... 400 mbar to 0 ... 600 bar nominal pressure accuracy 0.5 % FSO (according to IEC 60770) IS-version, option compact field housing, pressure port PVDF, oxygen application, pressure port G 1/2" flush application aggressive media





## PRESSURE TRANSMITTER

#### **INDUSTRY**

0 ... 400 mbar to 0 ... 600 bar (DMK 457) 0 ... 100 mbar to 0 ... 600 bar (DMP 457)

accuracy

(according to IEC 60770)

nominal pressure

0.25 / 0.35 % FSO

option IS-version, compact field housing,

ceramic sensor / stainless steel sensor

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





**DMK 457** 

**DMP 457** 

# ceramic sensor marine / shipbuilding / offshore DMK 456

marine / shipbuilding / offshore

nominal pressure 0 ...

0 ... 40 mbar to 0 ... 20 bar

0.1 / 0.25 % FSO

accuracy

(according to IEC 60770)

special feature

according to IEC 00770)

stainless steel field housing

IS-version (temperature class T6),

option diaphragm 99.9 % Al<sub>2</sub>O<sub>3</sub>

thread or flange version

application

application



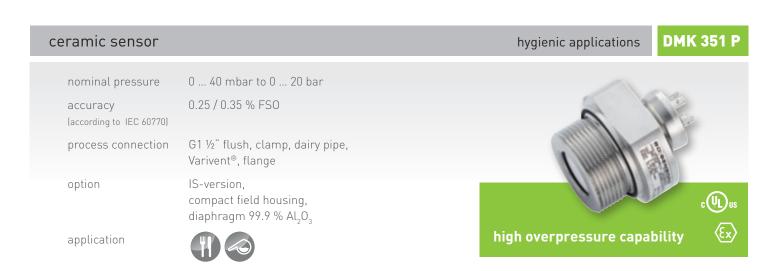


# ceramic sensor marine / shipbuilding / offshore DMK 458 nominal pressure accuracy [according to IEC 60770] special feature option IS-version (temperature class T4), diaphragm 99.9 % Al<sub>2</sub>O<sub>3</sub>, pressure port of CuNiFe

#### **INDUSTRY**

#### **DMP 331 P** stainless steel hygienic applications nominal pressure 0 ... 100 mbar to 0 ... 40 bar 0.25 / 0.35 % FSO accuracy (according to IEC 60770) G½", G¾", G1" flush, process connection dairy pipe, clamp, Varivent option IS-version, compact field housing, FDA conforming filling fluid, cooling element up to 300 °C application

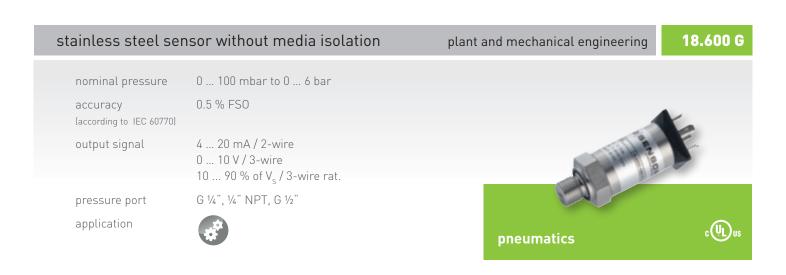




## PRESSURE TRANSMITTER

#### 0EM

#### 17.600 G 17.609 G stainless steel sensor, welded mobile hydraulics 0 ... 6 bar to 0 ... 600 bar [17.600 G] nominal pressure 0 ... 6 bar to 0 ... 60 bar (17.609 G) 0.5 % FSO accuracy (according to IEC 60770) 4 ... 20 mA / 2L output signal 0 ... 10 V / 3L 10 ... 90 % of $V_s$ / 3L rat. G ¼", ¼" NPT, G ½", 7/16 UNF pressure port c(UL)us application **Heavy Duty / refrigeration**





## OEM

#### 18.605 G stainless steel sensor general industrial application nominal pressure 0 ... 1 mH<sub>2</sub>0 to 0 ... 10 mH<sub>2</sub>0 0.5 % FSO accuracy (according to IEC 60770) output signal 4 ... 20 mA / 2-wire 0 ... 10 V / 2-wire 10 ... 90 % of $V_{\rm s}$ / 3-wire rat. G ¼" with PVC cable pressure port application submersible

ceramic sensor		universal application	26.600 G
nominal pressure	0 1 bar to 0 400 bar 0.5 % FSO		
(according to IEC 60770)			-
output signal	4 20 mA / 2-wire 0 10 V / 3-wire 10 90 % of V <sub>s</sub> / 3-wire rat.		
pressure port	G 1/4", 1/4" NPT, G 1/2"		
option	oil and grease free version	standard	c (UL) us
application	<b>₽</b>	- Standard	



## DIFFERENTIAL PRESSURE TRANSMITTER

#### For differential pressure measurement Pressure ranges: 0 ... 1 mbar to 0 ... 70 bar

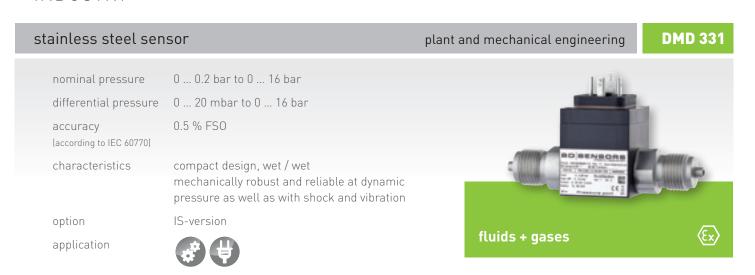
Thanks to different sensor technologies combined with compact aluminium die-cast cases or plastic housings, our differential pressure transmitters may be used for numerous fluids and gases, e. g. for monitoring ventilation ducts, filters and fans in HVAC areas as well as for level measurement in closed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



#### **PRECISION**

#### **XMD** stainless steel sensor process, oil and gas industry 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 ¼" - 18 NPT display and operating module, flameproof enclosure, option HART® (Ex) fluids + gases chemical seals assembly application

#### **INDUSTRY**



#### **INDUSTRY**

#### stainless steel sensor

plant and mechanical engineering

**DMD 831** 

differential pressure 0 ... 1 bar to 0 ... 70 bar

accuracy 1 % FSO BFSL

(according to IEC 60770)

display and pressure port rotatable, characteristics

> up to 2 contacts, turn-down 1:10

application







#### **DMD 341** silicon sensor plant and mechanical engineering nominal pressure 0 ... 6 mbar to 0 ... 1000 mbar

accuracy

(according to IEC 60770)

option

display and switching module with

up to 2 contacts

0.35 / 1 / 2 % FSO

application







#### **DPS 200** silicon sensor **DPS 300** HVAC differential pressure 0 ... 6 mbar to 0 ... 1000 mbar (DPS 200) 0 ... 1.6 mbar to 0 ... 1000 mbar (DPS 300) 1 % FSO BFSL accuracy (according to IEC 60770) characteristics adjustable ranges (DPS 300) option contacts (DPS 300) automatic zero adjustment

application





square root extraction

gases and compressed air

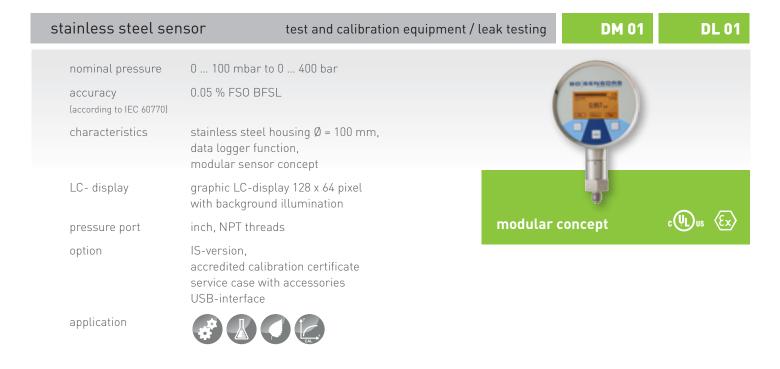
# DIGITAL PRESSURE GAUGE

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.



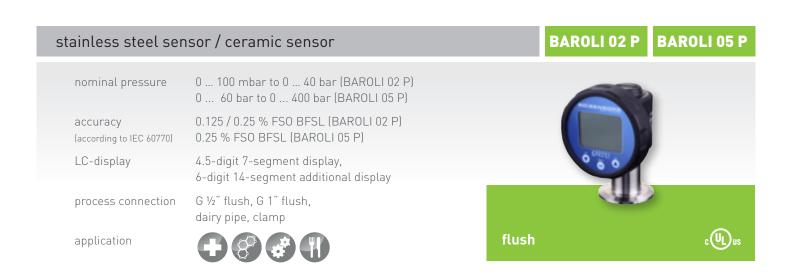
#### **PRECISION**



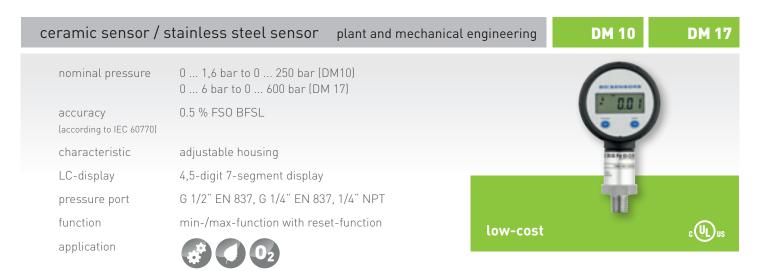
#### **INDUSTRY**

#### **BAROLI 05** stainless steel sensor / ceramic sensor **BAROLI 02** 0 ... 100 mbar to 0 ... 600 bar (BAROLI 02) nominal pressure 0 ... 400 mbar to 0 ... 600 bar (BAROLI 05) 0.125 % FSO BFSL (BAROLI 02) accuracy (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



#### **OEM**





# **LEVEL**

HYDROSTATIC LEVEL PROBES
SCREW-IN TRANSMITTERS

21 - 26

27

## **APPLICATIONS**

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

## HYDROSTATIC LEVEL PROBES

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

The separable submersible probes LMP 308 / LMR 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.



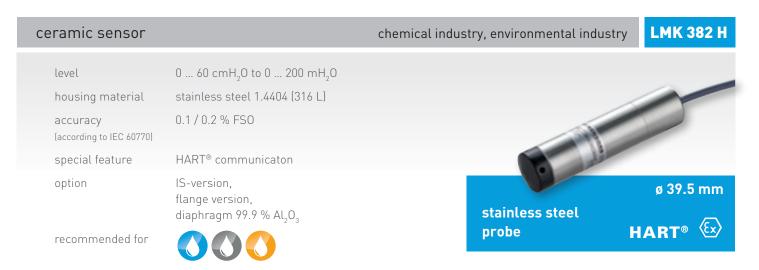
#### **PRECISION**

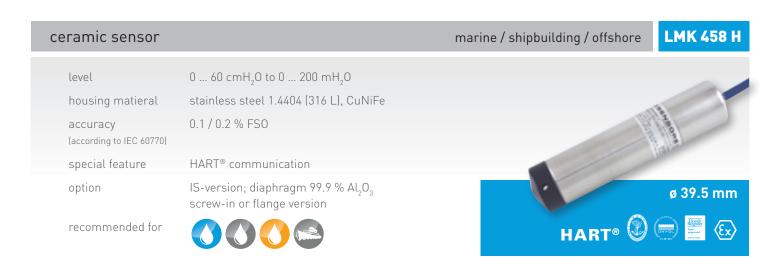
#### stainless steel sensor energy industry, environmental industry **LMP 308** i level 0 ... 4 mH<sub>2</sub>0 to 0 ... 200 mH<sub>2</sub>0 housing material stainless steel 1.4404 (316 L) 0.1% FS0 accuracy (according to IEC 60770) cable part and sensor head separable special feature option IS-version, ø 35 mm cable protection via corrugated pipe separable stainless recommended for steel probe



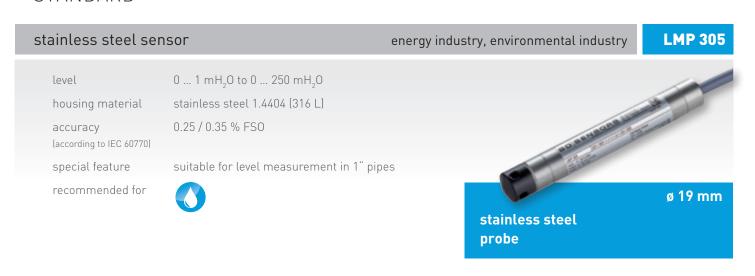
# HYDROSTATIC LEVEL PROBE

#### **PRECISION**





#### STANDARD



#### STANDARD

stainless steel sensor

energy industry, environmental industry

**LMP 307** 

**LMP 307 T** 

level 0 ... 1  $\rm mH_2O$  to 0 ... 250  $\rm mH_2O$ 

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







stainless steel sensor

energy industry, environmental industry

**LMP 308** 

**LMP 808** 

level 0 ... 1 mH<sub>2</sub>0 to 0 ... 250 mH<sub>2</sub>0 (LMP 308)

0 ... 1 mH<sub>2</sub>0 to 0 ... 100 mH<sub>2</sub>0 (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

ceramic sensor









**LMK 306** 

level 0 ... 6 mH<sub>2</sub>0 to 0 ... 200 mH<sub>2</sub>0

housing material stainless steel 1.4404 (316 L)

accuracy 0.5 % FSO

(according to IEC 60770)

special feature for level measurement in 34" pipes

recommended for

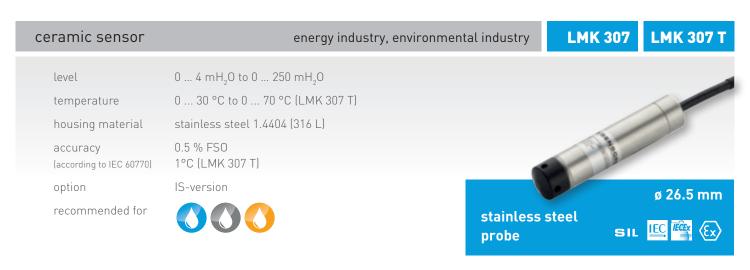


ø 17 mm

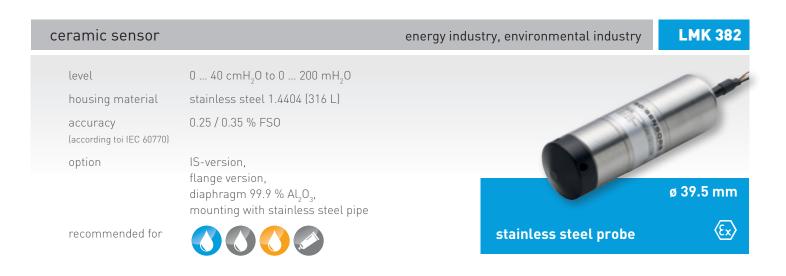
stainless steel probe

# HYDROSTATIC LEVEL PROBE

#### STANDARD

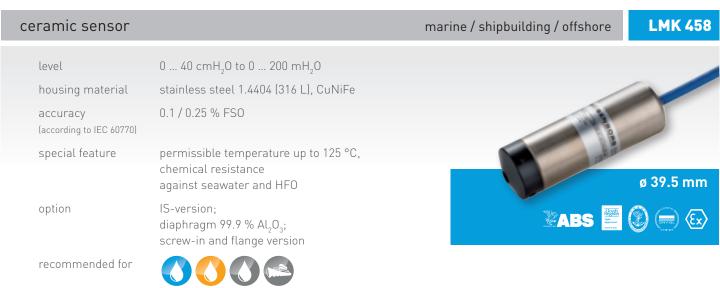


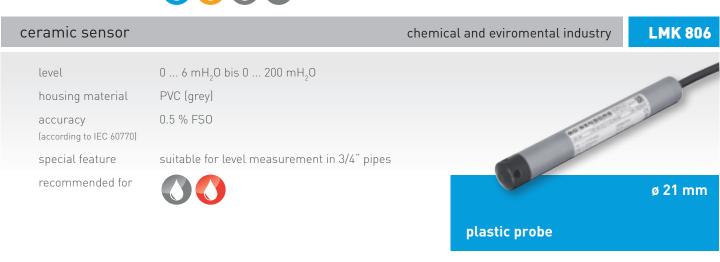




#### STANDARD

#### **LMK 387** ceramic sensor energy industry, environmental industry 0 ... 1 mH<sub>2</sub>0 to 0 ... 200 mH<sub>2</sub>0 level housing material stainless steel 1.4404 (316 L) 0.25 / 0.35 % FSO accuracy (according to IEC 60770) option IS-version, mounting with stainless steel pipe ø 22 mm recommended for stainless steel probe

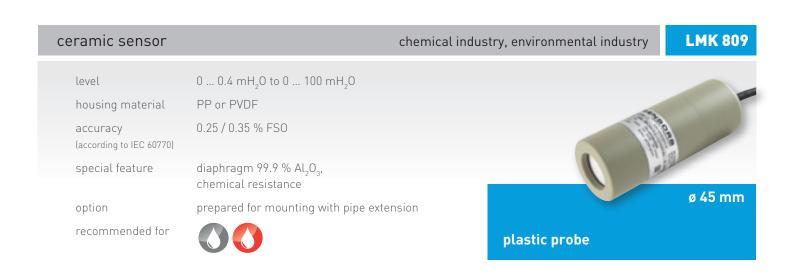


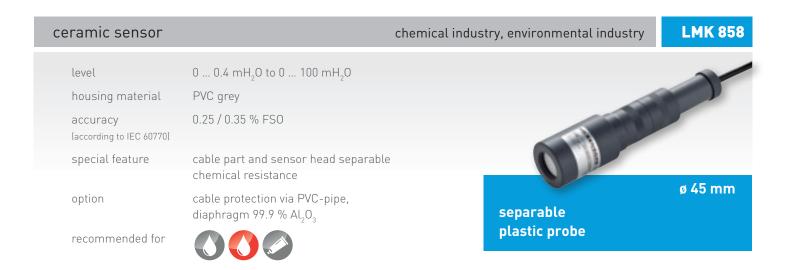


# HYDROSTATIC LEVEL PROBE

#### STANDARD

ceramic sensor		chemical industry, enviromental industry	LMK 807
level housing material accuracy (according to IEC 60770)	$0 \dots 4 \text{ mH}_2\text{O}$ to $0 \dots 100 \text{ mH}_2\text{O}$ PVC grey $0.5 \% \text{ FSO}$		
option recommended for	FKM, EPDM, FFKM seals		ø 35 mm
		plastic probe	SIL





## SCREW-IN TRANSMITTER

#### stainless steel sensor

#### plant and mechanical engineering

**LMP 331** 

nominal pressure

0 ... 100 mbar to 0 ... 40 bar

level

0 ... 1 mH<sub>2</sub>0 to 0 ... 400 mH<sub>2</sub>0

accuracy

0.1 / 0.25 / 0.35 % FSO

pressure port

(according to IEC 60770)

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<sub>2</sub>0 to 0 ... 600 mH<sub>2</sub>0

accuracy

0.5 % FSO

(according to IEC 60770) pressure port

G ¾" flush

for pasty and contaminated media

option IS-version,

> pressure port PVDF, compact field housing

reommended for











#### ceramic sensor

environmental industry, renewable energy

**LMK 351** 

nominal pressure

0 ... 40 mbar to 0 ... 20 bar

level

0 ... 0.4 mH<sub>2</sub>0 to 0 ... 200 mH<sub>2</sub>0

accuracy

0.25 / 0.35 % FSO

(according to IEC 60770)

pressure port

G1 1/2" flush

option

IS-version,

pressure port PVDF or stainless steel

diaphragm 99.9 % Al<sub>2</sub>O<sub>3</sub> compact field housing

recommended for













# **SWITCH**

PRESSURE SWITCH WITH DISPLAY 29 - 32

PRESSURE SWITCH WITHOUT DISPLAY 33

## **APPLICATIONS**

- ightarrow mobile hydraulics
- ightarrow dry running protection
- $\rightarrow$  flow monitoring
- → grease monitoring
- $\rightarrow$  gas compressors
- ightarrow 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  $\dots$  20 mA) or 3-wire (0  $\dots$  10 V), up to 4 contacts

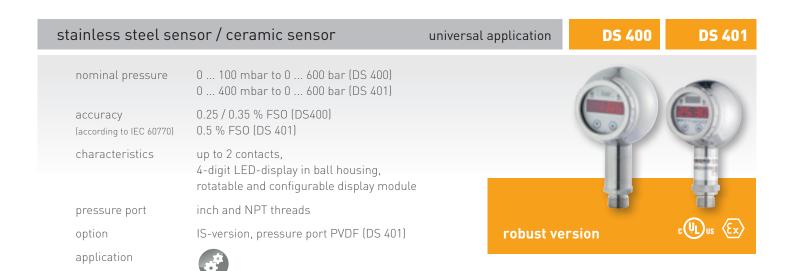
#### electrical connection:

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:

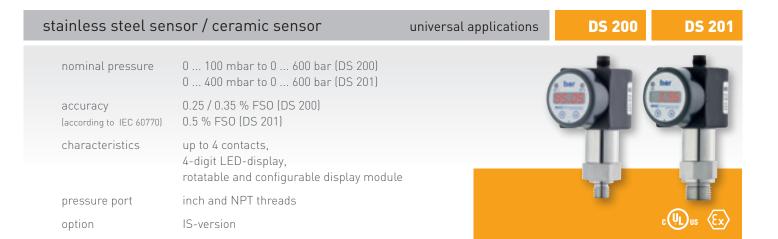
- → pressure transmitter
- → electronic pressure switch
- → digital pressure gauge

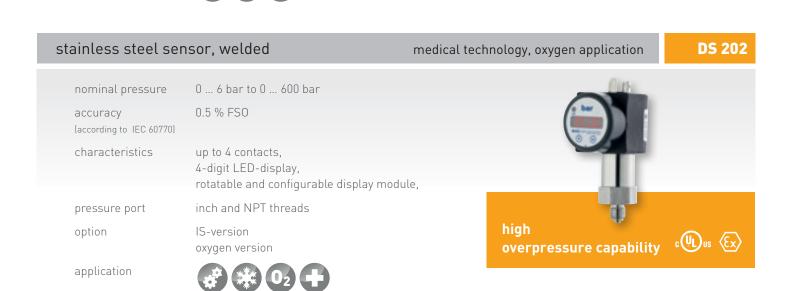


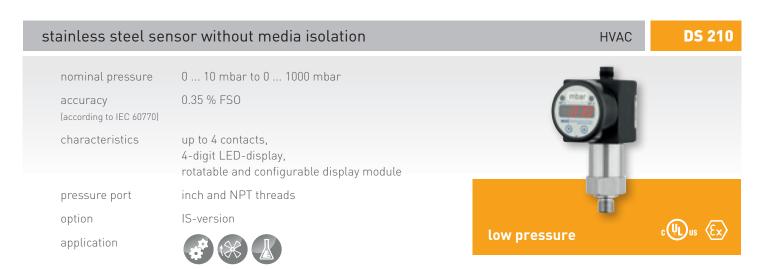


## PRESSURE SWITCH

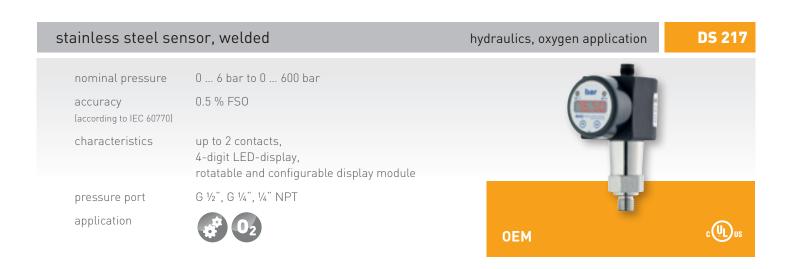
with display

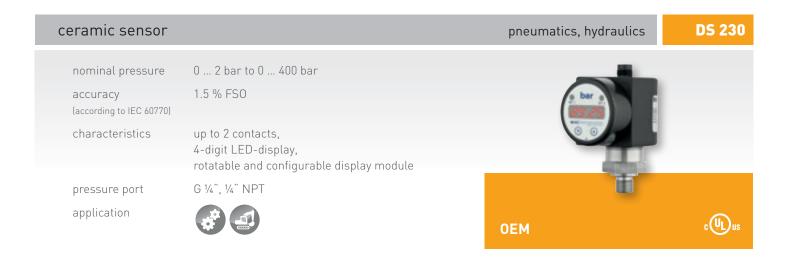






#### thinfilm sensor **DS 214** plant and machine engineering / mobile hydraulics nominal pressure 0 ... 600 bar bis 0 ... 2200 bar 0.35 % FSO accuracy (according to IEC 60770) characteristics up to 4 contacts, rotatable and configurable display module G 1/2" EN 837, M20x1,5 pressure port application very high pressure

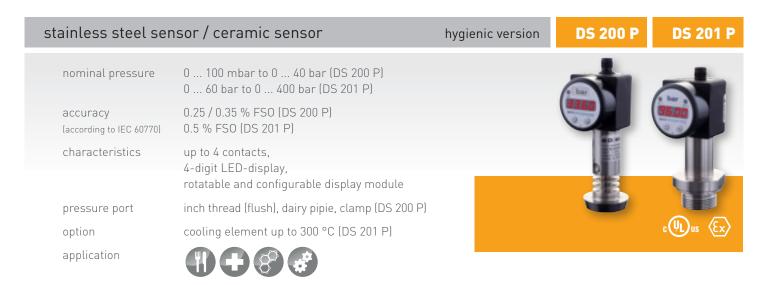




# PRESSURE SWITCH

with display







# PRESSURE SWICH

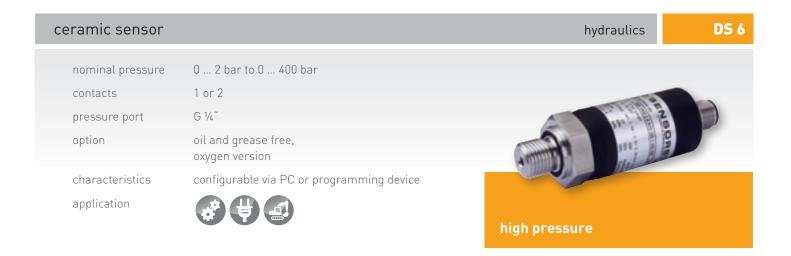
without display

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.



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





# **EVALUATION**

**DISPLAYS** 

DATA LOGGER

35 - 37

→ in situ display for pressure, temperature and level

**APPLICATIONS** 

- → 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

## DISPLAYS

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  $47 \times 47 \times 68 \text{ mm} (W \times H \times D)$ 



field display

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

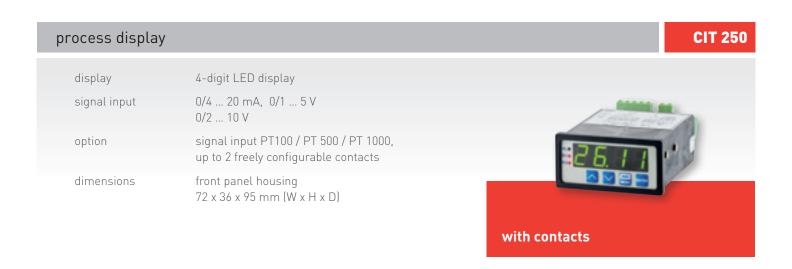
120 x 80 x 57 mm (W x H x D)

aluminium housing

125 x 80 x 57 mm (W x H x D)



# display signal input 0/4 ... 20 mA. 0/1 ... 5 V 0/2 ... 10 V option signal input PT 100 / PT 500 / PT 1000 remote control dimensions front panel housing 72 x 36 x 77 (95) mm (W x H x D)





**CIT 350** process display 4-digit LED display,

display

multicolour 20 segment bargraph

0/4 ... 20 mA, 0/1 ... 5 V signal output

0 /2 ... 10 V

2 or 4 freely configurable contacts, option

analogue output

dimensions front panel housing

48 x 96 x 98 mm (W x H x D)



#### **CIT 400** process display

display 4-digit LED display

signal input 0/4 ... 20 mA option IS-version,

up to 4 limit value relays and 1 alarm relay

dimensions front panel housing

 $72 \times 72 \times 110 \text{ mm} (W \times H \times D)$ 

housing for hat rail and wall mounting

70 x 75 x 110 (W x H x D)



# multichannel process display LCD

**CIT 600** 

graphic LC display display

128 x 64 pixel, background illuminated

2/4/8 channels: 0/4 ... 20 mA signal input

signal input PT 100 / PT 500 / PT 1000, option

lockable door

dimensions front panel housing

96 x 96 x 98 mm (W x H x D)

characteristics communication interface RS 485 (ModBus RTU)

software for parameterization display



The data logger can record up to 2 million measurement values with a maximum measuring rate of 1 Hz in internal memory (8 MB). By connecting a USB stick, the capacity can be enlarged to several GB.

The software helps the user displaying (table, graphic), saving, evaluating and exporting the recorded data as well as issuing reports and configurations.

## multichannel process display, LCD

**CIT 650** 

display graphic LC display

128 x 64 pixel, background illuminated

signal input max. 8 channels: 0 ... 20 mA, 0 ... 10 V

option signal input PT 100 / PT 500 / PT 1000,

USB-host-port, internal memory 8 MB,

lockable door

dimensions front panel housing

96 x 96 x 100 mm (W x H x D)



# multichannel process display, TFT

**CIT 700** 

**CIT 750** 

display graphic TFT-display,

CIT 700: 3,5", 320 x 240 pixel, CIT 750: 5,7", 320 x 240 Pixel,

touchscreen

characteristics 3 freely fittable slots,

16 different input / output modules,

transducer supply 24  $V_{\rm DC}$ , communication interfaces:

RS-485 (Modbus RTU ) master / slave, USB-host-port, USB device connection

option communication interfaces:

2 x RS-485, 1 x RS-232, 2 x USB-host-port,

Ethernet 10 MB, RJ-45

dimensions 96 x 96 x 100 mm (W x H x D) CIT 700

144 x 144 x 100 mm (W x H x D) CIT 750

functional range

standard

- configuration of max. 60 channels via inputs, outputs, mathematical / logical functions, controller, profiles or virtual outputs

- allocation of clogged channels in 10 groups (max. 6 channels per group)

- connection of channels via mathematical / logical functions

- 8 integrated PD / PI / PID controller

data logger - data logging of max. 60 channels

- freely selectable measuring rate (max. 10 Hz)

extensive trigger functionsinternal memory 1.5 GB





# SPECIAL DEVICES NEW PRODUCTS

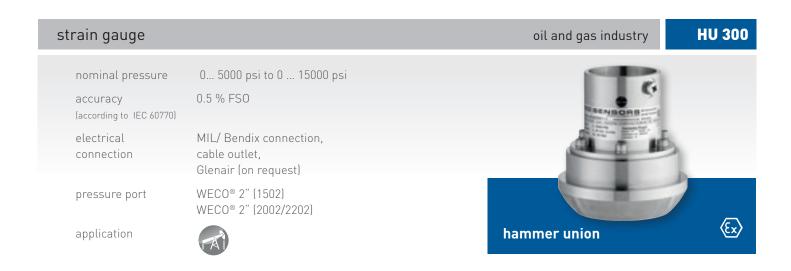
BDISENSORS offers besides the classic analogue pressure and level transmitters also devices with digital interfaces. The basis is the interface standard RS 485, which has a high electromagnetic immunity due to the symmetric signal transmission, and which is suitable for a max. wire length of up to 1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

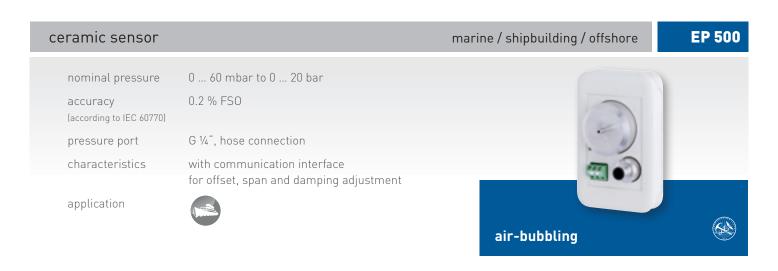
Besides these characteristics, the network capability is an important criterion, which is why the RS 485 standard is among other things the basis for the different PROFIBUS interfaces. BDISENSORS uses ModBus RTU as communication protocol.

# SPECIAL DEVICES

Among high-quality standard sensors and pressure transmitters, BDISENSORS 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!





#### stainless steel sensor

plant and machine engineering

**DCT 531** 

nominal pressure

0 ... 0.1 bar to 0 ... 400 bar

accuracy

0.25 / 0.35 % FSO

(according to IEC 60770)

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





### stainless steel sensor

plant and machine engineering

**DCT 532** 

nominal pressure

(according to IEC 60770)

0 ... 0.1 bar to 0 ... 400 bar

accuracy

0.25 / 0.35 % FSO

output signal

i<sup>2</sup>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





#### 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









# 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 BDISENSORS, 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

BDISENSORS 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. BDISENSORS 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.

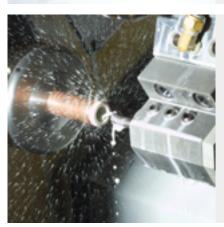




# food and luxury food industry

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
- $\rightarrow$  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.

BDISENSORS 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



semiconducter 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

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