PRODUCT OVERVIEW





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 BDSENSORS has concentrated on electronic pressure measurement technology from the beginning.

With our unremitting product and 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. INDEX

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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.

SENSOR TECHNOLOGIES

applications

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



SENSOR TECHNOLOGIES

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.





PRESSURE

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APPLICATIONS

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

For differential pressure measurement Pressure ranges: 0 ... 10 mbar to 0 ... 6000 bar

Based on many years of experience and 4 different sensor technologies, BD|SENSORS has developed a comprehensive range of standardized pressure transducers. A virtually unlimited combination of mechanical and electrical connections will allow implementation of a large range of device types. Different types of output signals are available in addition. Whether analog or digital current and voltage signals are as standard with us as the conventional digital interfaces found in industry.



DCT 531

DIGITAL

option

application

stainless steel sensor nominal pressure 0 ... 100 mbar to 0 ... 400 bar

0.25 / 0.35 % FSO accuracy (according to IEC 60770) output signal RS485 with Modbus RTU protocol characteristics perfect thermal behaviour, excellent long term stability pressure port G 1/2" flush,

pressure sensor welded

c(UL)us **RS485 Modbus RTU**

plant and machine engineering

stainless steel sensor **DCT 532** plant and machine engineering nominal pressure 0 ... 100 mbar to 0 ... 400 bar 0.25 / 0.35 % FSO accuracy (according to IEC 60770) output signal i²C, bus frequency max. 400 kHz, configuration of data format, interrupt signal characteristics perfect thermal behaviour, excellent long term stability pressure port G 1/2" flush, option ;(UL)_{us} pressure sensor welded i²C interface application

DIGITAL

S	stainless steel sen	sor	plant and machine engineering	DCT 533
	nominal pressure	0 100 mbar to 0 400 bar		
	accuracy (according to IEC 60770)	0.25 / 0.35 % FSO	1911	
	output signal	IO-Link according to specification V 1.1, data transfer 38.4 kBaud, smart sensor profile		ENER
	characteristics	perfect thermal behaviour, excellent long term stability		😵 IO-Link
	option	pressure port G 1/2" flush, pressure sensor welded	IO-Link Interface	c (UL) us
	application	* 4		
С	eramic sensor		plant and machine engineering	DCT 561
	nominal pressure	0 600 mbar to 0 600 bar		
	accuracy (according to IEC 60770)	0.5 % FSO		Sec.
	output signal	RS485 with Modbus RTU protocol		2
	characteristics	good thermal behaviour, good long term stability) and the second se	
	option	pressure port G 1/2" open port PVDF for aggressive media, oxygen application	RS485 Modbus RTU	c (U) us
	application			
C	eramic sensor		plant and machine engineering	DCT 563
	nominal pressure	0 600 mbar to 0 600 bar		~
	accuracy (according to IEC 60770)	0.5 % FSO	1919	
	output signal	IO-Link according to specification V 1.1, data transfer 38.4 kbit/s, smart sensor profile		NEO
	characteristics	good thermal behaviour, good long term stability		😵 IO-Link
	option	pressure port G 1/2" flush, pressure port G 1/2" open port PVDF for aggressive media, oxygen application	IO-Link-Interface	c (U) us
	annliestian			



application

PRECISION

stainless steel sen	sor / 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	m-	0.54	
accuracy	0.1 % FSO (XMP i)	Cr.	FEF	
(according to IEC 60770)	0.1 / 0.2 % FSO (XMP ci)			
process connection	inch and NPT threads, DRD, flange		في الم	
housing	two chamber aluminium die cast ca stainless steel field housing	se,		
option	display and operating module, flameproof enclosure, cooling element up to 300 °C (XMP diaphragm 99.9 % Al ₂ 0 ₃ (XMP ci)	i),	HAR	3 , c∰us T® (ffeoc) €€
application				

stainless steel sen	sor / 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)	2.51	855	
accuracy (according to IEC 60770)	0.1 % FS0 (x act i) 0.1 / 0.2 % FS0 (x act ci)	E.		
process connection	G1" cone, G1 1/2" flush, clamp, dairy pipe, varivent®, DRD, flange		D D D	, s ^{ann} ra, ∑7®
characteristics	hygienic version, display and operating module, cooling element up to 300 °C (x act i), diaphragm 99.9 % Al ₂ 0 ₃ (x act ci)	Hygienic I		effer 3 c us ART® &
option	IS-version			

application





PRECISION

stainless steel sens	sor laboratory te	chniques, food and beverage	DMP 331 Pi
nominal pressure accuracy (according to IEC 60770)	0 400 mbar to 0 40 bar 0.1 % FSO		
characteristics	excellent temperature response 0.04 % FSO / 10 K, process connections suitable for hygienic application, vacuum resistant		
option	IS-version, communication interface for adjustment of offset, span and damping	flush	
application			

stainless steel sens	sor	laboratory,	environmental industry	DMP 331 i	DMP 333 i
nominal pressure	0 400 mbar to 0 40 bar (D 0 60 bar to 0 600 bar (DM				
accuracy (according to IEC 60770)	0.1 % FSO			 (Infl)	erva
characteristics	digital electronics for linearise active temperature compensa (temperature error 0.02% / 10 with communication interface and span adjustment	ation D K),			
option	IS-version, digital output RS 232 with ada	apter			
application	\				

stainless steel sensor

nominal pressure	0 100 mbar to 0 600 bar	
	0.1 % FSO	A
accuracy (according to IEC 60770)	0.1 /0 F30	
characteristics	extremely fast response time \leq 0.5 ms,	
	internal sample rate 10 kHz, excellent thermal behaviour,	1 minutes - Alle
	outstanding long term stability	
application	8° 4	
		fast response time

DMP 320

plant and machine engineering

PRECISION



stainless steel se	nsor without media isolation	HVAC	DMP 343
nominal pressure accuracy (according to IEC 60770)	0 10 mbar to 0 1000 mbar 0.35 % FSO		
option	IS-version, compact field housing	Q ANT	BE
application	* *	And are	cUus
		extreme low pressure	IEC 🎼 🀼



stainless steel sen	sor, welded	medical technology, hydraulics	DMP 335
nominal pressure accuracy (according to IEC 60770) characteristics option application	0 6 bar to 0 600 bar 0.5 % FSO suitable for oxygen application, resistant against pressure peaks IS-version	high overpressure capability	
thinfilm sensor, we	elded	plant and mechanical engineering	DMP 334
nominal pressure accurcay (according to IEC 60770) option application	0 600 bar to 0 2200 bar 0.35 % FSO IS-version, compact field housing, adjustability of span and offset	high pressure	E Dus Ex



ceramic sensor		universal applications	DMK 331
nominal pressure accuracy (according to IEC 60770)	0 400 mbar to 0 600 bar 0.5 % FSO	B	
option	IS-version, compact field housing, pressure port PVDF, oxygen application, pressure port G 1/2" flush	aggressive media	₩us IIC III SIL &
ceramic sensor		laboratory techniques, biogas plants	DMK 351
nominal pressure accuracy (according to IEC 60770)	0 40 mbar to 0 20 bar 0.25 / 0.35 % FSO	Contraction of the second	
option	IS-version, compact field housing, diaphragm 99.9 % Al ₂ O ₃	high overpressure capability	c UL us (Ex)



ceramic sensor / s	tainless steel sensor	marine / shipbuilding / offshore	DMK 457	DMP 457
nominal pressure	0 400 mbar to 0 600 bar (D 0 100 mbar to 0 600 bar (D			
accuracy (according to IEC 60770)	0.5 % FSO (DMK 457) 0.25 / 0.35 % FSO (DMP 457)		P	K
option	IS-version, compact field housing, submersible version			
application	submersible version		EABS	

ceramic sensor		marine / shipbuilding / offshore	DMK 456
nominal pressure accuracy (according to IEC 60770)	0 40 mbar to 0 20 bar 0.1 / 0.25 % FSO		
special feature	IS-version (temperature class T6), stainless steel field housing		j
option	diaphragm 99.9 % Al ₂ O ₃ , thread or flange version		
application		robust housing	🔮 ABS 🐼



INDUSTRY

stainless steel		hygienic applications DMP 331 P
nominal pressure accuracy	0 100 mbar to 0 40 bar 0.25 / 0.35 % FSO	2
(according to IEC 60770)		
process connection	G½", G¾", G1" flush, dairy pipe, clamp, varivent®	A A A A A A A A A A A A A A A A A A A
option	IS-version, compact field housing, FDA conforming filling fluid, cooling element up to 300 °C	
application		
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	IEC. TÊCEX

application



15

⁶ PRESSURE TRANSMITTER

0EM



18.600 G

c(UL)us

plant and mechanical engineering

stainless steel sensor without media isolation

application	*	pneumatics
pressure port	G ¼", ¼" NPT, G ½"	
	10 90 % of V _s / 3-wire rat.	Au
	0 10 V / 3-wire	
output signal	4 20 mA / 2-wire	4
(according to IEC 60770)		
accuracy	0.5 % FSO	
nominal pressure	0 100 mbar to 0 6 bar	



OEM



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.



DIGITAL

stainless steel sens	sor	plant and mechanical engineering DPT 100
differential pressure accuracy (according to IEC 60770)	0 10 mbar to 0 20 bar 0.1 % FSO	
characteristics	fast response time, aluminium die cast case, zero adjustment via switch	
process connection option application	internal thread 1/4" - 18 NPT several process connections	RS485 Modbus RTU

PRECISION

stainless steel sen	sor	oil and gas industry	DPT 200
differential pressure			
accuracy (according to IEC 60770)	0,075 % FSO		
characteristics	static over pressure 400 bar, rangeability max. 100:1,		
	aluminium die cast case, HART®-communication	2 2	
option	IS-version, LC display, stainless steel housing	HART®	(Ex) IEC IEex
application			

DIFFERENTIAL PRESSURE TRANSMITTER

PRECISION



stainless steel sensor		plant and mechanical engineering	DMD 331
nominal pressure differential pressure accuracy	0 0.2 bar to 0 16 bar 0 20 mbar to 0 16 bar 0.5 % FSO		
(according to IEC 60770) characteristics	compact design, mechanically robust and reliable at dynamic pressure as well as with shock and vibration		
option application	IS-version	fluids + gases	(Ex)



DIFFERENTIAL PRESSURE TRANSMITTER

silicon sensor		plant and mechanical engineering	DMD 341
nominal pressure accuracy (according to IEC 60770)	0 6 mbar to 0 1000 mbar 0.35 / 1 / 2 % FSO	5	
option	display and switching module with up to 2 contacts		
application		gases and compressed air	c 🕕 us

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)	Í		•
accuracy (according to IEC 60770)	1 % FS0 BFSL			
characteristics	adjustable ranges (DPS 300)		R BORNELSE	
option (DPS 300)	contacts automatic zero adjustment, square root extraction		110	5
application		gases and	l compressed ai	ir دروال us

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

stainless steel sens	sor test and calibration equipment / le	eak detection	DM 01	DL 01
nominal pressure accuracy (according to IEC 60770)	0 100 mbar to 0 400 bar 0.05 % FSO BFSL		BO RENBORS	
characteristics	stainless steel housing Ø = 100 mm, data logger function, modular sensor concept		000	/
LC- display	graphic LC-display 128 x 64 pixel with background illumination			
pressure port	inch, NPT threads	modular c	oncept 🖤	
option	IS-version, accredited calibration certificate, service case with accessories, USB-interface			





DIGITAL PRESSURE GAUGE

INDUSTRY

stainless steel ser	nsor / 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)	No la realization	
accuracy (according to IEC 60770)	0.125 % FSO BFSL (BAROLI 02) 0.25 % FSO BFSL (BAROLI 05)	C KARDER -	
LC- display	4.5-digit 7-segment display, 6-digit 14-segment additional display		
process connection	inch, NPT threads		
application			
		housing rotatable	cUUus
			CUUS
stainless steel ser	nsor / ceramic sensor	BAROLI 02 P	BAROLI 05 P
stainless steel ser	nsor / ceramic sensor 0 100 mbar to 0 40 bar (BAROLI 02 P) 0 60 bar to 0 400 bar (BAROLI 05 P)		BAROLI 05 P
	0 100 mbar to 0 40 bar (BAROLI 02 P)		BAROLI 05 P

process connection application



G $^{1\!\!/}_{\!\!2}$ " flush, G 1 " flush, dairy pipe, clamp

c UL us

OEM

ceramic sensor / s	stainless steel sensor	plant and mechanical engineering	DM 10	DM 17
nominal pressure	0 1.6 bar to 0 250 bar (DM 0 6 bar to 0 600 bar (DM 1			
accuracy (according to IEC 60770)	0.5 % FSO BFSL)
characteristic	adjustable housing		BENDO	
LC-display	4,5-digit 7-segment display		2	
pressure port	G 1/2" EN 837, G 1/4" EN 837,	1/4" NPT		
function	min-/max-function with reset	-function		
application				



LEVEL

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APPLICATIONS

>	ground water monitoring
>	depth and level measurement in wells
>	drinking water systems
>	level monitoring in open and closed tanks
>	storm water systemes
>	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, HART[®]-protocol or Modbus.



DIGITAL

stainless steel sensor Fuel / Oil **DCL 531** 0 ... 1 mH,0 to 0 ... 250 mH,0 level housing material stainless steel 1.4404 (316 L) accuracy 0.25 / 0.35 % FSO (accuracy to IEC 60770) RS485 with Modbus RTU special feature option cable protection via corrugated pipe, ø 26,5 mm different kinds of cables, stainless steel probe different kinds of seal materials, with RS485 Modbus RTU drinking water certificate acc. to DVGW and KTW recommended for



HYDROSTATIC LEVEL PROBE

DIGITAL

ceramic sensor		Fuel / Oil	DCL 571
level	0 1 mH ₂ 0 to 0 100 mH ₂ 0		1
housing material	stainless steel 1.4404 (316 L)		
accuracy	0.25 / 0.35 % FSO	Bengone	-
(accuracy to IEC 60770)		100 M	
special feature	RS485 with Modbus RTU	() a	
option	drinking water certificate acc. to DVGW and KTW		
recommended for	$\bigcirc \bigcirc \bigcirc \bigcirc$	stainless steel probe with RS485 Modbus RTU	Bucon inter

PRECISION

ceramic sensor		environmental industry	LMK 358 H
level housing material accuracy (accuracy to IEC 60770)	0 60 cmH ₂ 0 to 0 100 mH ₂ 0 stainless steel 1.4404 (316 L) 0.1 / 0.2 % FSO		
special feature option	HART [®] communication IS-version, cable protection via corrugated pipe, diaphragm 99.9 % Al ₂ 0 ₃	detachable stainless	ø 39,5 mm
recommended for	$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$	steel probe	HART® 🐼

ceramic sensor		chemical industry, environmental industry	LMK 382 H
level housing material accuracy (according to IEC 60770)	0 60 cmH ₂ 0 to 0 200 mH ₂ 0 stainless steel 1.4404 (316 L) 0.1 / 0.2 % FSO		
special feature option recommended for	HART [°] communicaton IS-version, flange version, diaphragm 99.9 % Al ₂ O ₃	stainless steel probe	ø 39.5 mm HART® 🐼

²⁶ HYDROSTATIC LEVEL PROBES

PRECISION

ceramic sensor		marine / shipbuilding / offshore LMK 458 H
level housing matieral accuracy (according to IEC 60770)	0 60 cmH ₂ 0 to 0 200 mH ₂ 0 stainless steel 1.4404 (316 L), CuNiFe 0.1 / 0.2 % FSO	
special feature option	HART [®] communication	ø 39.5 mm
recommended for	diaphragm 99.9 % Al ₂ O ₃ , screw-in or flange version	ABS HART®
stainless steel sen	sor	Fuel / Oil LMP 307 i
level housing matieral accuracy (according to IEC 60770)	0 4 mH ₂ 0 to 0 200 mH ₂ 0 stainless steel 1.4404 (316 L) 0.1 % FS0	12
characteristic	excellent long term stability	a and a state
option recommended for	IS-protection, cable protection via corrugated pipe, drinking water certificate acc. to DVGW and KTW	ø 26.5 mm stainless steel probe



HYDROSTATIC LEVEL PROBE

STANDARD

stainless steel sen	sor	energy industry, environmental industry	LMP 305
level housing material accuracy	0 1 mH ₂ 0 to 0 250 mH ₂ 0 stainless steel 1.4404 (316 L) 0.25 / 0.35 % FS0		
(according to IEC 60770)	suitable for level measurement in 1" pipe	s	
recommended for			ø 19 mm
		slimline probe	

stainless steel sen	SOF energy industry, envirome	ntal industry	LMP 307 LMP 307 T
level temperature housing material	0 1 mH ₂ 0 to 0 250 mH ₂ 0 0 30 °C to 0 70 °C (LMP 307 T) stainless steel 1.4404 (316 L) 0.1 / 0.25 / 0.35 % FS0 (LMP 307)		
accuracy (according to IEC 60770) special feature (LMP 307T)	0.17 0.25 / 0.35 % FSO (LMP 307) 0.25 / 0.35 / 0.5 % FSO (LMP 307 T) 1° C (LMP 307 T) two galvanic seperated signal circuit for pressure and temperature	stainless	ø 27 mm
option (LMP 307)	IS-version, cable protection via corrugated pipe, drinking water certificate acc. to DVGW and KTW	steel probe	
recommended for			

stainless steel sensor

energy industry, enviromental industry

LMP 308

LMP 808

level	0 1 mH ₂ 0 to 0 250 mH ₂ 0 (LMP 308) 0 1 mH ₂ 0 to 0 100 mH ₂ 0 (LMP 808)	XXX
housing material	stainless steel 1.4404 (316 L)	
accuracy (according to IEC 60770)	0.1 / 0.25 / 0.35 % FSO (LMP 308) 0.25 / 0.35 % FSO (LMP 808)	
option	IS-version (LMP 308), cable protection via corrugated pipe (LMP 308), cable protection via pipe (LMP 808)	ø 35 mm
special feature	cable part and sensor head detachable	detachable probe SIL 腔 🎬 🐼
recommended for	\frown	



⁸ HYDROSTATIC LEVEL PROBES

STANDARD

ceramic sensor		energy industry, environmental industry	LMK 306
level housing material accuracy (according to IEC 60770) special feature recommended for	0 6 mH ₂ 0 to 0 200 mH ₂ 0 stainless steel 1.4404 (316 L) 0.5 % FS0 for level measurement in ¾" pipes	stainless steel probe	ø 17 mm
ceramic sensor	energy industry, 0 4 mH ₂ 0 to 0 250 mH ₂ 0	environmental industry LMK 307	LMK 307 T
temperature housing material accuracy (according to IEC 60770)	0 30 °C to 0 70 °C (LMK 307 T) stainless steel 1.4404 (316 L) 0.5 % FSO 1°C (LMK 307 T)		
special feature (LMK 307T) option recommended for	two galvanic seperated signal circuit for pr and temperature IS-version	stainless steel	ø 27 mm
ceramic sensor		energy industry, enviromental industry	LMK 358

0 ... 40 cm H₂0 to 0 ... 100 mH₂0 level housing material stainless steel 1.4404 (316 L) 0.25 / 0.35 % FSO accuracy (according to IEC 60770) special feature cable protection via corrugated pipe, cable part and sensor head detachable ø 39.5 mm option IS-version, detachable stainless diaphragm 99.9 % Al₂O₃ (Ex steel probe recommended for

HYDROSTATIC LEVEL PROBE

STANDARD

ceramic sensor		energy industry, environmental industry	LMK 382
level housing material accuracy	0 40 cmH ₂ 0 to 0 200 mH ₂ 0 stainless steel 1.4404 (316 L) 0.25 / 0.35 % FS0		
(according toi IEC 60770)	IS-version,		om
	flange version, diaphragm 99.9 % Al ₂ 0 ₃ , mounting with stainless steel pipe		ø 39.5 mm
recommended for	$\bigcirc \bigcirc $	stainless steel probe	(Ex)

coromic	concor
ceramic	Sensor
coranne	5011501

level	0 1 mH ₂ 0 to 0 100 mH ₂ 0		
housing material	stainless steel 1.4404 (316 L)		
accuracy	0.25 / 0.35 % FSO		
(according to IEC 60770)		111910	
option	IS-version,	511 3	
	mounting with stainless steel pipe, drinking water certificate acc. to DVGW and KTW	Con	ø 22 mm
recommended for	$\bigcirc \bigcirc \bigcirc \bigcirc$	stainless steel probe	

ceramic	concor
Ceranne	3611301

housing material

special feature

level

option

	marine / shipbuilding / offshore	LMK 458
0 40 cmH ₂ 0 to 0 200 mH ₂ 0		
stainless steel 1.4404 (316 L), CuNiFe		

energy industry, environmental industry

accuracy	0.1 / 0.25 % FSO
(according to IEC 60770)	

permissible temperature up to 125 °C, chemical resistance against seawater and HFO

IS-version, diaphragm 99.9 % Al₂O₃, screw-in and flange version







LMK 387

HYDROSTATIC LEVEL PROBES

STANDARD

ceramic sensor		Shipbuilding / Offshore	LMK 487
level housing material accuracy	0 1 mH ₂ 0 to 0 100 mH ₂ 0 titanium, stainless steel 1.4404 (316 L) 0.25 % FSO		
(according to IEC 60770) special feature	diaphragm ceramics 99.9% Al ₂ O ₃	C	
option recommended for	IS-version, different kinds of elastomer	titanium, stainless steel	ø 22mm
		titanium, stainless steel	

coro	min	concor	
(PLA	1111(sensor	
		5011501	

level	0 6 mH ₂ 0 to 0 200 mH ₂ 0	
housing material	PP-HT	
accuracy	0.5 % FS0	
(according to IEC 60770)		The second second
special feature	suitable for level measurement in 3/4" pipes	
recommended for	$\bigcirc \bigcirc$	ø 21 mm
		plastic probe

chemical and eviromental industry

LMK 806



HYDROSTATIC LEVEL PROBE

STANDARD

ceramic sensor		water / sewage	LMK 808
level housing material accuracy (according to IEC 60770) special feature option recommended for	0 1 mH ₂ 0 to 0 100 mH ₂ 0 PP-HT 0.25 / 0.35 % FS0 diaphragm ceramics 99.9 % Al ₂ O ₃ , cable and sensor section detachable mounting accessories as screw fitting and terminal clamp of stainless steel	detachable plastic probe	ø 35 mm
ceramic sensor		chemical industry, environmental industry	LMK 809

level	0 0.4 mH ₂ 0 to 0 100 mH ₂ 0	
housing material	PP or PVDF	
accuracy	0.25 / 0.35 % FSO	El III
(according to IEC 60770)		Nillia I
special feature	diaphragm 99.9 % Al ₂ 0 ₃ ,	and the second second
	chemical resistance	ø 45 mm
option	prepared for mounting with pipe extension	
recommended for	$\bigcirc \bigcirc$	plastic probe

cerai	mic sensor		chemical industry, environmental industry	LMK 858
lev ho	vel using material	0 0.4 mH ₂ 0 to 0 100 mH ₂ 0 PP-HT		
	curacy cording to IEC 60770)	0.25 / 0.35 % FSO		
spe	ecial feature	cable part and sensor head detachable		
opt	tion	cable protection via pipe, diaphragm 99.9 % Al ₂ 0 ₃		ø 45 mm
rec	commended for		detachable plastic probe	

STANDARD

stainless steel sen	sor	plant and mechanical engineering	LMP 331
nominal pressure level accuracy (according to IEC 60770) pressure port option recommended for	0 100 mbar to 0 40 bar 0 1 mH ₂ 0 to 0 400 mH ₂ 0 0.1 / 0.25 / 0.35 % FSO G 3/4" flush IS-version, compact field housing @ @ @ @ @		
ceramic sensor		plant and mechanical engineering	LMK 331
nominal pressure level accuracy (according to IEC 60770) pressure port	0 400 mbar to 0 60 bar 0 4 mH ₂ 0 to 0 600 mH ₂ 0 0.5 % FSO G ¾" flush		

for pasty and contaminated media IEC. TECEX option IS-version, pressure port PVDF, aggressive media compact field housing reommended for

ceramic sensor

environmental industry, renewable energy

LMK 351

nominal pressure level	0 40 mbar to 0 20 bar 0 0.4 mH ₂ 0 to 0 200 mH ₂ 0		
accuracy (according to IEC 60770)	0.25 / 0.35 % FSO		D.
pressure port	G1 ½" flush		
option	IS-version, pressure port PVDF or stainless steel, diaphragm 99.9 % Al ₂ O ₃ , compact field housing	aggressive media	e Ulus (Ex)
recommended for			

recommended for





SWITCH

PRESSURE SWITCH WITH DISPLAY	34 - 37
PRESSURE SWITCH WITHOUT DISPLAY	38

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 sen	sor / ceramic sensor	universal application	DS 400	DS 401
nominal pressure accuracy (according to IEC 60770)	0 100 mbar to 0 600 bar (DS 400) 0 400 mbar to 0 600 bar (DS 401) 0.25 / 0.35 % FSO (DS 400) 0.5 % FSO (DS 401)			
characteristics	up to 2 contacts, 4-digit LED-display in ball housing, rotatable and configurable display module		I	8000
pressure port option	inch and NPT threads IS-version, pressure port PVDF (DS 401)	robust version	rsion	c U us (Ex)
application				

DS 300 stainless steel sensor plant and mechanical engineering 0 ... 100 mbar to 0 ... 600 bar nominal pressure 0.5 % FSO accuracy (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) 🚷 IO-Link special feature analogue output 4 ... 20 mA / 0 ... 10 V switchable, **IO-link** contacts PNP / NPN switchable pressure port inch and NPT-theads application



PRESSURE SWITCH

with display

stainless steel sen	sor / 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)			t bar
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		U	
option	IS-version			
application				

stainless steel sensor, welded		medical technology, oxygen application	DS 202
nominal pressure accuracy (according to IEC 60770)	0 6 bar to 0 600 bar 0.5 % FSO		
characteristics	up to 4 contacts, 4-digit LED-display, rotatable and configurable display module		
pressure port option	inch and NPT threads IS-version, oxygen version	high over- pressure capability	c 🕕 us (Ex)
application			



PRESSURE SWITCH

with display

thinfilm sensor	plant and machine eng	ineering / mobile hydraulics	DS 214
nominal pressure accuracy (according to IEC 60770)	0 600 bar to 0 2200 bar 0.35 % FSO	bar	
characteristics	up to 4 contacts, indication of measured values on a 4-digit LED display, rotatable and configurable display module		
pressure port	G 1/2" EN 837, M20x1,5		
application	* *	very high and an 	

stainless steel sensor, welded hydraulics, oxygen application **DS 217** nominal pressure 0 ... 6 bar to 0 ... 600 bar accuracy 0.5 % FSO (according to IEC 60770) 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 c(UL)us **OEM**


PRESSURE SWITCH

with display



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, varivent® (DS 200 P)		ونالي الم	
option	cooling element up to 300 °C (DS 201 P)			
application				

stainless steel sensor

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, varivent®		c 🕒 us effec
option	IS-version, cooling element up to 300 °C	hygienic design	3. ()
application			



DS 400 P

hygienic applications

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	A S on genegors and	
characteristics	configurable via PC or programming device	Contraction of the second seco	
application		A R MARINE	
		compact version	





EVALUATION

DISPLAYS	40 - 42
DATA LOGGER	43

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), BD|SENSORS 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

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)



PA 430

PA 440

field display

display	4-digit LCD 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)



DISPLAYS

process display

1		5		6
		- 4	U	U

CIT 250

CIT 300

display	4-digit LED 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)



process display

display	4-digit LED display	
signal input	0/4 20 mA, 0/1 5 V 0/2 10 V	Contraction and All
option	signal input PT100 / PT 500 / PT 1000, up to 2 freely configurable contacts	26.11
dimensions	front panel housing 72 x 36 x 95 mm (W x H x D)	

with contacts

process display

d	lisplay	4-digit LED display
S	ignal input	0/4 20 mA, 0/1 5 V 0/2 10 V
0	pption	signal input PT 100 / PT 500 / PT 1000, 2 or 4 freely configurable contacts, analogue output
d	limensions	front panel housing 96 x 48 x 98 mm (W x H x D)



process display

CIT 350

display	4-digit LED display, multicolour 20 segment bargraph
signal output	0/4 20 mA, 0/1 5 V 0 /2 10 V
option	2 or 4 freely configurable contacts, analogue output
dimensions	front panel housing 48 x 96 x 98 mm (W x H x D)



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 x 72 x 110 mm (W x H x D)
	housing for hat rail and wall mounting 70 x 75 x 110 (W x H x D)

CIT 400

CIT 600



multichannel process display LCD

display	graphic LCD display 128 x 64 pixel, background illuminated
signal input	2 / 4 / 8 channels: 0/4 20 mA
option	signal input PT 100 / PT 500 / PT 1000, 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



DATA LOGGER

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

display	graphic LC display 128 x 64 pixel, background illuminated
signal input	max. 8 channels: 0/4 20 mA 0/1/2 5/10 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)



CIT 700

CIT 650

CIT 750

with data logger and contacts

multichannel process display, TFT

display	graphic TFT-display, CIT 700: 3,5", 320 x 240 pixel, CIT 750: 5,7", 320 x 240 pixel, touchscreen	501 Manual 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
characteristics	3 freely fittable slots, 16 different input / output modules, transducer supply 24 V _{DC} , communication interfaces: RS-485 (Modbus RTU) master / slave, USB-host-port, USB device connection	with contacts and analogue outputs and data logger
option	communication interfaces: 3 x RS-485, 1 x RS-232, 2 x USB-host-port, Ethernet 10 MB, RJ-45 (Modbus TCP, Java Applets)	
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 ch connection of channels via mathematical / logical func- 8 integrated PD / PI / PID controller 	
data logger	- data logging of max. 60 channels - freely selectable measuring rate (max. 10 Hz) - extensive trigger functions - internal memory 1.5 GB	

44 SPECIAL DEVICES



SPECIAL DEVICES

SPECIAL DEVICES

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 accuracy (according to IEC 60770)	0 5000 psi to 0 15000 psi 0.5 % FSO	DRENBORS
electrical connection	MIL/ Bendix connection, cable outlet, Glenair (on request)	And
pressure port	WECO° 2" (1502) WECO° 2" (2002/2202)	
application	A	hammer union



46	NOTES			



▶ heavy industry

- environmental industry
- packaging and paper industry



48 **INDUSTRIFS**



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.

INDUSTRIES





renergy 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

BDSENSORS has the right pressure measuring device at the right price.

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 stockkeeping and increases your profitability.

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.

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.

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



??

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

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."



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