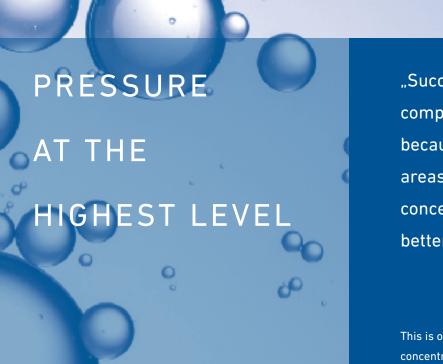
DIGITAL GAUGES

PRODUCT CATALOGUE



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.

This price list contains product specifications; properties are not guaranteed.

Detailed information about options are defined in the datasheet. Subject to change with our notice



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 customerspecific 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.

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PRECISION	4-17
DM01	4-10
DL01	11-17
INDUSTRY	18-30
BAROLI 02	18-20
BAROLI 02 P	21-24
BAROLI 05	25-27
BAROLI 05 P	28-30
OEM	31-36
DM10	31-33
DM17	34-36
4 ADVANTAGES	38

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.



Battery Powered Precision Digital Gauge

Stainless Steel Sensor

class 0.05

Nominal pressure

from 0 ... 100 mbar up to 0 ... 400 bar

Special characteristics

- modular sensor concept
- data logger
- graphic display
- stainless steel housing Ø100 mm
- communication interface USB 2.0

Optional

- accredited calibration certificate according to DKD / DAkkS
- IS-version zone 0/1
- software incl. USB converter
- service case with accessories

Functions

- zero point calibration
- data logger
- turn off automatic
- free button assignment
- background illumination etc.

The digital pressure gauge DM 01 is a precision device fulfilling highest demands. It was conceived especially for the process monitoring and calibration.

The advantage: The DM 01 consists of two devices - the digital display and a pressure transmitter. The pressure transmitter can be selected on site for different measuring ranges and connected to the display - without tools or parameter setting.

Outstanding measuring qualities, an intuitive operation, as well as an innovative, modular sensor concept characterise the DM 01. The battery-powered digital pressure gauge can be used e.g. for controlling pressure courses or calibrating pressure transmitters.

The integrated data logger is able to record pressure and temperature values linearly and cyclically which can be analysed with the software DAQ.

Preferred areas of use are



Calibrating techniques



Laboratory applications



Plant and machine engineering







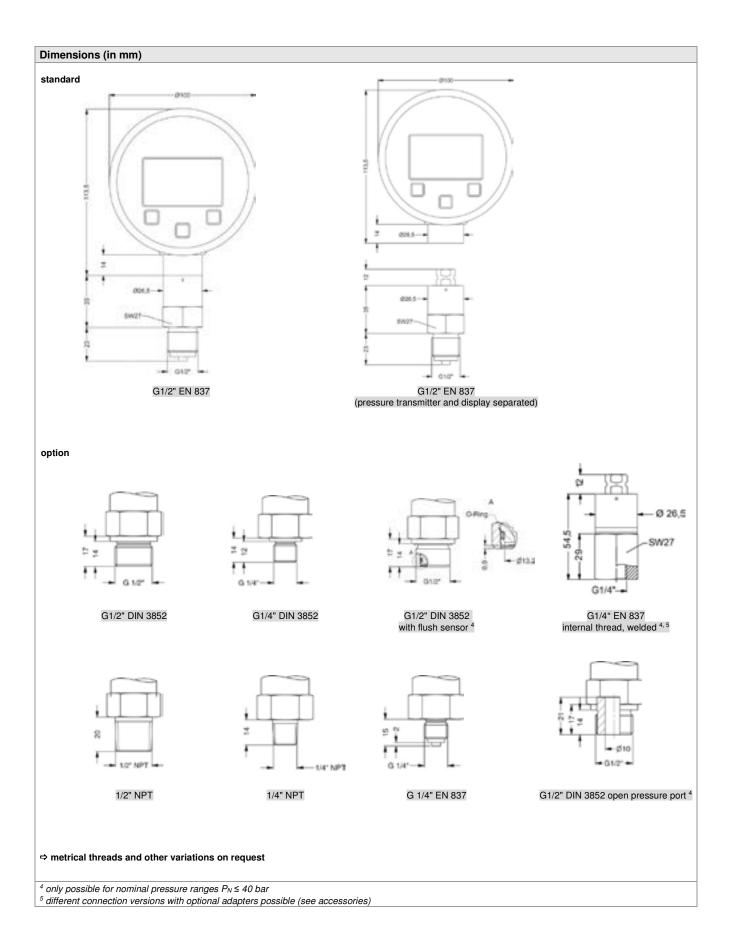




Technical Data

Nominal pressure abs. [b Overpressure [b Burst pressure ≥ [b Nominal pressure gauge / abs. [b Overpressure ≥ [b Burst pressure ≥ [b Wacuum resistance Performance Accuracy ¹ Long term stability Measuring rate / Display	for nominal pressure ranges $P_N \le 160$ bar: tolerance band $\le \pm 0.2$ % FSO for nominal pressure ranges $P_N > 160$ bar: tolerance band $\le \pm 0.75$ % FSO $0 \dots 50$ °C	6 6 6 33: 50 4000 125
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<u> </u>	1 10 55.00	
<u> </u>	medium: -10 55 °C storage: -20 70 °C	
Matariala	environment: display module: -10 55 °C transmitter: -20 70 °C (at 1G to +60 °C)	
viateriais		
Pressure port / housing	stainless steel 1.4404 (316L)	
Display housing	stainless steel 1.4301 (304)	
Seals (media wetted)	FKM, without (welded version) and others on request	
Diaphragm	stainless steel 1.4435 (316L)	
Media wetted parts	pressure port, seal, diaphragm	
Explosion protection	piessure port, sear, diapriragini	
	IDE-J HOATEVALOO V	
AX16-DM01	IBEXU12ATEX1108 X	
	variant with standard front foil for zone 1: II 2G Ex ia IIB T4 Gb	
	variant with conductive front foil for zone 0: II 1G Ex ia IIC T4 Ga (on request)	
Miscellaneous		
Display	graphic LC display: visible area 55 x 46 mm; (resolution 128x64) figure height 5.5 mm (displaying of pressure value)	
	measured value display: max. 7 digits, depending on pressure range	۵
	temperature display, time, 100-segment-bargraph,	-
	potential input value	
	background illumination: illumination period and intensity adjustable	
Temperature display range	accuracy: ± 2 K	
	resolution: 0.1 K	
	display: -10 55 °C	
Adjustable units	[mbar], [bar], [psi], [mmHg], [cmHg], [inHg], [kPa], [MPa], [hPa], [mmH ₂ O], [mH ₂ O], [inH ₂ O], [kg/c	cm²],
oressure and temperature	[°C], [°F], [K]	
Data logger	modes: single, cyclic, linear, off	
	recording pressure values and sensor temperature	
	measuring value interval adjustable (hrs, min, sec, 20 ms, daily at a defined time)	
	measurement rate adjustable (1/s, 2/s or 50/s only with 20 ms measured value interval) max. 600798 values	
Current consumption	without background illumination: approx. 1.3 mA	
Jurient Consumption	with background illumination: approx. 1.3 mA with background illumination: approx. 16 mA (depending on adjusted intensity)	
	standby mode: approx. 1.2 µA	
Supply	3x 1.5 V: Duracell Plus battery, DUR087033, AA (LR6)	
Ingress protection	IP 67	
Mounting position ²	any	
Weight	approx. 680 g	
	16 bit (module)	
A / D-converter resolution	standard use: > 2.000 h standby mode: at least 5 years (with measurement rate 1/s an	nd 2/s
Battery life		iu 2/8
Operational life	100 million load cycles	
CE-conformity	EMC directive: 2014/30/EU pressure equipment directive: 2014/68/EU (Module A) ³	
	pressure equipment directive: 2014/68/EU (Module A) ³ electromagnetic compatibility: according to EN 6132	
2 Duna a suma tuu ""	according to EN 6132 ated in a vertical position with the pressure connection down. If this position is changed on installation there can	

Technical Data



Further pressure sensor modules can be combined to the advertisement unity DM01-A21 and DM01-A2E. an overview of available pressure sensor modules and characteristics you will find in the following matrix:

Pressure sensor module Fillina fluid diaphragm Special feature further infor-Name Pressure range accuracy mation 0.05% FSO MO 0...0.1 bar silicone oil stainless steel see data sheet verv 1.4435 high up to 0...400 bar precision M4 stainless steel 0.25% FSO 0...6 bar none: on request i.a. 1.4542 up to welded version for oxygen; 0...600 bar oil and grease free **M7** ceramic 0.15% FSO 0...0.1 bar none high on request Al₂O₃ 96% overpressure up to 0...10 bar

Accessories

Accessories are not in scope of supply and have to be ordered separately!

Software DAQ (Communication, Configuration, Measurement display, Protocol creation)

Optionally software DAQ and an interface cable can be ordered. The software is also available for download on our homepage.

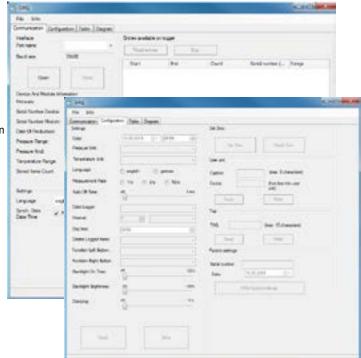
Software:

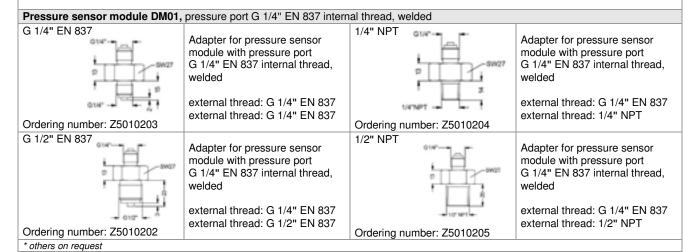
- display of device information (serial number, pressure and temperature range, ...)
- · configuration area for all parameters
- download area for recorded data:
 - date
 - pressure measurement
 - temperature measurement
- protected data acquisition
- measured value representation in tabular or graphic form
- free scaling of the diagram
- creation of measurement / test report as a PDF file
- data export



Interface cable USB (type A) to mini connector (3.5 mm) with integrated converter I: 1.7 m $\,$

Ordering number: ZUSBCD01





Technical Data

Calibration test pump KHP 35 erate pressure and vacuum for checking, adjusti and calibrating mechanical and electronic press. measuring instruments by comparative measur ments. These pressure tests may be carried out laboratories, workshop or on site at the measurit point. pressure: 0 35 bar vacuum: 00.95 bar weight: ca. 510 g dimension: ca. 220 x 105 x 63 mm Adapter for calibration test pump Test unit connection: Adapter to connect the test unit to the calibration test pump. Adapter to connect the test unit to the calibration test pump. Adapter to connect the test unit to the calibration test pump. Adapter to connect the test unit to the calibration test pump. or G 1/2" EN o. DIN (No. 500789 or 1/4" NPT (No. 500789 or 1/2" NPT (No. 500789 or 1/		T.	
Rubber protection Ordering number: Z1002648 Additional batteries (only in combination with service case) Seal set (only in combination with service case) PTFE seal tape (only in combination with service case) PTFE seal tape Nr. 498.505 Wrench (only in combination with service case) Wrench Wrench SW 27 The KHP 35 calibration test pump is used to ge areate pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure measure instruments by comparative measure mensuring instruments by comparative measurements. These pressure tests may be carried out laboratories, workshop or on site at the measuring point. pressure: 00.95 bar weight: ca. 510 g idmension: ca. 220 x 105 x 63 mm Adapter for calibration test pump Test unit connection: Adapter to connect the test unit to the calibration test pump. external thread: G 1/4" EN 837 (0 500789 or 1/4" NPT (No. 500789 or 1/2" NPT (No. 500789 or 1/4"	without accessories		Dimension in mm (L x W x H):
Additional batteries (only in combination with service case) Seal set (only in combination with service case) Flat seal copper for mechanical connections according to EN 837 (only in combination with service case) Flat seal copper for mechanical connections according to EN 837 (only in combination with service case) Wrench SW 27 The KHP 35 calibration test pump is used to get erate pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure measuring instruments by comparative measuring instruments and provided in the calibration test pump. Adapter to connect the test unit to the calibration test pump. Adapter to connect the pressure sensor module DM01 to the calibration test pump. Adapter to connect the desiration test pump. Adapter to connect the digital gauge to the calibration test pump. Adapter to connect the	,		Rubber protection
for IS-version use only 3 x 1.5 V / AA Duracell Power Plus Seal set (only in combination with service case) PTEE seal tape Nr. 498.505 (only in combination with service case) Wrench (only in combination with service case) Wrench SW 27 The KHP 35 calibration test pump is used to ge erate pressure and vacuum for checking, adjusti and calibrating mechanical and electronic pressure measuring instrumes by comparative measur ments. These pressure tests may be carried out laboratories, workshop or on site at the measuri point. pressure: 0 35 bar vacuum: 0095 bar weight: ca. 510 g dimension: ca. 220 x 105 x 63 mm Adapter for calibration test pump external thread: G 1/4" EN 837 to: internal thread: G 1/4" PIN 3852 (No. 500898) or 1/2" NPT (No. 500789 or 1/2" EN 337 to: internal thread: G 1/2" EN 337 to: internal thread: G 1/4" NPT (No. 500789 or 1/4" NPT (No. 500249 or 1/4" NPT (No.			
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Seal tape for mechanical connections materials: PTFE (Teflon) Temperature range: -200 280 °C Wrench (only in combination with service case) Wrench SW 27 The KHP 35 calibration test pump is used to ge erate pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure and vacuum for checking, adjust and calibrating mechanical and electronic pressure assuring instruments by comparative measurements. These pressure tests may be carried out laboratories, workshop or on site at the measuring point. pressure: 0 35 bar vacuum: 00.95 bar vacuum: 10.95 bar vacuum: 20.95 bar va			cording to EN 837
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Calibration test pump KHP 35 Calibration test pump KHP 35 The KHP 35 calibration test pump is used to ge erate pressure and vacuum for checking, adjusti and calibrating mechanical and electronic pressure measuring instruments by comparative measurements. These pressure tests may be carried out laboratories, workshop or on site at the measuring point. Pressure: 0 35 bar vacuum: 00.95 bar weight: ca. 510 g dimension: ca. 220 x 105 x 63 mm Adapter for calibration test pump Adapter to connect the test unit to the calibration test pump. external thread: G 1/4" EN 837 to: internal thread: G 1/4" EN 837 to: internal thread: G 1/4" PIN 3852 (No. 500890 or 1/4" NPT (No. 500789 or 1/2" EN 837 to: Adapter to connect the test unit connection: Adapter to connect the digital gauge to the calibration test pump. external thread: G 1/4" DIN 3852 (No. 501249 or G 1/2" EN 837 to: internal thread: G 1/4" DIN 3852 (No. 501249 or 1/4" NPT (No. 500789 or 1/4	Wrench		
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Adapter to connect the test unit to the calibration test pump. Adapter to connect the test unit to the calibration test pump. Adapter to connect the test unit to the calibration test pump. Adapter to connect the test unit to the calibration test or G 1/4" EN 837 to: internal thread: G 1/4" DIN 3852 (No. 500890: or 1/4" NPT (No. 500789: or 1/2" EN 837 to: internal thread: G 1/2" EN 837 to: internal thread: G 1/2" EN 837 to: internal thread: G 1/2" DIN 3852 (No. 501249: or G 1/2" DIN 3852 (No. 501249: or 1/4" NPT (Cracing number: 1002007		weight: ca. 510 g
Test unit connection: test pump. external thread: G 1/4" EN 837 to: internal thread: G 1/4" DIN 3852 (No. 500890) Adapter to connect the test unit to the calibration test pump. Adapter to connect the pressure sensor module DM01 to the calibration test pump. External thread: G 1/4" NPT (No. 500789) or 1/2" NPT (No. 500789) Others on request Adapter to connect the pressure sensor module DM01 to the calibration test pump. external thread: G 1/2" EN 837 to: internal thread: G 1/4" DIN 3852 (No. 501249) or G 1/2" DIN 3852 (No. 501249) or 1/4" NPT (No. 501249)	Adapter for calibration test pu	ımp	
Adapter to connect the test unit to the calibration test pump. Adapter to connect the test unit to the calibration test pump. Adapter to connect the test or G 1/2" EN o. DIN (No. 500789) or 1/4" NPT (No. 500789) or 1/2" NPT (No. 500789) others on request Adapter to connect the pressure sensor module DM01 to the calibration test pump. external thread: G 1/2" EN 837 to: internal thread: G 1/2" EN 837 to: internal thread: G 1/4" DIN 3852 (No. 501249) or G 1/2" DIN 3852 (No. 501249) or 1/4" NPT (No. 501249)	Test unit connection:		external thread: G 1/4" EN 837
Adapter to connect the pressure sensor module DM01 to the calibration test pump. Reference unit connection: Adapter to connect the digital gauge to the calibration test pump. or G 1/2" EN 837 to: internal thread: G 1/4" DIN 3852 (No. 501249) or G 1/2" DIN 3852 (No. 501251) or 1/4" NPT (No. 501249)	unit to the calibration test		internal thread: G 1/4" DIN 3852 (No. 5008909) or G 1/2" EN o. DIN (No. 5007896) or 1/4" NPT (No. 5007897)
Reference unit connection: Adapter to connect the digital gauge to the calibration test pump. Adapter to connect the digital gauge to the calibration test pump. One of 1/2" EN 837 Internal thread: G 1/4" DIN 3852 (No. 501249) Or G 1/2" DIN 3852 (No. 501251) Or J/4" NPT (No. 501249)			•
Adapter to connect the digital gauge to the calibration test pump. Adapter to connect the digital or G 1/4" DIN 3852 (No. 5012496) or G 1/2" DIN 3852 (No. 5012496) or 1/4" NPT (No. 5012496)	Reference unit connection:		DM01 to the calibration test pump. external thread: G 1/2" EN 837
or 1/2" NP I (No. 501250	Adapter to connect the digital gauge to the calibration test		internal thread: G 1/4" DIN 3852 (No. 5012498) or G 1/2" DIN 3852 (No. 5012519) or 1/4" NPT (No. 5012499)
			or 1/2" NP1 (No. 5012500)

Ordering code DM 01

1. Position: Digital Display for Precision Digital Pressure Gauge DM 01

DM 01-		
Digital Pressure Gauge DM 01		
with communication interface	A 2 1	
IS (zone 1) with communication interface	A 2 E	
IS (zone 0) with communication interface	A 2 G	consult

2. Position: Transmitter for Precision Digital Pressure Gauge DM 01

DM	101	<u> </u>	- 🗆 -	П]-[П]-[]-[]
Pressure	gauge	MOK				-			-	
	absolute 1	M 0 K M 0 L								
Input	[bar]									
	0.10 ¹	1 0 0 0 1 6 0 0								
	0.16 ¹ 0.25 ¹	1 6 0 0 2 5 0 0								
	0.25	4 0 0 0								
	0.40	6 0 0 0								
	1.0	1 0 0 1								
	1.6	1 6 0 1								
	2.5	2 5 0 1 4 0 0 1								
	4.0	4 0 0 1								
	6.0	6 0 0 1								
	10	1 0 0 2 1 6 0 2 2 5 0 2								
	16 25	1 6 0 2 2 5 0 2								
	40	4 0 0 2								
	60	4 0 0 2 6 0 0 2								
	100	4 0 0 2 6 0 0 2 1 0 0 3								
	160	1 6 0 3								
	250	2 5 0 3								
	400	4 0 0 3								
	-1 0 customer	1 0 0 3 1 6 0 3 2 5 0 3 4 0 0 3 X 1 0 2 9 9 9 9								consult
Version	Customer	9 9 9 9							_	Corisuit
	on (without explosion protection)		0						_	
otandara roma	IS-version		E							
Accuracy	[BFSL]									
standard for P _N ≥ 0.4 bar	0.05 % FSO		_	B 1					_	
standard for P _N < 0.4 bar	0.125 % FSO			B						
Standard for 1 N < 0.4 bar	customer			B 2						consult
Mechanical connection	Gastomor			0 0	1					Consult
	G1/2" DIN 3852				1	0)		т	
	G1/2" EN 837				2	0)			
	G1/4" DIN 3852				2 3	0)			
	G1/4" EN 837				4	0)			
	G1/2" DIN 3852				F	0)			consult
01/	with flush sensor ²									
G1//	2" DIN 3852 open pressure port ² 1/2" NPT				H N		0			
	1/4" NPT				N	4)			
G1/4	" EN837 internal thread, welded ^{2, 3}				J	0 :	3			
	customer				9	9	9			consult
Seals										
	FKM						1			
Chasial varaion	customer						9			consult
Special version	standard							0	0 0	
	customer							a	9 9	consult
	odotomol							3	0 0	Consult

 $^{^{1}}$ absolute pressure possible from 0.4 bar 2 only possible for $P_{N} \le 40$ bar

ordering example:

device DM 01: position 1: DM01-A21 position 2: M0K-1001-B1-200-1-000

only display: position 1: DM01-A21 only transmitter: position 2: M0K-1001-B1-200-1-000

³ different connection versions with optional adapters possible (see accessories)

Ordering Code

Accessories DM 01

Accessories	
USB converter (incl. software DAQ on USB stick)	ZUSBCD01
service case (without accessories)	Service_Case_DM01
Protective cap	Z1002648
additional batteries (3 x 1.5 V / AA Duracell Power Plus) 4	1002798
Seal set ⁴	5008886
PTFE seal tape ⁴	1002724
wrench ⁴	1002722
calibration test pump (KHP)	1002637
Adapter for DM 01	
G1/4" EN 837 male - G1/4" EN 837 male	Z5010203
G1/4" EN 837 male - G1/2" EN 837 male	Z5010202
G1/4" EN 837 male - 1/4" NPT male	Z5010204
G1/4" EN 837 male - 1/2" NPT male	Z5010205
Adapter for KHP - test unit connection	
G1/4" EN 837 m - G1/4" DIN3852 fm	5008909
G1/4" EN 837 m - G1/2" EN 837/DIN3852 fm	5007896
G1/4" EN 837 m - 1/4" NPT fm	5007897
G1/4" EN 837 m - 1/2" NPT fm	5007898
Adapter for KHP - reference unit connection	
G1/2" EN 837 m - G1/4" DIN3852 fm	5012498
G1/2" EN 837 m - G1/2" DIN3852 fm	5012519
G1/2" EN 837 m - 1/4" NPT fm	5012499
G1/2" EN 837 m - 1/2" NPT fm	5012500

⁴ only in combination with service case



DL 01

Battery Powered **Precision Digital Gauge** for Leak Testing

Stainless Steel Sensor

class 0.05

Nominal pressure

from 0 ... 100 mbar up to 0 ... 400 bar

Special characteristics

- modular sensor concept
- data logger
- graphic display
- stainless steel housing Ø100 mm
- communication interface USB 2.0

Optional

- accredited calibration certificate according to DKD / DAkkS
- IS-version zone 0/1
- software incl. USB converter
- service case with various accessories

Functions

- data logger interval 1 s ... 99 days or fixed time
- default values for time / test duration
- zero point calibration
- backlight and much more

The digital pressure gauge DL 01 is a precision device fulfilling highest demands. It was conceived especially for leak testing or pipeline monitoring.

In the leakage mode the device shows the pressure decrease during an adjustable time. After finishing of measurement, the result is shown in the display.

Outstanding measuring qualities, an intuitive operation, as well as an integrated data logger characterize the DL 01. In addition, the graphic display provides the handling and the clear presentation of the measuring procedure.

The gathered data and the relevant information (TAG or serial number, etc.) are recorded and can be read out and processed over the integrated interface via USB and PC software.

Preferred areas of use are



Plant and machine engineering

- Pipeline monitoring
- Leak testing



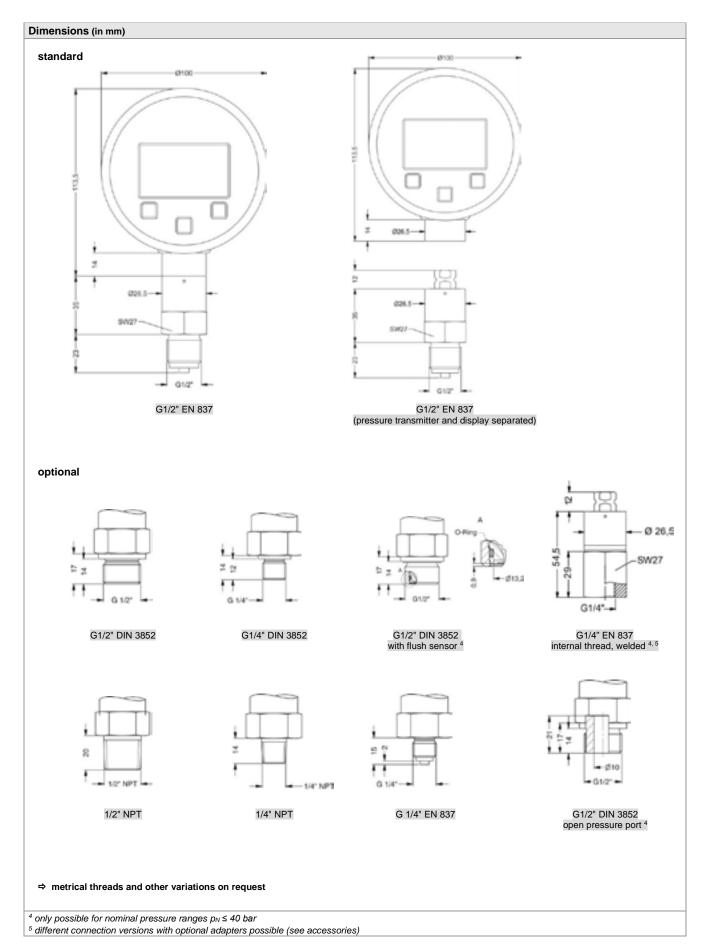






Technical Data

Input pressure Nominal pressure gauge	[bar]	-10	0.10	0.16	0.25	0.40	0.60	1	1.6	2.5	4	6
Nominal pressure abs.	[bar]	-	-	-	-	0.40	0.60	1	1.6	2.5	4	6
Overpressure	[bar]	5	1	1	1			5	10	10	17.5	35
Burst pressure ≥	[bar]	7.5	1.5	1.5	1.5	.5 3 7.5		7.5	15	15	25	50
Nominal pressure gauge / abs.	[bar]	10	16		25	40 60		100	16	60	250	400
Overpressure	[bar]	35	80		80	105	210	600	60	00	1000	1000
Burst pressure ≥	[bar]	50	120		120	210	420	1000	_	00	1250	1250
Vacuum resistance	[Dui]								10		1200	1200
1177												
Performance												
Accuracy ¹		nominal p		•	0.4 bar: 0.4 bar:		% FSO BI					
Long term stability		≤ ± 0.1 %				onditions						
Measuring rate / Display		1 or 2 me										
accuracy according to IEC 60	0770 – r	minimum vai	lue setting	(non-line	arity, hyste	resis, repea	tability) – at	room temp	erature 20	°C		
Thermal effects (offset a	nd spa	ın)										
Temperature error		for nomin	al pressu				rance band rance band					
compensated range		0 50 °C	;									
Permissible temperature	S											
Permissible temperatures		medium: storage: environm	-20) 55 °\) 70 °\ play mo	С	55 °C /	transmitter	: -20 70	O °C (for	1G up to	+60 °C)	
Materials												
Pressure port / housing		stainless	steel 1.44	04 (316	L)							
Display housing		stainless										
Seals (media wetted)		FKM, with			,							
Diaphragm		stainless										
Media wetted parts		pressure										
Explosion protection		pressure	port, sear	, ulapilio	agiii							
AX16-DL01		IBExU12/	ATEV110	o v								
AX10-DL01		variant wi	th standa	rd front			_	x ia IIB T4 x ia IIC T4				
Miscellaneous		variant wi	tir ooriaat	ALIVO ITOI	1011 101 1	20110 0.	11 10 2	KIG IIO I I	Ou			
Display		graphic L	C display		vi	sible area	55 x 46 mn	n: (resolut	ion 128x	64)		
		backgrou	nd illumin		m te po ill	easured value of the contract	t 5.5 mm (d alue display display, tir ut value period and	y: max. 7 o ne, 100-se	digits, de egment-b	pending pargraph,	on pressu	ire rang
Temperature display range	Э	accuracy resolution display:			0,	2 K 1 K 0 55 °C	:					
Adjustable units pressure and temperature				[mmHg]			Pa], [MPa],	[hPa], [mi	mH₂O], [ı	mH₂O], [i	nH₂O], [k﹝	g/cm²],
Data logger		measurin measurei max. 600	pressure g value ir ment rate 798 value	values iterval a adjustal	and sens djustable ble (1/s, 2	2/s or 50/s	sec, 20 ms only with 2				/al)	
Current consumption without background illumination: approx. 1.3 mA with background illumination: approx. 16 mA (depending on adjusted intensity) standby mode: approx. 1.2 µA												
Supply		3x 1.5 V:	Duracell	Plus bat	tery, DUI	R087033, <i>I</i>	AA (LR6)					
ngress protection		IP 67										
Mounting position ²		any										
Weight		approx. 6	80 g									
A / D-converter resolution		16 bit (mo										
Battery life		standard		000 h	st	andby mod	de: at least	5 years (v	with mea	suremen	t rate 1/s	and 2/s
Operational life		100 millio				, -		, (
CE-conformity		EMC dire			20	014/30/EU						
•		pressure electroma	equipmer		ve: 20	014/68/EU	(Module A EN 61326					
Pressure transmitters are cal be slight deviations in the zer This directive is only valid for	ro point	in a vertical for pressure	position wi ranges p _N	th the pre ≤ 1 bar.	essure con	nection dow			nged on in	stallation t	here can	



Accessories are not in scope of supply and have to be ordered separately.

Software BD|LOG lite version (Communication, Configuration)

Optionally the software BD|LOG and an interface cable can be ordered. The software is also available for download on our homepage.

Software (Communication, Configuration):

- display of device information (serial number, pressure and temperature range, ...)
- · configuration area for all parameters
- download area for recorded data:
 - date
 - pressure value
 - temperature value
- actual value

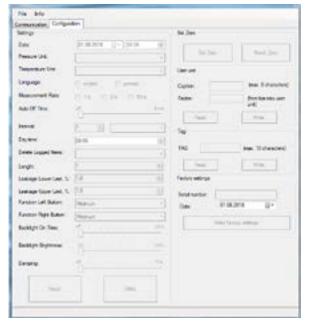




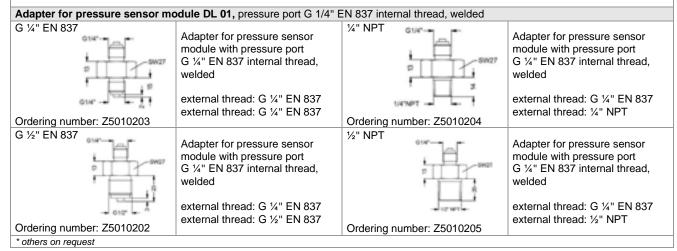
Interface cable with integrated USB converter I: 1.7 m

Ordering number: ZUSBCD02





 \Rightarrow Software BD|LOG full version (communication, configuration, table, diagram) on request



Technical Data

Hard-shell service case without accessories Service_Case_DM01 Protective cap Ordering number: Z1002648 Additional batteries (only in combination with service case) Seal set (only in combination with service case) PTFE seal tape Nr. 498.505 (only in combination with service case) Wrench (only in combination with service case) Calibration test pump KHP 35	DURACELL' RISPONSE	Hard shell case. Dimension in mm (L x W x H): 432 X 363 X 138 Rubber protection for IS-version use only 3 x 1.5 V / AA Duracell Power Plus Flat seal copper for mechanical connections according to EN 837 Seal tape for mechanical connections material: PTFE (Teflon) Temperature range: -200 280 °C Wrench SW 27			
Ordering number: Z1002648 Additional batteries (only in combination with service case) Seal set (only in combination with service case) PTFE seal tape Nr. 498.505 (only in combination with service case) Wrench (only in combination with service case) Calibration test pump	PURACELL' RUS POWER	for IS-version use only 3 x 1.5 V / AA Duracell Power Plus Flat seal copper for mechanical connections according to EN 837 Seal tape for mechanical connections material: PTFE (Teflon) Temperature range: -200 280 °C			
(only in combination with service case) Seal set (only in combination with service case) PTFE seal tape Nr. 498.505 (only in combination with service case) Wrench (only in combination with service case) Calibration test pump	+ PURACELL' PURITONIA	3 x 1.5 V / AA Duracell Power Plus Flat seal copper for mechanical connections according to EN 837 Seal tape for mechanical connections material: PTFE (Teflon) Temperature range: -200 280 °C			
service case) Seal set (only in combination with service case) PTFE seal tape Nr. 498.505 (only in combination with service case) Wrench (only in combination with service case) Calibration test pump	+ PLUS POWER	3 x 1.5 V / AA Duracell Power Plus Flat seal copper for mechanical connections according to EN 837 Seal tape for mechanical connections material: PTFE (Teflon) Temperature range: -200 280 °C			
(only in combination with service case) PTFE seal tape Nr. 498.505 (only in combination with service case) Wrench (only in combination with service case)		cording to EN 837 Seal tape for mechanical connections material: PTFE (Teflon) Temperature range: -200 280 °C			
Service case) PTFE seal tape Nr. 498.505 (only in combination with service case) Wrench (only in combination with service case) Calibration test pump		cording to EN 837 Seal tape for mechanical connections material: PTFE (Teflon) Temperature range: -200 280 °C			
Nr. 498.505 (only in combination with service case) Wrench (only in combination with service case) Calibration test pump		material: PTFE (Teflon) Temperature range: -200 280 °C			
Wrench (only in combination with service case) Calibration test pump		Temperature range: -200 280 °C			
(only in combination with service case) Calibration test pump		Wrench SW 27			
Service case) Calibration test pump	7	Wrench SW 27			
Ordering number: 1002637	KHP 35				
Adapter for calibration test pump		dimension: ca. 220 x 105 x 63 mm			
Test unit connection:		Adapter to connect the test unit to the calibration test pump. external thread: G ¼" EN 837 to:			
Adapter to connect the test unit to the calibration test pump.		internal thread: G ¼" DIN 3852 (No. 5008909) or G ½" EN o. DIN (No. 5007896) or ¼" NPT (No. 5007897) or ½" NPT (No. 5007898)			
		others on request			
Reference unit connection:		Adapter to connect the pressure sensor module to the calibration test pump. external thread: G ½" EN 837 to:			
Adapter to connect the digital gauge to the calibration test pump		internal thread: G ¼" DIN 3852 (No. 5012498) or G ½" DIN 3852 (No. 5012519) or ¼" NPT (No. 5012499) or ½" NPT (No. 5012500)			
		` '			

Ordering code DL 01

1. Position: Digital Display for Precision Digital Pressure Gauge DL 01

DL 01-		
Digital pressure gauge DL 01		
with communication interface	A 2 1	
IS (zone 1) with communication interface	A 2 E	
IS (zone 0) with communication interface	A 2 G	consult

2. Position: Transmitter for Precision Digital Pressure Gauge DL 01

DL 01]-[П		-	- []-[]-[
Pressure																		
gauge		М	0 F		т		_	_		т		т		_				
absolute	1	М	0 F)														
Input [bar]	1																	
0.10	1				1 0	0 0 0 0	0											
0.16 0.25	1				1 6	0	0											
0.25					2 5 4 0	0	0											
0.40					6 0	0	0											
1.0					1 0	0	1											
1.6					1 6	0	1											
2.5					2 5	0	1											
4.0					4 0	0	1											
6.0					6 0	0	1											
10					1 0	0	2											
16					1 6	0 0 0	2											
25 40					2 5 4 0	0	2											
60					6 0	0	2											
100					1 0	0	3											
160					1 6	0	3											
250					2 5	0	3											
400					4 0	0	3											
-1 0					1 0 1 6 2 5 4 0 X 1 9 9	0	2											
customer		_	_	_	9 9	9	9	_		_	_	_		_				consult
Version		-	-	-	-	-	-			-				-				
standard version (without explosion protection)								0										
IS-version						_	_	Е										
Accuracy [BFSL]						-	-											
standard for $p_N \ge 0.4$ bar 0.05 % FSO										B 1								
standard for $p_N < 0.4$ bar 0.125 % FSO									- 1	B 2 9 9								
customer					_	_	_			9 9								consult
Mechanical connection G1/2" DIN 3852																		
G1/2 DIN 3652 G1/2" EN 837											1							
G1/2 EIN 337 G1/4" DIN 3852											3	3 0	0					
G1/4" EN 837											2	0	0					
G1/2" DIN 3852											F							
with flush sensor											,	- 0	U					consult
G1/2" DIN 3852 open pressure port	2										H	1 0	0					
1/2" NPT											١		0					
1/4" NPT	2. 3										١	1 4	0					
G 1/4" EN837 internal thread, weldec customer												0 9	3					consult
Seals											ì	פוי	פן					Consult
FKM														1				
customer														9				consult
Special version																		
standard															0	0	0 9	
customer															9	9	9	consult

ordering example:

device DL 01: position 1: DL01-A21 position 2: M0P-1001-B1-200-1-000 only display: position 1: DL01-A21 only transmitter: position 2: MOP-1001-B1-200-1-000

 $^{^1}$ absolute pressure possible from 0.4 bar 2 only possible for $\rho_N \le 40$ bar 3 different connection versions with optional adapters possible (see accessories)

Accessories DL 01

Accessories	
USB converter (incl. software BD LOG)	ZUSBCD02
service case (without accessories)	Service_Case_DM01
Protective cap	Z1002648
Additional batteries (3 x 1,5 V / AA Duracell Power Plus) ⁴	1002798
Seal set ⁴	5008886
PTFE seal tape ⁴	1002724
wrench ⁴	1002722
Calibration test pump (KHP)	1002637
Adapter for DL 01	
G1/4" EN 837 male - G1/4" EN 837 male	Z5010203
G1/4" EN 837 male - G1/2" EN 837 male	Z5010202
G1/4" EN 837 male - 1/4" NPT male	Z5010204
G1/4" EN 837 male - 1/2" NPT male	Z5010205
Adapter for KHP - test unit connection	
G1/4" EN 837 m - G1/4" DIN3852 fm	5008909
G1/4" EN 837 m - G1/2" EN 837/DIN3852 fm	5007896
G1/4" EN 837 m - 1/4" NPT fm	5007897
G1/4" EN 837 m - 1/2" NPT fm	5007898
Adapter for KHP - reference unit connection	
G1/2" EN 837 m - G1/4" DIN3852 fm	5012498
G1/2" EN 837 m - G1/2" DIN3852 fm	5012519
G1/2" EN 837 m - 1/4" NPT fm	5012499
G1/2" EN 837 m - 1/2" NPT fm	5012500

⁴ only in combination with service case



Battery Powered Digital Pressure Gauge

Stainless Steel Sensor

class 0.1

Nominal pressure

from 0 ... 100 mbar up to 0 ... 600 bar

Special characteristics

- rotatable housing
- 2-line LC display
 4.5-digit 7-segment display
 6-digit 14-segment additional display

Functions

- min / max function with reset function
- offset and end point calibration
- setting the pressure unit (bar, mbar, psi, InHg, cmHg, mmHg, hPa, kPa, MPa, mH₂O, InH₂O)
- switch-off automatic

The battery-powered digital pressure gauge BAROLI 02 enables a local displaying of values, satisfying the highest demands for accuracy and long-term stability. The pressure gauge may be applied in all media compatible with the stainless steel used; it shows an excellent robustness and a high overpressure protection.

The BAROLI 02 display housing is rotatable, thus ensuring an easy reading even under unfavourable mounting conditions.

Additional functions:

changing the unit, displaying min / max values, calibrating of offset and the span, configuring the automatic switching-off

Preferred areas of use are



Plant and machine engineering Pneumatics / hydraulics Measurement technology Calibration and test purposes



Laboratory techniques



Environmental engineering (water – sewage – recycling)







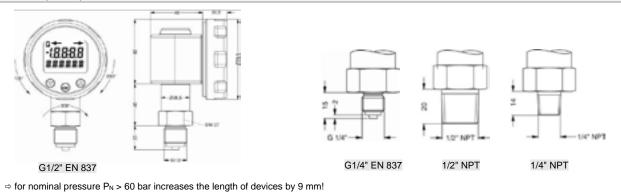
Technical Data

Input pressure ranges													
Nominal pressure gauge	[bar]	0.10	0.16	0.25	0.40	0.60	1	1.6	2.5	4	6		
Nominal pressure abs.	[bar]	-	-	-	0.40	0.60	1	1.6	2.5	4	6		
Overpressure	[bar]	0.5	1	1	2	5	5	10	10	20	40		
Burst pressure	[bar]	1.5	1.5	1.5	3	7.5	7.5	15	15	25	50		
Nominal pressure gauge / abs.	[bar]	10	16	25	40	60	100	160	250	400	600		
Overpressure	[bar]	40	80	80	105	105	210	600	1050	1050	1250		
Burst pressure	[bar]	50	120	120	210	210	420	1000	1250	1250	1250		
Vacuum pressure		-1 0 b	I 0 bar, overpressure: 5 bar, burst pressure: 7.5 bar other vacuum ranges on request										
Vacuum resistance		P _N ≥ 1 ba	ar: unlimite	d vacuum	resistance	; P _N < 1 ba	ar: on requ	uest					

Performance			
Accuracy 1	nominal pressure ≥ 0.4 bar: ≤ ± 0 nominal pressure < 0.4 bar: ≤ ± 0		
Measuring rate	5/sec		
Long term stability	≤ ± 0.1 % FSO / year at reference	e conditions	
¹ accuracy according to IEC 60770	- minimum value setting (non-linearity, h	ysteresis, repeatability)	
Thermal effects (Offset and S	pan)		
Nominal pressure P _N [bar	-1 0	≤ 0.40	> 0.40
Tolerance band [% FS	≤ ± 0.75	≤ ± 1	≤ ± 0.75
in compensated range [°C	-20 85 °C	0 70 °C	-20 85 °C
Permissible temperatures			
Permissible temperatures	medium: -20 85 °C	environment: -20 70 °C	storage: -30 80 °C
Mechanical stability			
Vibration	5 g RMS (25 2000 Hz)	according to DIN EN 60068-2-6	
Shock	100 g / 1 msec	according to DIN EN 60068-2-2	27
Materials			
Pressure port / Housing	stainless steel 1.4404 (316 L)		
Display housing	PA 6.6, polycarbonate		
Seals (media wetted)	FKM		
Diaphragm	stainless steel 1.4435 (316 L)		
Media wetted parts	pressure port, seals, diaphragm		
Miscellaneous			
Display		mm; 4.5-digit 7-segment-display, d ment additional display, digit height	
Electromagnetic compatibility	emission and immunity according	g to EN 61326	
Supply	3.6 V Lithium battery; 2 pieces (ty	ype 1/2 AA)	
Data storage	EEPROM (non-volatile)		
Ingress protection	IP 65		
Installation position	any ²		
Weight	approx. 300 g		
AD-converter solution	14 Bit		
Operational life of battery	standby mode: approx. 5 years		
Mech. operational life	100 million load cycles		
CE-conformity	EMC Directive: 2014/30/EU	Pressure Equipment D	irective: 2014/68/EU (Modul A) 3

² The digital pressure gauge is calibrated in a vertical position with the pressure connection down. If this position is changed on installation there can be slight deviations in the zero point for devices with stainless steel sensor and pressure range P_N ≤ 1 bar.
³ This directive is only valid for devices with maximum permissible overpressure > 200 bar.

Dimensions (in mm)



Ordering Code

				Or	de	rir	ng	CO	de) E	BARC	LI	02	2									
BAROLI 02	2			-	Π	T	٦-	0 -	П		- 0 K 0	1-┌			-	 -	1-Г	1-Г]-[1	
		_						_															
Pressure	gauge	М	0 F	-			-						Н								-		
	absolute 1	M	0 E 0 F																				
Input	[bar]																						
	0.10			1	0	0 0)																
	0.16			1	6	0 0)																
	0.25 1			2 4	5	0 0)																
	0.40			4	0	0 0)																
	0.60			6	0	0 0																	
	1.0			1	0	0 1																	
	1.6 2.5			2	5) 1) 1																	
	4.0			4	0	0 1																	
	6.0			6	0) i) 1																	
	10			1	0	0 2	,																
	16			1	6) 2	,																
	25			2	5) 2																	
	40			4	0) 2	5																
	60			6	0) 2	2																
	100			1	0	3	3																
	160			1	6	3	3																
	250			2	6 5	3 3	3																
	400			4	0	3 3	3																
	600			6	0	3 3	3																
	-1 0			X	1	0 2	2																
	customer			9	9	9 9)																consult
Accuracy	[BFSL]																						
standard for $P_N \ge 0.4$ bar	0.125 %								В	2													
standard for P _N < 0.4 bar	0.25 %								В	5 9													
	customer	_		_	_	_	_		9	9									_	-	_		
Mechanical connection	/O" EN 027																				-		
	/2" EN 837 /4" EN 837											2	0	0									
Gi	1/2" NPT											4	0	0									
	1/2" NPT 1/4" NPT											IN	0	0									
	customer											٥	0 0 0 0 1 4 9	a									consult
Seals	Judicinici											9	13	9									Jonioun
	FKM														1								
	customer														9								consult
Pressure port																							
stainless steel 1.4	404 (316L)															1							
	customer															9							consult
Diaphragm																							
stainless steel 1.4																	1						
	customer																9						consult
Front foil	ata a de od																						
	standard																	1					
	neutral																	N					00001:14
Special version	customer																	9					consult
Special version	standard																			0 (0 0		
	customer																			0 0	9 9		consult
	3431311131																			9 3) 3	I	Joniouit

¹ absolute pressure possible from 0.4 bar



BAROLI 02P

Battery Powered Digital Pressure Gauge

Stainless Steel Diaphragm Flush Welded

class 0.1

Nominal pressure

from 0 ... 100 mbar up to 0 ... 40 bar

Special characteristics

- rotatable housing
- 2-line LC display 4.5-digit 7-segment display 6-digit 14-segment additional display
- hygienic process connections

Functions

- min / max function with reset function
- offset and end point calibration
- setting the pressure unit
- configuration of switch-off automatic

The battery-powered digital pressure gauge BAROLI 02P with flush welded stainless steel sensor enables a local displaying of values in applications, where high requirements on hygienic process connections and easy cleaning or sterilization are requested. The filling medium is food compatible oil with FDA approval.

The BAROLI 02P display housing is rotatable, thus ensuring an easy reading even under unfavourable mounting conditions.

Additional functions:

switching the unit, displaying min / max values, calibrating the offset and the end point, configuring the automatic switching-off

Preferred areas of use are



Food industry



Pharmacy





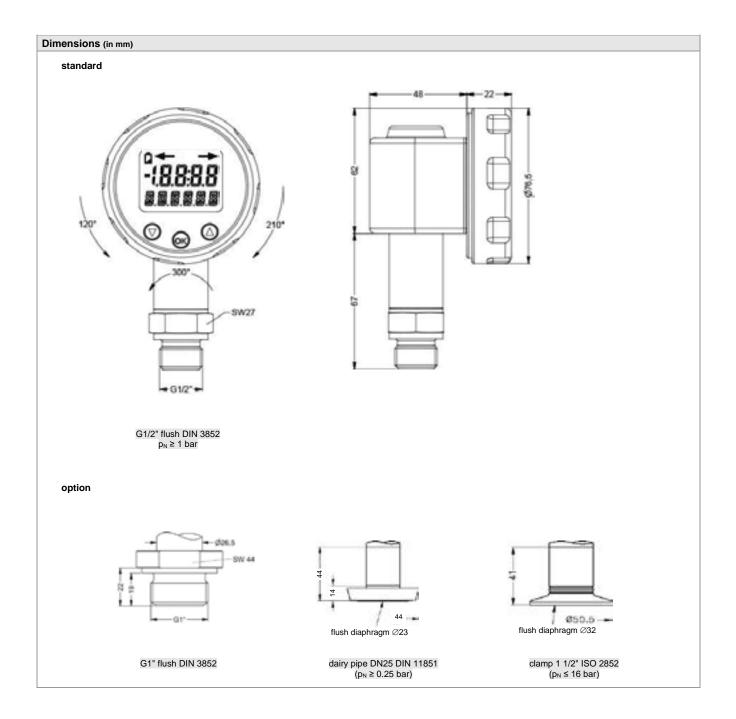




BAROLI 02P

Technical Data

Input pressure ranges 1									
Nominal pressure gauge	[bar]	-1 0	0.10	0.16	0.25	0.40	0.60	1	1.6
Nominal pressure absolute	[bar]	-	-	-	-	0.40	0.60	1	1.6
Overpressure	[bar]	5	0.5	1	1	2	5	5	10
Burst pressure ≥	[bar]	7.5	1.5	1.5	1.5	3	7.5	7.5	15
Nominal pressure									
gauge / absolute	[bar]	2.5	4	6	1	0	16	25	40
Overpressure	[bar]	10	20	40		10	80	80	105
Burst pressure ≥	[bar]	15	25	50	5	50	120	120	210
Vacuum resistance		$p_N \ge 1 \text{ bar: } 0$ $p_N < 1 \text{ bar: } 0$		uum resistan	ce				
¹ consider the pressure resistance of	of fitting	and clamps							
Performance									
Accuracy ²		nominal pre	ssure ≥ 0.4 b	oar: ≤±0.1	25 % BFSL				
, 1000.00)				bar: ≤±0.2					
Measuring rate		5/sec							
² accuracy according to IEC 60770	– minii	mum value set	ting (non-linea	rity, hysteresis,	repeatability)				
Thermal effects (offset and spa	an)								
Nominal pressure p _N	[bar]		-1 0		< (0.40		≥ 0.40	
Tolerance band [%	FSO]		≤ ± 0.75		≤ <u>+</u>	: 1.5		≤ ± 0.7	5
in compensated range	[°C]	C) 70 °C		0	50 °C		0 70 °	,C
Permissible temperatures									
Medium ³			f silicone oil: f food compa		-40 125 °C -10 125 °C				
Environment		-20 70 °C							
Storage		-30 80 °C	,						
³ max temperature of the medium for	or nomi	nal pressure g	auge > 0 bar: '	150 °C for 60 m	ninutes with a r	max. environr	nental tempera	ture of 50 °C	
Mechanical stability									
Vibration			5 2000 Hz	<u>z</u>)			IEC 60068-2		
Shock		100 g / 1 ms	sec		a	ccording to	IEC 60068-2	-27	
Materials / Filling fluids									
Housing			eel 1.4404 (3						
Pressure port			eel 1.4435 (3	316 L)	0	ther on requ	uest		
Display housing		PA 6.6, poly							
Seals (media wetted)		standard: clamp and		FKM none					
Diaphragm		stainless sta	eel 1.4435 (3	316 L)					
Media wetted parts		pressure po	rt, seals, dia	phragm					
Filling fluids		standard: option:		tible oil with F C Cibus 32; c quest			stration no.:	141500)	
Miscellaneous									
EHEDG certificate Type EL Class I		EHEDG cor - Clamp - dairy pipe	(C62):	T-ring-seal	from Combifi	t Internation		This is e.g. fo	r
Display		LC display, 4.5-digit 7-s	visible range egment-disp	e 40 x 30 mm blay, digit heig	; jht 11 mm, ra	ange of indic	•		
Electromagnetic compatibility			-	tional display according to I		7.5 mm			
Supply				pieces (type					
Data storage			non-volatile)	, (.,, po	. =,				
Ingress protection		IP 65	, C.ao)						
Installation position		any (standard:		calibrated in sition for p _N ≤				connection do	wn;
Weight		min. 350 g	pendent on t	the pressure	connection)				
AD-converter solution		14 Bit			,				
Operational life of battery		standby mo	de: approx. 5	5 years					
Mech. operational life		100 million							
CE-conformity		EMV Direct	ve: 2014/30/	ΈU					



	Ordering code BAROLI (02P	
BAROLI 02P	П - П - О - П - О K О		
<i>5,</i> (32, 32,			
Pressure	Mala		
gauge absolute ¹	M 0 G M 0 H		
Input [bar]			
0.10	1 0 0 0		
0.10	1 6 0 0		
0.25 ¹ 0.40	2 5 0 0 4 0 0 0		
0.40	6 0 0 0		
1.0	1 0 0 1		
1.6	1 6 0 1		
2.5	2 5 0 1		
4.0	4 0 0 1		
6.0	6 0 0 1		
10	1 0 0 2 1 6 0 2		
16 25	1 6 0 2 2 5 0 2		
40	4 0 0 2		
-1 0	X 1 0 2		
customer	9 9 9 9	con	sult
Accuracy [BFSL]			
standard for $P_N \ge 0.4$ bar 0.125%	B 2		
standard for P_N < 0.4 bar 0.25 %	B 5		
Customer	9 9	con	sult
Mechanical connection G1/2" DIN 3852 with			
flush diaphragm ²		Z 0 0 0	
G1" DIN 3852 with		7 0 4	
flush diaphragm		Z 3 1	
Clamp 1 1/2" ³		C 6 2	
Dairy pipe DN 25 (DIN 11851) 4		M 7 3 9 9 9 con	
customer		9 9 9 con	sult
Seals for clamp or dairy pipe: without		0	
for clamp or dairy pipe: without FKM		1	
customer			sult
Diaphragm			
Stainless steel 1.4435 (316L)		1	
customer		9 con	sult
Front foil			
standard neutral		1 N	
customer			sult
Filling fluids		5	Jun
Silicone oil		1	
food compatible oil		2	
customer			sult
Special version			
standard		0 0 0	a. de
customer		9 9 9 con	sult

 $^{^1}$ absolute pressure possible from 0.4 bar 2 possible only for $P_N \ge 1$ bar 3 possible only for $P_N \le 16$ bar 4 possible only for $P_N \le 0.25$ bar; cup nut for dairy pipe included and pre-assembled



Battery Powered Digital Pressure Gauge

Ceramic Sensor

class 0.2

Nominal pressure

from 0 ... 400 mbar up to 0 ... 600 bar

Special characteristics

- rotatable housing
- 2-line LC display4.5-digit 7-segment display6-digit 14-segment additional display
- different mechanical connections: inch, NPT threads

Functions

- min / max function with reset function
- offset and end point calibration
- setting the pressure unit (bar, mbar, psi, InHg, cmHg, mmHg, hPa, kPa, MPa, mH₂O, InH₂O)
- switch-off automatic configuration

The battery-powered digital pressure gauge BAROLI 05 has been designed for measuring the pressure (absolute or gauge) of fluids, oils and gases.

The display housing is rotatable, thus ensuring an easy reading even under unfavourable mounting conditions. Additional functions as changing unit, displaying min / max values, calibrating the offset and of span, as well as configuring the automatic switching-off complete the profile.

Preferred areas of use are



Plant and machine engineering Pneumatics / hydraulics



Laboratory techniques



Environmental engineering (water - sewage - recycling)



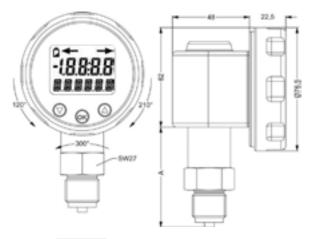
Technical Data

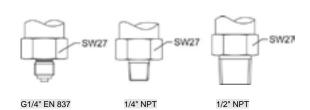
Input pressure range	Input pressure range																	
Nominal pressure gauge	[bar]	0.4	0.6	1	1.6	2.5	4	6	10	16	25	40	60	100	160	250	400	600
Nominal pressure abs.	[bar]	-	0.6	1	1.6	2.5	4	6	10	16	25	40	60	100	160	250	400	600
Overpressure	[bar]	1	2	2	4	4	10	10	20	40	40	100	100	200	400	400	600	800
Burst pressure	[bar]	2	4	4	5	5	12	12	25	50	50	120	120	250	500	500	650	880
Vacuum pressure		-1	0 bar,	overp	ressur	e: 4 ba	ar, bur	st pres	ssure:	7 bar								
Vacuum resistance		P _N ≥	_N ≥ 1 bar: unlimited vacuum resistance															
		P _N <	P _N < 1 bar: on request															

Performance				
Accuracy 1	≤ ± 0.25 % FSO BFSL			
Measuring rate	5/sec			
	– minimum value setting (non-linearit	y, hysteresis, repea	tability)	
Thermal effects (Offset and S	Span)			
Thermal effects	≤ ± 0.2 % FSO / 10 K	in compensat	ed range 0 85 °C	
Permissible temperatures				
Permissible temperatures	medium: -20 85 °C	environment:	-20 70 °C	storage: -30 80 °C
Mechanical stability				
Vibration	5 g RMS (25 2000 Hz)		DIN EN 60068-2-6	
Shock	100 g / 1 msec	according to [DIN EN 60068-2-27	
Materials				
Pressure port / housing	stainless steel 1.4404 (316L)			
Display housing	PA 6.6, Polycarbonate			
Seals (media wetted)	FKM			
Diaphragm	ceramics Al ₂ O ₃ 96 %			
Media wetted parts	pressure port, seals, diaphrag	m		
Miscellaneous				
Display	LC-Display, visible range 40 x 4.5-digit 7-segment main disp 6-digit 14-segment additional	lay, digit height 1	, 0	n ±19999;
Electromagnetic compatibility	emission and immunity accord	ding to EN 61326		
Supply	3.6 V lithium battery; 2 pieces	(1/2 AA)		
Data storage	EEPROM (non-volatile)			
Ingress protection	IP 65			
Installation position	any			
Weight	approx. 300 g			
AD-converter solution	14 Bit			
Operational life of battery	standby mode: approx. 5 year	'S		
Mechanical operational life	100 million load cycles			
CE-conformity	EMC directive: 2014/30/EU		pressure equipment dire	ctive: 2014/68/EU (module A) 2
			1	

 2 This directive is only valid for devices with maximum permissible overpressure > 200 bar.

Dimensions (in mm)

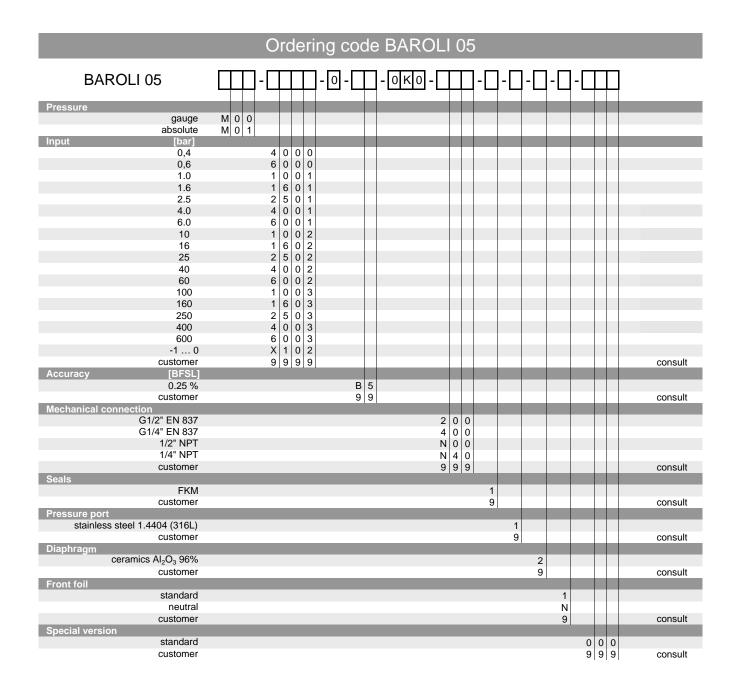




dimensionii	ng value A:
pressure port	mm:
G1/2" EN 837	62.5
G1/4" EN 837	54.5
1/4" NPT	54.5
1/2" NPT	60.5

G1/2" EN 837

Ordering Code





BAROLI 05P

Battery Powered Digital Pressure Gauge

Stainless Steel Diaphragm Flush Welded

class 0.2

Nominal pressure

from 0 ... 60 bar up to 0 ... 400 bar

Product characteristics

- rotatable housing
- 2-line LC display
 4.5-digit 7-segment display
 6-digit 14-segment additional display
- for viscous and pasty media

Functions

- min / max function with reset function
- offset and end point calibration
- setting the pressure unit
- switch-off automatic configuration

The battery-powered digital pressure gauge BAROLI 05P with flush welded stainless steel diaphragm enables a local displaying of values in applications, where high requirements on hygienic process connections and easy cleaning or sterilisability are requested. The filling medium is food compatible oil with FDA approval.

The BAROLI 05P display housing is rotatable, thus ensuring an easy reading even under unfavourable mounting conditions. Additional functions as changing unit, displaying min / max values, calibrating of offset and span, as well as configuring the automatic switching-off complete the profile.

Preferred areas of use are



Plant and machine engineering



Food industry





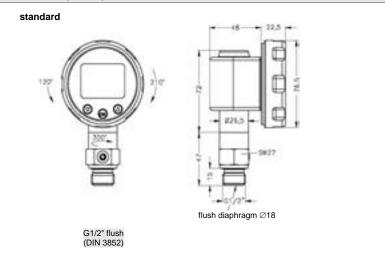


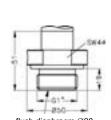
BAROLI 05P

Technical Data

Input pressure range						
Nominal pressure	[bar]	60	100	160	250	400
gauge / abs.	[Dai]	60	100	100	250	400
Overpressure	[bar]	100	200	400	400	600
Burst pressure ≥	[bar]	120	250	500	500	650
Performance						
Accuracy 1		≤ ± 0.25 % FSO BF	SL			
Measuring rate		5/sec				
1 accuracy according to IE	C 60770 – i	minimum value setting (non-linearity, hysteresi	s, repeatability)		
Thermal effects (Offs	et and Spa	an)				
Tolerance band	[% FS]	≤ ± 0.2 % FSO / 10	K			
In compensated range	[°C]	0 70				
Permissible temperatur		medium: -40	125 °C for filling	fluid silicon oil		
'				fluid food compatible	e oil	
			70 °C			
		storage: -30	0 80 °C			
² max temperature of the	medium for	nominal pressure gauge	e > 0 bar: 150 °C for 60	minutes with a max. er	nvironmental temperatu	re of 50 °C
Mechanical stability						
Vibration		5 g RMS (25 200	0 Hz) accord	ling to IEC 60068-2-0	6	
Shock		100 g / 1 msec	accord	ing to IEC 60068-2-2	27	
Materials / Filling fluid	ds					
Housing		stainless steel 1.44	04 (316L)			
Pressure port		stainless steel 1.44	35 (316L)			
Display housing		PA 6.6, Polycarbon	ate			
Seals (media wetted)		FKM				
Diaphragm		stainless steel 1.44	35 (316L)			
Media wetted parts		pressure port, seals				
Filling fluids		standard: silicone				
			npatible oil with FDA		D ' ((' N 444	(500)
				ory Code: H1; NSF	Registration No.: 141	1500)
Missellanseus		otners o	n request			
Miscellaneous		LO Diselse edellels		F		alst 44 mans
Display					nain display, digit hei play, digit height 7.5	
Electromagnetic compa	atibility		nity according to EN		nay, digit neight 7.5	1111111
Supply	alibility	3.6 V lithium battery		01320		
Data storage		EEPROM (non-vola				
Ingress protection		IP 65	iuic)			
Installation position			ating in a vertical no	sition with the press	ure connection down	1)
Weight			ing on pressure port		a.c comiconom down	· <i>1</i>
AD-converter solution		14 bit	gp.0000.0 port	/		
Operational life of batte	erv	standby mode: app	rox. 5 vears			
Mechanical operationa		100 million load cyc				
CE-conformity		EMC directive: 2014		pressure equipm	ent directive: 2014/6	8/EU (module A) 3
³ This directive is only val	id for device	s with maximum permis	sible overpressure > 20	00 bar.		
		•	•			

Dimensions (in mm)

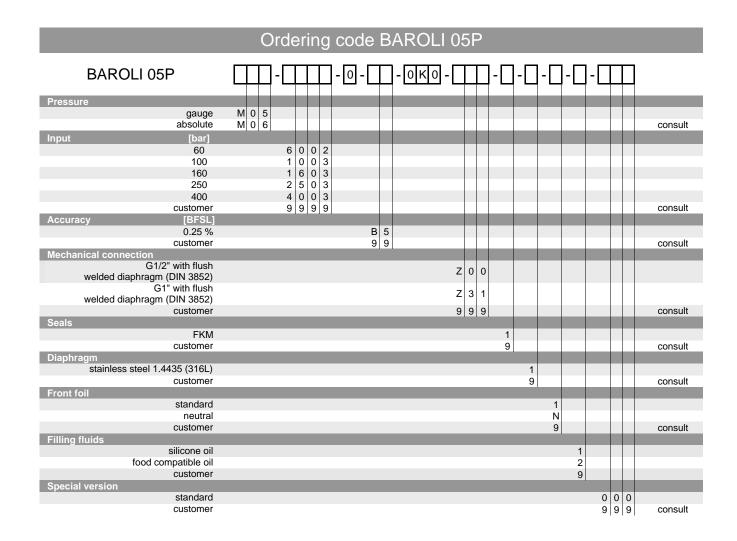




option

flush diaphragm Ø28

G1" flush (DIN 3852) Ordering Code





Battery Powered Digital Pressure Gauge

Ceramic Sensor

class 0.5

Nominal pressure

from 0 ... 1.6 bar up to 0 ... 250 bar

Special characteristics

- rotatable housing and display
- LC display 4.5-digit 7-segment display
- standard battery CR 2450 operation period > 1 500 h

Functions

- min / max function with reset function
- auto-zero
- setting of pressure unit (bar, mbar, psi, MPa, mH₂O)
- configuration of switch-off automatic

The compact low-cost digital pressure gauge DM 10 is battery-powered and has an adjustable housing; it is thus extremely suitable for mobile pressure monitoring. The 4.5-digit LC-display indicates the battery status, the measurement value as well as the unit, this enables a fast and precise reading.

It is possible to switch between the most common units (bar, psi, Pa, MPa). Additional functions as auto-zero, min / max values and an automatic switching-off complete the DM 10 profile.

Preferred areas of use are



Mobile pressure monitoring Plant and machine engineering Pneumatics / hydraulics



Environmental engineering (water - sewage - recycling)









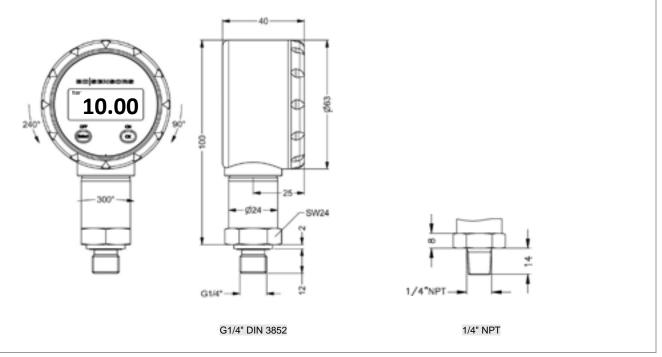
Technical Data

Input Pressure													
Nominal pressure gauge	[bar]	1.6	2.5	4	6	10	16	25	40	60	100	160	250
Overpressure	[bar]	4	4	10	10	20	40	40	100	100	200	400	400
Burst pressure	[bar]	7	7	15	15	35	70	70	150	150	250	450	450
Vacuum resistance		unlimite	ed										

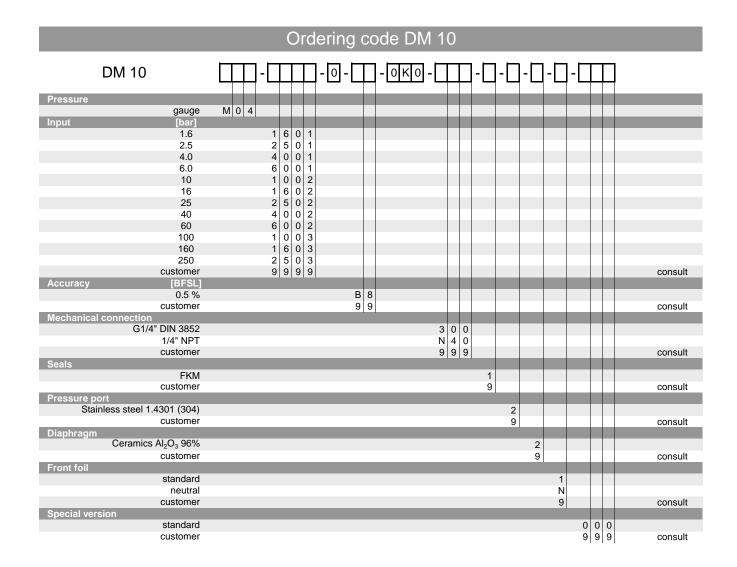
Performance			
Accuracy 1	≤ ± 0.5 % FSO BFSL		
Measuring rate	1/sec		
Long term stability	≤ ± 0.3 % FSO / year		
,	minimum value setting (non-linearity, I	ysteresis, repeatability)	
Thermal effects (Offset and Sp	an)		
Tolerance band	≤ ± 0.5 % FSO / 10 K (typ.)	in compensated range 0 50 °C	
Permissible temperatures			
Permissible temperatures	medium: -25 85 °C	environment: 0 70 °C	storage: 0 70 °C
Materials			
Pressure port / housing	stainless steel 1.4301 (304)		
Display housing	PA 6.6, Polycarbonate		
Seals (media wetted)	FKM	others on request	
Diaphragm	ceramics Al ₂ O ₃ 96 %	·	
Media wetted parts	pressure port, seals, diaphrag	n	
Miscellaneous	'		
Display	LC-Display, visible range 36 x	15 mm;	
	4.5-digit 7-segment-display, di	git size 8.5 mm, range of indication ±19	999
		tomatically by device considering range	e and accuracy
	- customer-setting not possible		
Electromagnetic compatibility	emission and immunity accord	ling to EN 61326	
Supply	3 V lithium battery (CR 2450)		
Data storage	EEPROM (non-volatile)		
Ingress protection	IP 65		
Installation position	any		
Weight	approx. 150 g		
Operational life of battery	min. 1 500 h with permanent of	peration	
Mech. operational life	100 million load cycles	•	
CE-conformity	EMC directive 2014/30/EU	pressure equipment directive:	2014/68/EU (Modul A) ²
² This directive is only valid for device	as with maximum parmissible overpress		(

 2 This directive is only valid for devices with maximum permissible overpressure > 200 bar.

Dimensions (in mm)



Ordering Code





Battery Powered Digital Pressure Gauge

stainless steel sensor, welded

class 0.5

Nominal pressure

from 0 ... 6 bar up to 0 ... 600 bar

Special characteristics

- rotatable housing and display
- LC display 4.5-digit 7-segment display
- standard battery CR 2450 operation period > 1 500 h

Functions

- min / max function with reset function
- auto-zero
- setting of pressure unit (bar, mbar, psi, MPa, mH₂O)
- configuration of automatic switch-off

Option

oil and grease free version for oxygen application

The compact digital pressure gauge DM 17 is characterized by its long-lasting battery supply as well as its adjustable housing. Thus, the DM 17 is ideal for mobile pressure monitoring. An unusual feature of the DM 17 is the welded pressure sensor. An absolute use in oxygen applications is given and strictest requirements on the particle liberty are fulfilled.

The 4.5-digit LC-display indicates the battery status, the measurement value as well as the unit; this enables a fast and precise reading.

Additional functions like setting of pressure unit, auto-zero, min / max values and an automatic switching-off function.

Preferred areas of use are



Mobile pressure monitoring Plant and machine engineering Pneumatics / hydraulics



Oxygen application









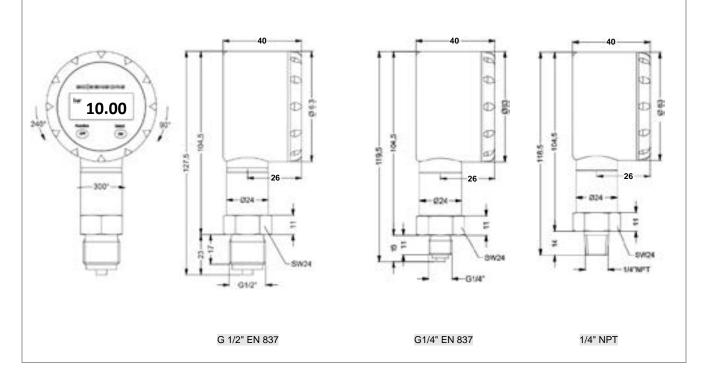
Technical Data

Input Pressure												
Nominal pressure gauge	[bar]	6	10	16	25	40	60	100	160	250	400	600
Overpressure	[bar]	12	20	32	50	80	120	200	320	500	800	1 200
Burst pressure	[bar]	30	50	80	125	200	300	500	800	1 400	2 000	3 000
Vacuum resistance		unlimited	d									

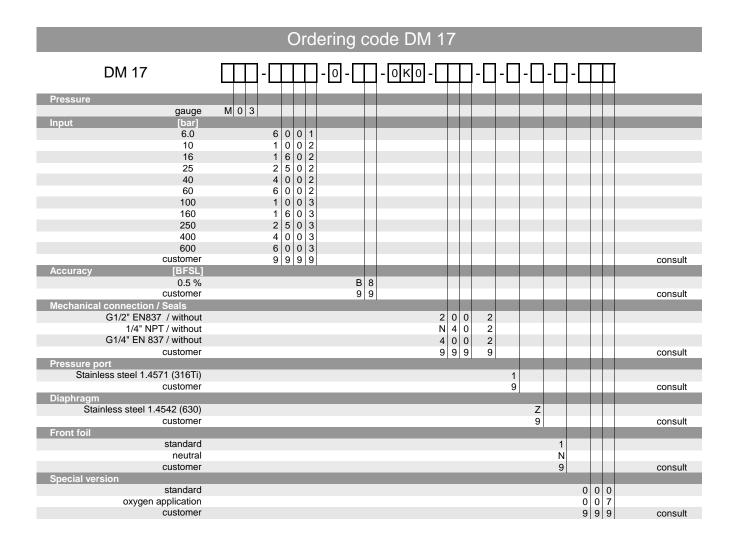
Performance			
Accuracy	≤±0.5 % FSO BFSL		
Measuring rate	1/sec		
Long term stability	≤ ± 0.3 % FSO / year at reference conditions		
Thermal effects (Offset and Span)			
Tolerance band	≤ ± 0.5 % FSO / 10 K (typ.) in compensated range 0 50 °C		
Permissible temperatures			
Permissible temperatures	medium: -25 85 °C environment: 0 70 °C storage: 0 70 °C		
Materials			
Pressure port / housing	stainless steel 1.4571 (316Ti) / 1.4301 (304)		
Display housing	PA 6.6, Polycarbonate		
Seal of sensor	none (welded)		
Diaphragm	stainless steel 1.4542 (630)		
Media wetted parts	pressure port, diaphragm		
Miscellaneous			
Display LC-Display, visible range 36 x 15 mm;			
	4.5-digit 7-segment-display, digit size 8.5 mm, range of indication ±1999 decimal place is calculated automatically by device considering range and accuracy		
	- customer-setting not possible		
Electromagnetic compatibility	emission and immunity according to EN 61326		
Supply	3 V lithium battery (CR 2450)		
Data storage	EEPROM (non-volatile)		
Ingress protection	IP 65		
Installation position	any		
Weight	plastic: approx. 150 g		
Operational life of battery	min. 1 500 h with permanent operation		
Mech. operational life	100 million load cycles		
CE-conformity	EMC directive 2014/30/EU pressure equipment directive: 2014/68/EU (Modul A) ¹		
1 This area of a factor of the factor	The section was a section of the second section of the section of the second section of the second section of the second section of the section of the second section of the se		

¹ This directive is only valid for devices with maximum permissible overpressure > 200 bar.

Dimensions (in mm)



Ordering Code



NOTES

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.

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



vehicles and mobile 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



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