PRODUCT CATALOGUE DIGITAL GAUGES





PRESSURE AT THE HIGHEST LEVEL

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"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 specific Detailed information about options are ons; properties are not fined in the datasheet.

t guaranteed. Subject to change with

otice.



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. 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.

DIGITAL GAUGES



DM 01

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 BD|DAQ.

Preferred areas of use are



Calibrating techniques



Laboratory applications



Plant and machine engineering



ar] -10	0.10					1	16	25	4	6
orl		0.16	0.25	0.40	0.60		1.6	2.5		
ar] -	- 1	- 1	- 1	0.40	0.60	1	1.6	2.5	4	6 35
-					1 1				-	
arj 7.5	1.5	1.5	0.1	3	7.5	7.5	15	15	20	50
ar] 10	16		25	40	60	100	16	60	250	400
ar] 35	80		80	105	210	600	60	00	1000	1000
ar] 50	120	1	20	210	420	1000	10	00	1250	1250
$P_N \ge 1$ ba	r: unlimite	ed vacuu	m resistar	nt; P _N < 1	bar: on req	uest				
standard	for $P_N \ge 0$).4 bar: ≤	± 0.05 %	and for P	_N < 0.4 bar	: ≤ ± 0.12	5 %			
≤ ± 0.1 %	5 FSO / ye	ear at refe	erence co	nditions						
1, 2 or 50) measure	ements pe	er second							
) – minimum va	lue setting	(non-linea	rity, hyster	esis, repea	tability) - at r	oom tempe	erature 20°	С		
Span)										
0 50 °C	C									
medium:										
environm	ent: dis	play mod	dule: -10 .	55 °C				C (at 1G	to +60 °C)	
stainless	steel 1.44	404 (3161	_)							
FKM, wit	hout (weld	ded versi	on) and o	thers on re	equest					
stainless										
pressure										
11		,	5							
IBExU12	ATEX110	8 X								
			oil for zon	ne 1∙ II	2G Ex ia l	IR T4 Gh				
							(on reque	est)		
							(0111040	,		
graphic I	C display	<i>.</i>	visible ar	ea 55 x 46	3 mm [.] (res	olution 12	8x64)			
graphic								ue)		
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						0-segmer	nt-bargrap	oh,	-	
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		nation:		on period	and intens	ity adjusta	able			
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display:	orl [no!]	[mml le]	-10 55				mU 01 1-			om ²¹
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						ling on ad	justed int	ensity)		
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3x 1.5 V:	Duracell	Plus batt	ery, DUR	087033, A	A (LR6)					
IP 67										
any										
approx. 6	80 g									
	,	000 h	sta	ndby mod	le: at least	5 years	(with me	asureme	nt rate 1/s	and 2/
				,						
EMC dire			20	14/30/EU						
						•				
pressure	equipmer	nt directiv	re: 20	14/68/EU	(Module A) 3				
	ar] 35 ar] 50 P _N ≥ 1 ba standard ≤ ± 0.1 % 1, 2 or 50 0 - minimum va Span) for nomir for nomir 0 50 °C medium: environm 0 50 °C IBEXU12 variant w variant w	ar]7.51.5ar]1016ar]3580ar]50120 $P_N \ge 1$ bar: unlimitestandard for $P_N \ge 0$ $\le \pm 0.1 \%$ FSO / ye1, 2 or 50 measure $\mathcal{O} - minimum value settingSpan)for nominal pressu0 50 °Cmedium: -10 55environment:distainless steel 1.44stainless steel 1.44stainless steel 1.44stainless steel 1.44pressure port, sealIBExU12ATEX110variant with standavariant with conductgraphic LC displaybackground illumiraccuracy:resolution:display:[mbar], [bar], [psi], [°C], [°F], [K]modes: single, cycrecording pressuremeasuring value imeasuring value istandby mode:3x 1.5 V: DuracellIP 67anyaprox. 680 g16 bit (module)standard use: > 2.1100 million load cy$	ar]7.51.51.5ar]101616ar]3580120ar]501201 $P_N \ge 1$ bar: unlimited vacuumstandard for $P_N \ge 0.4$ bar: \le standard for $P_N \ge 0.4$ bar: \le stainless steel 1, 2404 bar: \le stainless steel 1, 2404 (3161stainless steel 1.4404 (3161stainless steel 1.4404 (3161stainless steel 1.4401 (304)FKM, without (welded versis)stainless steel 1.4435 (3161pressure port, seal, diaphraJBExU12ATEX1108 Xvariant with standard front forvariant with standard front foryargaphic LC display:background illumination:accuracy:resolution:display:(mbar], [bar], [psi], [mmHg], [°C], [°F], [K]modes: single, cyclic, linearameasuring value interval acmeasuring value interval acmeasuring value interval acmeasuring value interval acmeasuring valuewithout background illumination<	ar]7.51.51.51.5ar]101625ar]358080ar]50120120 $P_N \ge 1$ bar: unlimited vacuum resistarstandard for $P_N \ge 0.4$ bar: $\le \pm 0.05$ % $\le \pm 0.1$ % FSO / year at reference co1, 2 or 50 measurements per second0 - minimum value setting (non-linearity, hysterSpan)for nominal pressure ranges $P_N \le 160$ for nominal pressure ranges $P_N \ge 160$ 0 50 °Cmedium: -10 55 °Cenvironment:display module: -10stainless steel 1.4404 (316L)stainless steel 1.4301 (304)FKM, without (welded version) and ostainless steel 1.4435 (316L)pressure port, seal, diaphragmIBExU12ATEX1108 Xvariant with standard front foil for zonvariant with conductive front foil for zonvariant with standard front foil for zonvariant with standard front foil for zonvariant with conductive front foil for zonvariant with standard front foil for zonstanles: single, cyclic, linear, offrecording pressure	ar]7.51.51.51.53ar]10162540ar]358080105ar]50120120210P _N ≥ 1 bar: unlimited vacuum resistant; 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$P_N < 1$ bar: on requeststandard for $P_N \ge 0.4$ bar: $\le \pm 0.05$ % and for $P_N < 0.4$ bar: $\le \pm 0.12$ $\le \pm 0.1$ % FSO / year at reference conditions1, 2 or 50 measurements per second O - minimum value setting (non-linearity, hysteresis, repeatability) - at room tempeSpan)for nominal pressure ranges $P_N \le 160$ bar: tolerance band $\le \pm 0.2$ %for nominal pressure ranges $P_N \ge 160$ bar: tolerance band $\le \pm 0.75$ $0 \dots 50$ °Cmedium: -10 55 °Cstainless steel 1.4404 (316L)stainless steel 1.4404 (316L)stainless steel 1.4435 (316L)pressure port, seal, diaphragmIBExU12ATEX1108 Xvariant with standard front foil for zone 0:II 1G Ex ia IIE T4 Gbvariant with conductive front foil for zone 0:II 1G Ex ia IIC T4 Gagraphic LC display:visible area 55 x 46 mm; (resolution 12 figure height 5.5 mm (displaying of pre- measured value display: max.7 digits, temperature display: col. 60 on seminaria. modes: single, cyclic, linear,	ari7.51.51.51.537.57.515ari101625406010016ari35808010521060066ari358080105210600100P_n ≥ 1 bar: unlimited vacuum resistant; P_N < 1 bar: on request	ar)7.51.51.51.537.57.51515ar)1016254060100160ar)358080105210600600ar)5012012021042010001000 $P_N \ge 1$ bar: unlimited vacuum resistant; $P_N < 0.4$ bar: $\le \pm 0.125$ % $\le \pm 0.1\%$ FSO / year at reference conditions1.2 or 50 measurements per second 2^- minimum value setting (non-linearity, hysteresis, repeatability) - at room temperature 20°CSpan) 2^- minimum value setting (non-linearity, hysteresis, repeatability) - at room temperature 20°CSpan)for nominal pressure ranges $P_N \le 160$ bar: tolerance band $\le \pm 0.2$ % FSO $0 50$ °Cmedium: -10 55 °Cmedium: -10 55 °Cstorage: -20 70 °C (at 1Gstainless steel 1.4404 (316L)stainless steel 1.4435 (316L)pressure port, seal, diaphragmIBEXU12ATEX1108 Xvariant with standard front foil for zone 1:II 2C display:visible area 55 x 46 mm; (resolution 128x64)figure height 5.5 mm (displaying of pressure value)measuring value interval adjustable (rol, 1/5, 2' or 50's only with 20 mseasure value)background illumination:illumination period and intensity adjustableaccuracy: ± 2 Kresolution:0.1 Kdisplay:-10 55 °C(mode: single, cyclic, linear, offresolution:0.1 Kdisplay:-10 55 °C<	arj 7.5 1.5 1.5 3 7.5 7.5 15 15 25 arj 10 16 25 40 60 100 160 250 arj 35 80 80 105 210 600 600 1000 120 210 420 1000 120 120 120 120 120 120 120 120 120 120 1000 1225 15 <

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Further pressure sensor modules can be combined to the advertisement unity DM01-A21 and DM01-A2E. a overview of available pressure sensor modules and characteristics you will find in the following matrix:								
Pressure se	ensor module							
Name	Pressure range	Filling fluid	diaphragm	accuracy	Special feature	further infor- mation		
MO	00.1 bar up to 0400 bar	silicone oil	stainless steel 1.4435	0.05% FSO	very high precision	see data sheet		
M4	06 bar up to 0600 bar	none; welded version	stainless steel 1.4542	0.25% FSO	i.a. for oxygen; oil and grease free	on request		
M7	00.1 bar up to 010 bar	none	ceramic Al ₂ O ₃ 96%	0.15% FSO	high overpressure	on request		

Accessories



DM 01 Technical Data

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Hard-shell service case without accessories Service_Case_DM01		Hard shell case. Dimension in mm (L x W x H): 432 X 363 X 138
Protective cap		
Ordering number: Z1002648		Rubber protection
Additional batteries		
(only in combination with service case)	+ DURACELE PLUS POWER	for IS-version use only 3 x 1.5 V / AA Duracell Power Plus
Seal set		Flat seal copper for mechanical connections ac-
(only in combination with service case)		cording to EN 837
PTFE seal tape Nr. 498.505	\bigcirc	Seal tape for mechanical connections
(only in combination with service case)	10	material: PTFE (Teflon) Temperature range: -200 280 °C
Wrench		
(only in combination with service case)	2	Wrench SW 27
Calibration test pump KHP 35 Ordering number: 1002637		The KHP 35 calibration test pump is used to gen erate pressure and vacuum for checking, adjustim and calibrating mechanical and electronic pressur- measuring instruments by comparative measure ments. These pressure tests may be carried out i 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 pu	ımp	1
Test unit connection:		Adapter to connect the test unit to the calibration test pump. external thread: G 1/4" EN 837 to:
Adapter to connect the test unit to the calibration test pump.		internal thread: G 1/4" DIN 3852 (No. 5008909) or G 1/2" EN o. DIN (No. 5007896) or 1/4" NPT (No. 5007897) or 1/2" NPT (No. 5007898)
		others on request
Reference unit connection:		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. 5012498
Adapter to connect the digital gauge to the calibration test pump		or G 1/2" DIN 3852 (No. 5012496) or G 1/2" DIN 3852 (No. 5012519) or 1/4" NPT (No. 5012499) or 1/2" NPT (No. 5012500)
		others on request

Ordering code DM01

1. Position: Digital Display for Precision Digital Pressure Gauge DM01

DM01-	ЦЩ.	
Digital Pressure Gauge DM01		
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 DM01

	DM01		- [] - [] - [] - [] - [] - [] - [] - []		
		┖┽┽┩┖┽┽┽┩┖┩			
Pressure					
	gauge absolute 1	M 0 K M 0 L			
Input	[bar]				
	0.10 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
	0.16	$\begin{array}{ccccccc} 1 & 0 & 0 & 0 \\ 1 & 6 & 0 & 0 \\ 2 & 5 & 0 & 0 \\ 4 & 0 & 0 & 0 \\ 6 & 0 & 0 & 0 \\ 1 & 0 & 0 & 1 \end{array}$			
	0.25 ¹ 0.40	2 5 0 0			
	0.40	4000			
	1.0	1 0 0 1			
	1.6	1 6 0 1			
	2.5	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			
	4.0	4 0 0 1			
	6.0	6 0 0 1			
	10	1 0 0 2			
	16 25	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			
	40	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 -1 0	4 0 0 3 X 1 0 2			
	customer	1 0 0 2 1 6 0 3 2 5 0 3 4 0 0 3 X 1 0 2 9 9 9 9			consult
Version		5 5 5 5 5			Contourt
	non IS	0			
	IS	E			
Accuracy	[BFSL]				
standard for $P_N \ge 0.4$ bar	0.05 %		B 1		
standard for $P_N < 0.4$ bar	0.125 %				
	customer		B 2 9 9		consult
Mechanical connection					
	G1/2" DIN 3852		1 0 0		
	G1/2" EN 837		200		
	G1/4" DIN 3852 G1/4" EN 837		1 0 0 2 0 0 3 0 0 4 0 0		
	G1/2" DIN 3852		400		
	with flush sensor ²		F 0 0		consult
	G1/2" DIN 3852 open pressure port 2		НОО		
	1/2" NPT		N 0 0		
	1/4" NPT		N 4 0		
	G1/4" EN837 internal thread, welded ^{2, 3}		H 0 0 N 0 0 N 4 0 J 0 3 9 9 9		conc.ult
Seals	customer		9 9 9		consult
	FKM			1	
	customer			9	consult
Special version					
	standard			0 0 0 9 9 9	
1	customer			9 9 9	consult
¹ absolute pressure possible	r Irom U.4 Dar				

 1 absolute pressure possible from 0.4 bar 2 only possible for P $_N \leq 40$ bar 3 different connection versions with optional adapters possible (see accessories)

ordering example: device DM01: position 1: DM 01-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

Accessories DM01

Accessories	
USB converter (incl. software BD DAQ lite)	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 DM01	
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

DIGITAL GAUGES



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 acc. 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



Input pressure Nominal pressure gauge	[bar]	-10	0.10	0.16	0.2	5 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
Dverpressure	[bar]	5	1	1	1	2	5	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	50	250	400
Overpressure	[bar]	35	80	6	80	105	210	600	60		1000	1000
Burst pressure ≥	[bar]	50	120		20	210	420	1000	10	00	1250	1250
/acuum resistance		$P_N \ge 1$ ba	r: unlimite	ed vacuur	m resis	stance; P _N <	1 bar: on r	equest				
Performance												
Accuracy ¹						% and for P	P _N < 0.4 bar	: ≤ ± 0.12	5 %			
ong term stability						conditions						
Measuring rate / Display		1 or 2 me		•								
accuracy according to IEC 6			lue setting	(non-linea	rity, hys	steresis, repea	tability) – at	room temp	erature 20	°C		
Thermal effects (Offset a	and Spa				- D <	100 have tala			/ 500			
Temperature error		for nomin	al pressu	re ranges	S P _N ≤ s P >	160 bar: tole 160 bar: tole	rance band	1 ≤ ± 0.2 % 1 < + 0.75	% FSO			
compensated range		0 50 °C		re runget	<u> </u>			1 = 1 0.70	/0100			
Permissible temperature	es		-									
Permissible temperatures		medium:	-10 55	°C / stora	age: -2	0 70 °C						
						55 °C / tra	nsmitter: -:	20 70 °	C (at 1G	to +60 °C	C)	
Materials												
Pressure port / housing		stainless	steel 1.44	404 (316L	_)							
Display housing		stainless			,							
Seals (media wetted)		FKM, with	nout (weld	ded version	on)							
Diaphragm		Stainless	steel 1.4	435 (316	L)							
Media wetted parts		pressure	port, sea	l, diaphra	gm							
Explosion protection												
AX16-DL01		IBExU12	ATEX110	8 X								
		variant with standard front foil for zone 1: II 2G Ex ia IIB T4 Gb										
		variant w	ith condu	ctive fron	t foil fo	r zone 0: II 1	G Ex ia IIC	CT4 Ga				
Miscellaneous												
Display		graphic L	.C display	/:		visible area						
						figure height measured va						o rana
						temperature					Jii piessui	crang
						potential inp	ut value		-			
		backgrou		nation:		illumination p	period and	intensity a	adjustabl	е		
Temperature display range	е	accuracy				±2K						
		resolution	า:			0,1 K						
adjustable units		display: [mbar] [t	arl [nei]	[mmHa]		<u>-10 … 55 °C</u> g], [inHg], [kF		[hPa] [m	mH ₂ O1 [r	nH ₂ O1 fir	nH₀O1 [ka	cm ² 1
pressure and temperature	; ;	[°C], [°F],	FI (7	ı9],	, Lound	יאן, ניייי ישן, נא	∽ <u>], [mi u]</u> ,	uj, [m			201, [iv9/	J.,],
Data logger		modes: s		lic, linear	r, off							
		recording	g pressure	e values a	and se	nsor tempera						
						le (hrs, min,						
					ole (1/s	, 2/s or 50/s	only with 2	0 ms mea	sured va	lue interv	al)	
Current consumption		max. 600			ation	approx. 1.3 i	mΔ					
Carrent Consumption		with back				approx. 1.5 i approx. 16 n		ding on ad	liusted in	tensitv)		
		standby i				approx. 1.2						
Supply		3x 1.5 V:	Duracell	Plus batt	ery, D	JR087033, A	AA (LR6)					
Ingress protection		IP 67										
ingress protection		any										
		approx. 6	80 g									
Mounting position ²		16 bit (m	-									
Mounting position ² Weight			,	000 h		standby mod	de: at least	5 years (with mea	surement	rate 1/s a	nd 2/s
Mounting position ² Weight A / D-converter resolution		· · ·	use: > 2									
Mounting position ² Weight A / D-converter resolution Battery life		standard										
Mounting position ² Weight A / D-converter resolution Battery life Operational life		standard 100 millic	on load cy			2014/30/FU						
Mounting position ² Weight A / D-converter resolution Battery life		standard 100 millic EMC dire	on load cy ctive:	cles		2014/30/EU 2014/68/EU	(Module A) ³				
Mounting position ² Weight A / D-converter resolution Battery life Operational life		standard 100 millic	n load cy ctive: equipme	cles nt directiv	/e:	2014/30/EU 2014/68/EU according to		,				

DL 01 Technical Data



14

Accessories are not in scope of	f supply and have to be ordered s	enaratelyl			
Software BD LOG lite version (C		eparatery:			
.	and an interface cable can be ordered	ed. The softwa	are is also availa	able for	download on our homepage.
	5	File Info		_	
Software (Communication, Con	figuration):	Communication Contigue	stor		
display of device information		Interfacer Port name:	Gree	n evalatio en l	lugger
(serial number, pressure and		Baud rate	(30400 -)	Notives .	24
 configuration area for all para 				tet Ind	Count Serial number (nod-I) Range
 download area for recorded of 		Open	. Chee /		
- date		Device And Rodule Into			
 pressure value 		Fermane:	- approximation - approximatio		
- temperature value		Setal Number Device:			
 actual value 		Setal Number Module			
		Pressue Range: Pressue Type:			
		Tenperature Range			
		Soved Items Court			
. 2		Date Of Production:			18
	C a	-			Instit Carel
	and a second	Setings Language			
	4475	Synch Date	moh. PCc+DM01		
		Date/Time ** 5	and the states		
					- 2
* 10 T200				-	
		File avto			
		Communication Configure Settings	acon j		let Jaco
Interface cable with		Date:	101002010 g-10000	101	Increase I I management
integrated USB converter		Peesers Unit		+	Set 2be
l: 1.7 m		Temperature Unit		- 4	Deer unit
Ordering number: 7USBCD02		Language	Crate Carrow	_	Castion (nat. 8 charactere)
Ordering number: ZUSBCD02		Measurement Rate:	C.14 024 0.164		fadar Øon barita use
		Auto Diff Time	10	140.1	(and)
			LL		Test:
		internal	1 191		leg .
		Day text	(DK 04	9	AG Inal. 10 characteral
		Deets Lopped tens		1	
		Length:	1	18	That
		Lookage Lover Lind. %	10		factory attings
		Leakage LoperLine, % Runction Left Button:	1.0	<u>-</u>	Senalnumber
		Function Fight Button	Mexican		Date: 01.00.2018 (0+
			Nymum		White Stations and State
		Backlight On Time			
		Sackight Englinese	<u>#</u>	100	
		Dansing.		92	
			0		
		- Dear	1144		
		1.144		-	
			`		
Software BD LOG full version	n (Communication, Configuration, Ta	able, Diagram	n) on request		
Adapter for pressure port G ¼"	EN 837 internal thread, welded				
G ¼" EN 837		1⁄4" NPT	G1/4"		
G1/4"==	Adapter for pressure sensor		لصا		Adapter for pressure sensor
	module with pressure port				module with pressure port
P SW27	G ¼" EN 837 internal thread,		p 1		G ¼" EN 837 internal thread,
	welded		T HIT		welded
	external thread: G ¹ / ₄ " EN 837				external thread: G ¼" EN 837
G1/4" N	external thread: G ¹ / ₄ EN 837	1/4	"NPT 1		external thread: 3 ⁷ / ₄ EN 837
Ordering number: Z5010203	CALEMIAI UNEAU. G /4 EIN 03/	Orderina nu	mber: Z5010204	.	CAUTIAL ULICAU. /4 INFT
G ½" EN 837		1⁄2" NPT			
01/4"-LA	Adapter for pressure sensor		G14-		Adapter for pressure sensor
50027	module with pressure port		. 🗂		module with pressure port
21 SW21	G ¼" EN 837 internal thread,		= 1 - s		G ¼" EN 837 internal thread,
	welded				welded
			8		
	external thread: G 1/4" EN 837				external thread: G 1/4" EN 837
Ordering number: 7E040000	external thread: G 1/2" EN 837	Ordoning	mbor: 75040005	.	external thread: 1/2" NPT
Ordering number: Z5010202		ordening nu	mber: Z5010205	,	

Ordering number: Z5010202 * others on request

Hard-shell service case without accessories Service_Case_DM01		Hard shell case. Dimension in mm (L x W x H): 432 X 363 X 138
Protective cap		Rubber protection
Ordering number: Z1002648		
Additional batteries (only in combination with service case)	+ DURACELL' PLUSPOWER	for IS-version use only • 3 x 1.5 V / AA Duracell Power Plus
Seal set (only in combination with service case)	0	Flat seal copper for mechanical connections ac- cording to EN 837
PTFE seal tape Nr. 498.505 (only in combination with		Seal tape for mechanical connections material: PTFE (Teflon) Temperature range: -200 280 °C
service case)		· · · · · · · · · · · · · · · · · · ·
Wrench (only in combination with service case)	2	Wrench SW 27
Calibration test pump KHP 35 Ordering number: 1002637		The KHP 35 calibration test pump is used to gen- erate pressure and vacuum for checking, adjusting and calibrating mechanical and electronic pressure measuring instruments by comparative measure- ments. These pressure tests may be carried out in laboratories, workshop or on site at the measuring point. pressure: 0 35 bar vacuum: 00,95 bar weight: ca. 510 g
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 1/4" 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)
Reference unit connection: Adapter to connect the digital gauge to the calibration test		others on request Adapter to connect the pressure sensor module DM01 to the calibration test pump. external thread: G ½" EN 837 to: internal thread: G ¼" DIN 3852 (No. 5012498) or G ½" DIN 3852 (No. 5012519)
pump		or ¼" NPT (No. 5012499) or ½" NPT (No. 5012500) others on request

Ordering code DL01

1. position: digital display for Precision Digital Pressure Gauge DL01

DL01-				
Digital pressure gauge DL01				
with communication interface	A 2	2 1	1	
IS (zone 1) with communication interface	A 2	2 E	E	
IS (zone 0) with communication interface	A 2	G	G	consult

2. position: transmitter for Precision Digital Pressure Gauge DL01

DL01] - 🔲]-	
Pressure						
gau	ge M 0 P ite ¹ M 0 Q					
absolu Input [bar]	ite ' M 0 Q					
Input [bar] 0.10	1	1 0 0 0				
0.16	1	1 0 0 0 1 6 0 0				
0.25	1	2 5 0 0 4 0 0 0 6 0 0 0				
0.40		2 5 0 0 4 0 0 0				
0.60		6 0 0 0				
1.0		1 0 0 1				
1.6		1 6 0 1				
2.5 4.0		2 5 0 1 4 0 0 1 6 0 0 1				
6.0		4 0 0 1 6 0 0 1				
10		1 0 0 2				
16		1 6 0 2 2 5 0 2				
25		1 6 0 2 2 5 0 2				
40						
60		6 0 0 2				
100		1 0 0 3				
160 250		2 5 0 3				
400		4003				
-1 0		X 1 0 2				
custom	er	4 0 0 2 6 0 0 2 1 0 0 3 2 5 0 3 4 0 0 3 X 1 0 2 9 9 9 9				consult
Version						
non	IS	(
	S	E	Ξ			
Accuracy [BFS						
standard for $P_N \ge 0.4$ bar 0.05	%		B 1			
standard for $P_N < 0.4$ bar 0.125	%		B 2 9 9			
custom	er		99			consult
Mechanical connection	50			1 0 0		
G1/2" DIN 385 G1/2" EN 83				1 0 0 2 0 0 3 0 0		
G1/2" LIN 38				300		
G1/4" EN 83				4 0 0		
G1/2" DIN 385	52					a a may slit
with flush sens	or ²					consult
G1/2" DIN 3852 open pressure po	ort ²			H 0 0		
1/2" NF				N 0 0		
1/4" NF G 1/4" EN837 internal thread, welde	2 I od ^{2,3}			N 4 0		
custom				H 0 0 N 0 0 N 4 0 J 0 3 9 9 9		consult
Seals						concut
FK	M				1	
custom	er				9	consult
Special version						
standa custom					0 0 0 9 9 9	
¹ absolute pressure possible from 0.4 bar					9 9 9 9	consult

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

ordering example:

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

Accessories DL01

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 DM01	
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



BAROLI 02

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)



BAROLI 02 Technical Data

Input pressure ranges										
Nominal pressure gauge [bai	1 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	1 40	80	80	105	105	210	600	1050	1050	1250
Burst pressure [bar	•	120	120	210	210	420	1000	1250	1250	1250
Vacuum pressure	-1 0 b	ar, overpre	essure: 5 b	ar, burst p	ressure: 7	.5 bar	other vacu	um ranges	on reques	st
Vacuum resistance	$P_N \ge 1$ back	ar: unlimite	ed vacuum	resistance	e; P _N < 1 ba	ar: on requ	uest			
Performance										
Accuracy ¹					% FSO BFS					
Measuring rate	5/sec									
Long term stability	≤ ± 0.1 %	6 FSO / ye	ar at refere	ence cond	itions					
¹ accuracy according to IEC 60770						ility)				
Thermal effects (Offset and S										
Nominal pressure P _N [bai		-1 ()		≤ 0	.40			> 0.40	
Tolerance band [% FS	-	≤±0.7				± 1			≤ ± 0.75	
in compensated range [°C		-20 85				70 °C			0 85 °C	
Permissible temperatures	1		-							
Permissible temperatures	medium	: -20 85	°C	en	vironment:	-20 70	°C	stor	age: -30	80 °C
Mechanical stability	meanum	. 20 00	0	CII	monnent.	20 70	0	5101	uge00	50 0
Vibration	5 a DMS	6 (25 20	00 4-7)		cording to		20069.2.6			
Shock	100 g / 1		00112)		<u> </u>		60068-2-0 60068-2-27	,		
Materials	100 g / 1	msec		au	coruing to	DINEN	00000-2-27			
Pressure port / Housing	stainless	stool 1 44	04 (316 L)	<u></u>						
Display housing	-	polycarbor	. ,	1						
., .	· · ·	Julycarbul	late							
Seals (media wetted)	FKM									
Diaphragm			135 (316 L)							
Media wetted parts	pressure	e port, seal	s, diaphrag	gm						
Miscellaneous										
Display	indicatio	n ±19999;	6-digit 14-	segment a	dditional d		lisplay, dig git height 7		l mm, rang	e of
Electromagnetic compatibility			unity accor	<u> </u>						
Supply			ry; 2 piece	s (type 1/2	2 AA)					
Data storage	EEPRO	M (non-vol	atile)							
Ingress protection	IP 65									
Installation position	any ²									
Weight	approx.	300 g								
AD-converter solution	14 Bit									
Operational life of battery	standby	mode: app	orox. 5 yea	rs						
Mech. operational life	100 milli	on load cy	cles							
CE-conformity	EMC Dir	ective: 20'	14/30/EU		Pres	sure Equi	pment Dire	ective: 201	4/68/EU (N	1odul A) ³
² The digital pressure gauge is calib slight deviations in the zero point i ³ This directive is only valid for devi	or devices w	ith stainless	steel senso	r and press	ure range P _l		osition is cha	nged on ins	tallation ther	e can be
Dimensions (in mm)			- 7							
		. 215 -								
	4 - 6945 4 - 6945			t P			R 1/2" NPT] - 1/4" NP1
G1/2" EN 837	- 612	_	4h - f	- h., 0	G1/4" El	N 837	1/2" NP	т	1/4" NPT	
\Rightarrow for nominal pressure P _N > 6	U bar increas	ses the leng	th of devices	s by 9 mm!						

		Ordering	g code	BAROL	1 02						
BAROLI 02]-	- 0 -	-0K0-		- 🗌 -	- 🗌 -]-[]		
Pressure	uge M 0 E										
abso	uge M 0 E lute ¹ M 0 F										
	ar]										
	10 ¹	1 0 0 0									
	16 ¹	1 6 0 0									
C	25 ¹	2 5 0 0									
	40	4 0 0 0									
	60	6 0 0 0									
	.0	1 0 0 1									
	.6	1 6 0 1 2 5 0 1									
	.5	2 5 0 1									
	.0	4 0 0 1									
	.0	6 0 0 1									
	0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$									
	6	1 6 0 2 2 5 0 2									
	25	2 5 0 2									
	10 60	4 0 0 2 6 0 0 2									
	00	6 0 0 2 1 0 0 3									
	60	1 6 0 3									
	50	2 5 0 3									
	00	2 5 0 3 4 0 0 3									
	00	6 0 0 3									
	0	6 0 0 3 X 1 0 2									
custo		9 9 9 9									consult
	SL]	0 0 0 0									contourt
standard for $P_N \ge 0.4$ bar 0.12			B 2								
	5 %		B 5								
custo			B 2 B 5 9 9								
Mechanical connection				1							
G1/2" EN	837				2 0 0						
G1/4" EN					4 0 0						
1/2"					N 0 0						
1/4"					N 4 0 9 9 9						
custo	mer				999						consult
Seals											
	KM					1					
Custo						9					consult
Pressure port stainless steel 1.4404 (3	61.)						1				
custo							1 9				consult
Diaphragm							9				consult
stainless steel 1.4435 (3	6[.)							1			
custo								9			consult
Front foil								~ I			John Suit
stan	lard							1			
	utral							N			
custo								9			consult
Special version											
stan	lard									0 0	
custo	mer								9	99	consult

¹ absolute pressure possible from 0.4 bar

DIGITAL GAUGES



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



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, abs.	[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						10			
gauge / abs.	[bar]	2.5	4	6		10	16	25	40
Overpressure	[bar]	10	20	4()	40	80	80	105
Burst pressure ≥	[bar]	15	25	50		50	120	120	210
Vacuum resistance	nce of fi	$P_N < 1$ bar:		uum resistan	се				
Performance									
Accuracy ²		nominal pre	ssure ≥ 0.4 b ssure < 0.4 b						
Measuring rate		5/sec							
² accuracy according to IEC 6			setting (non-lii	nearity, hystere	esis, repeatab	ility)			
Thermal effects (Offset a	nd Spa	an)							
Nominal pressure P _N	[bar]		-1 0			< 0.40		≥ 0.40)
	FSO]		≤±0.75			≤±1.5		≤ ± 0.7	'5
in compensated range	[°C]	ĺ	0 70 °C			0 50 °C		0 70	°C
Permissible temperature							į		
Permissible temperatures ³		medium:	-40 12	25 °C for fillir	ng fluid of sil	icone oil			
						od compatibl	e oil		
		environmen	:: -20 70	O° C					
		storage:	-30 80						
³ max temperature of the medi	um for r	nominal pressu	re gauge > 0 b	ar: 150 °C for	60 minutes wit	th a max. envir	onmental tempe	erature of 50 °C	
Mechanical stability									
Vibration			5 2000 Hz)		DIEC 60068-			
Shock		100 g / 1 m	sec		according to	DIEC 60068-	2-27		
Materials / Filling fluids									
Housing		stainless st	eel 1.4404 (3	16 L)					
Pressure port		stainless st	eel 1.4435 (3	16 L)	(other on requ	lest		
Display housing		PA 6.6, pol	/carbonate						
Seals (media wetted)		standard:		FKM					
. ,		clamp and		none					
Diaphragm			eel 1.4435 (3						
Media wetted parts			ort, seals, dia						
Filling fluids		standard: option:	silicone oil food compati (mobile SHC other on req	tible oil with C Cibus 32; c			stration no.: 14	1500)	
Miscellaneous									
Display		4.5-digit 7-9	visible range egment-disp egment addit	lay, digit heig	ght 11 mm, r		ation ±19999;		
Electromagnetic compatibil	lity		nd immunity a						
		3.6 V Lithiu	m battery; 2 p	pieces (type	1/2 AA)				
Supply									
		EEPROM (non-volatile)						
Data storage		EEPROM (IP 65	non-volatile)						
Data storage Ingress protection		IP 65 any (standard:	the device is				e pressure co d at ordering)	nnection down	;
Data storage Ingress protection Installation position		IP 65 any (standard: other than	the device is	ition for P _N ≤	2 bar have				;
Data storage Ingress protection Installation position Weight		IP 65 any (standard: other than	the device is the given pos	ition for P _N ≤	2 bar have				;
Supply Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery		IP 65 any (standard: other than min. 350 g 14 Bit	the device is the given pos (pendent on t	ition for P _N ≤ he pressure	2 bar have				;
Data storage Ingress protection Installation position Weight		IP 65 any (standard: other than min. 350 g 14 Bit	the device is the given pos (pendent on t de: approx. 5	ition for P _N ≤ he pressure	2 bar have				;

BAROLI 02P Technical Data



		С)rde	rir	ng	С	ode	B	Ą	ROLI 0	2F)										
BAROLI 02F	,		٦-٢			7	- 0 -	П	٦	- 0 K 0 -	П		٦.	-П	-	1-Г	1-Г]-۲			1	
																		1				
Pressure	gauge	M 0 (M 0	G			1	_		1	_		T			-				T	T		
Input	absolute ¹ [bar]	M 0 I	H																			
input	0.10 ¹	_	1	0	0	0	_		T	_		T			_							
	0.16 ¹		1	6	0	0																
	0.25 ¹ 0.40		2 4	5 0	0	0																
	0.40		6	0		0																
	1.0		1	0	0	1																
	1.6		1	6		1																
	2.5 4.0		2 4	5		1																
	6.0		6	0		1																
	10		1			2																
	16		1	6	0 0 0 0 9	2								_								
	25 40		2 4	5	0	2																
	-1 0		Х	1	0	2																
	customer		9	9	9	9																consult
Accuracy	[BFSL]							D.	0													
standard for $P_N \ge 0.4$ bar standard for $P_N < 0.4$ bar	0.125 % 0.25 %							B	2													
	customer							B 2 B 9	9													consult
Mechanical connection																						
	IN 3852 with h diaphragm ²										Ζ	0	0									
	IN 3852 with										-	~										
flusl	h diaphragm												1									
	lamp 1 1/2" ³										С	6	2									
Dairy pipe DN 25	customer										C M 9	7 Q	3 9									consult
Seals	Subtomol										5	5	U									Contourt
for clamp or dairy pipe:	without													0								
	FKM customer													1 9								consult
Diaphragm	customer													9								COnsult
Stainless steel 1.															1							
	customer														9							consult
Front foil	standard															1						
	neutral															N						
	customer															9						consult
Filling fluids	Silicons sil																					
food co	Silicone oil ompatible oil																1					
	customer																9					consult
Special version																		Ċ				
	standard																		0 0 9 9	0 0		concult
	customer																		9 9	9 9	I	consult

¹ absolute pressure possible from 0.4 bar

¹ absolute pressure possible from 0.4 par ² possible only for P_N ≥ 1 bar ³ possible only for P_N ≤ 16 bar ⁴ possible only for P_N ≥ 0.25 bar; cup nut for dairy pipe included and pre-assembled

DIGITAL GAUGES



BAROLI 05

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 display
 4.5-digit 7-segment display
 6-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)



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			0 bar,						ssure:	7 bar								
Vacuum resistance			1 bar: 1 bar:			cuum	resista	ince										
Performance																		
Accuracy ¹		≤ ± 0	.25 %	FSO E	BFSL													
Measuring rate		5/sec	;															
¹ accuracy according to IEC 6	60770 -	minim	um valı	ie settii	ng (nor	-lineari	ty, hyst	eresis,	repeata	ability)								
Thermal effects (Offset	and Sj	ban)																
Thermal effects		≤±().2 % F	SO /	10 K		in	comp	ensate	d rang	je -25	85	°C					
Permissible temperature	es																	
Permissible temperatures	;	med	ium: -2	20 8	5 °C		er	vironn	nent: -	20 7	70 °C			s	torage	e: -30 .	80 °	С
Mechanical stability																		
Vibration		5 g F	RMS (2	25 2	000 H	z)	ac	cordin	g to D	IN EN	6006	3-2-6						
Shock			g / 1 m						g to D									
Materials																		
Pressure port / housing		stair	less st	eel 1.	4404 (316L)												
Display housing		PA 6	6.6, Po	lycarb	onate													
Seals (media wetted)		FKN	l															
Diaphragm		cera	mics A	I ₂ O ₃ 9	6 %													
Media wetted parts		pres	sure p	ort, se	als, di	aphrag	gm											
Miscellaneous		1.																
Display		4.5-0 6-dig	Display digit 7- git 14-s	segme segme	ent ma nt ado	in disp litional	olay, d displa	igit hei ıy, digi	t heigh	mm, nt 7.5 i	range mm	of indi	cation	±1999	99;			
Electromagnetic compatit	oility	emis	ssion a	nd im	nunity	accor	ding to	DEN 6	1326									
Supply		3.6 \	/ lithiu	m batt	ery; 2	pieces	s (1/2 /	۹A)										
Data storage		EEP	ROM	(non-v	olatile)												
Ingress protection		IP 6	5															
Installation position		any																
Weight		appr	ox. 30	0 g														
AD-converter solution		14 B		-														
Operational life of battery		stan	dby m	ode: a	pprox.	5 yea	rs											
Mechanical operational lif	e		million			,												
CE-conformity	-		c direct		,)/EU			r	oressu	re eai	ipmer	t direc	tive: 2	014/6	8/EU (modu	e A)
² This directive is only valid for	or devic	-				-	ressure	a > 200										,
				poi				. 200	201.									





dimensioning 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								



	Ordering code	BAROLI 05		
BAROLI 05		- 0K0	- -]
Pressure	M 0 0			
absolute	M 0 0 M 0 1			
Input [bar] 0,4	4 0 0 0			
0,6	6 0 0 0			
1.0	1 0 0 1			
1.6 2.5	1 6 0 1 2 5 0 1			
4.0	2 5 0 1 4 0 0 1			
6.0	6 0 0 1			
10				
16	1 0 0 2 1 6 0 2 2 5 0 2			
25 40	2 5 0 2 4 0 0 2			
40 60	4 0 0 2 6 0 0 2			
100	1 0 0 3			
160	1 6 0 3			
250	2 5 0 3 4 0 0 3			
400 600	4 0 0 3 6 0 0 3			
-1 0	X 1 0 2			
customer	X 1 0 2 9 9 9 9			consult
Accuracy [BFSL]				
0.25 %	B 5 9 9			
customer Mechanical connection	9 9			consult
G1/2" EN 837		2 0 0		
G1/4" EN 837		4 0 0		
1/2" NPT		N 0 0		
1/4" NPT		2 0 0 4 0 0 N 0 0 N 4 0 9 9 9		
customer		9 9 9		consult
FKM		1		
customer		9		consult
Pressure port				
stainless steel 1.4404 (316L)		1		
Dianhragun		9		consult
Diaphragm ceramics Al ₂ O ₃ 96%		2		
customer		9		consult
Front foil				
standard			1	
neutral			N	
customer Special version			9	consult
standard			0 0 0	
customer			9 9 9	consult



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		22	400	400	050	400
gauge / abs.	[bar]	60	100	160	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 IEC	60770 -	, minimum value setting (i	non-linearitv. hvsteresi	s. repeatability)		
Thermal effects (Offset			·····,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-,		
		≤ ± 0.2 % FSO / 10	ĸ			
In compensated range	[°C]					
Permissible temperatures			125 °C for filling	fluid ailiaan ail		
Permissible temperatures	•			fluid food compatible	oil	
			70 °C			
			80 °C			
² max temperature of the me	dium for	0) minutes with a max. en	vironmental temperatur	re of 50 °C
Mechanical stability		nonna procoaro gaago				
Vibration		5 g RMS (25 200	0 Hz) 2000r	ling to IEC 60068-2-6		
Shock		100 g / 1 msec		ling to IEC 60068-2-0		
		100 g / Thisec	accon		1	
Materials / Filling fluids		otoiploss strat 4 44	04 (2461)			
Housing		stainless steel 1.44				
Pressure port		stainless steel 1.44				
Display housing		PA 6.6, Polycarbon	ale			
Seals (media wetted) Diaphragm		FKM	25 (2161)			
Media wetted parts		stainless steel 1.443 pressure port, seals				
Filling fluids		standard: silicone	<u>/ I U</u>			
Fining hulds			npatible oil with FDA	annroval		
				ory Code: H1; NSF R	Pedistration No · 141	500)
			n request			000)
Miscellaneous						
Display		LC-Display, visible r	range 40 x 30 mm; 4	4.5-digit 7-segment m	ain display, digit hei	ght 11 mm,
				gment additional disp		
Electromagnetic compatil	oility	emission and immu	nity according to EN	l 61326		
Supply		3.6 V lithium battery	; 2 pieces (1/2 AA)			
Supply Data storage		3.6 V lithium battery EEPROM (non-vola				
Data storage Ingress protection						
Data storage		EEPROM (non-vola IP 65	tile)	osition with the pressu	re connection down)
Data storage Ingress protection		EEPROM (non-vola IP 65	tile) ating in a vertical po		re connection down)
Data storage Ingress protection Installation position Weight AD-converter solution		EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit	tile) ating in a vertical po ing on pressure port		re connection down)
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery		EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi	tile) ating in a vertical po ing on pressure port		re connection down)
Data storage Ingress protection Installation position Weight AD-converter solution		EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc	tile) ating in a vertical poing on pressure por rox. 5 years les	:)		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery		EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc	tile) ating in a vertical poing on pressure por rox. 5 years les	:)	re connection down	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for	fe	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014	tile) ating in a vertical poing on pressure port ox. 5 years les I/30/EU	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational life CE-conformity	fe	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014	tile) ating in a vertical poing on pressure port ox. 5 years les I/30/EU	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for	fe	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014	tile) ating in a vertical poing on pressure port ox. 5 years les I/30/EU	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lift CE-conformity ³ This directive is only valid for Dimensions (in mm)	fe	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014	tile) ating in a vertical poing on pressure port ox. 5 years les I/30/EU	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lift CE-conformity ³ This directive is only valid for Dimensions (in mm)	fe	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm)	fe	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm)	fe	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm)	fe	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 s with maximum permis	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 s with maximum permis	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme	nt directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 is with maximum permis	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme		
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 s with maximum permis	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme	nt directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 is with maximum permis	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme 00 bar. option	nt directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 s with maximum permis	tile) ating in a vertical por ing on pressure por rox. 5 years les l/30/EU sible overpressure > 2	pressure equipme 00 bar. option	nt directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 s with maximum permis	tile) ating in a vertical point ing on pressure point ox. 5 years les 1/30/EU sible overpressure > 2	pressure equipme 00 bar. option	Int directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 s with maximum permis	tile) ating in a vertical point ing on pressure point ox. 5 years les 1/30/EU sible overpressure > 2	pressure equipme 00 bar. option	ent directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 s with maximum permis	tile) ating in a vertical point ing on pressure point ox. 5 years les 1/30/EU sible overpressure > 2	pressure equipme 00 bar. option	ent directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational life CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 is with maximum permis	tile) ating in a vertical por ing on pressure port ox. 5 years les 1/30/EU sible overpressure > 2 22.5 	pressure equipme 00 bar. option	ent directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	fe or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 s with maximum permis	tile) ating in a vertical por ing on pressure port ox. 5 years les 1/30/EU sible overpressure > 2 22.5 	pressure equipme 00 bar. option	nt directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard 120° 120° 120° 120° 30° 3	te or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 is with maximum permis	tile) ating in a vertical por ing on pressure port ox. 5 years les 1/30/EU sible overpressure > 2 22.5 	pressure equipme oo bar. option	Int directive: 2014/68	
Data storage Ingress protection Installation position Weight AD-converter solution Operational life of battery Mechanical operational lif CE-conformity ³ This directive is only valid for Dimensions (in mm) standard	te or device	EEPROM (non-vola IP 65 any (standard calibr min. 350 g (dependi 14 bit standby mode: appr 100 million load cyc EMC directive: 2014 is with maximum permis	tile) ating in a vertical por ing on pressure port ox. 5 years les 1/30/EU sible overpressure > 2 22.5 	pressure equipme 00 bar. option	Int directive: 2014/68	

BAROLI 05P Ordering Code

	Ordering code BAROLI 05F)
BAROLI 05P		□-□-□-□-□-□
Pressure gauge	M 0 5	
absolute	M 0 5 M 0 6	consult
Input [bar]		
60	6 0 0 2 1 0 0 3 1 6 0 3 2 5 0 3 4 0 0 3 9 9 9 9	
100	1 0 0 3	
160	1 6 0 3	
250	2 5 0 3	
400	4 0 0 3	
customer	9 9 9 9	consult
Accuracy [BFSL]		
0.25 %	B 5 9 9	
customer	9 9	consult
Mechanical connection G1/2" with flush		
welded diaphragm (DIN 3852)	Z 0	0
G1" with flush		
welded diaphragm (DIN 3852)	Z 3	
customer	9 9	9 consult
Seals	• •	
FKM		1
customer		9 consult
Diaphragm		
Stainless steel 1.4435 (316L)		1
customer		9 consult
Front foil		
standard		1
neutral		N
customer		9 consult
Filling fluids		
Silicone oil		1
food compatible oil		2
customer		9
Special version		
standard		0 0 0
customer		9 9 9 consult

DIGITAL GAUGES



DM 10

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)



DM 10 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				DE0									
Accuracy ¹			% FSO	BESL									
Measuring rate		1/sec	0/ 500	1									
Long term stability	0770		% FSO		oority by	otorooio r	onootobil	(4)					
¹ accuracy according to IEC 6			aue settin	g (non-lin	eanty, ny	steresis, r	epeatabli	ity)					
Thermal effects (Offset a Tolerance band	nu spai		0/ 500	10 K (h	(m)	in com	onactor	d range (50 °C	`			
Permissible temperature	•	≤±0.5	% FSO	/ 10 K (ty	/p.)	in com	Densated	d range (050 (ر ر			
Permissible temperatures	5	modium	า: -25	95 °C		onviron	mont: 0	70 °C			otoro	qe: 0	70 °C
Materials		meulun	125	05 0		environ	ment. U	70 C			SIUIA	ye. 0	10 0
Pressure port / housing		otainla		1 4201 (3	204)								
Display housing	stainless steel 1.4301 (304) PA 6.6, Polycarbonate												
Seals (media wetted)		FKM	, i oiycai	Donate				othore	s on requ	lost			
Diaphragm			cs Al ₂ O ₃	06 %				ouners	sonrequ	1031			
Media wetted parts			re port, s		nhraam								
Miscellaneous		pressu	e port, s	cais, uic	ipinayin								
			n la via	ible vere	- 20 × 1	F							
Display			play, vis it 7-seor				5 mm ra	ange of ir	ndication	+1999			
Electromagnetic compatibi	litv		-			ig to EN		ange er n					
Supply			ium batte			<u> </u>							
Data storage			DM (non-		,								
Ingress protection		IP 65		101010)									
Installation position		any											
Weight		approx	150 a										
Operational life of battery			500 h wi	th nerms	nent op	eration							
Mech. operational life		1	llion loac		anoni op	cration							
CE-conformity			irective 2	,	FII	n	ressure	equipme	nt direct	ive: 201/	1/68/EU	(Modul A) 2
² This directive is only valid for	devices							cquipine		100. 2014	+,00/L0		'
Dimensione (in mm)	000000		nam pem	IISSIDIE UI	rerpressu	10 - 2001	<i>Jai</i> .						

Dimensions (in mm)



	Ordering	code DM '	10				
DM 10		око-[<u> </u>	-0-0	-0-0]
Pressure							
gauge Input [bar]	M 0 4						
1.6	1 6 0 1						
2.5	2 5 0 1						
4.0 6.0	4 0 0 1 6 0 0 1						
6.0 10	6 0 0 1 1 0 0 2						
16	1 6 0 2						
25	2 5 0 2						
40 60	$ \begin{array}{ccccc} 1 & 0 & 0 & 2 \\ 1 & 6 & 0 & 2 \\ 2 & 5 & 0 & 2 \\ 4 & 0 & 0 & 2 \\ 6 & 0 & 0 & 2 \\ 1 & 0 & 0 & 3 \\ 1 & 6 & 0 & 3 \\ 2 & 5 & 0 & 3 \\ 9 & 9 & 9 & 9 \end{array} $						
100	1003						
160	1 6 0 3						
250	1 0 0 2 1 6 0 3 2 5 0 3 9 9 9 9						
Accuracy [BFSL]	9 9 9 9						consult
0.5 %		B 8					
customer		B 8 9 9					consult
Mechanical connection G1/4" DIN 3852							
1/4" NPT			3 0 0 N 4 0				
customer			N 4 0 9 9 9				consult
Seals							
FKM customer			1 9				consult
Pressure port			9				Consuit
Stainless steel 1.4301 (304)				2 9			
Customer				9			consult
Diaphragm Ceramics Al ₂ O ₃ 96%				2			
customer				9			consult
Front foil							
standard neutral					1 N		
customer					9		consult
Special version					1		
standard customer					0	00	
customer					9	1919	consult



DM 17

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



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										
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 temperature	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										
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 mill	100 million load cycles									
CE-conformity		EMC directive 2014/30/EU pressure equipment directive: 2014/68/EU (Modul A) ¹										
¹ This directive is only valid for	devices	with maxim	um permis	sible overp	oressure >	200 bar.						
Dimonsions (in mm)												

Dimensions (in mm)







1/4" NPT

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SW24

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	Ordering code DI	М17
DM17]-[]]]-[]-[]-[]-[]-[]-[]]-[]]-[]-[]-[]-[
Pressure	M 0.2	
gauge Input [bar]	M 0 3	
6.0	6 0 0 1	
10		
16	1 6 0 2	
25	1 0 0 2 1 6 0 2 2 5 0 2	
40	4 0 0 2	
60	6 0 0 2	
100	1 0 0 3	
160	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
250	1 6 0 3 2 5 0 3 4 0 0 3	
400	4 0 0 3	
600	6 0 0 3	
customer	6 0 0 3 9 9 9 9	consult
Accuracy [BFSL]		
0.5 %	B 8	
customer	9 9	consult
Mechanical connection / Seals		
G1/2" EN837 / without		2 0 0 2
1/4" NPT / without		N 4 0 2
G1/4" EN 837 / without		4 0 0 2 9 9 9 9 9 0 consult
customer		9 9 9 9 consult
Pressure port		
Stainless steel 1.4571 (316Ti)		1
customer		9 consult
Diaphragm		
Stainless steel 1.4542 (630)		2 Consult
customer		9 consult
Front foil		
standard neutral		
customer		N 9 consult
Special version		9 consult
standard		0 0 0
oxygen application		0 0 7
customer		9 9 9 consult
Gustomer		a a a a a a a a a a a a a a a a a a a

NOTES

COMPETENCE

PRICE / PERFORMANCE

Industrial pressure measurement technology from 0.1 mbar up to 6000 bar

pressure measurement at the highest level

- pressure transmitters, electronic pressure switches or hydrostatic level probes
- > OEM or high-end products
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