

PRECISION DIGITAL GAUGE BATTERY POWERED



Diameter 100

Stainless steel sensor

Accuracy class 0,05



Description

Digital gauge are the ideal solution to control processes in numerous areas and regulate.

The digital type 3311 can be used in combination with the recording and storage software for linear measurements in various industries and used for evaluation.

The pressure transmitter can be selected locally for different measuring ranges and connected without tools with the display.

Areas of application

plant and mechanical engineering
laboratory
applications metrology

Features


- Stainless steel case
- Graphic display
- Data logger
- Communication interface USB 2.0
- Modular sensor concept
- Zero-point calibration
- Turn off automatic

Nominal pressure

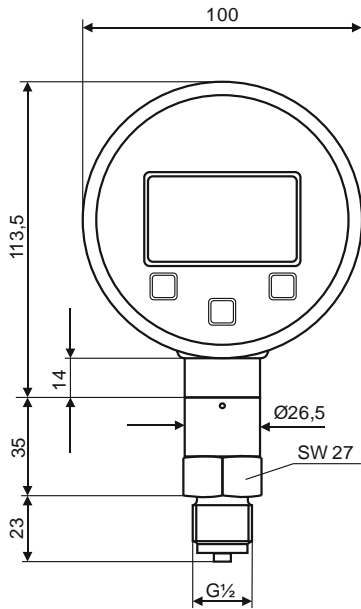
0 ... 100 mbar up to 0 ... 400 bar

Options

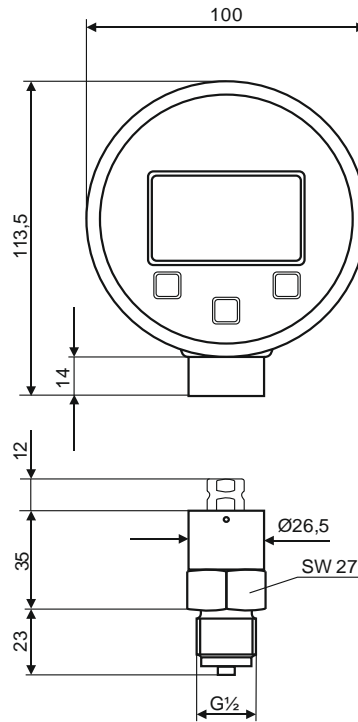
- accredited calibration certificate
- IS-version zone 1
- software incl. USB converter
- service case with accessories
Accessories are not in scope of supply
and have to be ordered separately!

Type	3311												Options
Diameter	100												
Symbol													Ex-version Accessories
Accuracy class	standard for $P_N \geq 0,4$ bar: $\leq \pm 0,05$ % BFSL standard for $P_N < 0,4$ bar: $\leq \pm 0,125$ % BFSL <small>accuracy according to IEC 60770 - minimum value setting (non-linearity, hysteresis, repeatability)</small>												
Long term stability	$\leq \pm 0,1$ % FSO /year at reference conditions												
Measuring rate / display	1 or 2 measurements per second, adjustable												
Permissible temperatures	Medium: $-10 \dots 55^\circ\text{C}$, environment: $-10 \dots 55^\circ\text{C}$, storage: $-20 \dots 70^\circ\text{C}$												
Temperature error <small>(comp. range $0 \dots 50^\circ\text{C}$)</small>	at $P_N \leq 160$ bar: included in the accuracy information at $P_N > 160$ bar: Fehlerband $\leq \pm 0,75$ % FSO												
Case / pressure port	Stainless steel 1.4404												see page 3
Display case	Stainless steel 1.4301												
Seals <small>(media wetted)</small>	FKM												without (welded vers.)
Diaphragm	Stainless steel 1.4435												
Media wetted parts	Pressure port, seal, diaphragm												
LCD-Display	visible area: 55×46 mm (resolution 128×64) figure height $5,5$ mm, measured value display: max. 7 digits depending on pressure range; temperature display, time, 100-segment-bargraph, potential input value background illumination (adjustable)												
Temperature display range	Accuracy: ± 2 K Resolution: $0,1$ K Display: $-10 \dots 55^\circ\text{C}$												
Data logger	recording pressure values and sensor temperature , max. 8.500 Werte modes: cyclic, linear measuring value interval adjustable												
Current consumption	without background illumination: ca. $1,3$ mA with background illumination: ca. 16 mA standbay mode: ca. $1,2$ μA												
Supply	3 x $1,5$ V AA (LR6)												
Protection	IP 67												
Mounting position	any - Pressure transmitters are 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 pressure ranges $P_N \leq 1$ bar												
Weight	approx. 680 g												
Load cycles	$> 100 \times 10^6$												
CE- conformity	EMC-directive: 2004/108/EG Pressure equipment directive: 97/23/EG (ModulA)-only for >200 bar Electromagnetic compability: according to EN 61 326												
Input pressure													
Nom. Press.gauge	(bar)	-1...0	0,10	0,16	0,25	0,40	0,60	1	2	3	4	6	
Nom. Press. abs.	(bar)	-	-	-	-	0,40	0,60	1	2	3	4	6	
Overpressure	(bar)	5	1	1	1	2	5	5	10	10	17,5	35	
Burst pressure \geq	(bar)	7,5	1,5	1,5	1,5	3,0	7,5	7,5	15,0	15,0	25,0	50,0	
N.pr.gauge/abs	(bar)	10	16	25	40	60	100	160	250	400			
Overpressure	(bar)	35	80	80	105	210	600	600	1000	1000			
Burst pressure \geq	(bar)	50	120	120	210	420	1000	1000	1250	1250			
Vacuum resistance	PN > 1 bar: unlimited vacuum resistant												< 1 bar on request

Dimensioned drawing Dimensions in mm



Standard G 1/2 EN 837

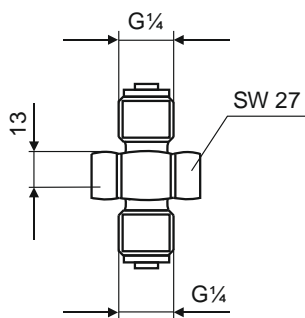


G 1/2 EN 827
(pressure transmitter and display separated)

Connection pressure transmitter optional

- G 1/2 DIN 3852
- G 1/4 DIN 3852
- G 1/2 DIN 3852 with flush sensor (only possible for nominal pressure ranges $P_N \leq 40$ bar)
- G 1/4 EN 837 internal thread, welded (only possible for nominal pressure ranges $P_N \leq 40$ bar)
- 1/2 NPT
- 1/4 NPT
- G 1/4 EN 837
- G 1/2 DIN 3852 open pressure port
- others on request

Adapter for pressure port G 1/4 EN 837 internal thread, welded



Example
(dimensioned drawing)

other versions

external thread G 1/4 EN 837
external thread G 1/4 EN 837

external thread G 1/4 EN 837
external thread G 1/2 EN 837

external thread G 1/4 EN 837
external thread 1/4 NPT

external thread G 1/4 EN 837
external thread 1/2 NPT

Others on request

Accessories (not in scope of supply- please order separately)

Software Interface cable

display of device information
configuration area for all parameters
download area for all recorded data (date, pressure and temp. measurement)
actual value



Hard-shell service case without accessories

Dimensions 432 mm (L) x 363 mm (W) x 138 mm (H)



Protective cap (rubber protection)



Seal set - Flat seal copper for mechanical connections according to EN 837
(only in combination with service case)



PTFE Seal tape, temperature range: -200 ... 280°C
(only in combination with service case)



Wrench SW27
(only in combination with service case)



Calibration test pump
used to generate pressure and vacuum for checking, adjusting and calibrating mechanical and electrical pressure measuring instruments by comparative measurements.
pressure: 0 ... 35 bar, vacuum: 0 ... -0,95 bar
approx. weight: 510 g
Dimensions: approx. 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 ¼ EN 837
to:
internal thread G ¼ DIN 3852
or G ½ DIN or EN
or ¼ NPT
or ½ NPT



Adapter for calibration test pump
Adapter to connect the pressure sensor module to the calibration test pump.
external thread: G ½ EN 837
to:
internal thread G ¼ DIN 3852
or G ½ DIN 3852
or ¼ NPT
or ½ NPT