The selection is detailed on page 5

A7
Small Dial Pressure Gauge

Working principle

Bourdon tube pressure gauges are the most commonly used mechanical pressure measuring instruments, and their pressure elements are often referred to as Bourdon tubes:
In the mid-19th century, French engineer Eugene Bourdon applied this functional principle. It is based on an elastic spring, a C-shaped, curved tube with an elliptical cross section.
When the inner space of the Bourdon tube is compressed, the cross section changes towards the circle. The circumferential stress generated during this process increases the radius of the C-shaped tube. As a result, the end of the tube moves about two to three millimeters. This deflection is a measure of pressure. The pressure is converted into displacement, which turns the linear deflection into a rotational displacement and makes it visible on the scale through the pointer.

Product description

The A7 gauge is based on the proven Bourdon tube measuring system. When pressurized, the deflection of the Bourdon tube is proportional to the incident pressure and transmitted to the transmission movement through the link.

The modular design enables a variety of combinations of case materials, process connections, nominal sizes and ranges. Its diversity makes the gauge suitable for a wide range of industrial applications.

When mounted on the control panel, the pressure gauge can be equipped with a surface mount flange or triangle stop and mounting bracket. (depends on process connection)

Product application

For pneumatic/hydraulic/Marine/ compression/heating systems
Used to measure non-viscous, non-crystalline, non-corrosive copper alloys
Gaseous or liquid medium of the component
Heating and air conditioning technology
Medical engineering

Functional characteristics

Reliable and cost-effective
The design conforms to EN837-2 standard
Strong steel or stainless steel housing

✆ 400-860-9760

For more product information, please visit www.ludwig-schneider.com.cn

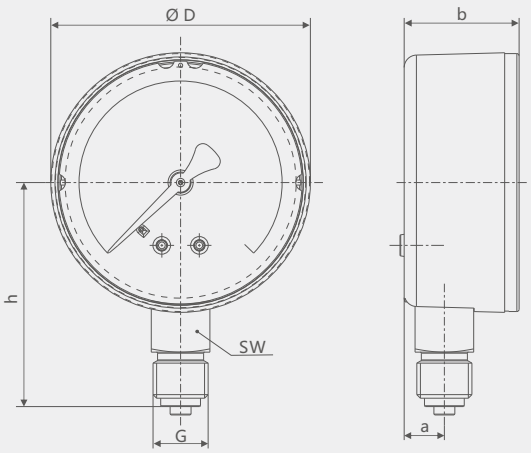
LUDWIG INSTRUMENT

Technical parameter

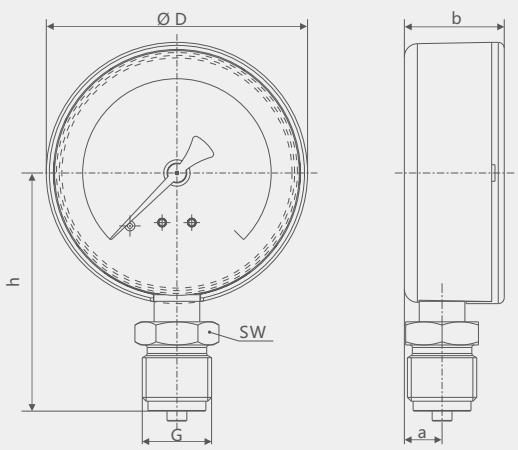
Design	Meets the EN837-3 standard
Standard size (mm)	50
	60
Precision class	1.6
	2.5
range	- 1... 0 to -1... +15bar; 0... 0.6 to 0... 400bar
Pressure limit	
▪ Static pressure	Static pressure: 3/4x full scale value
▪ Dynamic pressure	Dynamic pressure: 2/3x full scale value
▪ Dynamic pressure	Instantaneous pressure: full scale value
Allowable temperature	
▪ environment	- 20... + 60 ℃
▪ medium	The maximum is +60℃
Temperature effect	When the temperature of the measuring system fluctuates around the reference temperature (+20 ° C), the maximum change is ± 0.4% /10K of the range
Class of protection	IP32, in accordance with EN 60529
Connection material	Copper alloy
Installation mode	Radial or axial
Process connection	NS 40: G1/4B, SW14
	NS 50: G1/8B, SW14
Pressure element	Copper alloy bourdon tube
	60 bar "C" shaped tube
	> 60 bar spiral tube
Drive movement	Copper alloy
Dial plate	White plastic
	Dial dial word black
pointer	Black plastic
shell	Stainless steel 304 metal
Watch glass	The clear plastic card is housed in the housing
Optional parameter	Front side or back side mounting
	Three hole surface mounting flange
	Single and double scale optional
	Other process connection
	Overvoltage device
	Precision class

Size mm

Radial connection

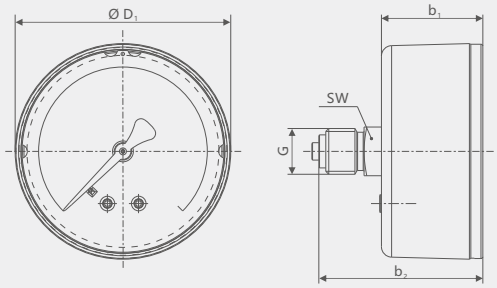


Axial connection



NS	Size mm						Weight kg
	a	b±0.5	D	G	h±1	SW	
50	10	27.5	49	G1/4B	45	14	0.15
60	10	27.5	59	G1/4B	45	14	0.35

Axial mounting



NS	Size mm					Weight kg
	b±0.5	b2±1	D	G	SW	
50	29.5	47.5	49	G1/4B	14	0.15
60	29.5	47.5	59	G1/4B	14	0.35

Range table

Negative pressure	code	MPa	code	Bar	code	kPa	code	kg/cm²	code	Psi/-inHg
	MV001	-0.1/0	BV001	-1/0	KV001	-100/0	GV001	-1/0	RV030	-30"/0 Hg
Positive and negative pressure	code	MPa	code	Bar	code	kPa	code	kg/cm²	code	Psi/-inHg
	MC006	-0.1/0.06	BC006	-1/0.6	KC006	-100/60	GC006	-1/0.6	PC015	-30"/0/15
	MC015	-0.1/0.15	BC015	-1/1.5	KC015	-100/150	GC015	-1/1.5	PC030	-30"/0/30
	MC030	-0.1/0.3	BC030	-1/3	KC030	-100/300	GC030	-1/3	PC060	-30"/0/60
	MC050	-0.1/0.5	BC050	-1/5	KC050	-100/500	GC050	-1/5	PC100	-30"/0/100
	MC090	-0.1/0.9	BC090	-1/9	KC090	-100/900	GC090	-1/9	PC160	-30"/0/160
	MC150	-0.1/1.5	BC150	-1/15	KC150	-100/1500	GC150	-1/15	PC200	-30"/0/200
	MC240	-0.1/2.4	BC240	-1/24	KC240	-100/2400	GC240	-1/24	PC300	-30"/0/300
Positive pressure	code	MPa	code	Bar	code	kPa	code	kg/cm²	code	Psi
	MP001	0/0.1	BP001	0/1	KP001	0/100	GP001	0/1	PP1E5	0/15
	MP1E6	0/0.16	BP1E6	0/1.6	KP1E6	0/160	GP1E6	0/1.6	PP003	0/30
	MP2E5	0/0.25	BP2E5	0/2.5	KP2E5	0/250	GP2E5	0/2.5	PP006	0/60
	MP004	0/0.4	BP004	0/4	KP004	0/400	GP004	0/4	PP010	0/100
	MP006	0/0.6	BP006	0/6	KP006	0/600	GP006	0/6	PP016	0/160
	MP010	0/1	BP010	0/10	KP010	0/1000	GP010	0/10	PP020	0/200
	MP016	0/1.6	BP016	0/16	KP016	0/1600	GP016	0/16	PP030	0/300
	MP025	0/2.5	BP025	0/25	KP025	0/2500	GP025	0/25	PP040	0/400
	MP040	0/4	BP040	0/40	KP040	0/4000	GP040	0/40	PP060	0/600
	MP060	0/6	BP060	0/60	KP060	0/6000	GP060	0/60	PP100	0/1000
	MP100	0/10	BP100	0/100	KP100	0/10000	GP100	0/100	PP150	0/1500
	MP160	0/16	BP160	0/160	KP160	0/16000	GP160	0/160	PP200	0/2000
	MP250	0/25	BP250	0/250	KP250	0/25000	GP250	0/250	PP300	0/3000
	MP400	0/40	BP400	0/400	KP400	0/40000	GP400	0/400	PP400	0/4000

A7-Selection composition

Selection example A7 | A | C | F | MP001 | N | P | U | B | S |
1 2 3 4 5 6 7 8 9

1.Dial diameter mm	A	50	
	B	60	
2.Precision class	C	1.6	
	D	2.5	
3.liquid-filled	E	Glycerin	
	F	Silicone oil	
	N	without	
4.Measuring range	-	See range table (page 3)	
5.Second range unit	G	MPa	
	H	bar	
	I	KPa	
	J	kg/cm²	
	K	Psi	
	N	without	
6.Process connection	P	1/4NPT	
	Q	M10*1.0	
	R	M14*1.5	
	S	G1/4B	
	T( )	Other specifications	
7.Installation mode	U	Radial direction	
	V	Axial direction	
	W	Shaft forward edging (three-hole mounting)	
	X	The shaft is mounted on the rear bracket	
8.Watch glass	A	PC plastic	
	B	Safety glass	
9.Material	S	304SS	
	L	316L	
	M	Copper joint	
	T( )	Other materials	
10.Special requirements	X	Degrease	
	Y	Oxygen application≤160bar	
	Z	without	
11.Certificate	A	2.1 Measurement report	
	B	3.7 Inspection certificate	
	N	without	
12.Additional description	Z	There are	
	N	without	

Instructions:

It indicates that the dial diameter of A7 pressure gauge is 50mm, the accuracy class is 1.6%, the shockproof is filled with silicone oil, the measuring range is 0~0.1MPa, no second measuring range unit, the process connection is 1/4NPT, the radial installation, the safety glass, the body material is 304SS. Items 10/11/12 in the above table are not required

Product Certification

Compliance and approval; Rodeweig pressure meets key standards and certifications for process measurement technology; Thus guaranteeing the highest reliability in such Settings;

Ludwig China Representative Office
Ludwig Automation Instrument (Guangzhou) Co., Ltd | Ludwig International Trade (Shanghai) Co., Ltd
LUDWIG More product information is available www.ludwig-schneider.com.cn
✆ 400-860-9760 ✉ lw@ludwig-schneider.com.cn
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