

Pressure gauges with one or two switch contacts

Nominal sizes NS 40, 50 and 63

Central connection on the back,
radial connection at the bottom



Description

The models S4634, S4365 and S4636 are bourdon tube pressure gauges with electrical limit contacts. They are suitable for the control of processes, for example the filling level in tanks or hydraulic circuits. They have one or two switching outputs.

The floating contacts work independent of a power supply. Only one single device and one connection are needed for the switching operation and for pressure monitoring. The adjustment of the switch point can be carried out in pressureless state. As a result, this avoids complex adjustments in multiple several pressure cycles as required for the most pressure switches. Additionally the gauges fulfil the requirements of EN 837-1.

These contact gauges can be matched exactly to the customer-specific requirements of each application due to various options (e.g. process connection, dial, accuracy class and many more).

Features

- Various process connections, radial bottom or centre back mount
- High switching reliability and long service life
- Magnetic spring contact and gold-plated contact lug
- Design per EN 837-1
- Pressure indication over 270 angular degrees
- Adjustable contacts between 10% and 90% of the scale range

Display ranges

-1 ... 0 up to 0 ... 400 bar

Applications

- Indicating pressure level in tanks
- Leakage monitoring
- General industrial applications

Model: S4634, S4635, S4636

Technical data

Model	S4634	S4635	S4636
Nominal size	40	50	63
Configuration	positive overpressure, negative overpressure, positive and negative overpressure		
Process connection	centre backmount G1/8 B G1/4 B Optional radial bottom others on request		
Measuring principle	bourdon tube		
Ranges	Standard 0...2.5 bar to 0...400 bar Optional -1...0 bar to -1...30 bar		
Accuracy class	Standard 2.5 Optional 1.6 (one contact)		
Pressure limitations	Constant load 3/4 x full scale value Alternating load 2/3 x full scale value Short-time load full scale value		
Materials	Housing plastics (NG 40, 50), stainless steel (NG 40, 50 63) Window plastics Dial NG 40, 50: aluminum, white NG 63: stainless steel, white Pointer plastics, black Wetted parts brass (measuring element, process connections), others on request		
Switching outputs	Number Standard 1 Optional - Switching function NO or NC Switching element magnet snap action contact, potential free Repeatability one contact: max. ± 2.5% of full scale two contacts: max. ± 4 % of full scale Adjustment Standard on-site Optional factory adjusted		
Power rating	Switching voltage 4.5 ... 24 VDC/VAC Switching current 5 ... 100 mA Contact load max. 2.4 W		
Temperature ranges	Medium max. +60 °C Ambient -20...+60 °C Temperature effect ² max. ±0.4 %/10 K of the span		
Electrical connection	cable output		
Ingress protection	IP41 acc. EN 60529 / IEC 529		
Leakage rate	$10^{-5} \text{ mbar } \frac{\text{l}}{\text{s}}$ (helium leaktest)		
Accessories (optional)	orifice brass 0.3 mm, 0.5 mm		

¹ Min. difference between 2 switch points: 15% of full scale

² When the temperature of the measuring system deviates from the reference temperature (+20 °C)

Electrical connection

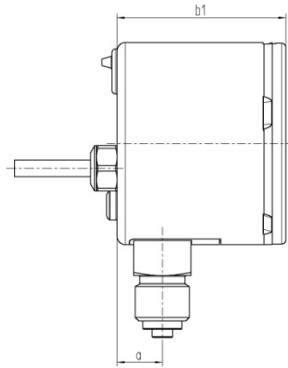
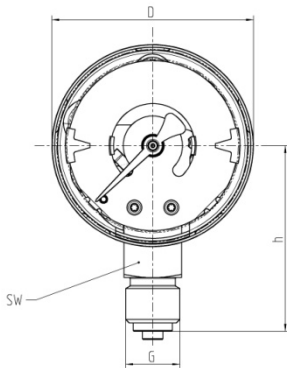
Cable output, standard length 1 m

One contact		Two contacts	
red:	U _{B+}	red:	U _{B+}
black:	SP1	orange:	SP1
		black:	SP2

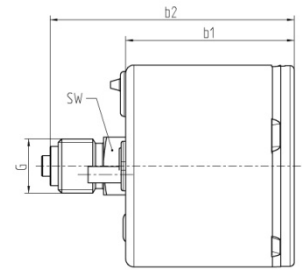
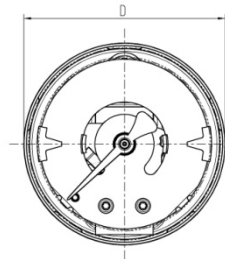
Dimensions (in mm)

1) Housing: plastics, black

Connection: radial bottom



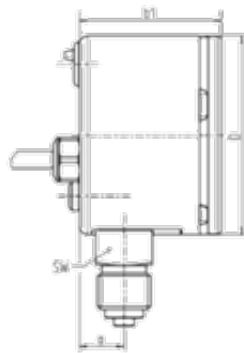
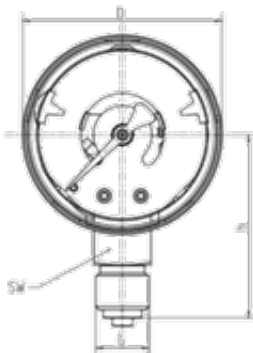
Connection: centre back mount



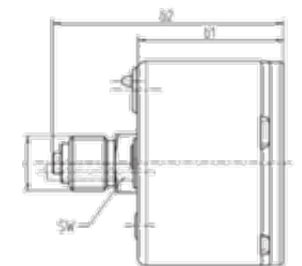
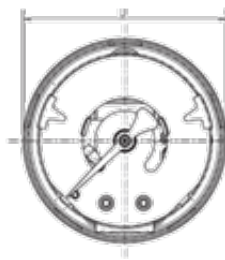
Model	Number of contacts	Position of connection	D	h ± 1	b ₁ ± 0.5	b ₂ ± 1	a ± 0.5	Weight in kg	SW	G
S4634	one contact	radial bottom	40	36	34	-	9.5	0.07	14	G1/8B
		centre back mount	40	-	32.7	48.3	-	0.07	14	G1/8B
S4635	one contact	radial bottom	49	47	32	-	10	0.10	14	G1/4B
		centre back mount	49	-	34	54	-	0.10	14	G1/4B

2) Housing: stainless steel

Connection: radial bottom



Connection: centre back mount



Model	Number of contacts	Position of connection	D	h ± 1	b ₁ ± 0.5	b ₂ ± 1	a ± 0.5	Weight in kg	SW	G
S4634	one contact	radial bottom	40	36	34.6	-	10.7	0.10	14	G1/8B
		centre back mount	40	-	30.6	48	-	0.10	14	G1/8B
S4635	one contact	radial bottom	49	45	35	-	11	0.12	14	G1/4B
		centre back mount	49	-	35	55.4	-	0.12	14	G1/4B
	two contacts	radial bottom	49	45	41	-	11	0.12	14	G1/4B
		centre back mount	49	-	41	49.4	-	0.12	14	G1/4B
S4636	one contact	radial bottom	61.9	53.5	35.1	-	11.4	0.14	14	G1/4B
		centre back mount	61.9	-	35.1	55.1	-	0.14	14	G1/4B
	two contacts	radial bottom	61.9	53.5	41.1	-	11.4	0.14	14	G1/4B
		centre back mount	61.9	-	41.1	61.1	-	0.14	14	G1/4B

Subject to technical alternations