

Diaphragm Safety Pressure Gauges with Limit Switch Contact Assembly

With horizontal diaphragm, stainless steel case with bayonet ring

PSCh
PSChOe

This data sheet contains information concerning order text and minimum pressure ranges of the diaphragm pressure gauge models PSCh and PSChOe with limit switch contact assembly, as well as dimensional drawings with the position of the electrical connections.

Data sheet 3600 contains important details and ordering information for those basic models without limit switch contact assembly. These specifications also apply to the versions with limit switch contact assembly, unless otherwise stated below.

The model code for liquid-filled pressure gauges with limit switch contact assembly is PSChOe. Instead of glycerin, a special oil is used as case filling.

Detailed explanations on the operating principle and application of our limit switch contact assemblies can be found in our **model overview 9.1000**.



Standard Versions

Minimum Pressure Ranges

Each pressure gauge requires certain directive forces of the measuring element for the operation of a limit switch contact assembly. Therefore, the installation is only possible from the minimum pressure ranges indicated in the following table¹⁾:

Liquid-filled versions are also subject to the restrictions according to data sheet 3600.

Limit switch contact assembly (GSG) type	Minimum pressure ranges ¹⁾		
	Nominal case size 100 / 160		
	measuring flange Ø		
	100 mm (4")	160 mm (6")	
	bar	mbar	
S	1 x low-action	0.6	60
	2 x low-action		100
	3 x low-action		160
	4 x low-action ²⁾		
M	1 x magnetic	0.6	100
	2 x magnetic		160
	3 x magnetic	2.5	250
	4 x magnetic ²⁾		
I	1 x inductive	0.6	60
	2 x inductive		
	3 x inductive ³⁾		
E	1 x electronic	0.6	60
	2 x electronic		
	3 x electronic ³⁾		

For pressure gauges with 3 and 4 limit switch contacts, the limit setting pointers cannot necessarily all be set one above the other. Therefore, please always specify which of the pointers have to be adjustable one above the other or where your switch points are.

Window

Laminated safety glass

Ventilation

Model PSChOe direct ventilation at the top of the case

Safety Features

- Break-proof solid front between measuring unit and dial
- Blow-out back

When pressure increases in the case, the entire case back separates, allowing full relief.

Electrical Connection

- For electromechanical limit switch contact assembly (**M, S**) universal plug connector on the right side of the case
- For inductive or electronic limit switch contact assembly (**I, E**) terminal box on the right side of the case

The plug connector has 6 connections and a ground terminal. The terminal box has 6 connections.

Please refer to the dimensional drawings on page 2 for the precise position of the electrical connection.

Options

- Pressure gauge with pneumatic limit switch contact assembly (**P**)

Special Versions Upon Request

- Other position of connection
- Other electrical connection

Ordering Information

In addition to the order text of the particular instrument models (cf. data sheet 3600), please add

- the code letter for the type of limit switch contact assembly: S, M, I or E and
- the code number for the switch function, e.g. 1, 11, 12, 2, 22, 21

Please compare the particular types of limit switch contact assembly in model overview 9.1000!

Example

PSCh 100 – 3, 0 – 25 bar, G ½ B, M 12
PSChOe 160 – 3, 0 – 400 mbar, ½" NPT, I 1

¹⁾ lower pressure ranges upon request

²⁾ for nominal case size 160 only

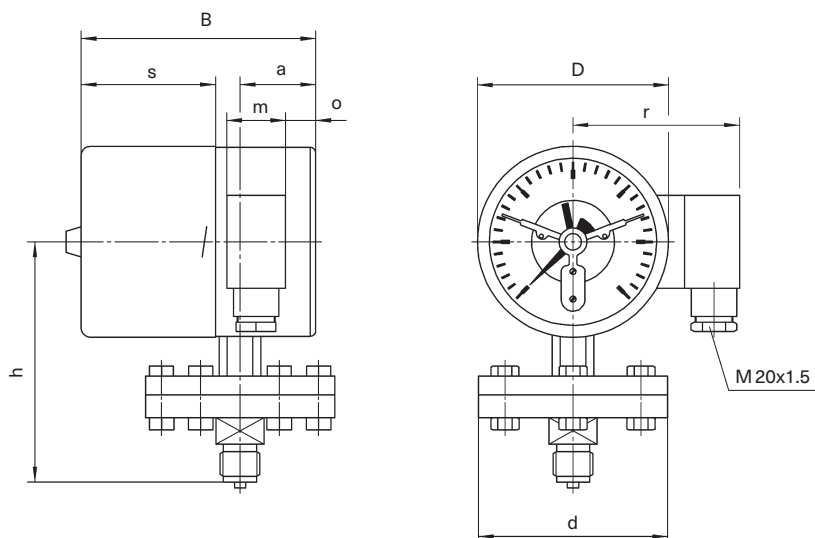
³⁾ 4 contacts upon request

Electrical Connection, Dimensional Data and Weight

Electrical Connection

Plug connector or cable connection

on the right side of the case



Deviation from the basic model: dimension B (front-to-back size).

Please refer to data sheet 3600 for the other dimensions, also for open flanges.

Dimensional drawings for versions with PP / PE converter are available upon request.

Dimensional Data (mm / inch) and Weight (kg / lb)

nominal case size	measuring flange Ø d	a	B	D	h ^{±2}	m	o	r	s	approx. weight ²⁾	
										PSCh	PSChOe
100 4	100 4	40 1.57	124 4.88	101 3.98	127 5	31 1.22	16 0.63	88 3.46	71 2.8	2.70 5.95	3.40 7.5
	160 6		4.05 8.93	4.85 10.69							
160 6	100 4		130 5.12 ¹⁾	161 6.34	157 6.18	14 0.55	117 4.61	95 3.74	4.25 9.37	6.05 13.34	
	160 6		5.60 12.35	7.50 16.53							

¹⁾ For inductive limit switches with 2 similar switching functions (i.e. I11 or I22), but also as part of a 3x inductive limit switch, e.g. I112) as well as for 4x low-action or magnetic contacts, please add 12 mm (0.47") to length B!

²⁾ The weights of the devices deviate considerably for different pressure ranges and materials, therefore only vague values can be given.