

PSG 901

Pressure Switch for Gas

PSG 901

Pressure Switch for Gas (EN1854)

Contents

Description.....	2
Features.....	2
Functioning and application	3
Technical specifications	4
Ordering information	5
Standards and approvals	5
Installation, wiring and adjustment.....	6

Description

The PSG 901 is an adjustable pressure switch for monitoring overpressure of gaseous media.

Features

The pressure switch has a knob for adjusting the switching pressure (Fig. 1) selectable within a predefined range.

It is suitable for monitoring overpressure of air and non-aggressive gases (families 1-2-3 EN 437). Special versions are available for use with corrosive gases.

The compact, robust and functional design permits a simple, quick, and essentially maintenance free installation.

A special filter (20µm) protect the sensing element from dirt and dust which could fail the item.

All components are designed to withstand mechanical, thermal and chemical stresses present in a typical installation.

Pressure switches are 100% calibrated.

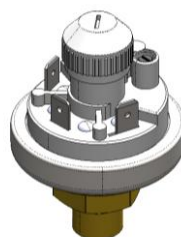


Fig. 1



WARNING

This device shall be installed in accordance with the laws in force.

Functioning and application

The PSG pressure switch is designed for the monitoring of operating overpressures on air and gas line.

When the pressure exceeds the set value, the electrical contact switches. When pressure decrease, the contact switches again (Fig. 2).



Fig. 2

The pressure switch has a threaded connection G 1/4" that allows installation on the gas line or directly on components of the Elektrogas range with pressure test point.

Fig. 3 shows an example of a typical installation.

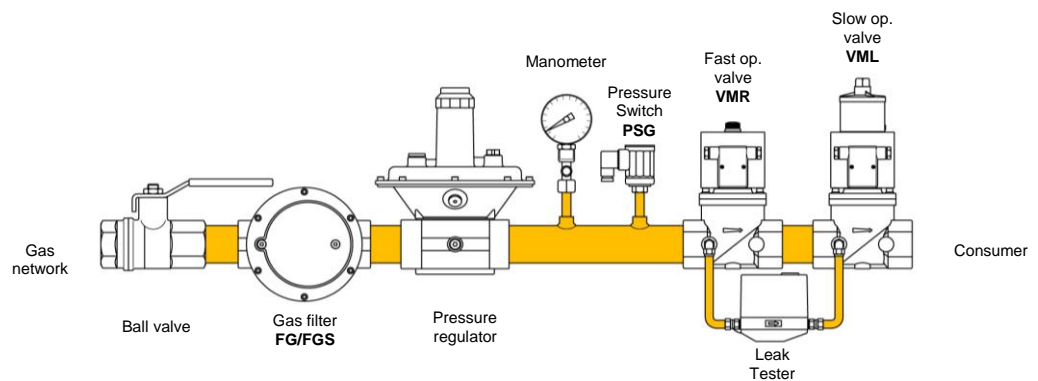


Fig. 3



WARNING

Place and manner of installation must be in accordance with the laws in force.

Technical specifications

Tab. 1

Connection	G ¼ (male)												
Operating and max pressure	See table												
Environmental temperature	-20°C / +85°C												
Diaphragm material	NBR Viton® (special version for aggressive gas)												
Installation	On horizontal and vertical piping												
Gas type	Air and non aggressive gases (fam 1-2-3 EN437) Special versions for aggressive gases												
Electrical loads	<table border="0"> <tr> <td>AgNi contacts</td> <td>6 (1.5) A</td> <td>250 VAC</td> </tr> <tr> <td></td> <td>2 A</td> <td>24 VDC</td> </tr> <tr> <td>Gold-plated contacts</td> <td>100 mA</td> <td>24 VAC</td> </tr> <tr> <td></td> <td>30 mA</td> <td>24 VDC</td> </tr> </table>	AgNi contacts	6 (1.5) A	250 VAC		2 A	24 VDC	Gold-plated contacts	100 mA	24 VAC		30 mA	24 VDC
AgNi contacts	6 (1.5) A	250 VAC											
	2 A	24 VDC											
Gold-plated contacts	100 mA	24 VAC											
	30 mA	24 VDC											
Electrical connection	<p>Quick-connect terminals 6.3x0.8 (DIN46244) and ISO16 cable gland</p> <p>ISO4400 plug with PG11 cable gland</p>												
Materials in contact with media	<p>Brass</p> <p>PE UHMW (filter)</p> <p>Plated steel</p> <p>Nitrile rubber (NBR)</p> <p>Stainless steel (aggressive gas version)</p> <p>FPM (aggressive gas version)</p>												

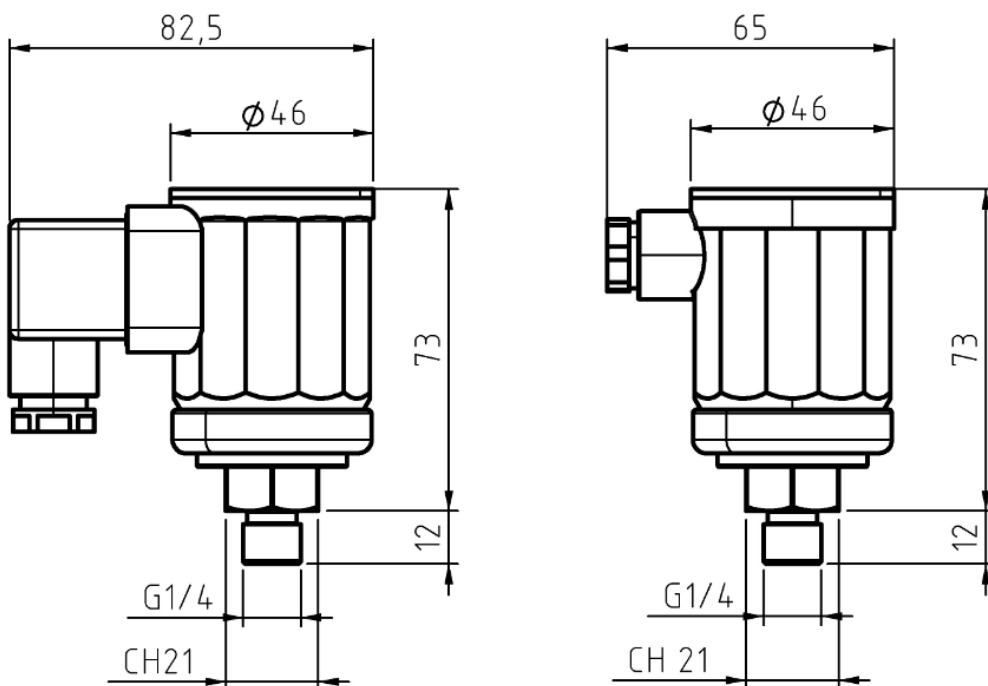


Fig. 4

Ordering information

The pressure switch is available in different versions, all with threaded connection G ¼.

It is possible to choose the pressure range depending on the Tab. 2 and 3.

Versions for aggressive gases should be specified when ordering.

Tab.2

Type PSG	Conn.	Pressure range [mbar]	Tolerance	Differential pressure [mbar]	Maximum pressure [mbar]	Weight [kg]
901.61	G ¼ (male)	5-20	+/-10%	3	500	0,165
901.62		10-50		5	500	
901.63		25-100		10	500	
901.64		50-250		20	1000	
901.65		100-500		50	1000	

Tab.3

PSG901		.61	-	-	-
Pressure range [mbar]					
.61	5 – 20				
.62	10 – 50				
.63	25 – 100				
.64	50 – 250				
.65	100 – 500				
Electrical connection					
[none]	terminals				(standard)
.P	ISO4400 plug with PG11				
Contacts					
[none]	230 VAC - 24VDC 2A AgNi				(standard)
.C	24V AC/DC Gold plated				
Media					
[none]	air and non aggressive gases				(standard)
.K	bio and coke gas				

Standards and approvals

Pressure switches are designed and built by Beck GmbH for Elektrogas. These products comply with:

- 2009/142/CE (ex-90/396/CE) Gas Appliances Directive. The certification has been issued by the notified body DVGW, in accordance with EN1854 (Product identification number CE0085AR0012).
- 2006/95/CE Low Voltage Directive
- 2002/95/CE RoHS

The quality management System is certified according to UNI EN ISO 9001 certification, issued by the notified body:

Kiwa Gastec Italia SpA
Via Treviso, 32/34
I- 31020 San Vendemiano (TV)



Installation, wiring and adjustment



WARNING

Shut off the gas and disconnect the power before attempting any work on the system

INSTALLATION (only qualified personnel)

Check the integrity of the pressure switch before fitting. It may be unsafe, if externally damaged.

Choose an area protected from rain and splashing or dripping water.

Mount the pressure switch on a suitable pipe, using the necessary seals (vertical position is preferable).

Avoid excessive tightening (< 15Nm) and use a suitable key.



WARNING

Perform a leak test

ELECTRIC WIRING (IEC 730-1)



WARNING

Danger of death! Verify that there is no voltage at the electric connections

Protect the supply line with a fuse.

Plug version: use a screwdriver to remove the connector and connect the wires to the terminals, respecting the symbols indicated.

Cable gland version: remove the cap and connect cables with connectors (suitable for 1.5 - 2.5 mm² cables).

During reassembly correctly use the cable gland.

ADJUSTMENT

Turn the knob with a screwdriver to set up the pressure.

The scale allows a coarse adjustment. Greater accuracy is achieved with a measuring instrument.

Close the protective cap with a screwdriver and correctly seal.



WARNING

Perform a complete functional testing with the lid closed