

Compact pressure switches for gas and air GW...A6 GW...A6/1



Double pressure switch
GW... / ...A6

5.01



Technical description

The pressure switch GW...A6 and the double pressure switch GW.../...A6 are adjustable compact pressure switches as per EN for firing systems. They are suited for switching a circuit on, off or over if the actual pressure value changes compared to the set-point.

The setpoint (switching point) is set on an adjusting wheel with scale. A test nipple is integrated in the metal housing as standard.

Application

Pressure monitoring in combustion, ventilation and air-conditioning technologies.

Suitable for gases of families 1,2,3 and other neutral gaseous media.

Approvals

EC type test approval as per EC Gas Appliance Directive:

GW...A6 CE-0085 AO 3220

EC type test approval as per EC Pressure Appliance Directive:

GW...A6 CE0036

Pressure switch class „S“ as per EN 1854.

Approvals in other important gas-consuming countries.

Functional description

Single-acting pressure switch in over-pressure range.

The pressure switches operate without any power supply.

Switching response

GW...A6

Short response time during pressure fluctuations.

GW...A6/1

Slow response time during short-term pressure fluctuations by additional damping nozzle.

GW...A6 pressure switch

The control unit responds to pressure. If the setpoint is exceeded or undershot, the circuit is switched on, off or over.

GW... / ...A6 double pressure switch

Combination of two flanged GW...A6 single pressure switches. The two setpoints are set separately and independently. A combination of different setpoint ranges is therefore possible. The two control units are fed from the same medium at the medium's pressure.

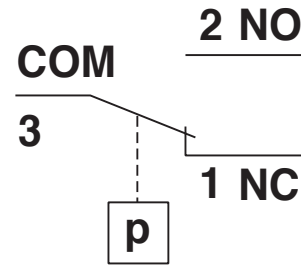
Switching function

If pressure increases:

1 NC opens, 2 NO closes.

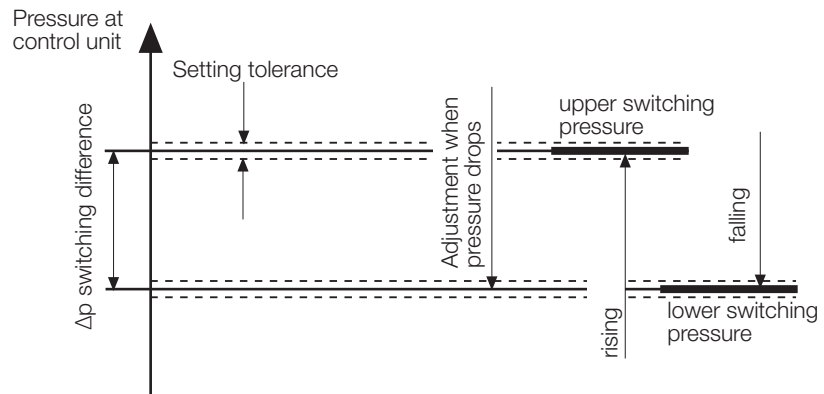
If pressure drops:

1 NC closes, 2 NO opens.



Definition of Δp switching difference

The Δp switching difference is the pressure difference between the upper and lower switching pressure.



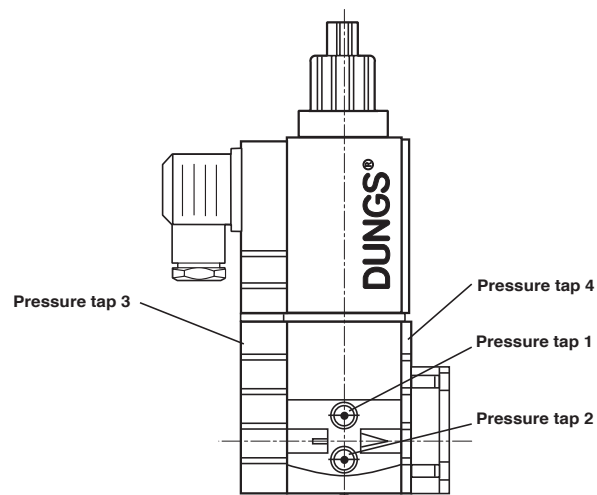
Specifications

Max. operating pressure	GW 3 A6 - GW 150 A6 GW 500 A6	500 mbar 600 mbar	(50 kPa) (60 kPa)
Pressure connection	Standard:	centrally on housing bottom, G 1/4 inner thread as per ISO 228	
	Special design:	additionally G 1/4 inner thread (side right)	
Measuring connection	Test nipple integrated in metal housing $\varnothing 9$		
Temperature range	Ambient temperature	-15 °C to +70 °C	
	Medium temperature	-15 °C to +70 °C	
	Storage temperature	-30 °C to +80 °C	
Materials	Housing:	Aluminium die cast	
	Switch part:	Polyamide	
	Diaphragms:	NBR	
	Switching contact:	Ag	
Switching voltage	AC eff. min. 24 V DC min. 24 V	max. 250 V max. 48 V	
Nominal current	GW 10...500 A6 AC eff. max. 10 A	GW 3 A6 AC eff. max. 6 A	
Switching current	AC eff. max. 6 A at $\cos \varphi 1$ AC eff. max. 3 A at $\cos \varphi 0,6$ AC eff. min. 20 mA DC min. 20 mA DC max. 1 A	AC eff. max. 4 A at $\cos \varphi 1$ AC eff. max. 2 A at $\cos \varphi 0,6$ AC eff. min. 20 mA DC min. 20 mA DC max. 1 A	
Electrical connection	Terminal connection for line sockets as per DIN EN 175 301-803, 3-pin, protection-insulated without ground connection		
Degree of protection	IP 54 as per IEC 529 (EN 60529)		
Setting tolerance	$\pm 15\%$ switch point deviation referred to setpoint, adjusted for dropping pressure, vertical diaphragm position		

Mounting options GW...A6 Safety solenoid valve SV-... 505-520

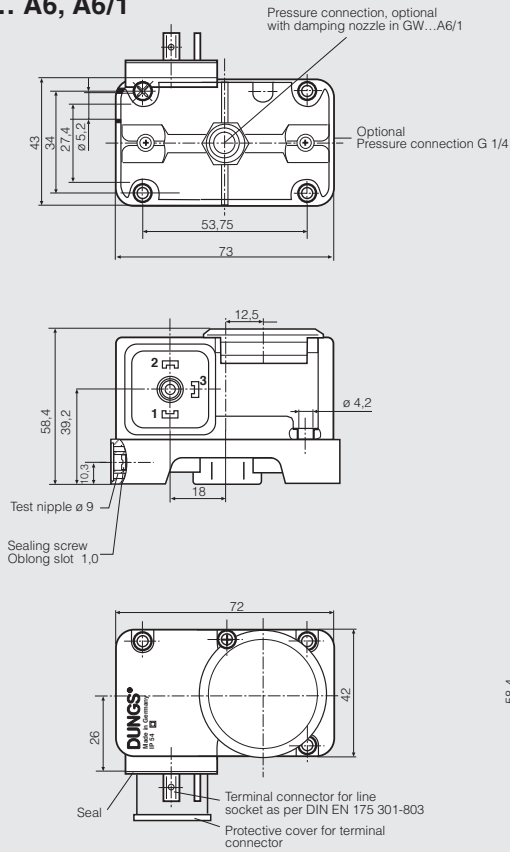
Pressure tap GW...A6 mounting possible ...

1	no
2	no
3	pe (p_1)
4	pa (p_2)

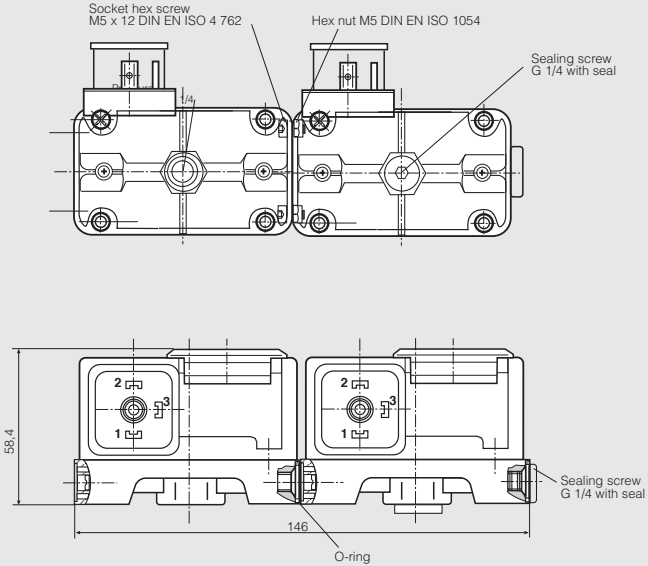


Dimensions [mm]

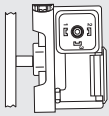
GW ... A6, A6/1



GW ... / ... A6

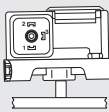


Installation position

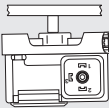


Standard installation position; if a different installation position is used, pay attention to the changed operating points:

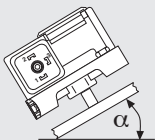
GW 3...50 A6	approx. ± 0,6 mbar
GW 150 A6	approx. ± 1 mbar
GW 500 A6	approx. ± 3 mbar



When installed horizontally, the pressure switch switches at a pressure higher.

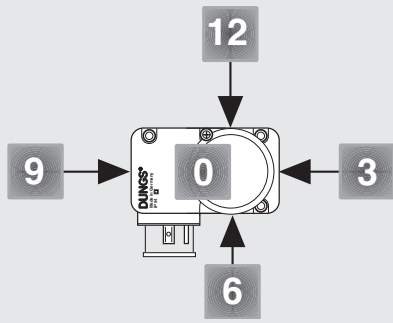


When installed horizontally overhead, the pressure switch switches at a pressure lower.



When installed in an intermediate installation position, the pressure switch switches at pressure deviating from the set reference value.

Designation



Order example

Pressure switch design

Pressure switch GW...A6

Setting range

5 - 150 mbar

Contact material

Ag

Electrical connection

Equipment connector

Pressure connection

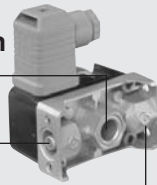
G 1/4 at position 0

Test nipple

MS 9

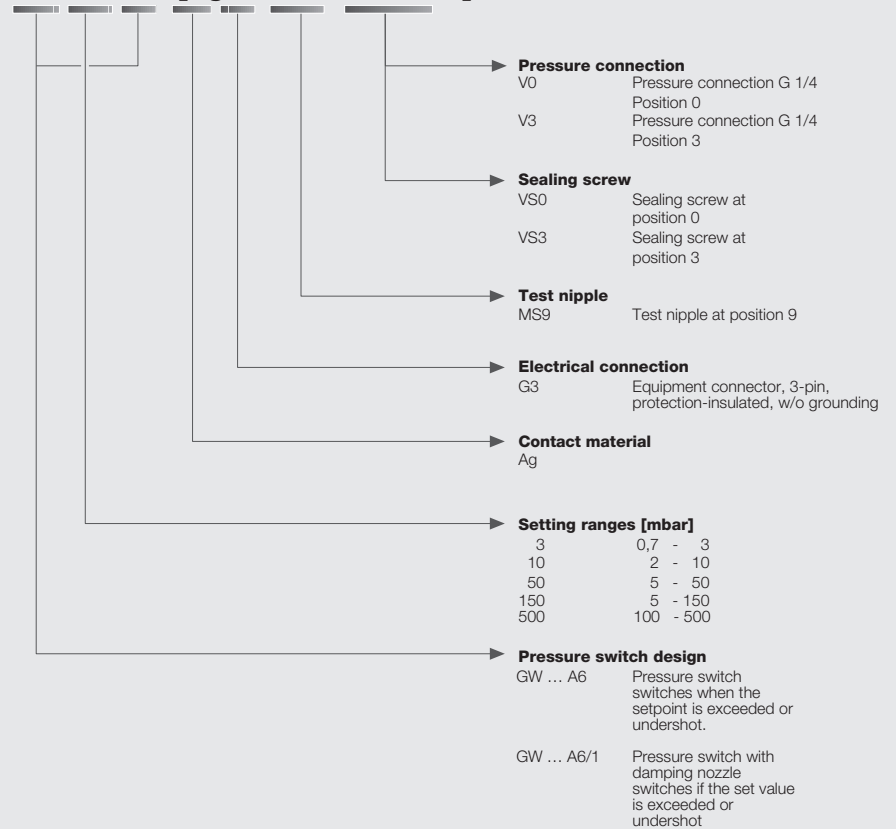
Sealing screw

At position 3



GW 150 A6 [Ag-G3-MS9-V0-VS3]

GW 150 A6 [Ag-G3-MS9-V0-VS3]



Accessories for GW A6 pressure switch

Line sockets, 3-pin + grounding, grey GDMW

210 318

Test nipple G 1/4 with sealing ring (5 x)

230 398

Sealing screw G 1/4 with sealing ring (5 x)

230 396

Mounting kit for double pressure switch

213 910

Mounting bracket, metal

230 288

Mounting kit GW...A6 (for fitting to SV)

242 771

**Compact pressure switches
for gas and air
GW...A6
GW...A6/1**

**Double pressure switch
GW... / ...A6**



Short technical overview

1 mbar = 100 Pa = 0,1 kPa ≈ 10 mm WS

1 Pa = 0,01 mbar ≈ 0,1 mm WS

Type	Design [Ag-G3-MS9-V0]	Order number	Setting range [mbar]		Switching difference Δp [mbar]
GW...A6 pressure switch	GW 3 A6	228 723	0,7 - 3		≤ 0,7
	GW 10 A6	228 724	2 - 10		≤ 1
	GW 50 A6	228 725	5 - 50		≤ 2,5
	GW 150 A6	228 726	5 - 150		≤ 5
	GW 500 A6	228 727	100 - 500		≤ 15
Supplied in collective packaging					

Type	Design [Ag-G3-MS9-V0-VS3]	Order number	Setting range [mbar]		Switching difference Δp [mbar]
GW...A6 pressure switch	GW 3 A6	231 111	0,7 - 3		≤ 0,7
	GW 10 A6	231 112	2 - 10		≤ 1
	GW 50 A6	231 113	5 - 50		≤ 2,5
	GW 150 A6	231 114	5 - 150		≤ 5
	GW 500 A6	231 115	100 - 500		≤ 15
Supplied in separate packaging, including line socket					

Type	Design [Ag-G3-MS9-V0-VS3]	Order number	Setting range [mbar]		Switching difference Δp [mbar]		
GW A6 min./ GW A6 max. double pres- sure switch	GW 3 / 3 A6	229 235	0,7 - 3		≤ 0,7	≤ 0,7	
	GW 3 / 10 A6	229 236	0,7 - 3		2 - 10	≤ 0,7	≤ 1
	GW 10 / 10 A6	229 237	2 - 10			≤ 1	≤ 1
	GW 10 / 50 A6	229 238	2 - 10		5 - 50	≤ 1	≤ 2,5
	GW 10 / 150 A6	229 239	2 - 10		5 - 150	≤ 1	≤ 5
	GW 50 / 50 A6	229 240	5 - 50			≤ 2,5	≤ 2,5
	GW 50 / 150 A6	229 241	5 - 50		5 - 150	≤ 2,5	≤ 5
	GW 150 / 150 A6	229 242	5 - 150			≤ 5	≤ 5
	GW 500 / 500 A6	229 243	100 - 500			≤ 15	≤ 15

We reserve the right to make any changes in the interest of technical progress.

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