

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

**DUNGS®**  
Combustion Controls

**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 setpoint.

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

Approvals in other important gas-consuming countries.

TÜV (German Technical Inspectorate) test as pressure switch; special construction type as per TRD 604 and VdTÜV leaflet, Edition 100/1, as well as Class „S“ as per EN 1854.

### 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.

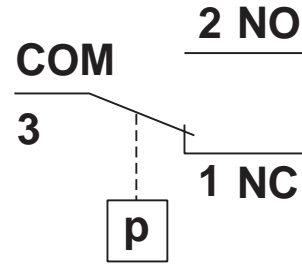
### Switching function

#### If pressure increases:

1 NC opens, 2 NO closes.

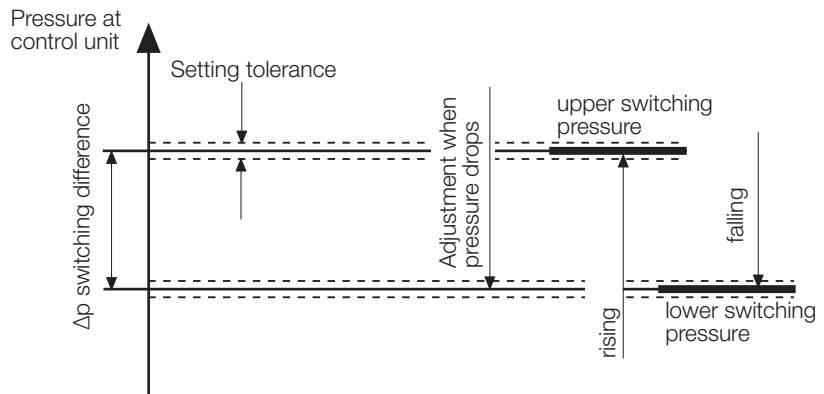
#### If pressure drops:

1 NC closes, 2 NO opens.



### Definition of $\Delta p$ switching difference

The  $\Delta p$  switching difference is the pressure difference between the upper and lower switching pressure.



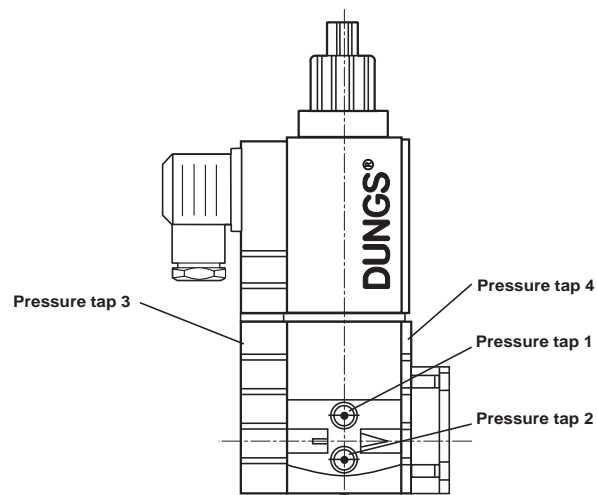
## Specifications

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	<b>GW 10...500 A6</b> AC eff. max. 10 A	<b>GW 3 A6</b> 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 <b>dropping</b> pressure, vertical diaphragm position		

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

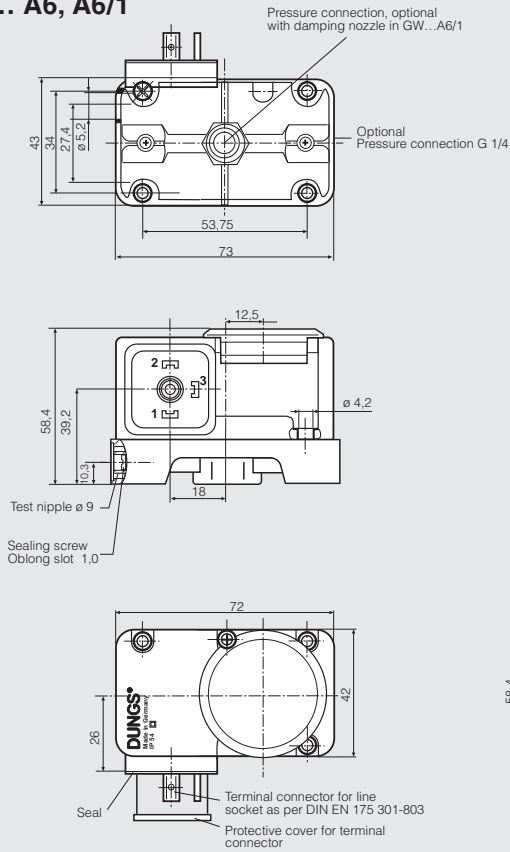
#### Pressure tap GW...A6 mounting possible ...

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

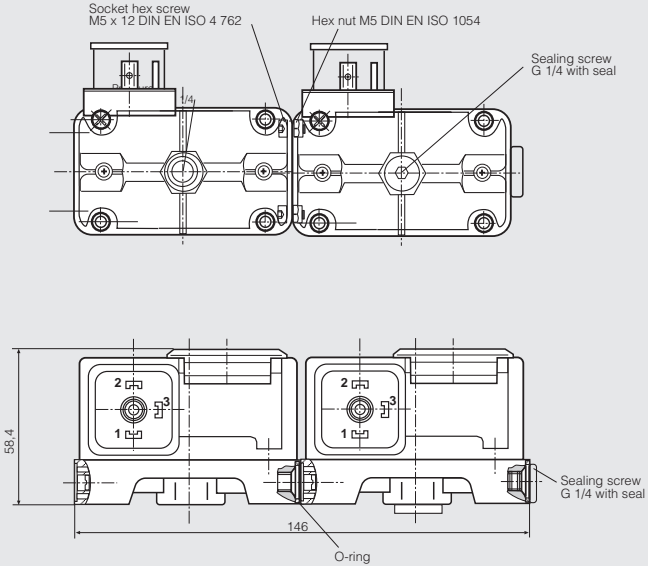


## Dimensions [mm]

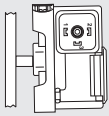
### GW ... A6, A6/1



### GW ... / ... A6

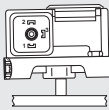


## Installation position

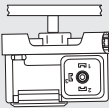


**Standard installation position; if a different installation position is used, pay attention to the changed operating points:**

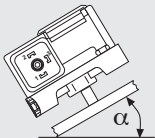
GW 3...50 A6	approx. $\pm 0,6$ mbar
GW 150 A6	approx. $\pm 1$ mbar
GW 500 A6	approx. $\pm 3$ mbar



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

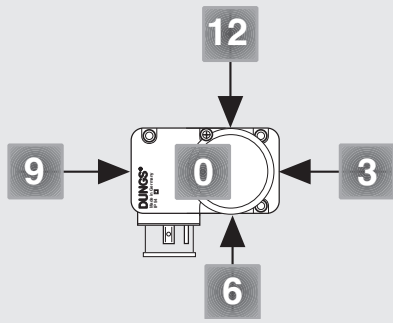


**When installed horizontally overhead, the pressure switch switches at a pressure lower.**



**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

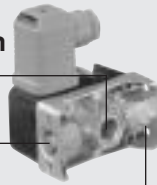
G 1/4 at position 0

### Test nipple

MS 9

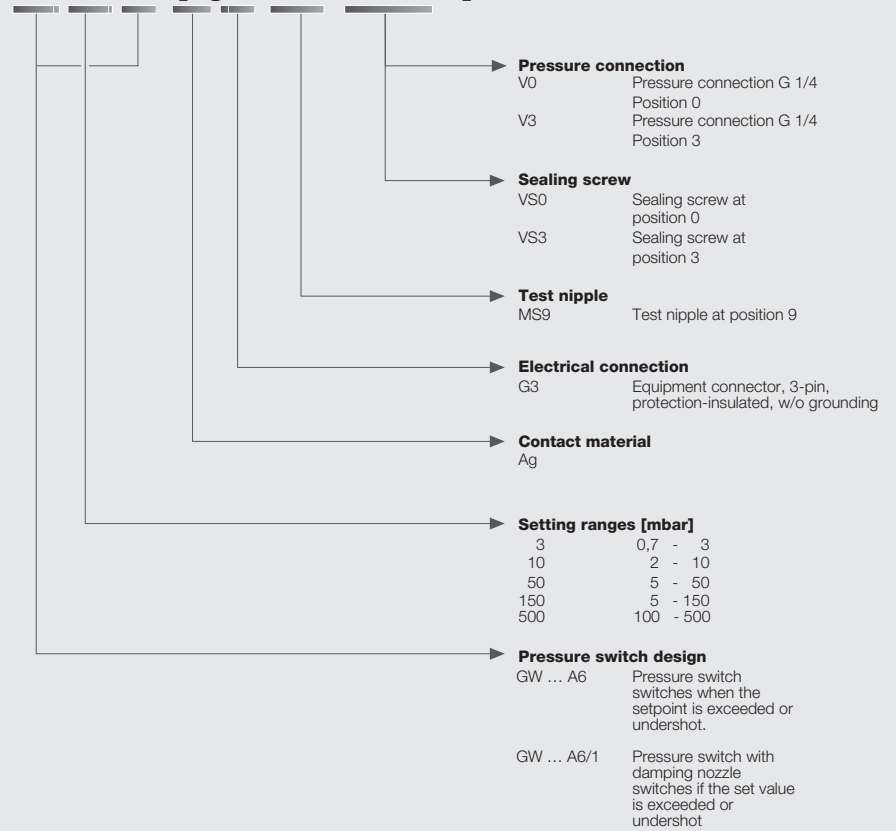
### Sealing screw

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

**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	
	GW 3 / 10 A6	229 236	0,7 - 3		2 - 10	≤ 0,7
	GW 10 / 10 A6	229 237	2 - 10			≤ 1
	GW 10 / 50 A6	229 238	2 - 10		5 - 50	≤ 1
	GW 10 / 150 A6	229 239	2 - 10		5 - 150	≤ 1
	GW 50 / 50 A6	229 240	5 - 50			≤ 2,5
	GW 50 / 150 A6	229 241	5 - 50		5 - 150	≤ 2,5
	GW 150 / 150 A6	229 242	5 - 150			≤ 5
	GW 500 / 500 A6	229 243	100 - 500			≤ 15

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