

Compact pressure switches for gas and air GW A6

DUNGS®

Double pressure switch
GW A6 / GW A6

5.16



Technical description

The pressure switch GW A6 and the double pressure switch GW A6 / GW A6 are adjustable compact pressure switches 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

EU type test approval as per EU Gas Appliance Directive. 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.

GW...A6

CE-0085 AO 0012

Approvals in other important gas-consuming countries.

Functional description

Single-acting pressure switch in overpressure 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 (mbar) is exceeded or undershot, the circuit is switched on, off or over.

GW A6 / GW A6 double pressure switch

Combination of two flanged GW A6 single pressure switches. The two setpoints (mbar) 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.

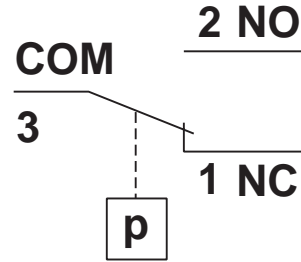
GW A6 switching function

If pressure increases:

1 NC opens, 2 NO closes.

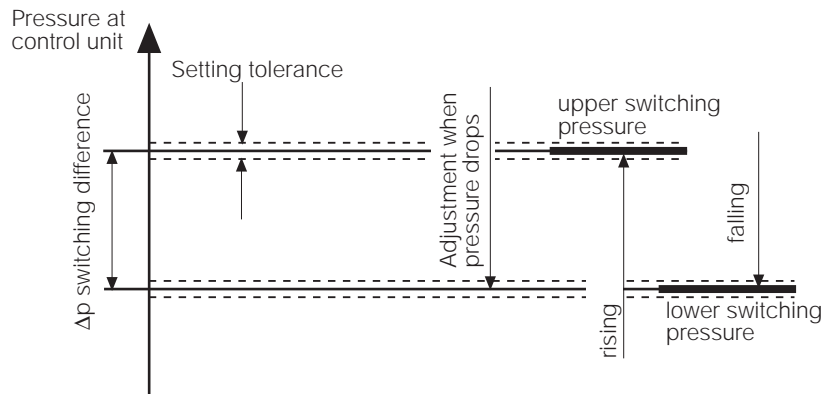
If pressure drops:

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.



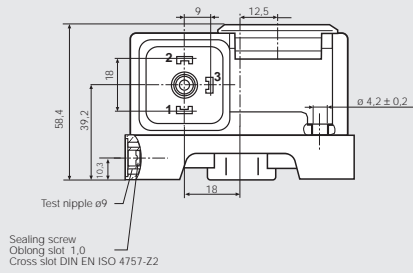
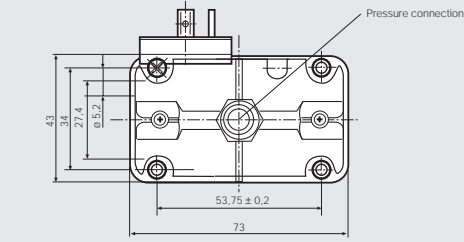
Specifications

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:	Fine silver (Ag)	
Switching voltage	AC eff. min. 24 V DC min. 24 V	max. 250 V max. 48 V	
Nominal voltage	GW 10...500 A6 AC eff. 10 A	GW 3 A6 AC eff. 6 A	
Switching current	AC eff. 6 A at $\cos \varphi 1$ AC eff. 3 A at $\cos \varphi 0,6$ AC eff. min. 0,02 A DC min. 0,02 A DC max. 1 A	AC eff. 4 A at $\cos \varphi 1$ AC eff. 2 A at $\cos \varphi 0,6$ AC eff. min. 0,02 A DC min. 0,02 A DC max. 1 A	
Electrical connection	Terminal connection for line sockets as per DIN 43 650 A, 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		

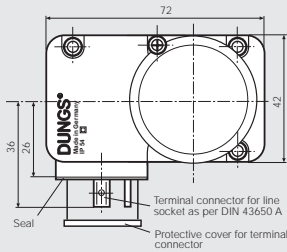
Dimensions [mm]

GW ... A6

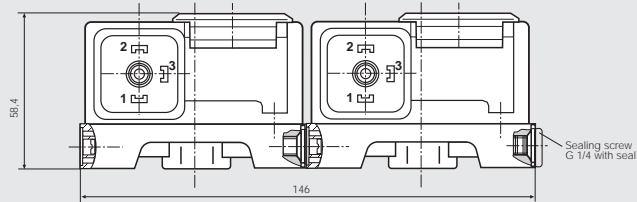
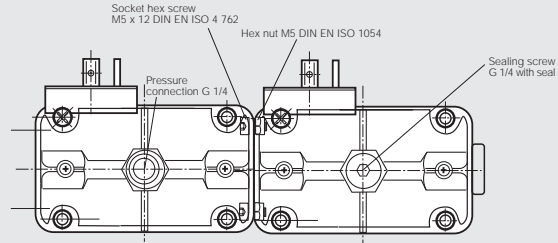
GW ... A6 / GW ... A6



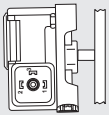
Sealing screw
Oblong slot 1.0
Cross slot DIN EN ISO 4757-Z2



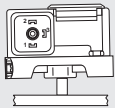
Terminal connector for line
socket as per DIN 43650 A
Protective cover for terminal
connector



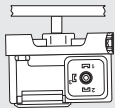
Installation position



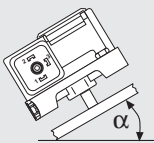
Standard installation position



For horizontal installation, the pressure switch switches at a pressure which is max. 1.0 mbar higher

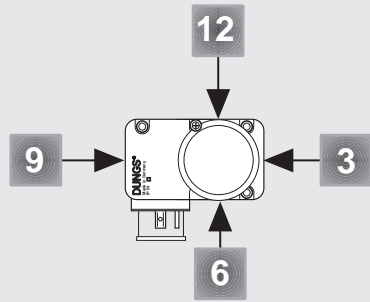


For horizontal overhead installation, the pressure switch switches at a pressure which is max. 1.0 mbar lower.



For intermediate installation, the pressure switch switches at a pressure which deviates max. ± 1.0 mbar from the setpoint.

Designation



Order example

Pressure switch design

Setting range

10 - 150 mbar

Contact material

AG fine silver (standard)

Electrical connection

Equipment connector

Pressure connection

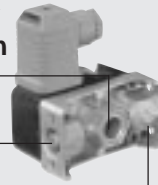
G 1/4 at position 0

Test nipple

MS 9

Sealing screw

At position 3



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

GW 50 A6 [AG-G3-MS9-V0]

Pressure connection

V0 Pressure connection G 1/4
Position 0
V3 Pressure connection G 1/4
Position 3

Sealing screw

VSO Sealing screw at
position 0
VS3 Sealing screw at
position 3

Test nipple

MS9 Test nipple at position 9
M9 Test nipple, open,
position 9

Electrical connection

G3 Equipment connector, 3-pin,
protection-insulated, w/o grounding

Contact material

Ag Fine silver (standard)
Au Fine silver (gold-plated)

Setting ranges [mbar]

	GW
3	0,7 - 3 X
10	2 - 10 X
50	5 - 50 X
150	10 - 150 X
500	100 - 500 X

Pressure switch design

GW ... A6 Pressure switch
switches when the
setpoint is exceeded or
undershot.

Accessories for GW A6 pressure switch

Line sockets, 3-pin + grounding,
grey GDMW

210 318

Test nipple G 1/4
with sealing ring

230 398

Sealing screw G 1/4
with sealing ring

230 396

Mounting kit for double pressure switch

213 910

Mounting bracket, metal

230 288

**Compact pressure switches
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GW A6**

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

DUNGS®

Short technical overview

1 mbar = 100 Pa = 0,1 kPa ≈ 10 mm WS

1 Pa = 0,01 mbar ≈ 0,1 mm WS

Type	Design	Order number [G3]	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	10 - 150		≤ 5		
	GW 500 A6	228 727	100 - 500		≤ 15		
Supplied in collective packaging							
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	10 - 150		≤ 5		
	GW 500 A6	231 115	100 - 500		≤ 15		
Supplied in separate packaging, including line socket							
GW A6 min. / GW A6 max. double pressure 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		10 - 150	≤ 1	≤ 5
	GW 50 / 50 A6	229 240	5 - 50			≤ 2,5	≤ 2,5
	GW 50 / 150 A6	229 241	5 - 50		10 - 150	≤ 2,5	≤ 5
	GW 150 / 150 A6	229 242	10 - 150			≤ 5	≤ 5
GW 500 / 500 A6	229 243	100 - 500		≤ 15	≤ 15		

Standard designs

Single pressure switches
GW...A6 [AG-G3-MS9-V0]

Double pressure switch
GW...A6 / GW...A6
Min. pressure switch
AG-G3-M9-VS3-VS0
Max. pressure switch
AG-G3-MS9-V3-V0

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



Head Offices and Factory
Karl Dungs GmbH & Co.
Siemensstraße 6-10
D-73660 Urbach, Germany
Telefon +49 (0)7181-804-0
Telefax +49 (0)7181-804-166

Postal address
Karl Dungs GmbH & Co.
Postfach 12 29
D-73602 Schorndorf, Germany
e-mail info@dungs.com
Internet www.dungs.com