

Compact pressure switch for multiple actuators

GW...A5
GW...A5/1

DUNGS®

5.02



Technical description

The GW...A5 pressure switch is a compact pressure switch for DUNGS multiple actuators.

The pressure switches are suitable for switching a circuit on, off or over on changes in actual pressure relative to the set switching point (reference value).

The switching point can be set easily and quickly using a setting wheel provided with a scale without using a pressure gauge.

Application

Pressure switches for DUNGS multiple actuators GasMultiBloc and DMV double solenoid valve which can be either mounted directly on housing or by using an adapter.

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...A5 CE-0085 AO 3220

EC type test approval as per EC Pressure Equipment Directive:

GW...A5 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 overpressure range.
The pressure switches operate without any power supply.

Switching response

GW...A5

Short response time during pressure fluctuations.

GW...A5/1

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

Pressure Switch

The GW...A5 is a single-acting pressure switch acting in pressure range. The control unit responds to pressure. If the set reference value is exceeded or undershot, the circuit is switched on, off or over.

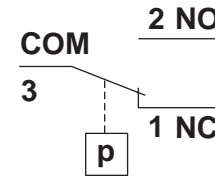
Switching function

As pressure rises:

1 NC opens, 2 NO closes

As pressure falls:

1 NC closes, 2 NO opens



Specifications

Max. operating pressure	GW 3 A5 - GW 150 A5 GW 500 A5	500 mbar (50 kPa) 600 mbar (60 kPa)		
Pressure connection	O ring flange connection on underside of pressure switch			
Measuring connection	ø 9, length 10 mm, with screw plug			
Temperature range	Ambient temperature Medium temperature Storage temperature	-15 °C to +70 °C -15 °C to +70 °C -30 °C to +80 °C		
Materials	Housing: Switch: Diaphragms: Switching contact:	Aluminium die casting Polyamide NBR Ag (fine silver)		
Switching voltage	AC eff. min. 24 V DC min. 24 V	max. 250 V max. 48 V		
Nominal current	GW 10...500 A5 AC eff. max. 10 A	GW 3 A5 AC eff. max. 6 A		
Switching current	AC eff. max. 6 A AC eff. max. 3 A AC eff. DC DC	at cos φ 1 at cos φ 0,6 min. 20 mA min. 20 mA max. 1 A	AC eff. max. 4 A AC eff. max. 2 A AC eff. DC DC	at cos φ 1 at cos φ 0,6 min. 20 mA min. 20 mA max. 1 A
Electrical connection	Plug 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	±15% switching point deviation referred to reference value, adjusted at pressure rises , vertical diaphragm position			

Installation position



Standard installation position

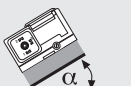
GW 3...50 A5 max. ± 0,6 mbar
GW 150 A5 max. ± 1 mbar
GW 500 A5 max. ± 3 mbar



In the horizontal installation position the switching pressure is increased.



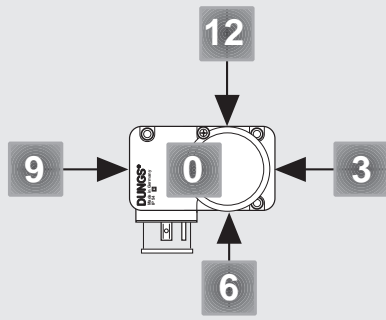
When the pressure switch is mounted horizontally overhead, its switching pressure decreases.



When the pressure switch is mounted in an intermediate position, its switching pressure deviates.

Designation

GW 150 A5 [Ag-G3-MS6-V12]



Pressure connection
 V12 Pressure connection G 1/4
 Position 12
 V6 Pressure connection G 1/4
 Position 6

Test nipple
 MS6 Test nipple at position 6

Electrical connection
 G3 Equipment connector, 3 pol
 protection-insulated, w/o grounding

Contact material
 Ag Fine silver

Setting ranges [mbar]

Setting range	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...A5 Pressure switch switches
 when the setpoint is exceeded
 or undershot.

GW...A5/1 Pressure switch with damping
 nozzle switches on if the set
 reference value is exceeded
 or undershot.

Order example

Pressure switch design

Pressure Switch GW...A5

Setting range

10 - 150 mbar

Contact material

Ag fine silver

Electrical connection

Equipment connector

Pressure connection

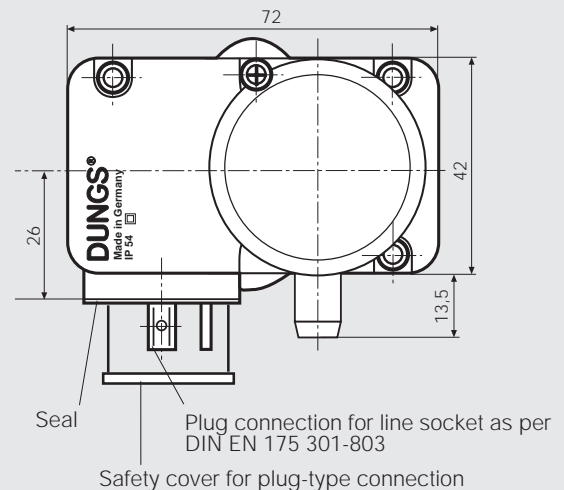
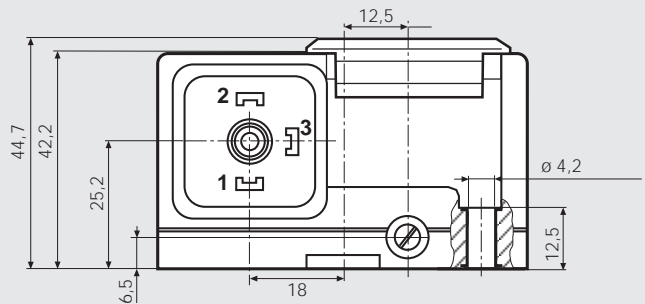
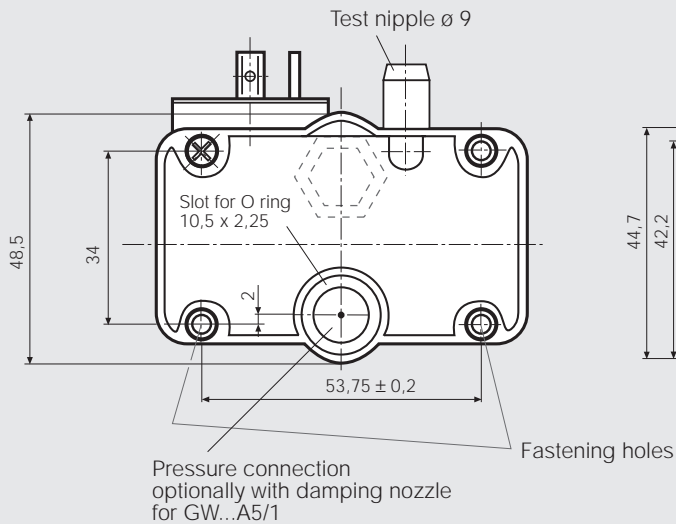
At position 12

Test nipple

MS 6



GW 150 A5 [Ag-G3-MS6-V12]

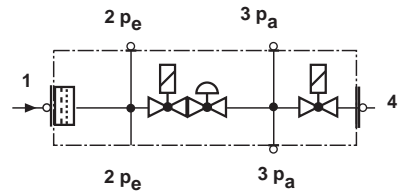
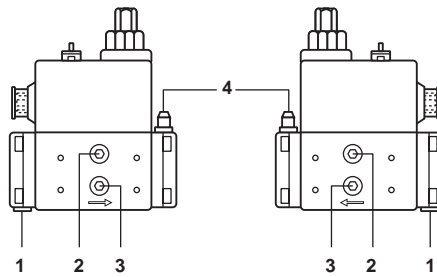
Dimensions [mm]



**Mounting options GW...A5
GasMultiBloc MB-...053/403**

**Pressure tap GW...A5
mounting possible ...**





1	yes, with # 221630	
2	yes	
3	yes	
4	yes, with # 221630	

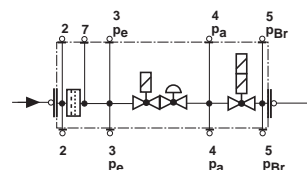
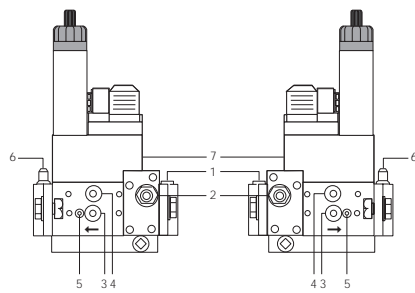
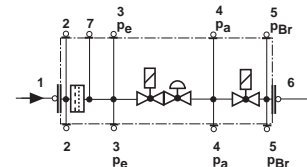
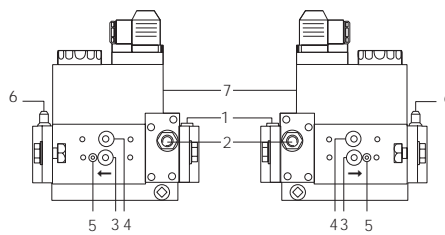


- 1,3 seal plug G 1/8
- 2 Instrument gland, optional
- 4 Instrument gland

**Mounting options GW...A5
GasMultiBloc MB-D..405 - 412;
MB-ZR.. 405 - 412**

**Pressure tap GW...A5
mounting possible ...**





1	alternative to 7	
2	no	
3	yes	
4	yes	
5	yes, with # 214 975	
6	yes, with # 221 630	
7	yes, (standard)	

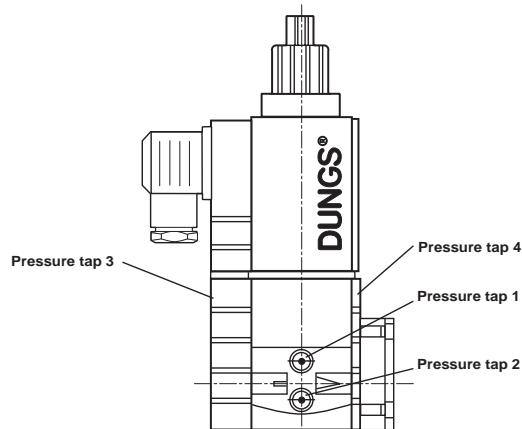


- 1,3,4 seal plug G 1/8
- 2,6 Instrument gland, optional G 1/8
- 5 M4 inner hex

**Mounting options GW...A5
Safety solenoid valve
SV-... 505-520**

**Pressure tap GW...A5
mounting possible ...**



	SV 505/507	SV 510/512	SV 520	
1	pe	pa	pa	
2	no	pe	pe	
3	no	pe ⁽¹⁾	pe	
4	pa with 221 630 horizontal	pa ⁽¹⁾	pa	

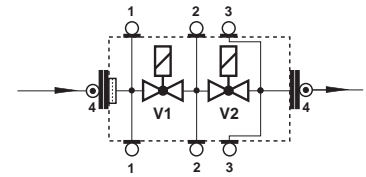
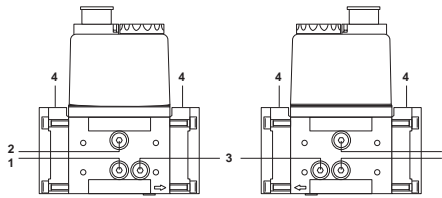


¹⁾ For pressure switch assembly, pay attention to the flange attachment.

Mounting options GW...A5
Double solenoid valve DMV 503/11

Pressure tap GW...A5
mounting possible ...

1	yes	
2	yes	
3	yes, with # 214975	
4	yes (horizontal), with # 221 630 (vertical)	





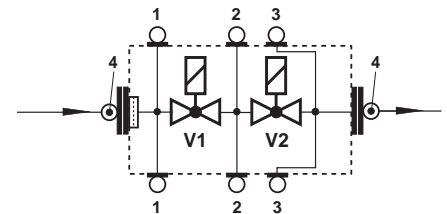
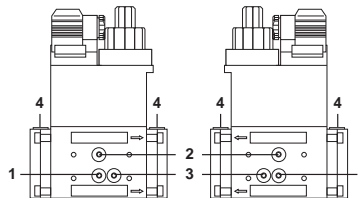
1,2,4
 G 1/8 seal plug as per
 DIN ISO 228
3
 Seal Plug as per M4

The seal plugs **1,2,4** can also be replaced by a G 1/8 instrument gland as per DIN ISO 228

Mounting options GW...A5
Double solenoid valve DMV 507-520/11
GasMultiBloc MB-...415 - 420

Pressure tap GW...A5
mounting possible ...

1	yes	
2	yes	
3	yes, with # 214 975	
4	yes (horizontal), with # 221 630 (vertical)	







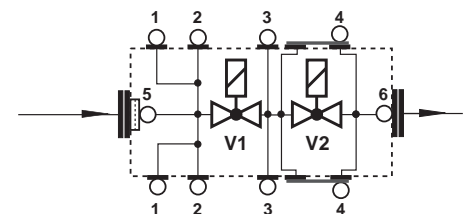
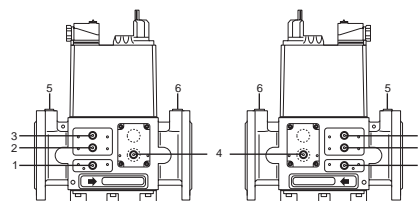
1,2,3,4
 G 1/8 seal plug as per
 DIN ISO 228

The seal plugs **1,2,3,4** can also be replaced by a G 1/8 instrument gland as per DIN ISO 228

Mounting options GW...A5
Double solenoid valve
DMV 525, DMV 5040/11-5125/11

Pressure tap GW...A5
mounting possible ...

1	yes	
2	yes	
3	yes	
4	yes	
5	no	
6	no	



1,2,3,4
 G 1/8 seal plug as per
 DIN ISO 228
5,6
 G 1/4 DIN ISO 228

The seal plugs **1,2,3,4** can also be replaced by a G 1/8 instrument gland as per DIN ISO 228

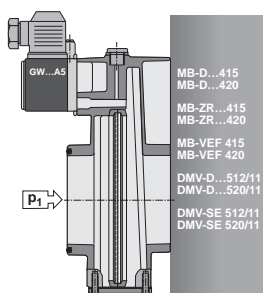
**Compact pressure switch
for multiple actuators**

**GW...A5
GW...A5/1**

DUNGS®

**Mounting options GW...A5
at pre-mount filter for Dungs-mul-
tiple actuator**

Pressure tap after filter insert



Brief technical data 1 mbar = 100 Pa = 0,1 kPa ≈ 10 mm WS

Type	Version	Order No.	Setting range [mbar]	Switching difference Δp [mbar]
GW...A5 pressure switch	GW 3 A5	229 250	0,7 - 3	≤ 0,7
	GW 10 A5	225 938	2 - 10	≤ 1
	GW 50 A5	225 939	5 - 50	≤ 2,5
	GW 150 A5	225 940	10 - 150	≤ 5
	GW 500 A5	227 639	100 - 500	≤ 15

Supplied in collective packaging

Standard designs

GW...A5 [Ag-G3-MS6-V12]
with mounting kit

Adapter	Order-No.	for Type	Nominal diameters
Mounting kit (2 x M4x20,1 x O-ring)	223 280		
Adapter p _{Br}	214 975	MB-D ...405 - 420 MB-Z ...405 - 420 DMV- ...503 - 520	Rp 3/8 - Rp 2 Rp 3/8 - Rp 2 Rp 3/8 - Rp 2
Adapter on threaded flange (G 1/8)	221 630	MB- ...405-412 DMV- ... SV- ...505-520	Rp 3/8 - Rp 2 Rp 3/8 - Rp 2
Adapter kit for GW ... A5 with G 1/4 connection	222 982	DMV- ... MB- ...415-420	Rp 3/8 - Rp 2
Special adapter on request		MB- ... DMV- ... MVD- ...	DN 40 - DN 125 Rp 3/8 - DN 150
Line socket 3-pin + E grey GDMW	210 318		

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

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

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