Pressure switch for gas DG

Product brochure · GB
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- Simple switching point adjustment with infinitely adjustable hand wheel
- Monitoring of gas and air pressures (positive and negative pressures)
- Low pressure cut-off for gas and air (differential pressure)
- Pressure switch with internal lock and manual reset
- Suitable for biologically produced methane (can be used on pipes with Zone 2 explosive atmospheres without isolating amplifier)
- Can be used in Zone 1 and 2 hazardous areas with an approved isolating amplifier
- International approvals
- RoHS 2002/95/EC
- EC type-tested and certified pursuant to EN 1854 and class "S"
- TÜV test as a special-design pressure switch pursuant to TRD 604
- UL listed, FM and AGA approved
- Certified pursuant to GOST-R
- Certified for systems up to SIL 3 and PL e

DG..U-3 DG..H, DG..N DG..-6

DG..U-3
Adjustable switching point

DG..H, DG..N
DG..H: switches and locks off with rising pressure. DG..N: switches and locks off with falling pressure. Manual reset.

DG..-6
With fitted socket pursuant to DIN EN 175301-803

Application

The gas pressure switch DG monitors extremely low pressure differentials and triggers switch-on, switch-off or switch-over operations if a set switching point is reached. The switching point is adjustable between 0.4 and 500 mbar via a hand wheel.

It monitors gas pressures on various industrial gas and air appliances, such as boiler fan monitoring and differential pressure monitoring in firing, ventilation and air-conditioning systems.

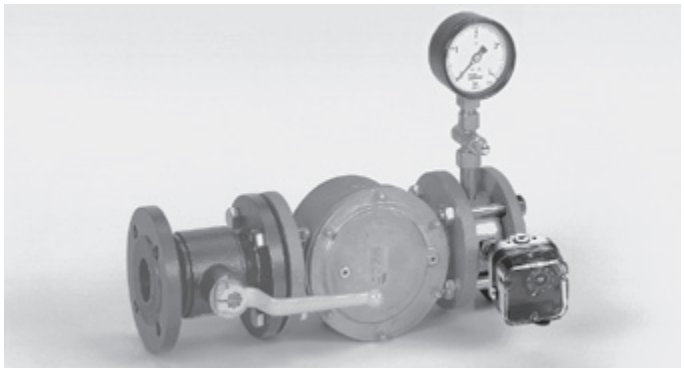
The TÜV-tested special-design pressure switch is used as defined by VdTÜV Code of Practice "Druck 100/1" (Pressure 100/1) in firing installations for steam and hot-water generators in accordance with TRD 604, Para. 3.6.4, as well as class "S" for DG..B, DG..U and DG..I pursuant to EN 1854.

The pressure switch for gas DG can be used as positive pressure switch, vacuum sensor or differential pressure switch for air, flue gas and other non-aggressive gases. It is also suitable for biologically produced methane.

Type	Positive pressure	Negative pressure	Differential pressure
DG..B	Gas, air or flue gas	–	–
DG..U	Gas, air or flue gas	Air or flue gas	Air or flue gas
DG..H, DG..N	Gas, air or flue gas	Air or flue gas	Air or flue gas
DG..I	Air or flue gas	Gas, air or flue gas	Air or flue gas

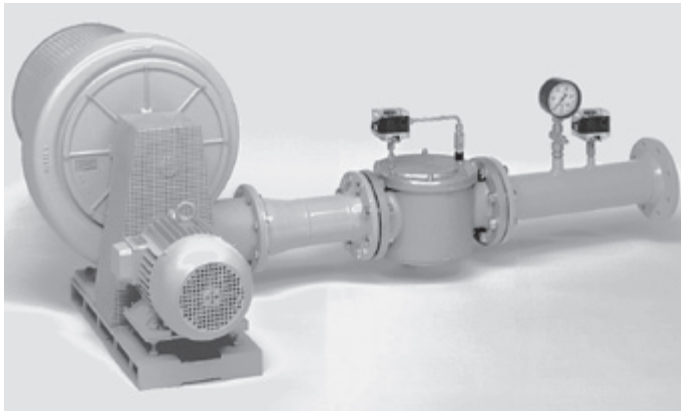
Examples of application

Gas deficiency monitoring



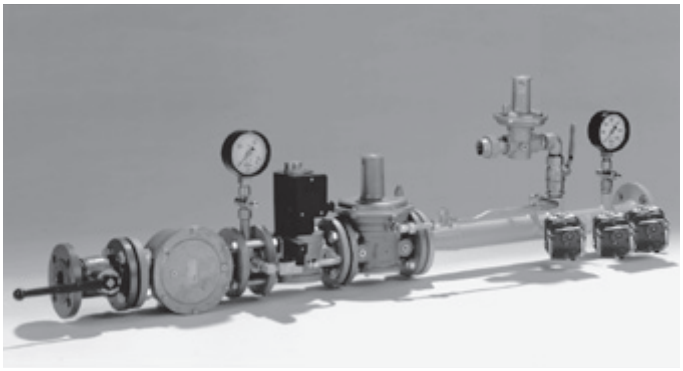
For monitoring the minimum gas inlet pressure

Differential pressure monitoring



Differential pressure switch for monitoring air filters

Closed position check

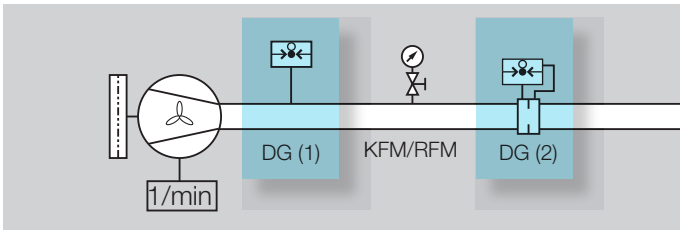


Electronic safety shut-off valve SAV with closed position check of downstream devices.

Negative pressure monitoring

Monitoring the negative pressure ensures the correct positioning of the components during fully automatic assembly of gas meters.

Air line with minimum pressure and flow monitoring



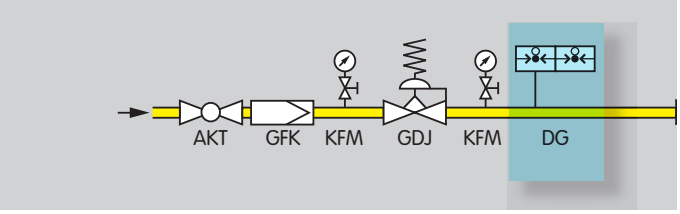
The air flow generated by the fan may be monitored as follows:

The static pressure is monitored by pressure switch DG (1), as long as it can be demonstrated that the display consequently shows an adequate and secured flow of air, or

DG (2) controls the flow of air via the differential pressure on the orifice.

If there is no air pressure supplied or if there is no differential pressure on the orifice, the system will be blocked.

Low-pressure cut-off and high gas pressure protection device



If the pressure is either too low or too high, the min./max. pressure switch DG switches in order to avoid start-up or to initiate a safety shut-down.

Type code

Code	Description
DG	Pressure switch for gas
1,5 – 500	Maximum setting in mbar
T	T-product
B	Positive pressure
U	Positive pressure, negative pressure, differential pressure
H	Locks off with rising pressure
N	Locks off with falling pressure
I	Negative pressure for gas
G	With gold-plated contacts
	Electrical connection:
-3	via screw terminals
-4	via screw terminals, IP 65
-5	via 4-pin plug, without socket
-6	via 4-pin plug, with socket
-9	via 4-pin plug, with socket, IP 65
K2	Red/green pilot LED for 24 V DC/AC
T	Blue pilot lamp for 230 V AC
T2	Red/green pilot LED for 230 V AC
N	Blue pilot lamp for 120 V AC
S	Only for oxygen and ammonia
A	External adjustment

Technical data

Gas type: natural gas, town gas, LPG (gaseous), flue gas, biologically produced methane (max. 0.1 %-by-vol. H2S) and air.

DG..I: max. inlet pressure $p_{e\ max.}$ ± 600 mbar (8.5 psig).
Max. test pressure for testing the entire system: temporarily < 15 minutes 2 mbar (29 psig).

Switching capacity:

DG, 24 – 250 V AC:
I = 0.05 – 5 A at cos φ =1,
I = 0.05 – 1 A at cos φ = 0.6.

DG..G, 5 – 250 V AC:
I = 0.01 – 5 A at cos φ = 1,
I = 0.01 – 1 A at cos φ = 0.6.

DG..G, 5 – 48 V DC: I = 0.01 – 1 A.

DG..VCT, 30 – 240 V AC:
I = 5 A at cos φ = 1,
I = 0.5 A at cos φ = 0.6.

DG..TG, < 30 V AC:
I = 0.1 A at cos φ = 1,
I = 0.05 A at cos φ = 0.6.

Maximum medium temperature:
DG..B, DG..U, DG..I: -15 to +80°C (5 to 176°F),
DG..H, DG..N: -15 to +60°C (5 to 140°F).

Storage and transport temperature:
-40 to +80°C (-40 to 176°F).

RoHS compliant pursuant to 2002/95/EC.

Diaphragm pressure switch, silicone-free.
Diaphragm: NBR.
Housing: glass fibre reinforced PBT plastic with low gas release.
Lower housing section: AlSi 12.

Enclosure: IP 54 or IP 65.

Safety class: 1.

Maintenance cycles

At least once a year, twice a year in the case of biologically produced methane.

Detailed information on this product

www.docuthek.com ➔ Elster Kromschröder
Search term: DG
Kind of document: Technical information

Contact

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