



PCS

**Closed position indicator switch
for safety gas valves**

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Description

The PCS is a mechanically activated switch for monitoring the position of the valve plate. This device can be fitted to the Elektrogas aluminium valves series:

- VMR, VML, VMM
- VMH, VMP
- EVRM-NA, EVRM-6NA
- EVRM-NC, EVRM-6NC

It can be also fitted to all the solenoid actuator (SR - SL - ST) to check the min./max. position of the butterfly valve (VF - VFH).

Features

PCS is available with two working pressure: 500mbar and 6bar.

An adapting rod is necessary to fit the switch to an Elektrogas valve. The switch is supplied with the rod already mounted, to make installation easier.

The switch can be rotated on 360° on rod axis.

Electrical connection with ISO4400 plug.

It is suitable for air and non-aggressive gases (families 1-2-3 EN437). Special versions are available for use with aggressive gases.

The compact, robust and functional design permits a simple and quick installation, and it is essentially maintenance free.

All components are designed to withstand mechanical, thermal and chemical stresses present in a typical installation.



The device can be provided in Ex-proof execution, for use in Zones 2 and 22, according to 94/9/EC Directive (ATEX).

Switches are 100% tested for seal and functioning.



WARNING

This device shall be installed in accordance with the laws in force.

Functioning and application

The PCS is a mechanically activated switch for monitoring the position of the valve plate.

When valve is closed, plate is in contact with valve seat. Switch rod is pushed and the electric contact is switched in configuration 1-3.

When valve opens, plate leaves seat and frees the rod, so that contact switches in configuration 1-2, under the action of a return spring.

The EN 161 standard specifies that switch has to commute when plate is within 1 mm to its closed position, so PCS is a device to detect the closed status, not the completely open one.

Fig. 1 shows how contacts commute.

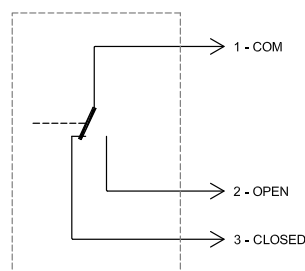


Fig. 1

Fig. 2 shows how a PCS works in a VMR valve.

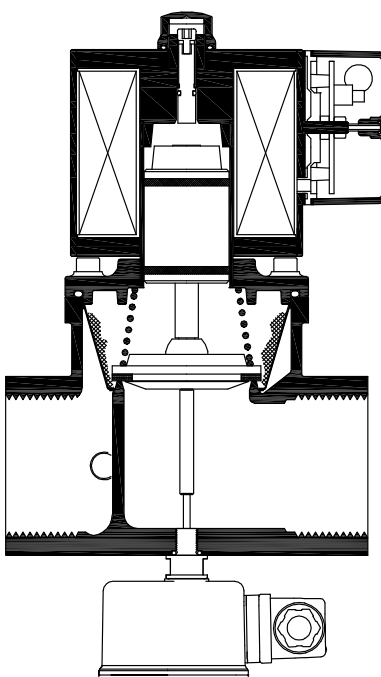


Fig. 2



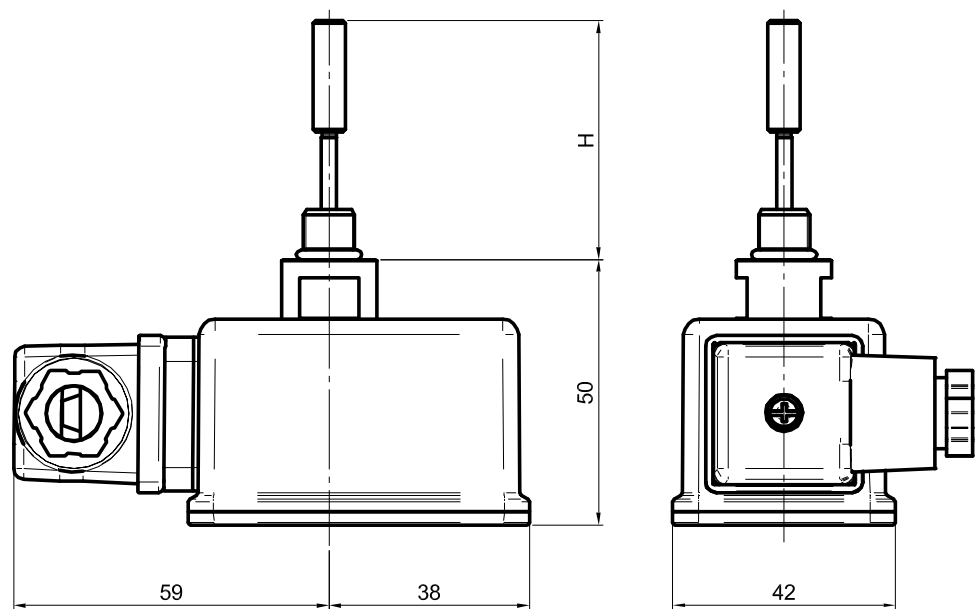
WARNING

Location and mode of installation must be in compliance with local rules in force.

Technical specifications

Tab. 1

Connection	G1/8 (ISO 228-1)	
Operating pressure	500 mbar or 6 bar	
Max testing pressure	0.75 bar or 9 bar	
Environmental temperature	-15°C / +60°C	
Installation	See valve instruction sheet for the correct position	
Gas type	Air and non aggressive gases (fam. 1-2-3 EN 437) Special versions for aggressive gases	
Switching capacity	Resistive Load	Inductive Load/ Lamp
	250VAC 2A	250VAC 0.3A
	120VAC 3A	120VAC 0.5A
	30VDC 3A	30VDC 1A
Electrical connection	ISO 4400 plug with PG9 cable gland	
Enclosure	IP54 (EN 60529) (optional IP65)	
Materials in contact with media	Aluminum Brass NBR PTFE Stainless steel (aggressive gases version) FPM (aggressive gases version)	



H depending on which valve is to be mounted.

Fig. 3

Ordering information

Tab. 2

	-	PCS	6	.X	
-	Pmax 500 mbar				
6	Pmax 6 bar				
PCS closed position indicator switch					
Valve size					
1	for	VMR0/1	EVRMNA0/1	EVRMNC0/1	
3	“	VMR2/3	EVRMNA2/3	EVRMNC2/3	
4	“	VMR35/4	EVRMNA35/4	EVRMNC35/4	
6	“	VMR6	EVRMNA6	EVRMNC6	
8	“	VMR7/8	EVRMNA7/8	EVRMNC7/8	
9	“	VMR9	EVRMNA9	EVRMNC9	
95	“	VMR93/95	EVRMNA93/95	EVRMNC93/95	
98	“		EVRMNA98	EVRMNC98	
910	“		EVRMNA910	EVRMNC910	
912	“		EVRMNA912	EVRMNC912	
M3	“	VMM20/25			
M6	“	VMM32/40/50			
HP	“	VMH/VMP	(all models)		
S	“	SR/SL/ST			
Special versions					
K	Biogas and COG				
X	ATEX execution				
B	Gold contacts				

*Examples:***PCS.9:** closed position switch suitable for VMR9, EVRMNA9, EVRMNC9 (DN100)**6PCS.9:** closed position switch suitable for EVRM6NA9, EVRM6NC9 (6 bar - DN100)**Special versions**

- Gold contacts for very low applicable loads.
- The model for aggressive gases such as biogas and COG (K version) are free of non-ferrous metals and provided with special seals.
- The special execution for Atex environment is suitable for Zones 2 and 22, according to 94/9/EC Directive (ATEX) and it is only IP65.

category	II 3 G,D
protection mode	Ex nR IIA T4 Gc X Ex tc IIIC T135°C Dc X

Standards and approvals

The product complies with the essential requirements of the following European Directives and their amendments:



2009/142/EC (Gas Appliances Directive)
2014/34/EU (ATEX) when shown upon the product
2014/30/EU (Electromagnetic Compatibility)
2014/35/EU (Low Voltage Directive)
2011/65/EU (RoHS II)

CE-Reg.-No. 0063AQ1350

Quality Management System is certified according to UNI EN ISO 9001.



The information in this document contains general descriptions of technical options available and based on current specifications.

The company reserves the right to make changes in specifications and models as design improvements are introduced, without prior notice.

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