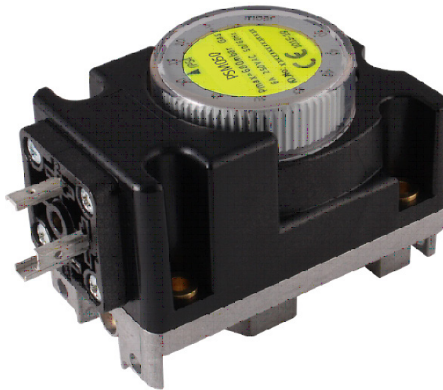


PRESSOSTATO
PRESSURE SWITCH



	IT	EN
Range di pressione (mbar) Pressure range (mbar)		1 ÷ 3 2 ÷ 10 5 ÷ 50 5 ÷ 150 100 ÷ 500
Norma di riferimento Reference standard		EN 1854
In conformità a In conformity with	Regolamento (UE) 2016/426	Regulation (EU) 2016/426

1.0 - GENERAL INFORMATION

This manual shows you how to safely install, operate and use the device.

The instructions for use **ALWAYS** need to be available in the facility where the device is installed.

ATTENTION: installation/maintenance needs to be carried out by qualified staff (as explained in section 1.3) by using suitable personal protective equipment (PPE).

For any information pertaining to installation/maintenance or in case of problems that cannot be solved with the instructions, contact the manufacturer at the address and phone numbers provided on the last page.

1.1 - DESCRIPTION

Pressure switches manufactured to control pressure and to interrupt the electrical contact when pressure goes up or down beyond the preset point. It is compact and therefore easy to install and set. The device could be set at the available pressure ranges. It monitors the pressure in the control system of gas-fired system combustion such as burners, gas trains, boilers, water heaters, etc.

1.2 - KEY TO SYMBOLS



DANGER: In the event of inobservance, this may cause damage to tangible goods.



DANGER: In the event of inobservance, this may cause damage to tangible goods, to people and/or pets.



ATTENTION: Attention is drawn to the technical details intended for qualified staff.

1.3 - QUALIFIED STAFF

These are people who:

- Are familiar with product installation, assembly, start-up and maintenance;
- Know the regulations in force in the region or country pertaining to installation and safety;
- Have first-aid training.



1.4 - USING NON-ORIGINAL SPARE PARTS

- To perform maintenance or change parts (e.g. calibration springs, etc.) **ONLY** manufacturer-recommended spare parts must be used. Using different parts not only voids the product warranty, it could compromise correct device operation.
- The manufacturer is not liable for malfunctions caused by unauthorised tampering or use of non-original spare parts.



1.5 - IMPROPER USE

- The product must only be used for the purpose it was built for.
- It is not allowed to use fluids other than those expressly stated.
- The technical data set forth on the rating plate must not, under any circumstances, be exceeded. The end user or installer is in charge of implementing proper systems to protect the device, which ensure that the maximum pressure indicated on the rating plate is not exceeded.
- The manufacturer is not responsible for any damage caused by improper use of the device.

2.0 - TECHNICAL DATA

Model/code	PSM003	PSM010	PSM050	PSM150	PSM500
Pressure range (mbar)	1 ÷ 3	2 ÷ 10	5 ÷ 50	5 ÷ 150	100 ÷ 500
Factory setting (mbar) (mbar)	1	2	5	10	150
Permissible Pressure (mbar)	500 (50 kpa)				600 (60 kpa)
Ambient temperature (TS)	-20 ÷ +60 °C				
Storage temperature	-30 ÷ +80 °C				
Electrical rating	Switching Voltage: AC eff. min 24V max 250V DC min 24V max 48V				
	Carry current: AC eff. max 6A				
	Switching current: AC eff. max 4 A con cosØ 1 - AC eff. max 2 A con cosØ 0.6 AC eff. min 20 mA - DC min 20 mA, DC max 1A				
Electrical connection	3-pin connector for line sockets as per DIN - EN 175 301 - 803 (without ground connection)				
Measuring connection	Ø 9, length 10 mm, with screw plug (test nipple integrated in metal housing Ø9)				
Pressure connection	Standard: Female central G 1/4 On request: G 1/4 side connection (see fig.1)				
Use	Natural gas - LPG - Air				
Degree of Protection	IP54				
In compliance with	Regulation (EU) 2016/426 (Appliances burning gaseous fuels)				

3.0 - COMMISSIONING THE DEVICE



3.1 - OPERATIONS PRIOR TO INSTALLATION



- Before start-up make sure that all of the instructions on the rating plate are observed
- Cut out power prior to proceeding with wiring;
- Provide a protection against impacts or accidental contacts if the device is accessible to unqualified personnel.

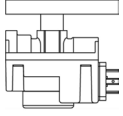


3.2 - INSTALLATION

- Do not use the pressure switch as a lever to help you screw it on, only use the specific tool;
- The pressure switch can be installed directly on a support pipe with outer thread G 1/4 or, using appropriate fittings, on the specific outlet on the body of the solenoid valve.
- After assembly, check tightness and operation of the pressure switch.

INSTALLATION POSITION

	Standard installation position (recommended). If a different installation position is used, pay attention to the selected set point as the pressure switch activates at different pressures.
	When installed horizontally or lateral, the pressure switch activates at a higher pressure than the set point.



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

3.3 - INSTALLATION IN PLACES WHERE THERE IS THE RISK OF EXPLOSION (DIRECTIVE 2014/34/EU)

The device is not suitable for use in zones where there is the risk of explosion.



4.0 - WIRING CONNECTIONS



Must be carried out with the system stopped and **NOT** electrically powered.

- A separately supplied connector must be used for the electrical connections for the line sockets, according to DIN - EN 175301-803 (without earthing).
- Use a cable with an appropriate cross-section based on the cable gland of the connector.

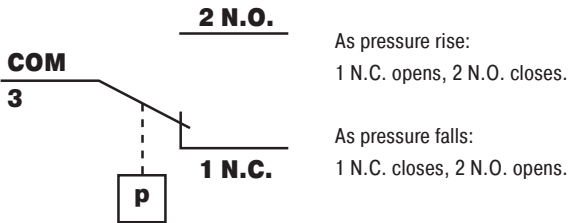
NOTE: wiring must be done ensuring a product rating of IP54;

ATTENTION

In case of following circumstance, we recommend to discuss with us before using.

- Vapours containing silicone can adversely affect the functioning of electrical contacts. In the case of low switching capacities such as 24V, less than 20mA, for example, we recommend using RC module or electronic switch (no-contact switch) in air containing silicone or oil.
- In case of high humidity or aggressive gas components (H₂S), we recommend using a pressure switch with gold contact (optional version) and to use the NC contact.

Switching function



5.0 - ADJUSTMENT/CALIBRATION

After having installed and wired the pressure switch, calibrate it as indicated below:

- Unscrew the fixing screw (fig. 3);
- Remove the protective cap (fig. 4);
- Calibrate the switch by acting on the wheel of the graduated scale (fig. 5);
- Put the cap back in its original position and tighten the fixing screw (fig. 6).



6.0 - MAINTENANCE

- **PSM device:** No maintenance operations need to be carried out
- **Solenoid valve:** refer to the solenoid valve instruction sheet

7.0 - TRANSPORT, STORAGE AND DISPOSAL

- During transport the material needs to be handled with care, avoiding any impact or vibrations to the device;
- If the product has any surface treatments (ex. painting, cathoporesis, etc) it must not be damaged during transport;
- The transport and storage temperatures must observe the values provided on the rating plate;
- If the device is not installed immediately after delivery it must be correctly placed in storage in a dry and clean place;
- In humid facilities, it is necessary to use driers or heating to avoid condensation.
- At the end of its service life, the product must be disposed of in compliance with the legislation in force in the country where this operation is performed.

8.0 - WARRANTY

The warranty conditions agreed with the manufacturer at the time of the supply apply.

Damage caused by:

- Improper use of the device;
- Failure to observe the requirements described in this document;
- Failure to observe installation rules;
- Tampering, modification and use of non-original spare parts;

are not covered by the rights of the warranty or compensation for damage.

The warranty also excludes maintenance work, the assembly of devices of other manufacturers, making changes to the device and natural wear.

fig. 1

Dimensioni in mm - Dimensions in mm

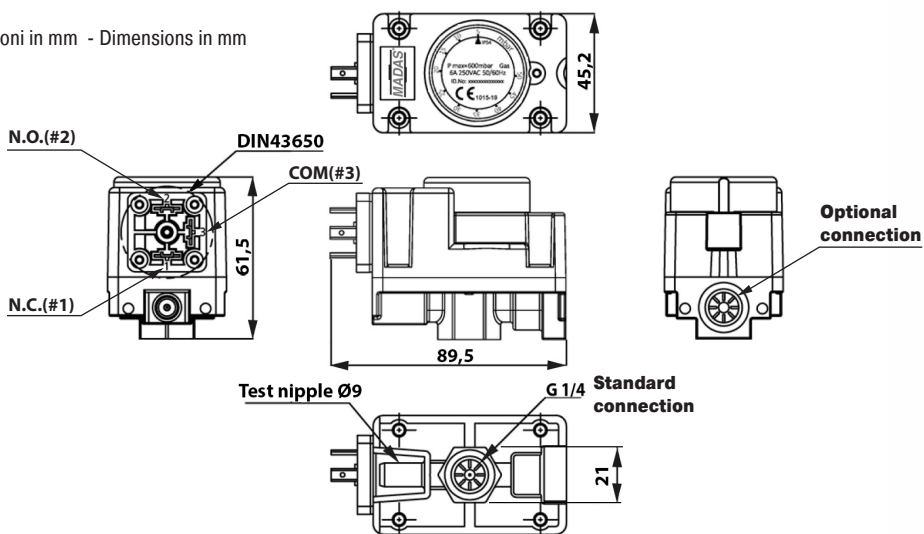
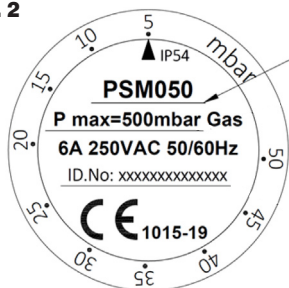


fig. 2



Codice Modello PSM xxx
PSM xxx Type code

PSM xxx

Range di pressione / Pressure range

- 003:** 1 ÷ 3 mbar
- 010:** 2 ÷ 10 mbar
- 050:** 5 ÷ 50 mbar
- 150:** 5 ÷ 3150 mbar
- 500:** 100 ÷ 500 mbar

fig. 3



fig. 5



fig. 4



fig. 6



IT

EN

Ci riserviamo qualsiasi modifica tecnica e costruttiva.
We reserve the right to any technical and construction changes.

The logo for MADAS features the word "MADAS" in a bold, red, italicized sans-serif font. The text is centered within a white rectangular area that is framed by thick black horizontal bars above and below it. A registered trademark symbol (®) is positioned to the upper right of the word.

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