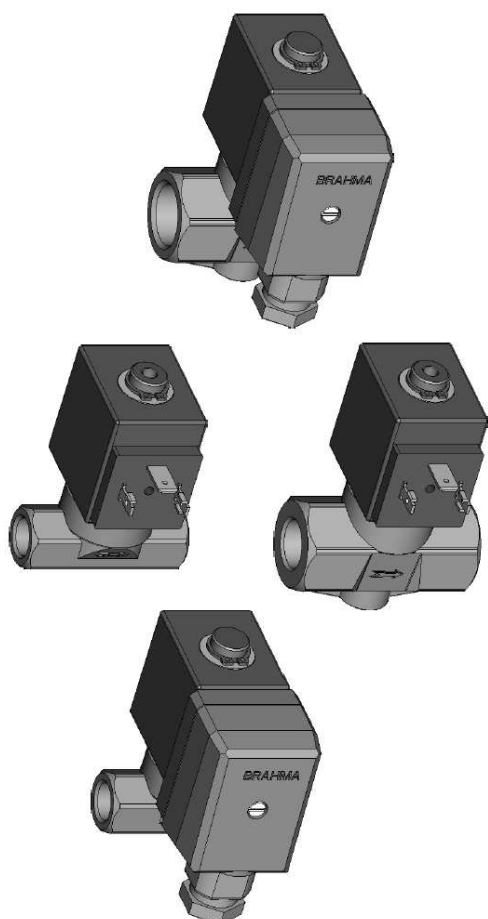


E6GN*... SERIES

**SOLENOID GAS VALVES WITH 1/4", 3/8"
AND 1/2" CONNECTIONS AND
OPERATING PRESSURE UP TO 500 mbar**



GENERAL DESCRIPTION

This series of solenoid valves is of normally closed type, suitable for civil and industrial applications, supplied with alternate or direct current. These solenoid valves can be fitted with equipment for flow adjustment which, acting as stroke limiter of opening movable core, allows a variation from 0% to 100% of maximum fuel flow deliverable.

To change the flow rate it is sufficient to act on the screw placed inside the fixed core; acting with clockwise rotation the fuel flow decreases otherwise it increases. The special structure of movable and fixed cores permits to obtain the most noiseless opening during cycles.

The solenoid valves can be supplied with direct current (Vdc); in this case it is necessary to arrange a connection by means of DIN 43650 plug directly on in-built coil fast-on pins. Otherwise it is possible to supply the valves directly in alternate current (Vac); in this case it necessary to use a Graetz bridge circuit in order to rectify the negative half-wave of alternate current (Vrac). In such a case the electrical connection may be carried-out through three-pole cable directly connected to the in-built terminal box of coil circuit or, using a DIN 43650 plug yet, being sure nevertheless the plug has provided with a rectifier circuit.

It is possible to have the valve provided with upstream or downstream pressure test point, right of left side (excluding the ones with G1/4" connection).

The valves of this series, conforming to EN 161, have an EC-Type certificate (PIN *pending*) in accordance to the european Gas Appliances Directive 2009/142/EC.

- **EC-** type certification in accordance with the new European Gas Appliances Regulation (EU) 2016/426 (GAR);
- conformity to **EC** Low-voltage directive 2014/35/EU

TECHNICAL FEATURES

- Gas type: 1st, 2nd and 3rd family
- Class: A
- Group: 2
- Supply voltage: 230 Vrac / Vdc
110 Vrac / Vdc
24 Vrac / Vdc
- Operating temperature: -10 °C ... +60 °C
- Closing time: ≤1 s
- Opening time: ≤1 s (quick opening version only)
- Connections: UNI ISO 228/1 G1/2, G3/8, G1/4
- Mounting positions: vertical and horizontal
- Body: die-cast brass
- Protection degree: IP40 (GMO version)
IP65 (CFD version with DIN 43650 plug)

DIRECTIONS FOR INSTALLATION AND MAINTENANCE

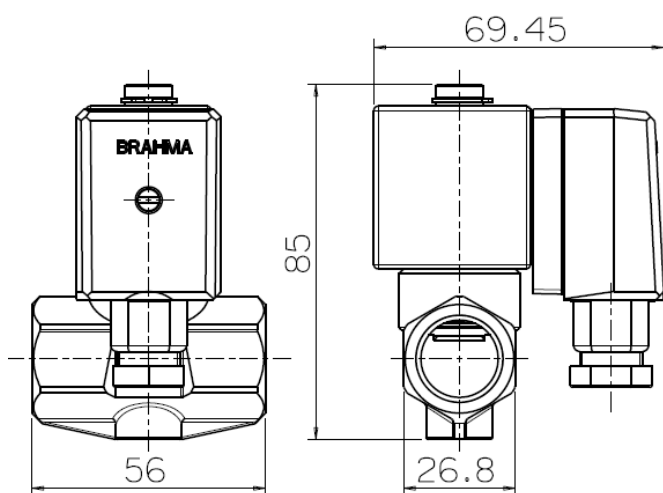
- This valve is a safety appliance and should not be modified. The manufacturer's responsibility and guarantee are invalidated in case the device is tampered with by the user.
- The applicable national regulation and European standards (Ex. EN 60335-1 and EN 60335-2-102) related to the electrical safety must be respected;
- Assemble the valve to the installation so that the arrow on the valve body has the same direction as the fuel flow.
- During the assembly of the valve to the installation piping, avoid twisting on the sheath and always use an hexagonal wrench to be fitted to the valve body.
- Make sure that no foreign matters have entered the valve body.

- Make sure that the max. fuel input pressure never exceeds the value appearing on the label.
- All operations (installation, maintenance, etc.) must be carried out by a qualified technician.
- Before any connection operation, completely isolate the system from power supply (multi-pole disconnection). Place the system safely to avoid accidental switch-on and make sure there is no voltage. If the system is not switched off, there is a risk of electric shock.
- During and after any operation (installation, maintenance, etc.), make sure that the type and code are the ones provided, check the correct functioning and the internal and external thickness of the valve.
- In the event of a fall or impact, the valves must not be started, as safety functions may be compromised even if no damage is visible to the outside.

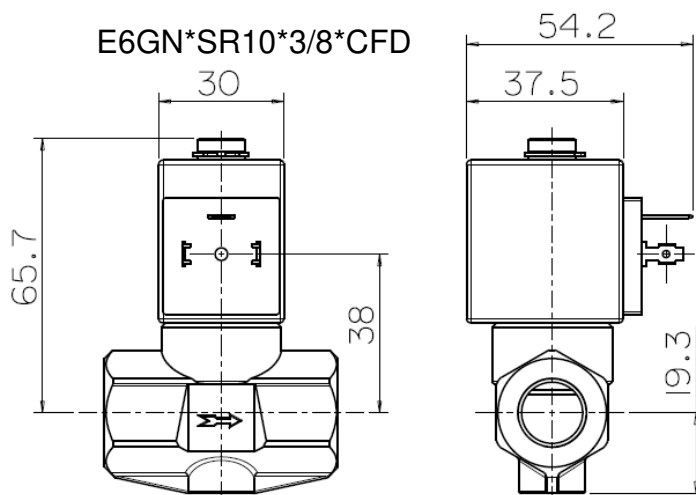
- Faulty valves or damaged must be unplugged from power supply and cannot be used.
 - The valve has a designed lifetime* based on the endurance tests in the standard EN 161. A summary of the conditions has been published by the European Control Manufacturers Association (Afecor) (www.afecor.org). The designed lifetime is based on use of the valve according to the manufacturer's technical notes. After reaching the designed lifetime in terms of the number of burner startup cycles, or the respective time of usage, the valve has to be replaced by authorized personnel.
- * The designed lifetime is not the warranty time specified in the Terms of Delivery.
- **Warning flow adjustment is always made with powered valve.**

OVERALL DIMENSIONS

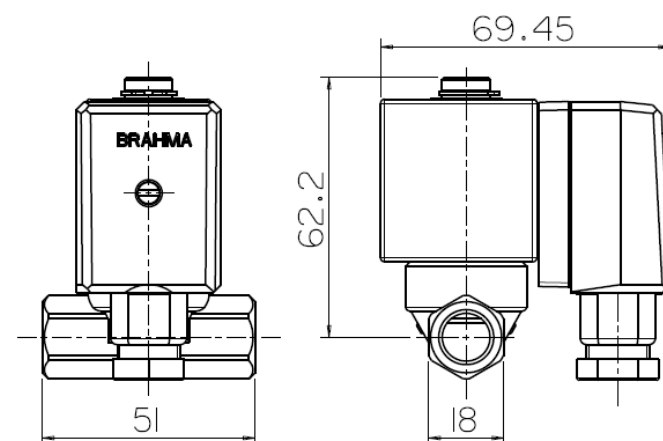
E6GN*S10*1/2*GMO



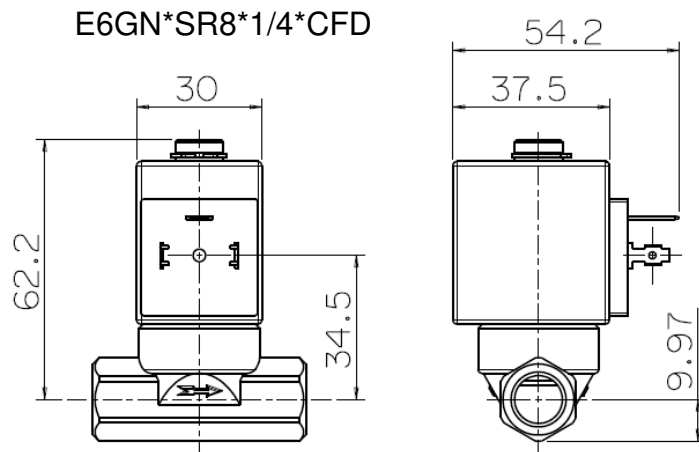
E6GN*SR10*3/8*CFD



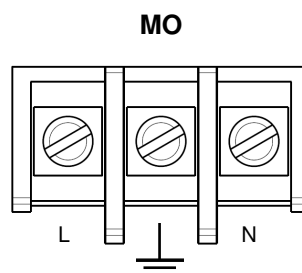
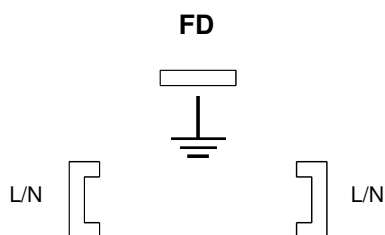
E6GN*S8*1/4*GMO



E6GN*SR8*1/4*CFD



ELECTRICAL CONNECTION

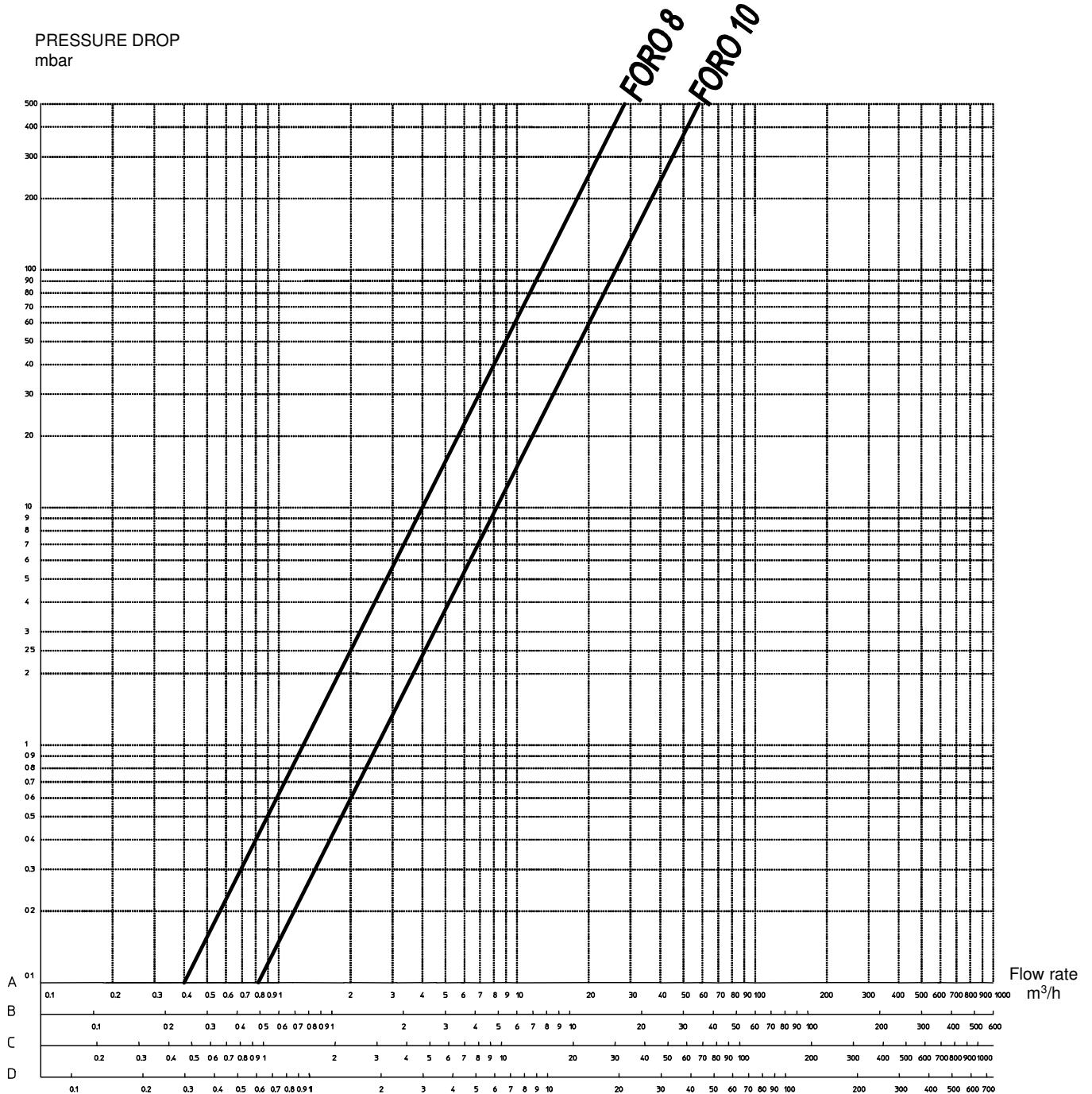


SUMMARY TABLE

Type	DN	Operating pressure (mbar)	Orifice diameter (mm)	Connections	Consumption (W)	Flow rate (m³/h natural gas with ΔP 2.5 mbar)	Pressure test point option
E6GN*S10	DN10	0 ÷ 500	10	G3/8"	18	3.9	si
E6GN*S10	DN15	0 ÷ 500	10	G1/2"	18	3.9	si
E6GN*SR10	DN10	0 ÷ 500	10	G3/8"	18	3.9	si
E6GN*SR10	DN15	0 ÷ 500	10	G1/2"	18	3.9	si
E6GN*S8	DN8	0 ÷ 500	8	G1/4"	18	2	no
E6GN*SR8	DN8	0 ÷ 500	8	G1/4"	18	2	no

DIAGRAM

PRESSURE DROP
mbar



A : Standard flow rate m³/h of NATURAL GAS relative density 0.554

B : Standard flow rate m³/h of LPG relative density 1.54

C : Standard flow rate m³/h of TOWN GAS relative density 0.411

D : Standard flow rate m³/h of AIR relative density 1

TYPE REFERENCE

E6GN * S R P X* X * X XX X XX/XX

Type _____

Version _____

Type	Description
S	Quick, noiseless

Flow adjustment
Valve fitted with equipment for flow adjustment

Pressure test point
Valve fitted with pressure test point (only models with G3/8 and G1/2 connections)

Orifice diameter

Type	Orifice diameter
8	8 mm
10	10 mm

Threaded

Type	Thread typology
1/4	UNI ISO 228/1 G1/4 (for versions with Orifice diameter 8mm only)
3/8	UNI ISO 228/1 G3/8 (for versions with Orifice diameter 10mm only)
1/2	UNI ISO 228/1 G1/2 (for versions with Orifice diameter 10mm only)

Power supply

Type	Description
24/50-60	24 Vrac / 50-60 Hz
110/50-60	110 Vrac / 50-60 Hz
230/50-60	230 Vrac / 50-60 Hz
24 Vdc	24 Vdc
110 Vdc	24 Vdc
230 Vdc	24 Vdc

Pressure test point position

Type	Description
5	Downstream left
6	Downstream right
7	Upstream left
8	Upstream right

Type of connection

Type	Description
FD	Connection by fast-on for DIN 43650 plug-IP65
MO	Connection by terminal board-IP40

Type of power supply

Type	Description
C	Supply in direct current (Vdc)
G	Supply in alternate current, but the valve operates in direct current thanks to an inbuilt rectifier bridge (Vrac) - (for versions with connection type "MO" only)

Example:

E6GN*S10*3/8*GMO 230/50-60

Type E6GN solenoid valve group

Valve options:

S10: quick valve orifice diameter 10 mm

3/8: threaded connection UNI ISO 228/1 G3/8

G: rectified current supply (Vrac)

MO: connection by means terminal board

230: mains supply operation 230/50

Example:

E6GN*SR8*1/4*CFD 24Vdc

Type E6GN solenoid valve group

Valve options:

SR8: quick valve orifice diameter 8 mm with flow rate equipment

3/8: threaded connection UNI ISO 228/1 G3/8

C: direct current supply (Vdc)

FD: connection by fast-on for DIN 43650 plug

24: operation with power supply 24Vdc



NOTES FOR PRODUCT DISPOSAL

The device contains electronic components and cannot therefore be disposed of as normal household waste. For the disposal procedure, please refer to the local rules in force for special waste.

ATTENTION! Company Brahma S.p.A. declines any responsibility for any damage resulting from Customer tampering with the device.

BRAHMA S.p.A.

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