

ELETTRORVALVOLA A RIARMO MANUALE NORM. CHIUSA PER GAS  
 NORMALLY CLOSED MANUAL RESET SOLENOID VALVE FOR GAS  
 ÉLECTROVANNE A RÉARMEMENT MANUEL NORMALEMENT FERMÉE POUR GAZ  
 ELECTROVÁLVULA CON REARME MANUAL NORMALMENTE CERRADA PARA GAS



**ATEX**  
**II 3G - II 3D**



**CE-51AT1438**



**MADE IN ITALY**

	IT	EN	FR	ES
Pressione massima di esercizio Maximum operating pressure Pression maximum de fonctionnement Presión máxima de funcionamiento	<b>0,5 - 6 bar</b>			
Attacchi filettati / Threaded connections Raccords filetés / Conexiones roscadas	<b>DN 15 - DN 20 - DN 25 - DN 32 - DN 40 - DN 50</b>			
Attacchi flangiati / Flanged connections Raccords à brides / Conexiones embrizadas	<b>DN 25* - DN 32 - DN 40 - DN 50</b>			
	* su richiesta con flange girevoli	* with swivel flanges on request	* sur demande avec brides tournantes	* bajo petición con bridas locas
Norma di riferimento Reference standard Norme de référence Patrón de referencia	EN 161			
In conformità a In conformity with Conforme a Conforme	Regolamento (UE) 2016/426  Direttiva ATEX 2014/34/UE  Direttiva PED 2014/68/UE	Regulation (EU) 2016/426  ATEX Directive 2014/34/EU  PED Directive 2014/68/EU	Règlement (UE) 2016/426  Directive ATEX 2014/34/UE  Directive PED 2014/68/UE	Reglamento (UE) 2016/426  Directiva ATEX 2014/34/UE  Directiva PED 2014/68/UE

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## 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/wiring/maintenance need 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/wiring/maintenance or in any case problems that cannot be solved with the instructions, contact the manufacturer by using the address and phone numbers provided on the last page.

### 1.1 - DESCRIPTION

Normally closed, manual reset solenoid valves for gas, suitable to shut off gas both to signal danger sent by gas detectors (methane, LPG, carbon monoxide and similar) or safety thermostats, and in the event of a power cut.

For additional safety, this solenoid valve can only be reset with the power supply on and only when the gas detector is not signalling danger.

**IMPORTANT NOTE: The valve will not open by simply powering the coil.** You must manually press the reset mechanism (as indicated in 4.0)

They can be equipped with CPI switches to control the valve's obturator position (closed) remotely.

Further information regarding the CPI switch is available in 7.0.

Reference standards: EN 161 - EN 13611 - EN 60079-0-7-14-15-18-31.

### 1.2 - KEY OF 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;
- Are trained on first aid.



### 1.4 - USING NON-ORIGINAL SPARE PARTS

- To perform maintenance or change parts (e.g. coil, etc.) **ONLY** manufacturer-recommended parts can 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 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 correct systems to protect the device, which prevent the maximum pressure indicated on the rating plate from being exceeded.
- The manufacturer is not responsible for any damage caused by improper use of the device.

## 2.0 - TECHNICAL DATA

• Use	: non-aggressive gases of the three families (dry gases)
• Ambient temperature (TS)	: -20 ÷ +60°C
• Supply voltages (see table 2)	: 12 Vdc, 12 V/50 Hz, 24 Vdc, 24 V/50 Hz, 110 V/50-60 Hz, 230 V/50-60 Hz*
• Power supply tolerance	: -15% ... +10%
• Electric wiring	: electric cable l=3 metres with wire terminals
• Absorbed power	: see table 2
• Maximum operating pressure	: 500 mbar - 6 bar (see product label)
• Closing time	: <1 s
• Protection rating	: IP65
• Coil protection mode	: II 3G Ex mc ec nC IIA T4 Gc X - II 3D Ex mc tc IIIC T135°C Dc X
• Class	: A
• Mechanical resistance	: Group 2
• Rp Threaded connections	: (DN 15 - DN 20 - DN 25 - DN 32 - DN 40 - DN 50) according to EN 10226
• Flanged connections to be coupled with PN 16 flanges	: (DN 25** - DN 32 - DN 40 - DN 50) ISO 7005 / EN 1092-1
• NPT threaded or ANSI 150 flanged connections	: on request
• Filter element	: 1 mm wire mesh
• In compliance with	: Regulation (EU) 2016/426 (Appliances burning gaseous fuels) EN 60079-0-7-14-15-18-31 - ATEX Directive 2014/34/EU PED Directive 2014/68/EU (versions with P.max = 6 bar) Directive EMC 2014/30/EU - Directive LVD 2014/35/EU Directive RoHS II 2011/65/EU

\* Only single-phase, the device does not work if powered with three-phase voltage.

\*\* DN 25 with swivel flanges on request.

## 3.0 - COMMISSIONING THE DEVICE



### 3.1 - OPERATIONS PRIOR TO INSTALLATION

- It is necessary to close the gas upstream of the valve prior to installation;
- Make sure that the line pressure **DOES NOT EXCEED** the maximum pressure declared on the product label;
- Any protective caps (if any) must be removed prior to installation;
- Valve pipes and insides must be clear of any foreign bodies;

#### If the device is threaded:

- make sure that the pipe thread is not too long, to prevent damaging the body of the device when screwing it on;

#### If the device is flanged:

- make sure the inlet and outlet counter-flanges are perfectly coaxial and parallel in order to prevent unnecessary mechanical stress to the body. Also calculate the space to insert the seal gasket;
- With regard to tightening operations, equip yourself with one or two calibrated torque wrenches or other controlled locking tools;

#### Common procedures (threaded and flanged devices):

- In accordance with EN 161, a suitable filter must be installed upstream of a gas closing safety device;
- With outdoor installation, it is advisable to provide a protective roof to prevent rain from damaging the electrical parts of the device;
- Prior to carrying out any electrical wiring operations, make sure that the mains voltage matches the supply voltage indicated on the product label;
  - Cut out power prior to proceeding with wiring;
  - According to the plant geometry, check the risk of explosive mixture arising inside the piping;
  - If the solenoid valve is installed near other devices or as part of an assembly, compatibility between the solenoid valve and this other device must be evaluated beforehand;
  - Avoid installing the solenoid valve near surfaces that could be damaged by the coil temperature. **ATTENTION:** the surface temperature could cause contact burns. If it is installed in a domestic environment, it must not be accessible to unqualified personnel;
  - The solenoid valve is suitable for installation in places at low risk of mechanical impact. Provide a protection against impacts or accidental contacts if the solenoid valve is accessible to unqualified personnel.





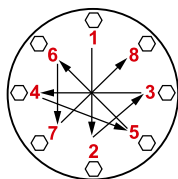
## 3.2 - INSTALLATION (see example in 3.4)

### Threaded devices:

- Assemble the device by screwing it, with the due seals, onto the plant with pipes and/or fittings whose threads are consistent with the connection being attached;
- Do not use the coil (1) as a lever to help you screw it on, only use the specific tool;
- The arrow, shown on the body (6) of the device, needs to be pointing towards the application;

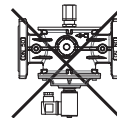
### Flanged devices:

- Assemble the device by flanging it, with the due seals, onto the plant with pipes whose flanges are consistent with the connection being attached. The gaskets must be free from defects and must be centred between the flanges;
- If, after installing the gaskets, there is still an excessive space in between, do not try to reduce said gap by excessively tightening the bolts of the device;
- The arrow, shown on the body (6) of the device, needs to be pointing towards the application;
- Insert the relative washers inside the bolts in order to prevent damage to the flanges during tightening;
- When tightening, be careful not to “pinch” or damage the gasket;
- Tighten the nuts or bolts gradually, in a “cross” pattern (see the example below);
- Tighten them, first by 30%, then by 60% and finally 100% of the maximum torque (see the table below according to EN 13611);



Diameter	DN 25	DN 32	DN 40	DN 50
Max. torque (N.m)	30	50	50	50

- Tighten each nut and bolt again clockwise at least once, until the maximum torque has been achieved uniformly;
- **Common procedures (threaded and flanged devices):**
- The device can also be installed vertically without affecting correct operation. It cannot be put in upside down (with the cover (3) pointing downwards);
- During installation, avoid debris or metal residues from getting into the device;
- To guarantee mechanical tension-free assembly, we recommend using compensating joints, which also adjust to the pipe's thermal expansion;
- If the device is to be installed in a ramp, it is the installer's responsibility to provide suitable or correctly sized supports to hold and secure the assembly. Never, for any reason whatsoever, leave the weight of the ramp only on the connections (threaded or flanged) of the individual devices;
- In any case, following installation, check the tightness of the plant;
- **ATTENTION:** The coil is provided with a 3m long power supply cable (4). This cable **CANNOT** be replaced with a different one. In the event of damage, the part (coil) must be disposed of and replaced with an identical new one; Any repair (if possible) can only be carried out by the manufacturer;
- In the dangerous zone, wire the ends of the cable with explosion-proof approved equipment (E.g. Terminal box with “E” protection or increased safety according to EN 60079-7) using the special wire terminals;



### • Cable colours

Phase : brown (alternatively black or grey)

Neutral : blue

⏚ : yellow/green

- Make sure the connection cables are inserted correctly into the electrical terminal, ensuring they are not crushed and/or damaged in order to prevent short circuits and interferences.
- Provide a fixed installation ensuring adequate protection against mechanical stress;
- The valve needs to be connected to earth either through the pipe or through other means (e.g. cable jumpers).

### **Special conditions for safe use**

The “X” symbol (positioned at the end of the protection mode) indicates particular conditions of use:

- Clean the product regularly with an antistatic cloth to prevent dust from building up and the formation of electrostatic charges;
- The valve must be installed in places at a low risk of mechanical impact;
- Minimum bending radius of the cable = 4 Ø; minimum installation temperature -35°C;
- The equipment must be protected against the effect of lightning discharges;

- Keep ambient humidity under control to minimise the formation of electrostatic charges;
- Protect the coil from direct air draughts that could cause the accumulation of electrostatic charges;
- Touch only with an electrically insulated object.
- Sparks caused by impact or friction on light metals can cause sources of ignition, therefore tools with corroded surfaces must not be used under any circumstances (e.g. for adjustments, maintenance, etc.);
- Protect the product from impact or friction caused by other objects;
- Do not install in environments where the product is in direct contact with corrosive gases, chemicals, salt water, water or steam (C3 or medium degree of environmental pollution). Contact the technical department for any other application, for the compatibility analysis;

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

The solenoid valve complies with Directive 2014/34/EU as a device of group II, category 3G and as device of group II, category 3D; consequently, it is suited for installation in zones 2 and 22 as classified in Annex I of Directive 99/92/EC. The solenoid valve is **NOT** suitable for use in zones 1, 21, 0 and 20, as defined in aforementioned Directive 99/92/EC. To determine the qualification and size of the hazardous zones, please refer to standard IEC EN 60079-10-1.

If installed and subject to maintenance in full compliance with all conditions and technical instructions provided in this manual, the device does not pose a source of specific hazards: in particular, under conditions of normal operation, it is not expected for the solenoid valve to emit a flammable substance into the atmosphere with methods such as to originate an explosive atmosphere. During installation and maintenance, it is imperative to comply with the Ex standards, in particular EN 60079-14. Electrical installation must be carried out by authorised personnel in accordance with relative national regulations.

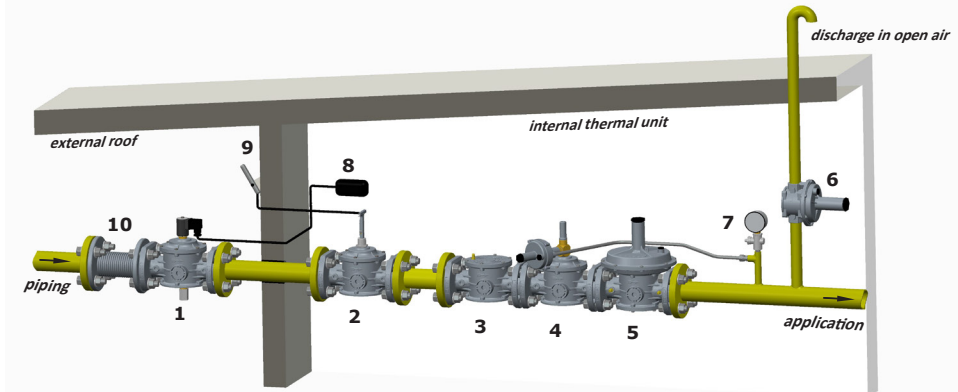
Do not install the appliance in explosive atmospheres except for the specified gas and dust groups and areas (as explained in section 2.0 and 6.1).

The subsequent application of a non-conductive coating with a thickness of  $> 0.2\text{mm}$  on the external surface prohibits its use in environments with potentially explosive atmospheres where group IIC Gases are present. The thickness of the coating must be  $< 2\text{mm}$  for group IIB.

For group III it is necessary to take appropriate precautions to prevent the accumulation of electrostatic charges (e.g. cleaning with an antistatic cloth, etc.).

### 3.4 - GENERIC EXAMPLE OF AN INSTALLATION

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. M16/RMJ N.C. Manual reset solenoid valve</li> <li>2. SM jerk ON/OFF valve</li> <li>3. FM gas filter</li> <li>4. OPSO series MVB/1 MAX shut off valve</li> <li>5. RG/2MC pressure regulator</li> </ol> | <ol style="list-style-type: none"> <li>6. MVS/1 relief valve</li> <li>7. Pressure gauge and relative button</li> <li>8. Gas detector</li> <li>9. SM remote jerk ON/OFF valve lever control</li> <li>10. Expansion joint/anti-vibration mount</li> </ol> |
|---|---|





## 4.0 - MANUAL RESET (see fig.1, 2 and 3)

To reset the solenoid valve:

- Make sure there is power;
- Close the flow downstream of the solenoid valve in order to balance the pressure between upstream and downstream when opening;
- Loosen and remove the protective cover (9);
- Fully press the reset pin (10) and wait a few seconds for the pressure upstream and downstream of the valve to stabilise until it locks into place;
- Screw the protective cover (9) back on in its original place. Or seal it in that position.



## 5.0 - FIRST START-UP



- Before start-up make sure that all of the instructions on the rating plate, including the direction of flow, are observed;
- After having gradually pressurised the system, reset the solenoid valve, as indicated in 4.0;
- Check the tightness, the operation and the closing of the solenoid valve, by electrically disconnecting it.



## 5.1 - RECOMMENDED PERIODIC CHECKS

- Use a suitable calibration tool to ensure the bolts are tightened as indicated in 3.2;
- Check tightness of the flanged/threaded connections on the system;
- Check tightness and operation of the solenoid valve;
- Clean the product regularly to prevent dust from building up;
- It is essential to eliminate the risk of ignition caused by stray currents or any condition of potential difference between the devices fitted on the system. Periodically check that there is good electrical conduction between the valve body and the equipotential plant line and between the coil and the equipotential plant line.

It is the responsibility of the final user or installer to define the frequency of these checks based on the severity of the service conditions.



## 6.0 - MAINTENANCE

No maintenance operations need to be carried out inside the device.

On completion of the operations described below, repeat the procedure indicated in paragraph 5.

If the coil need to be replaced:



- Before performing any operation, make sure that the device is not electrically powered;
- Since the coil is also suitable to be permanently powered, coil heating in case of continuous operation is an entirely normal phenomenon. It is advisable to avoid touching the coil with bare hands after a continuous power supply lasting longer than 20 minutes. In case of maintenance, wait for the coil to cool down or, if necessary, use suitable protections;

**NOTE:** The coil replacement operations need to be carried out taking care to ensure the product's IP65 rating.



## 6.1 - REPLACING THE COIL

- Loosen the screw (17) that locks the coil (1) and take it out from the armature assembly (2) along with the gaskets/discs;
- Insert the new coil + seals + discs into the armature assembly (2) and secure everything with the screw;
- If it is necessary to set up the wiring, proceed as described in 3.2

## 7.0 - CPI SWITCH

If the solenoid valve comes with CPI, the position of the micro switch is already calibrated and set, therefore, for operation you simply need to connect it to the power supply. Follow the instructions in 7.2.

### 7.1 - CPI SWITCH TECHNICAL DATA

- Ambient temperature : -20 ÷ +60°C
- Switchable voltage : max 250 V (Vac)
- Switchable current : max 2 A
- Protection rating : IP65
- Protection mode : II 3G Ex nC IIC T6 Gc X - II 3D Ex tc IIIC T85°C Dc X
- Cable length : 3m provided

#### CPI electrical diagram





## 7.2 - CPI SWITCH CONNECTIONS and CALIBRATION

**black cable:** common - **brown cable:** signal with micro switch not pressed - **grey cable:** signal with micro switch pressed

If CPI calibration adjustments are required, it is possible to remove the threaded grub screw (**18**) and screw/unscrew the CPI cover (**8**). Then tighten the threaded grub screw (**18**) so that with the valve closed, the CPI provides the desired signal.

## 8.0 - 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 (e.g. painting, cataphoresis, 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 is to be disposed of separately from other waste (WEEE directive 2012/19/ EU) and in compliance with the legislation in force in the country where this operation is performed.



## 9.0 - WARRANTY

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

For damage caused by:

- Improper use of the device;
- Failure to observe the requirements described herein;
- Failure to observe the regulations pertaining to installation;
- 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, other manufacturers's assembling units, making changes to the device and natural wear.

## 10.0 - RATING PLATE DATA

The user is obliged to keep the marking of the valve clearly visible: any coatings or paintwork performed on the product that make the valve unidentifiable are not to be attributed to the manufacturer.

The rating plate data (see example provided here) includes the following:

- Manufacturer's name/logo and address (possible distributor name/logo)
- Mod.: = device name/model followed by the connection diameter
- CE-51AT1438 = certification pin number
- Cl. A = Seal strength in counterflow at 150 mbar in accordance with EN 161
- Gr. 2 = Mechanical resistance group 2 in accordance with EN 161
- EN 161 = Product reference regulation
- P. max = Maximum pressure at which product operation is guaranteed
- PS = Allowable maximum pressure
- IP... = Protection rating
- 230V.... = Power supply voltage, frequency (if Vac), followed by electrical absorption
- TS = Temperature range within which product operation is guaranteed
- CE 0051 = Conformity with Regulation (EU) 2016/426 followed by Notified Body No.
- CE 0497 (if it is present) = In compliance with PED directive followed by the no. of the Notified Body
- CE Ex = In compliance with ATEX followed by the protection mode (complete protection mode indicated on coil and CPI switch)
- year = Year of manufacture
- Lot = Product serial number (see explanation below)
  - U1812 = Lot issued in year 2018 in the 12th week
  - 7634 = progressive job order number for the indicated year
  - 00001 = progressive number referring to the quantity of the lot
- = Disposal in accordance with WEEE directive 2012/19/EU



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## Protection mode

- II product group
- 3 product category

### Gas: II 3G Ex mc ec nC IIA T... Gc X

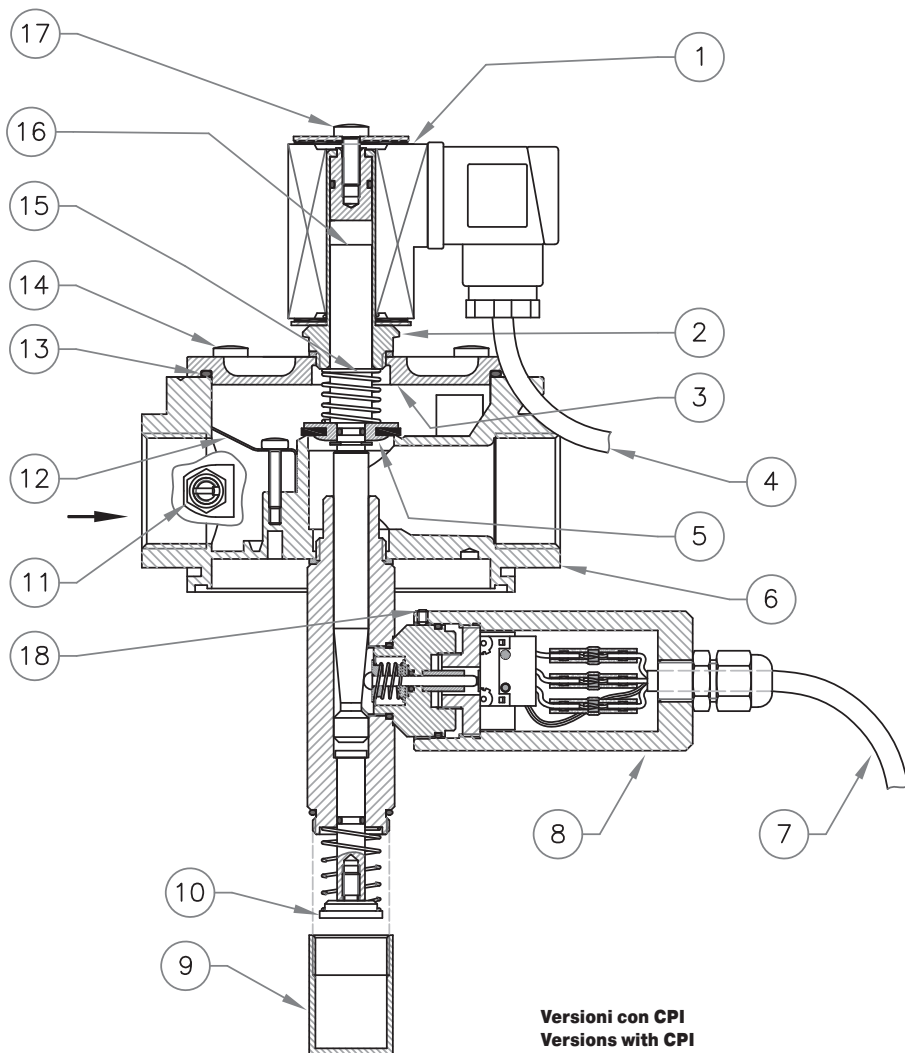
- G explosive atmosphere with gas or vapours
- Ex suitable for explosive atmosphere
- mc encapsulated for zone 2
- ec increased safety
- nC sealed device for zone 2
- IIA explosion group
- T... temperature class (T4 < 135 °C) - (T5 < 100 °C) - (T6 < 85 °C)
- Gc Product Level (EPL) - equipment for use in explosive atmospheres due to the presence of gas, with an "increased" level of protection, which is not a source of ignition during normal operation and which has some additional protective measures to ensure that it remains an inactive source of ignition in case of events expected regularly
- X particular conditions of use (\*)

### Dust: II 3D Ex mc tc IIIC T... °C Dc X

- D explosive atmosphere with dust
- Ex suitable for explosive atmosphere
- mc encapsulated for zone 22
- tc protection by enclosure for zone 22
- IIIC explosion group
- T... temperature class expressed in °C
- Dc Product Level (EPL) - equipment for use in explosive atmospheres due to the presence of dust, with an "increased" level of protection, which is not a source of ignition during normal operation and which has some additional protective measures to ensure that it remains an inactive source of ignition in case of events expected regularly
- X particular conditions of use (\*)

\* see paragraph 3.2 - "Special conditions for safe use"

**fig. 1**  
DN 15 - DN 20 - DN 25



**Versioni con CPI**  
**Versions with CPI**  
**Versions avec interrupteurs CPI**  
**Versiones con CPI**

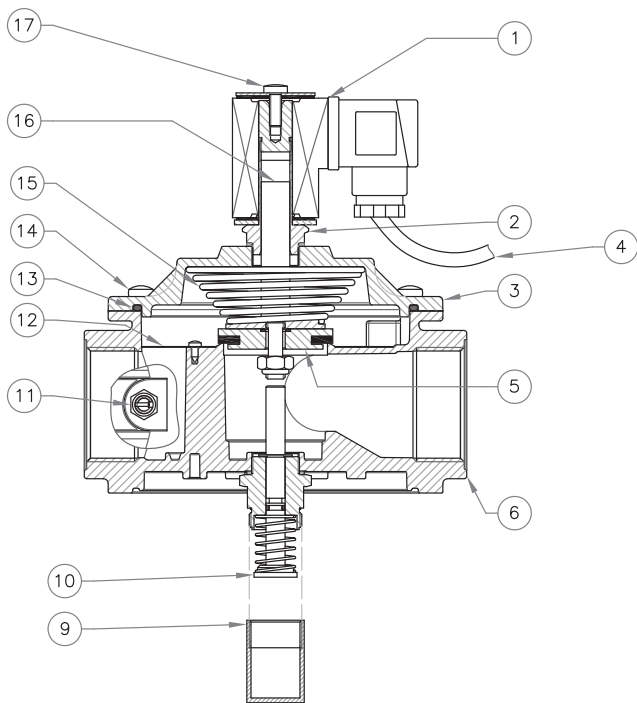
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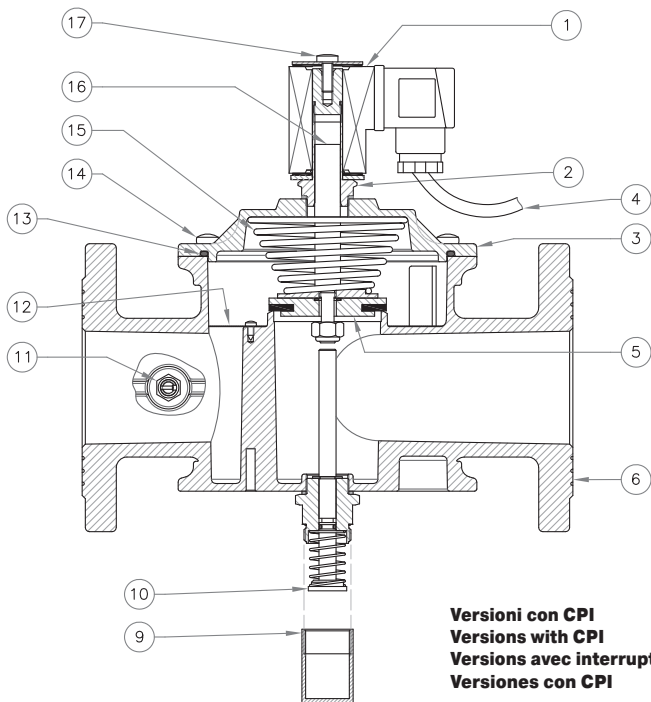
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**fig. 2**  
DN 32 - DN 40 - DN 50



**fig. 3**  
DN 32 FL - DN 40 FL - DN 50 FL



**IT****fig. 1, 2 e 3**

1. Bobina elettrica
2. Cannotto per bobina
3. Coperchio
4. Cavo di alimentazione
5. Otturatore
6. Corpo valvola
7. Cavo di collegamento CPI
8. Coperchio CPI
9. Coperchietto di protezione
10. Perno di riarmo
11. Presa di pressione (optional)
12. Organo filtrante
13. O-Ring di tenuta coperchio valvola
14. Viti di fissaggio coperchio valvola
15. Molla di chiusura
16. Nucleo mobile
17. Vite loccaggio bobina
18. Grani di fissaggio microswitch

**FR****fig. 1, 2 et 3**

1. Bobine électrique
2. Douille pour bobine
3. Couverture
4. Câble coaxial
5. Obturateur
6. Corps de vanne
7. Câble de raccordement CPI
8. Couverture CPI
9. Couverture de protection
10. Pivot de réarmement
11. Prise de pression (en option)
12. Organe filtrant
13. Joint torique d'étanchéité du couvercle de vanne
14. Vis de fixation du couvercle de vanne
15. Ressort de fermeture
16. Noyau mobile
17. Vis de blocage de la bobine
18. Goujons de fixation du micro-interrupteur

**EN****fig. 1, 2 and 3**

1. Electric coil
2. Armature assembly for coil
3. Cover
4. Power supply cable
5. Obturator
6. Valve body
7. CPI connection cable
8. CPI cover
9. Protective cover
10. Reset pin
11. Pressure test nipple (optional)
12. Filter element
13. Valve cover sealing O-Ring
14. Valve cover fastening screws
15. Closing spring
16. Mobile core
17. Coil locking screw
18. Micro switch clamping grub screws

**ES****fig. 1, 2 y 3**

1. Bobina eléctrica
2. Manguito para bobina
3. Tapa
4. Cable de alimentación
5. Obturador
6. Cuerpo de la válvula
7. Cable de conexión CPI
8. Tapa CPI
9. Tapa de protección
10. Perno de rearme
11. Toma de presión (opcional)
12. Cartucho filtrante
13. Junta tórica de estanqueidad de la tapa de la válvula
14. Tornillos de fijación de la tapa de la válvula
15. Muelle de cierre
16. Núcleo móvil
17. Tornillo de bloqueo de la bobina
18. Bulones de fijación microinterruptor

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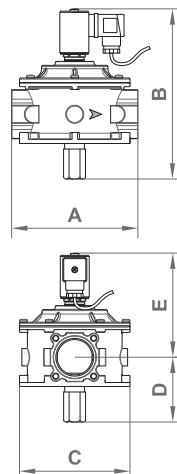
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**Tabella 1a - Table 1a - Tableau 1a - Tabla 1a**

Dimensioni di ingombro in mm - Overall dimensions in mm - Dimensions d'encombrement en mm - Dimensiones totales en mm

Attacchi filettati Threaded connections Raccords filetés Conexiones roscadas	Attacchi flangiati Flanged connections Raccords à brides Conexiones embridadas	P. max (bar)	A	B=(D+E)	C	D	E
Rp DN 15 Rp DN 20 Rp DN 25	-	0.5	120	154	94	48,5	105,5
Rp DN 15 Rp DN 20 Rp DN 25	-	6	120	158	94	48,5	109,5
Rp DN 32 - Rp DN 40	-	0.5 - 6	160	212	140	78	134
Rp DN 50	-	0.5 - 6	160	244	140	92,5	151,5
-	DN 32 FL DN 40 FL DN 50 FL	0.5 - 6	230	255	165	98,5	156,5

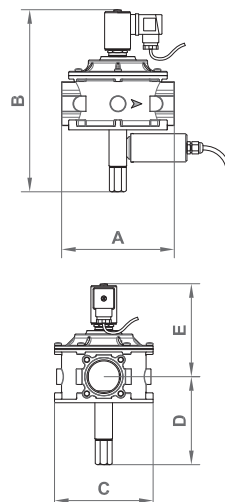


Le dimensioni sono indicative, non vincolanti - The dimensions are provided as a guideline, they are not binding  
Les dimensions sont indicatives et non pas contractuelles - Las dimensiones son indicativas, no vinculantes

**Tabella 1b - Table 1b - Tableau 1b - Tabla 1b**

Dimensioni di ingombro in mm (Versioni con CPI) - Overall dimensions in mm (Versions with CPI)  
Dimensions d'encombrement en mm (Versions avec interrupteurs CPI) - Dimensiones totales en mm (Versiones con CPI)

Attacchi filettati Threaded connections Raccords filetés Conexiones roscadas	Attacchi flangiati Flanged connections Raccords à brides Conexiones embridadas	P. max (bar)	A	B=(D+E)	C	D	E
Rp DN 15 Rp DN 20 Rp DN 25	-	0.5	120	222	94	116,5	105,5
Rp DN 15 Rp DN 20 Rp DN 25	-	6	120	226	94	116,5	109,5
Rp DN 32 - Rp DN 40	-	0.5 - 6	160	260	140	126	134
Rp DN 50	-	0.5 - 6	160	292	140	140,5	151,5
-	DN 32 FL DN 40 FL DN 50 FL	0.5 - 6	230	303	140	146,5	156,5

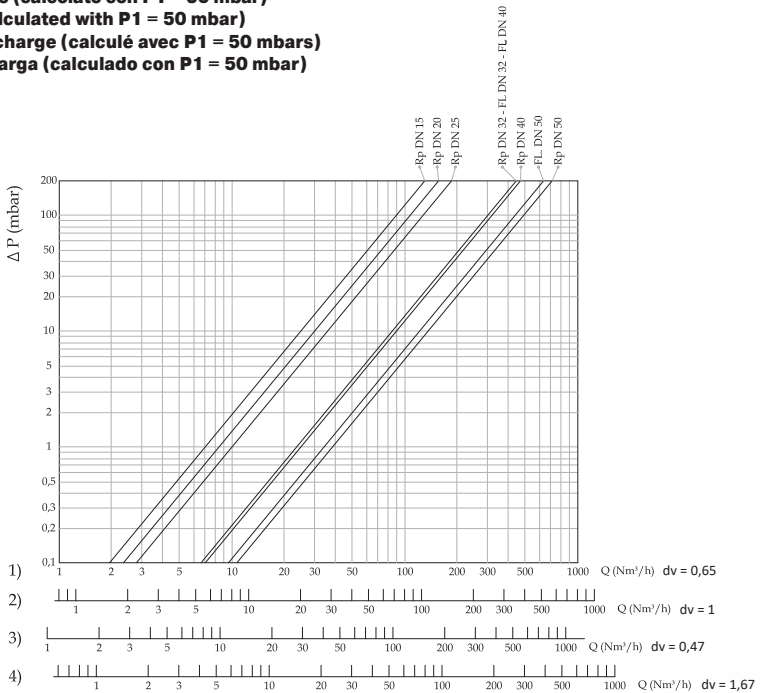


Le dimensioni sono indicative, non vincolanti - The dimensions are provided as a guideline, they are not binding  
Les dimensions sont indicatives et non pas contractuelles - Las dimensiones son indicativas, no vinculantes

**Tabella 2 - Table 2 - Tableau 2 - Tabla 2**  
Bobine - Coils - Bobines - Bobinas

Modello/Ø Model/Ø Modèle/Ø Modelo/Ø	Voltaggio Voltage Voltage Voltaje	Codice bobina Coil code Code bobine Código bobina	Timbratura bobina Coil stamping Timbrage bobine Timbre bobina	Potenza assorbita Absorbed power Puissance absorbée Potencia absorbida
<b>M16/RMJ N.C.</b> <b>Rp DN 15 + DN 50</b> <b>DN 32 FL + DN 50 FL</b> <b>(P.max 0,5 - 6 bar)</b>	12 Vdc	BO-0030JDC	BO-0030JDC 12 VDC	8 VA
	12 V/50 Hz	BO-0030JAC	BO-0030JAC 12 V/50 Hz	8 VA
	24 Vdc	BO-0040JDC	BO-0040JDC 24 VDC	8 VA
	24 V/50 Hz	BO-0040JAC	BO-0040JAC 24 V/50 Hz	8 VA
	110 V/50-60 Hz	BO-0075JAC	BO-0075JAC 110 V/50-60 Hz	8 VA
	230 V/50-60 Hz	BO-0050JAC	BO-0050JAC 230 V/50-60 Hz	9 VA

**Diagramma perdite di carico (calcolato con P1 = 50 mbar)**  
**Pressure drop diagram (calculated with P1 = 50 mbar)**  
**Diagramme des pertes de charge (calculé avec P1 = 50 mbars)**  
**Diagrama de pérdidas de carga (calculado con P1 = 50 mbar)**



**ATTACCHI FILETTATI NPT / NPT THREADED CONNECTIONS**  
**RACCORDI FILETÉS NPT / CONEXIONES ROSCADAS NPT**

richiedere fattibilità / request feasibility / demander la faisabilité / consulte la disponibilidad

Aggiungere la lettera <b>"N"</b> dopo le cifre indicanti gli attacchi	Add the letter <b>"N"</b> after figures denoting the connection	Ajouter la lettre <b>"N"</b> après les chiffres indiquant les connexions	Añadir la letra <b>"N"</b> a continuación de las cifras que indican los diámetros de conexión	Es. / E.g. / Ex. / Ej. CM07 <b>NJ</b> 008
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**ATTACCHI FLANGIATI ANSI 150 / ANSI 150 FLANGED CONNECTIONS**  
**RACCORDI A BRIDES ANSI 150 / CONEXIONES EMBRIDADAS ANSI 150**

richiedere fattibilità / request feasibility / demander la faisabilité / consulte la disponibilidad

Aggiungere la lettera <b>"A"</b> dopo le cifre indicanti gli attacchi	Add the letter <b>"A"</b> after figures denoting the connection	Ajouter la lettre <b>"A"</b> après les chiffres indiquant les connexions	Añadir la letra <b>"A"</b> a continuación de las cifras que indican los diámetros de conexión	Es. / E.g. / Ex. / Ej. CM50 <b>AJ</b> 008
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**BIOGAS**

richiedere fattibilità / request feasibility / demander la faisabilité / consulte la disponibilidad

Aggiungere la lettera <b>"B"</b> dopo la lettera indicante il tipo di bobina	Add the letter <b>"B"</b> after the letter denoting the coil type	Ajouter la lettre <b>"B"</b> après la lettre indiquant le type de bobine	Añadir la letra <b>"B"</b> a continuación de la letra que denota el tipo de bobina	Es. / E.g. / Ex. / Ej. CM07 <b>JB</b> 008
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**ELASTOMERI IN FKM (Viton) / ELASTOMERS IN FKM (Viton)**  
**ÉLASTOMÈRES EN FKM (Viton) / ELASTÓMEROS DE FKM (Viton)**

Aggiungere la lettera <b>"V"</b> dopo la lettera indicante il tipo di bobina	Add the letter <b>"V"</b> after the letter denoting the coil type	Ajouter la lettre <b>"V"</b> après la lettre indiquant le type de bobine	Añadir la letra <b>"V"</b> a continuación de la letra que denota el tipo de bobina	Es. / E.g. / Ex. / Ej. CM07 <b>JV</b> 008
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**CATAFORESI / CATAPHORESIS**  
**CATAPHORÈSE / CATAFORESIS**

Aggiungere la lettera <b>"K"</b> dopo la lettera indicante il tipo di bobina	Add the letter <b>"K"</b> after the letter denoting the coil type	Ajouter la lettre <b>"K"</b> après la lettre indiquant le type de bobine	Añadir la letra <b>"K"</b> a continuación de la letra que denota el tipo de bobina	Es. / E.g. / Ex. / Ej. CM07 <b>JK</b> 008
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**CONNETTORI CON LED / CONNECTORS WITH LED**  
**CONNECTEURS AVEC LED / CONECTOR CON LED**

Aggiungere la lettera <b>"L"</b> prima delle cifre che indicano il voltaggio	Add the letter <b>"L"</b> before figures denoting the voltage	Ajouter la lettre <b>"L"</b> après les chiffres indiquant le voltage	Añadir la letra <b>"L"</b> a continuación de las cifras que indican el voltaje	Es. / E.g. / Ex. / Ej. CM07 <b>JL</b> 008
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**COMBINAZIONI POSSIBILI / POSSIBLE COMBINATIONS**  
**COMBINAISONS POSSIBLES / POSIBLES COMBINACIONES**

È possibile combinare tra di loro le versioni. Non serve indicare <b>"BV"</b> in quanto <b>"B"</b> include <b>"V"</b>	It is possible to combine the above mentioned versions. It is not needed to state <b>"BV"</b> as the letter <b>"B"</b> includes <b>"V"</b> too	Les versions peuvent être combinées entre elles. Il n'est pas nécessaire d'indiquer <b>"BV"</b> car <b>"B"</b> comprend <b>"V"</b>	Es posible combinar las versiones entre sí. No es necesario indicar <b>"BV"</b> , dado que <b>"B"</b> incluye <b>"V"</b>	Es. / E.g. / Ex. / Ej. CM07 <b>JBK</b> 008
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**NOTA:** È possibile che alcuni modelli non siano disponibili nelle versioni suddette sia singole e/o combinate. È consigliato chiedere SEMPRE la fattibilità.

**NOTE:** It is possible certain models are not available on the above mentioned versions, both singles and/or combined too. We suggest to ask ALWAYS for the feasibility.

**NOTE:** Il est possible que certains modèles ne soient pas disponibles dans les versions uniques et / ou combinées susmentionnées. Il est recommandé de TOUJOURS demander la faisabilité.

**NOTA:** Puede suceder que algunos modelos no estén disponibles en las versiones citadas, ya sean individuales o combinadas. Se aconseja consultar SIEMPRE la viabilidad.

IT

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ES

**P. max 0,5 - 6 bar**

Attacchi filettati / Threaded connections / Raccords filetés / Conexiones roscadas

Attacchi Connections Raccords Conexiones	Vollaggio Voltage Voltage Voltage	P. max 0,5 bar		P. max 6 bar	
		Codice / Code / Code / Códice		Codice / Code / Code / Códice	
DN 15	12 Vdc	CM02J	001	CM02J0000	001
	12 V/50 Hz	CM02J	004	CM02J0000	004
	24 Vdc	CM02J	005	CM02J0000	005
	24 V/50 Hz	CM02J	003	CM02J0000	003
	110 V/50-60 Hz	CM02J	002	CM02J0000	002
	230 V/50-60 Hz	CM02J	008	CM02J0000	008
DN 20	12 Vdc	CM03J	001	CM03J0000	001
	12 V/50 Hz	CM03J	004	CM03J0000	004
	24 Vdc	CM03J	005	CM03J0000	005
	24 V/50 Hz	CM03J	003	CM03J0000	003
	110 V/50-60 Hz	CM03J	002	CM03J0000	002
	230 V/50-60 Hz	CM03J	008	CM03J0000	008
DN 25	12 Vdc	CM04J	001	CM04J0000	001
	12 V/50 Hz	CM04J	004	CM04J0000	004
	24 Vdc	CM04J	005	CM04J0000	005
	24 V/50 Hz	CM04J	003	CM04J0000	003
	110 V/50-60 Hz	CM04J	002	CM04J0000	002
	230 V/50-60 Hz	CM04J	008	CM04J0000	008
DN 32	12 Vdc	CM05J	001	CM05J0000	001
	12 V/50 Hz	CM05J	004	CM05J0000	004
	24 Vdc	CM05J	005	CM05J0000	005
	24 V/50 Hz	CM05J	003	CM05J0000	003
	110 V/50-60 Hz	CM05J	002	CM05J0000	002
	230 V/50-60 Hz	CM05J	008	CM05J0000	008
DN 40	12 Vdc	CM06J	001	CM06J0000	001
	12 V/50 Hz	CM06J	004	CM06J0000	004
	24 Vdc	CM06J	005	CM06J0000	005
	24 V/50 Hz	CM06J	003	CM06J0000	003
	110 V/50-60 Hz	CM06J	002	CM06J0000	002
	230 V/50-60 Hz	CM06J	008	CM06J0000	008
DN 50	12 Vdc	CM07J	001	CM07J0000	001
	12 V/50 Hz	CM07J	004	CM07J0000	004
	24 Vdc	CM07J	005	CM07J0000	005
	24 V/50 Hz	CM07J	003	CM07J0000	003
	110 V/50-60 Hz	CM07J	002	CM07J0000	002
	230 V/50-60 Hz	CM07J	008	CM07J0000	008

IT

EN

FR

ES

**P. max 0,5 - 6 bar**

Attacchi flangiati / Flanged connections / Raccords à brides / Conexiones embridadas

**IT**

Attacchi Connections Raccords Conexiones	Voltage Voltage Voltage Voltage	<b>P. max 0,5 bar</b>		<b>P. max 6 bar</b>	
		Code / Code / Code / Códice		Code / Code / Code / Códice	

**EN**

DN 25	12 Vdc	CM25J	001	CM25J0000	001
	12 V/50 Hz	CM25J	004	CM25J0000	004
	24 Vdc	CM25J	005	CM25J0000	005
	24 V/50 Hz	CM25J	003	CM25J0000	003
	110 V/50-60 Hz	CM25J	002	CM25J0000	002
	230 V/50-60 Hz	CM25J	008	CM25J0000	008
DN 32	12 Vdc	CM32J	001	CM32J0000	001
	12 V/50 Hz	CM32J	004	CM32J0000	004
	24 Vdc	CM32J	005	CM32J0000	005
	24 V/50 Hz	CM32J	003	CM32J0000	003
	110 V/50-60 Hz	CM32J	002	CM32J0000	002
	230 V/50-60 Hz	CM32J	008	CM32J0000	008

**FR**

DN 40	12 Vdc	CM40J	001	CM40J0000	001
	12 V/50 Hz	CM40J	004	CM40J0000	004
	24 Vdc	CM40J	005	CM40J0000	005
	24 V/50 Hz	CM40J	003	CM40J0000	003
	110 V/50-60 Hz	CM40J	002	CM40J0000	002
	230 V/50-60 Hz	CM40J	008	CM40J0000	008

**ES**

DN 50	12 Vdc	CM50J	001	CM50J0000	001
	12 V/50 Hz	CM50J	004	CM50J0000	004
	24 Vdc	CM50J	005	CM50J0000	005
	24 V/50 Hz	CM50J	003	CM50J0000	003
	110 V/50-60 Hz	CM50J	002	CM50J0000	002
	230 V/50-60 Hz	CM50J	008	CM50J0000	008

**Con CPI switch  
With CPI switch  
Avec CPI switch  
Con microinterruptor CPI**

Attacchi Connections Raccords Conexiones	Voltaggio Voltage Voltage Voltaje	P. max 0,5 bar	P. max 6 bar
		Codice / Code / Code / Código	Codice / Code / Code / Código

**IT**

DN 15

Tutti / All

CM02J0036 ...

CM02J0046 ...

DN 20

Tutti / All

CM03J0036 ...

CM03J0046 ...

**EN**

DN 25

Tutti / All

CM04J0036 ...  
CM25J0036 ...

CM04J0046 ...  
CM25J0046 ...

DN 32

Tutti / All

CM05J0036 ...  
CM32J0036 ...

CM05J0046 ...  
CM32J0046 ...

**FR**

DN 40

Tutti / All

CM06J0036 ...  
CM40J0036 ...

CM06J0046 ...  
CM40J0046 ...

DN 50

Tutti / All

CM07J0036 ...  
CM50J0036 ...

CM07J0046 ...  
CM50J0046 ...

**ES**

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