



DESCRIPTION

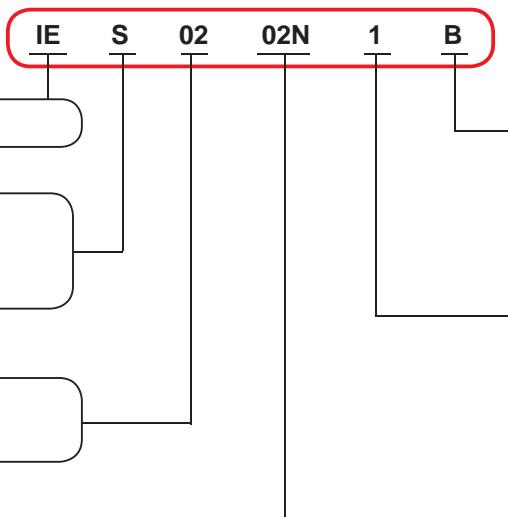
Gas automatic normally closed solenoid valves serie IE open when the coil is energized and close when there is no tension.

These solenoid valves are controlled by pressure switch, thermostat, etc.

Pmax = 200 mbar

- EC certified according to EN 161
- In conformity with the 2009/142/EC Directive (Gas Directive)
- In conformity with the 94/9/EC Directive (ATEX Directive)
- In conformity with the 2004/108/EC Directive (Electromagnetic Compatibility)
- In conformity with the 2006/95/EC Directive (Low Voltage)

IDENTIFICATION



Voltage	
1	12 V/50 Hz
2	12 Vdc
3	24 V/50 Hz
4	24 Vdc
5	110 V/50-60 Hz
6	110 V/50-60 Hz with rectifier
7	230 V/50-60 Hz
8	230 V/50-60 Hz with rectifier

Connections			
Threaded			
Code	GAS	Code NPT	NPT
01	DN 10 (G 3/8")	01N	DN 10 (NPT 3/8")
02	DN 15 (G 1/2")	02N	DN 15 (NPT 1/2")
03	DN 20 (G 3/4")	03N	DN 20 (NPT 3/4")

**NOTE: not all combinations are possible
Please contact the technical department.**

GENERAL DATA

TECHNICAL DATA

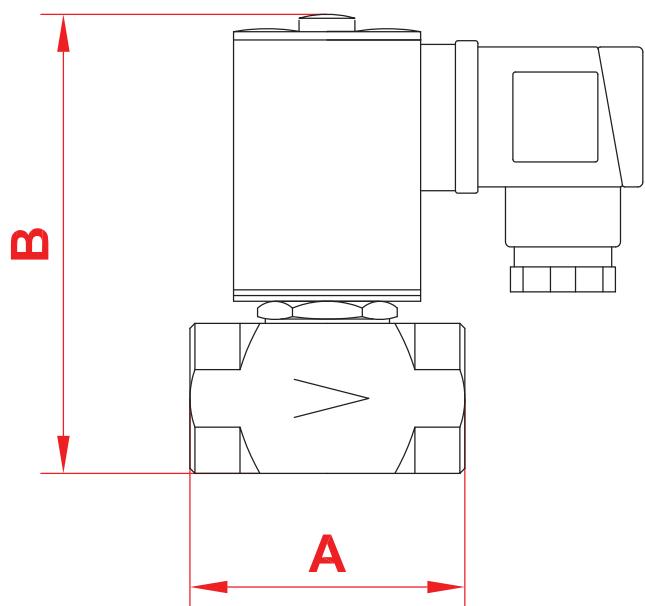
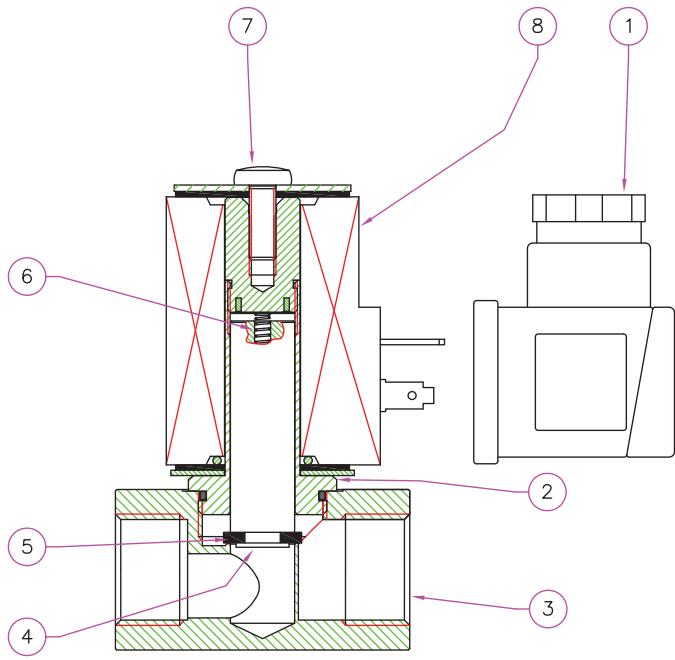
- Use: not aggressive gases of the 3 families (dry gases)
- Threaded connections Rp: (DN 10 ÷ DN 20) according to EN 10226
- Power supply voltage: 12 Vdc, 12 V/50 Hz, 24 Vdc, 24 V/50 Hz, 110 V/50-60 Hz, 230 V/50-60 Hz
- Power supply voltage tolerance: -15% ... +10%
- Power absorption: see coils and connector table
- Max. working pressure: 200 mbar
- Environment temperature: -20 ÷ +60 °C (230 Vac -20 ÷ +85° C)
- Max superficial temperature: 90 °C
- Protection degree: IP65
- Class: A
- Group: 2
- Closing time: <1 s
- Opening time: <1 s

Coils: poliammidic resin encapsulated with glass fibre, connection type DIN 43650; the insulation class is F (155°) and the enamelled copper wire class is H (180°).

MATERIALS

- OT-58 brass (UNI EN 12164)
- 430 F stainless steel (UNI EN 10088)
- NBR rubber (UNI 7702)

COMPONENTS and DIMENSIONS

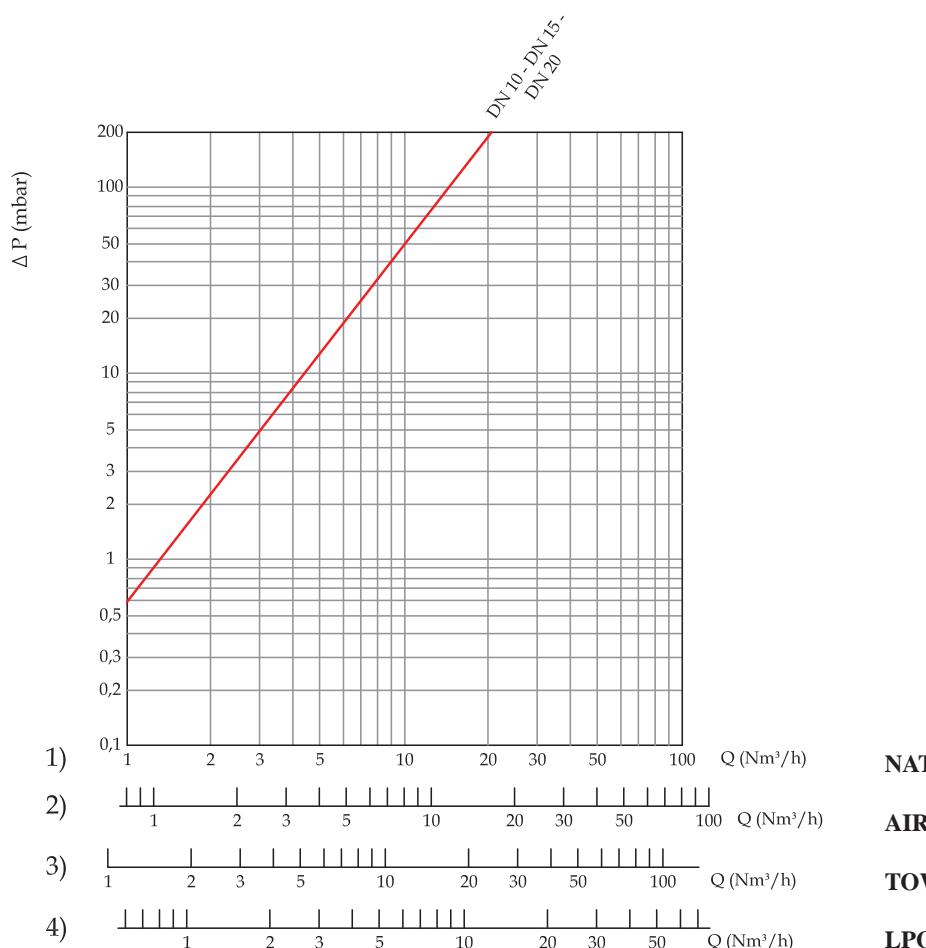


LEGEND

- 1 - Electrical connector
- 2 - Coil armature assembly
- 3 - Valve body
- 4 - Movable armature
- 5 - Washer seal
- 6 - Closing spring
- 7 - Coil fixing screw
- 8 - Coil

Overall dimensions in mm			Weight
Connections	A	B	Kg
DN 10	55	90,5	0,6
DN 15	55	90,5	0,6
DN 20	55	90,5	0,6

PRESSURE DROP DIAGRAM



COILS AND CONNECTORS

Connections	Voltage	Coil code	Coil stamping	Connector code	Connector type	Power absorption	Resistance (Ω)
DN 10 - DN 20 (P.max 200 mbar) <small>* = version without rectifier</small>	12 Vdc	BO-0030	BO-0030 12 V DC R	NO	NORMAL	8,5 VA	16,8
	12 V/50 Hz	BO-0030	BO-0030 12 V DC R	CN-0050	RECTIFIER	7 VA	16,8
	24 Vdc	BO-0040	BO-0040 24 V DC R	CN-0010	NORMAL	8,5 VA	66,8
	24 V/50 Hz	BO-0040	BO-0040 24 V DC R	CN-0050	RECTIFIER	7 VA	66,8
	110 V/50-60 Hz	BO-0075	BO-0075 110 V RAC	CN-0045	RECTIFIER	7,5 VA	1405
	110 V/50-60 Hz*	BO-0105	BO-0105 110 V 50-60 Hz D	CN-0010	NORMAL	19 VA	144
	230 V/50-60 Hz	BO-0050	BO-0050 220 V RAC	CN-0045	RECTIFIER	9 VA	5330
	230 V/50-60 Hz*	BO-0115	BO-0115 230 V 50-60 Hz M	CN-0010	NORMAL	13 VA	880



INSTALLATION

The solenoid valve is in conformity with the Directive 94/9/CE (said Directive ATEX 100 a) as device of group II, category 3G and as device of group II, category 3D; for this reason it is suitable to be installed in the zones 2 and 22 as classified in the attachment I to the Directive 99/92/EC.

The solenoid valve is not suitable to be used in zones 1 and 21 and, all the more so, in zones 0 and 20 as classified in the already said Directive 99/92/EC.

To determine the qualification and the extension of the dangerous zones, see the norm EN 60079-10.

The device, if installed and serviced respecting all the conditions and the technical instructions of this document, is not source of specific dangers: in particular, there is no emission in the atmosphere of inflammable substance in way to cause an explosive atmosphere.



Installation must be in compliance with local legislation in force!

WARNING: Read carefully the instruction sheet of each product before installing.

Installation and maintenance operations must be carried out by qualified personnel.

- The gas supply must be shut off before installation.
- Check that the line pressure **DOES NOT EXCEED** the maximum pressure stated on the product label.
- The solenoid valve must be installed with the arrow (on the body (3)) towards the user on gas pipe. It can be installed in any position without compromising the correct working.
- During installation take care not to allow debris or scraps of metal to enter the device.
- Check that the pipeline thread is not too long; overlong threads may damage the body of the device when screwed into place.
- Always check that the system is gas-tight after installation.

ELECTRICAL CONNECTIONS

- Before making electrical connections, check that the mains voltage is the same as the power supply voltage stated on the product label.
- Disconnect the power supply before wiring.
- Wire the connector with H05RN-F 3X0,75mm² cable outside Ø from 6,2 a 8,1 mm, taking care to ensure that the device has IP65 protection.
- Use the cable terminals when wiring the connector.
- Connect the power supply to terminals 1 and 2 and the ground wire to terminal \pm .
- **IMPORTANT:** with tension 12 Vdc and 24 Vdc with energy saving C21-23 observe the polarity.

MAINTENANCE

If it is necessary, before doing the internal inspection, make sure that:

1. the power supply to the device is disconnected
2. there is no pressurised gas inside the device

Unscrew the coil fixing screws (7) and remove the coil (8), unscrew the coil armature assembly (2) and disassemble them from body valve (3). Check the washer seal (5), clean or if is necessary substitute the rubber made seal component. Clean the filter (if there is) blowing it without taking it off the body valve (3). Then assemble doing backward the same operation of dismantling.



All operations must be carried out only by qualified personnel.

FOR FURTHER INFORMATION PLEASE CONTACT OUR TECHNICAL OFFICE.