

## 2 AND 3-WAY VACUUM SOLENOID PILOT VALVES



These direct-drive valves have been specially designed for vacuum and are normally closed. They are composed of an anodised aluminium body, where the connections and the passage orifices are located, and of an actuator which is activated by an electric coil. The solenoid pilot valve shutter in NBR nitrile rubber or Vulkollan®, is an integral part of the actuator mobile core. Both the orifices of the 2-way solenoid pilot valves have the same size, while those of the 3-way ones have a 3mm outlet diameter, obtained through the tube. The very low reaction time allow carrying out a very high number of cycles per minute.

The standard electric coil is fully plasticised with synthetic resin, tight execution, insulation class F (up to 155 °C) compliant with VDE standards, with 6.3 mm 3-terminal electrical connections in compliance with EN 175301-803 (ex DIN 43650). Protection degree IP 54; IP 65 for inserted connector.

Allowed tolerance on the voltage nominal value:  $\pm 10\%$ .

Max. absorption: 16.5 V.A. with AC and 16 W with DC.

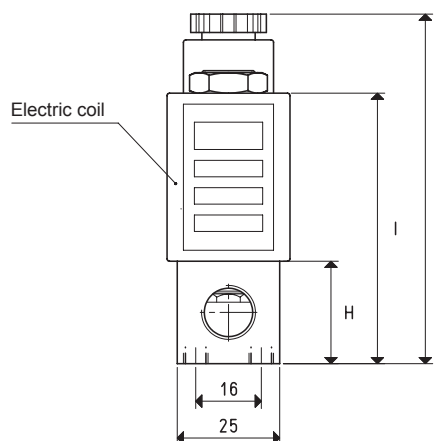
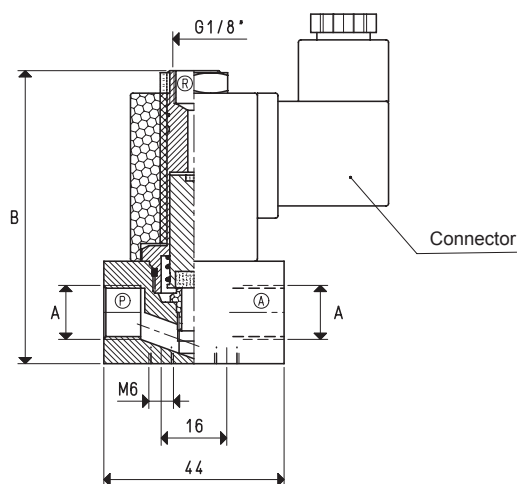
The electric coil can be rotated by 360°.

The connector can be rotated by 180° on the coil and can be supplied, upon request, with Led lights, anti-interference circuit and/or with protection devices against overvoltage and polarity reversal.

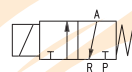
**Technical features:**

Working pressure: from 1 to 1500 mbar abs.

Temperature of the sucked fluid: from -5 to +60 °C



3 / 2 NC



P = Pump  
A = Service  
R = Passage

### 3-WAY SOLENOID PILOT VALVE

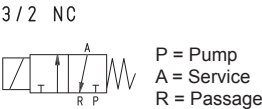
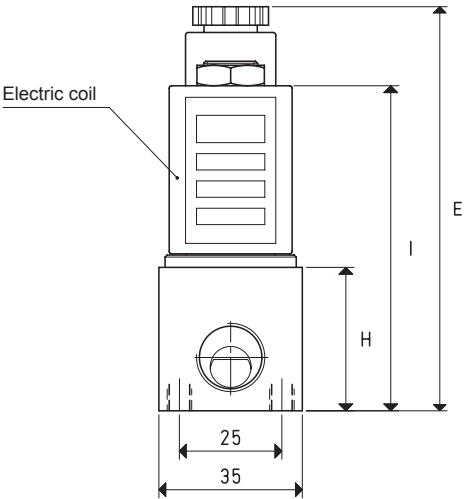
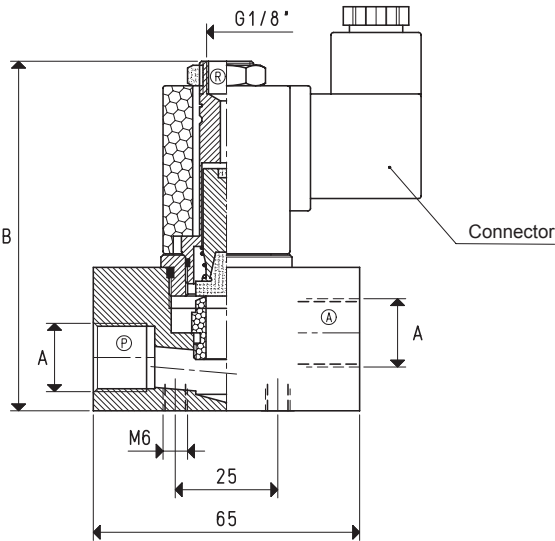
Art.	A	Max. capacity	Vacuum level		Reaction time		Ø	Passage section	B	E	H	I	Weight
	Ø	cum/h	min	max	exc.	deexc.	orifice	mm²					g
07 01 16	G1/4"	4	1000	0.5	15	8	6	28.3	73	86	25	67	248

**Note:** The coil and the connectors are not integral part of the solenoid pilot valves, therefore, they must be ordered separately (See solenoid valve accessories).

Conversion ratio: inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6}$  =  $\frac{\text{Kg}}{0.4536}$

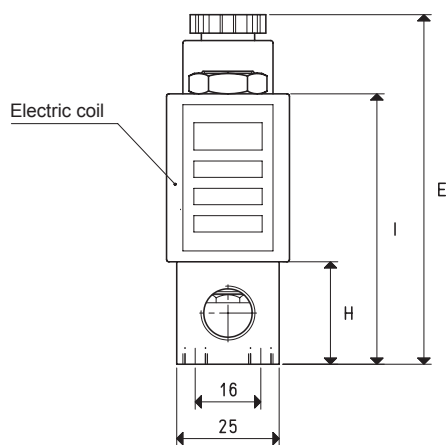
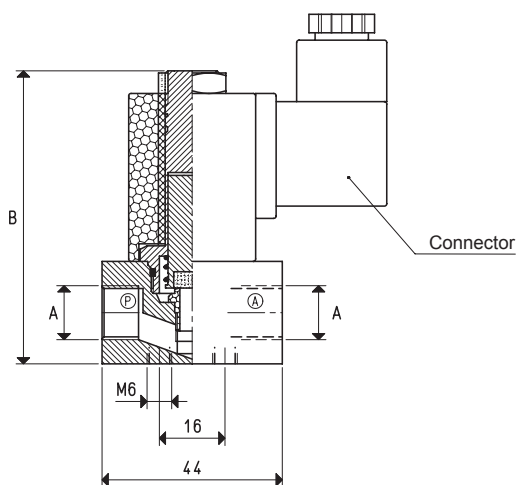
GAS-NPT thread adapters available at page 1.117

3-WAY VACUUM SOLENOID PILOT VALVES

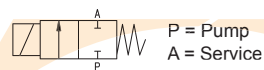


3-WAY SOLENOID PILOT VALVE													
Art.	A	Max. capacity	Vacuum level		Reaction time		Ø	Passage section	B	E	H	I	Weight
	Ø	cum/h	min	max	exc.	deexc.	orifice	mm²					g
07 02 16	G3/8"	8	1000	0.5	22	10	10	78.5	85	98	35	79	392
07 03 16	G1/2"	10	1000	0.5	28	10	12	113.0	85	98	35	79	377

**Note:** The coil and the connectors are not integral part of the solenoid pilot valves, therefore, they must be ordered separately (See solenoid valve accessories).



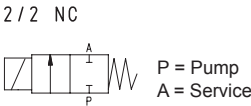
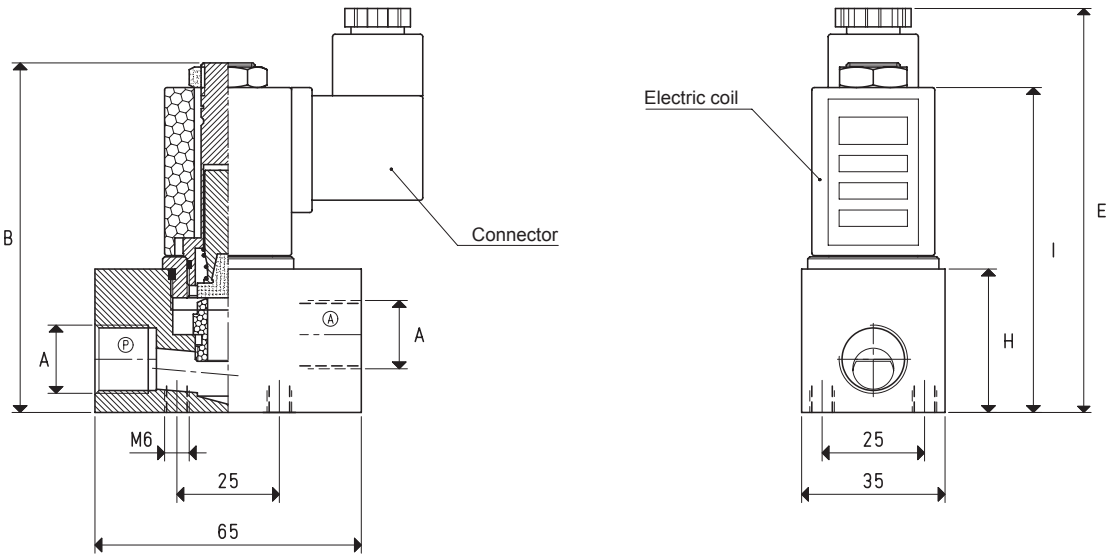
2 / 2 NC



2-WAY SOLENOID PILOT VALVE											
Art.	A	Max. capacity	Vacuum level		Reaction time		Ø	Passage	B	E	Weight
	Ø	cum/h	min	max	exc.	deexc.	orifice	mm²			g
07 01 20	G1/4"	4	1000	0.5	15	8	6	28.3	73	86	244

**Note:** The coil and the connectors are not integral part of the solenoid pilot valves, therefore, they must be ordered separately (See solenoid valve accessories).

2-WAY VACUUM SOLENOID PILOT VALVES



2-WAY SOLENOID PILOT VALVE													
Art.	A	Max. capacity	Vacuum level		Reaction time		Ø	Passage section	B	E	H	I	Weight
	Ø	cum/h	min	max	exc.	deexc.	orifice	mm²					g
07 02 20	G3/8"	8	1000	0.5	22	10	10	78.5	85	98	35	79	384
07 03 20	G1/2"	10	1000	0.5	28	10	12	113.0	85	98	35	79	372

**Note:** The coil and the connectors are not integral part of the solenoid pilot valves, therefore, they must be ordered separately (See solenoid valve accessories).

## DIRECT DRIVE 2-WAY VACUUM SOLENOID VALVES

These state of the art solenoid valves feature minimal overall dimensions and high volumetric efficiency and high response speed at any vacuum level. They are the result of an attentive choice of materials, state of the art constructive techniques and of the in-depth knowledge of our technicians.

This series of solenoid valves is patented.

The DDN solenoid valves are direct drive, 2-way, 2-position valves with direct drive, double shutter and they are normally closed. They are composed of hot pressed brass body where the connections are located, an internal mechanism with double shutter and of an actuator activated by an electric coil. The standard electric coil is fully plasticised with synthetic resin, tight execution, insulation class F (up to 155 °C) compliant with VDE standards, with 6.3 mm 3-terminal electrical connections in compliance with EN 175301-803 (ex DIN 43650). Protection degree IP 54; IP 65 with inserted connector.

Allowed tolerance on the voltage nominal value:  $\pm 10\%$ .

Max. absorption: 16.5 V.A. with AC and 16 W with DC (except for DDN 25 which cannot be activated with DC).

The electric coil can be rotated by 360°. The connector can be rotated by 180° on the coil and can be supplied, upon request, with Led lights, anti-interference circuit and/or with protection devices against overvoltage and polarity reversal.

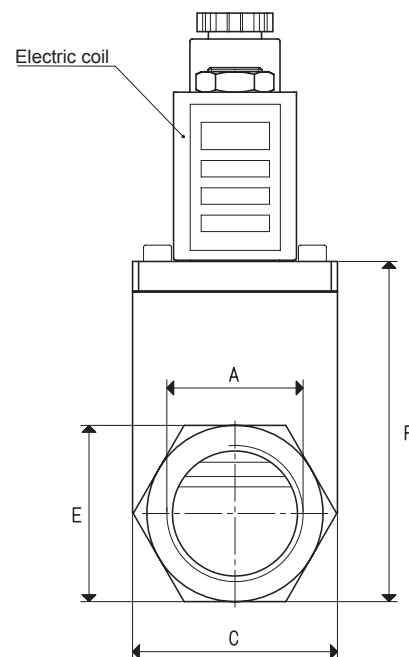
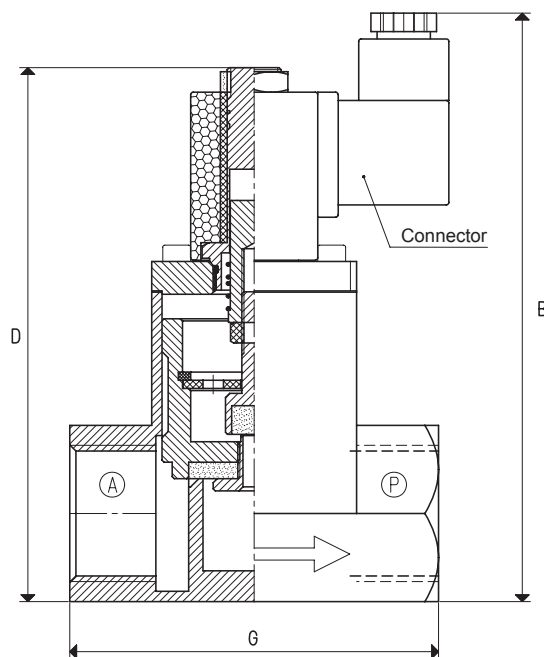
For a correct operation, we recommend installing the solenoid valve upside-down.

DDN solenoid valves are particularly indicated for degassers, autoclaves, vacuum thermo-welders and in all applications where suction has to be controlled separately from the air inlet into circuit.

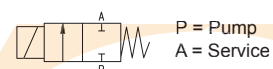
### Technical features

Working pressure: from 0.5 to 1500 mbar abs.

Temperature of the sucked fluid: from -5 to +60 °C



2 / 2 NC



P = Pump  
A = Service

Art.	A Ø	Max. capacity cum/h	Vacuum level mbar abs.		Reaction time msec		Ø orifice	Passage section mm²	B	C	D	E	F	G	Weight Kg
			min	max	exc.	deexc.									
DDN 14	G1/2"	20	1000	0.5	30	15	14	154	127	35	110	30	63	75	0.83
DDN 25	G1"	90	1000	0.5	55	33	25	490	142	50	128	43	82	90	1.56

**Note:** The coil and the connectors are not integral part of the solenoid valves, therefore, they must be ordered separately (See solenoid valve accessories).

Conversion ratio: inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6}$  =  $\frac{\text{Kg}}{0.4536}$

GAS-NPT thread adapters available at page 1.117