

32 mm BACOSOL Direct acting solenoid valve

- 2/2, 3/2;
Manifold mounting
- Compact design
- High flow rate
- High cycle rate of up to
1200 cycles per minute
- Up to kv 14 (orifice 8 mm)



Technical features

Medium:

Air, neutral gases and liquids

Operation:

Direct acting 2-way and 3-way valves, normally closed and normally opened, latching

Operating pressure:

0 ... 100 bar (0 ... 1450 psi)

Flow kv factor:

0,15 ... 14 (Cv: 0,01 ... 1)

Mounting:

G1/4 others on request

Orifice:

2/2: 0,5 ... 8 mm (0,02 ... 0,31")
3/2: 0,8 ... 3 mm (0,02 ... 0,12")

Port size:

G1/4, G1/8, M5, CNOMO

Response time:

10 ... 15 ms
Response time measured according to ISO 12238

Ambient/media temperature:

Ambient:

–15 ... +50°C (+5 ... +122°F)

Media:

–15 ... +140°C (+5 ... +284°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

Body in contact with media:

Stainless steel, brass, PA

Seal in contact with media: NBR, FPM, EDPM

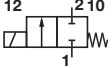
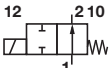
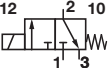
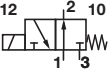
Electrical details

Voltage	24 V d.c.
Voltage tolerances	–10% ... +15%
Electrical insulation	2000 V a.c.
Power consumption (nominal at 20°C)	10 W
Insulation class	H (180°C)
Duty cycle	100% E.D.
Protection class according to EN 60529	IP65 with connector
Electrical connection	Interface according to DIN EN 175301-803, Form A
Coil orientation	Rotable 360°
Coil mounting	M8 x 0,75 mm nut

Following options on request

Mounting (See on request alternative pneumatic connections)
Flow rate, orifice size, kv
Materials
Pneumatic connection
Override
Operating pressure (On request incl. vacuum (10 ⁻³ torr))
Voltage
Power consumption
Electrical connection

Technical data – standard models, G1/4

Symbol	Port size	Function	Orifice	Operating pressure		kv *1)	Voltage	Power consumption	Seal/Body Material	Drawing No.	Model
				(bar)	(psi)						
	G1/4	2/2 NC	0,5	0 ... 100	0 ... 1450	0,15	24	10	NBR/Brass	1	04-211-200-20+ACC
	G1/4	2/2 NC	0,8	0 ... 60	0 ... 870	0,40	24	10	NBR/Brass	1	04-211-201-20+ACC
	G1/4	2/2 NC	1,2	0 ... 50	0 ... 725	0,80	24	10	NBR/Brass	1	04-211-202-20+ACC
	G1/4	2/2 NC	1,6	0 ... 25	0 ... 362	1,60	24	10	NBR/Brass	1	04-211-203-20+ACC
	G1/4	2/2 NC	2,0	0 ... 20	0 ... 290	2,30	24	10	NBR/Brass	1	04-211-204-20+ACC
	G1/4	2/2 NC	2,4	0 ... 15	0 ... 217	3,00	24	10	NBR/Brass	1	04-211-205-20+ACC
	G1/4	2/2 NC	3,0	0 ... 10	0 ... 145	4,20	24	10	NBR/Brass	1	04-211-206-20+ACC
	G1/4	2/2 NC (latching)	3,0	0 ... 6	0 ... 87	4,00	24	10	NBR/Brass	1	04-241-206-20+AFX
	G1/4	2/2 NC	4,0	0 ... 3	0 ... 43	7,00	24	10	NBR/Brass	1	04-211-207-20+ACC
	G1/4	2/2 NC	5,0	0 ... 2	0 ... 29	9,00	24	10	NBR/Brass	1	04-211-208-20+ACC
	G1/4	2/2 NC	6,0	0 ... 1,5	0 ... 21	10,00	24	10	NBR/Brass	1	04-211-209-20+ACC
	G1/4	2/2 NC	8,0	0 ... 0,6	0 ... 8,7	14,00	24	10	NBR/Brass	1	04-211-210-20+ACC
	G1/4	2/2 NO	0,8	0 ... 40	0 ... 520	0,40	24	10	NBR/Brass	1	04-221-201-20+ACC
	G1/4	2/2 NO	1,6	0 ... 30	0 ... 425	1,40	24	10	NBR/Brass	1	04-221-203-20+ACC
	G1/4	2/2 NO	2,4	0 ... 13	0 ... 188	2,60	24	10	NBR/Brass	1	04-221-205-20+ACC
	G1/4	2/2 NO	3,0	0 ... 7	0 ... 101	3,20	24	10	NBR/Brass	1	04-221-206-20+ACC
	G1/4	3/2 NC	0,8	0 ... 23	0 ... 333	0,40	24	10	NBR/Brass	1	04-311-201-20+ACC
	G1/4	3/2 NC	1,2	0 ... 17	0 ... 246	0,80	24	10	NBR/Brass	1	04-311-202-20+ACC
	G1/4	3/2 NC	1,6	0 ... 14	0 ... 203	1,40	24	10	NBR/Brass	1	04-311-203-20+ACC
	G1/4	3/2 NC	2,0	0 ... 10	0 ... 145	2,20	24	10	NBR/Brass	1	04-311-204-20+ACC
	G1/4	3/2 NC	2,4	0 ... 8	0 ... 116	2,80	24	10	NBR/Brass	1	04-311-205-20+ACC
	G1/4	3/2 NC	3,0	0 ... 5,5	0 ... 79	4,00	24	10	NBR/Brass	1	04-311-206-20+ACC
	G1/4	3/2 NC (latching)	3,0	0 ... 5,5	0 ... 79	4,00	24	10	NBR/Brass	1	04-341-206-20+AFX
	G1/4	3/2 NO	0,8	0 ... 25	0 ... 362	0,40	24	10	NBR/Brass	1	04-321-201-20+ACC
	G1/4	3/2 NO	1,6	0 ... 6	0 ... 87	1,20	24	10	NBR/Brass	1	04-321-203-20+ACC
	G1/4	3/2 NO	2,4	0 ... 3	0 ... 43	2,00	24	10	NBR/Brass	1	04-321-205-20+ACC
	G1/4	3/2 NO	3,0	0 ... 2,5	0 ... 36	2,80	24	10	NBR/Brass	1	04-321-206-20+ACC

*1) Cv - Value in [gal/min] = kv x 0,07; kv for 3/2 way valves represents flow value between ports 2 and 3

Accessories

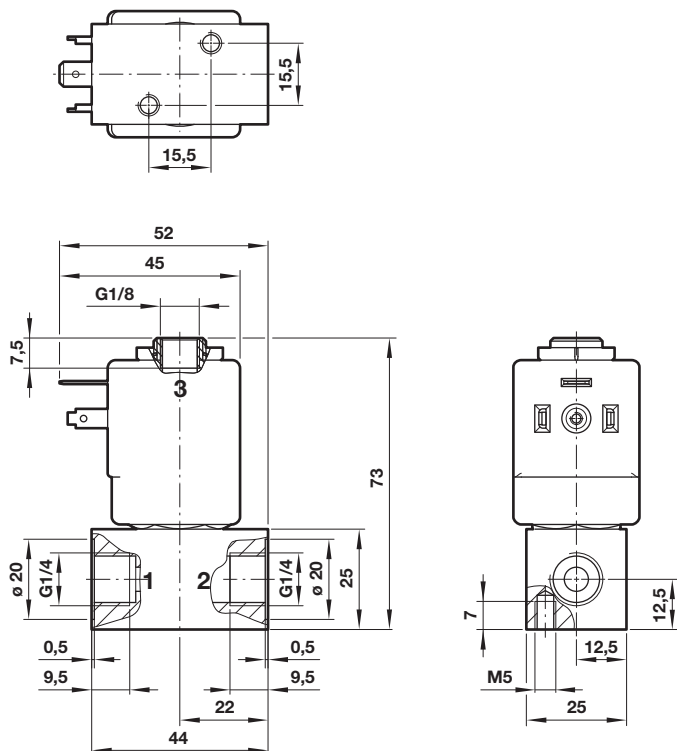
Electrical connector
DIN EN 175301-803, Form A



N040.1001

Dimensions

①



Dimensions in mm
Projection/first angle



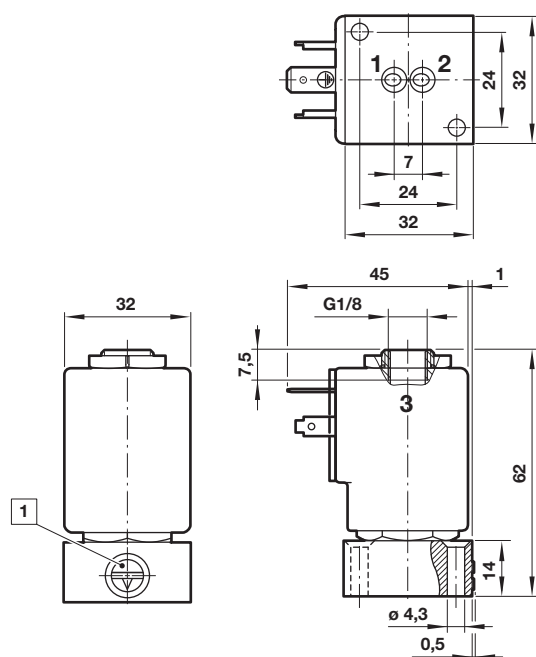
Port identification for
BACOSOL, BACOSOL V-type,
BACOSOL VL-type and
BACOSOL CNOMO-type

	Ports 1	2	3
2/2 NC	A	P	–
2/2 NC latching	A	P	–
2/2 NO	–	P	A
3/2 NC	P	A	R
3/2 NC latching	P	A	R
3/2 NO	R	A	P

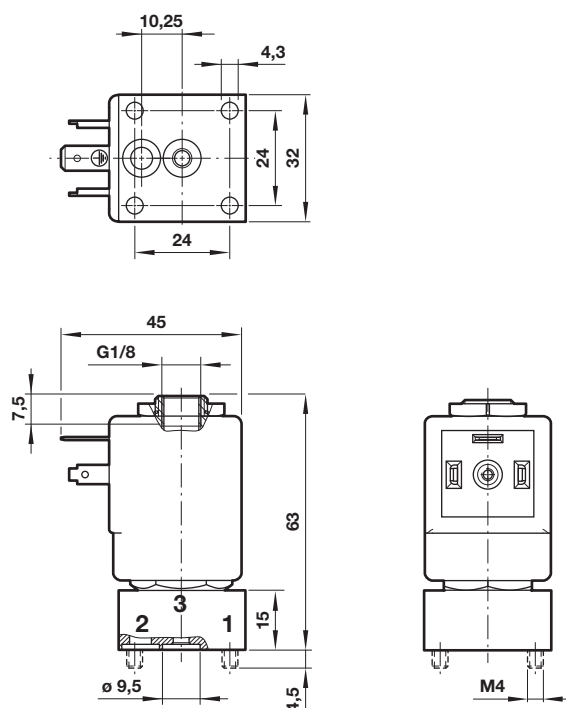
P = Inlet; A = Outlet; R = Exhaust
Please refer to marking on the valve body for flow
direction or port identification.

Alternative pneumatic connections on request

V-Type connection
(available for 2/2 and 3/2 valves)



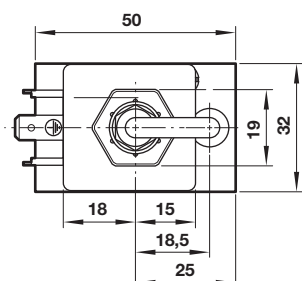
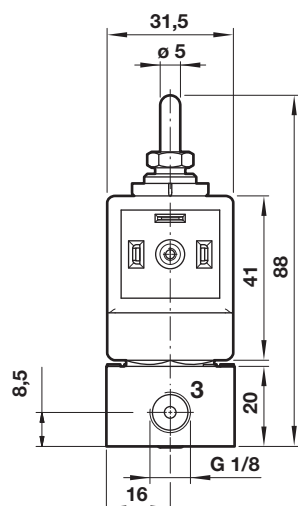
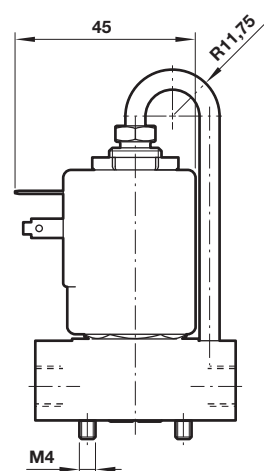
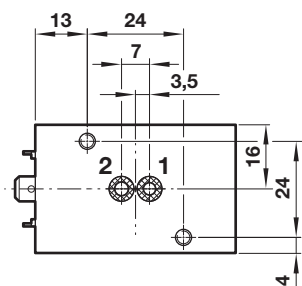
VL-Type connection
(available for 3/2 NC valves only)



① Manual override

All valves are supplied with mounting screws and gasket.

VR-Type connection (available for 3/2 NO valves)



Port identification for BACOSOL VR-type

Ports	1	2	3
3/2 NO	P	A	R

P = Inlet; A = Outlet; R = Exhaust

Warning

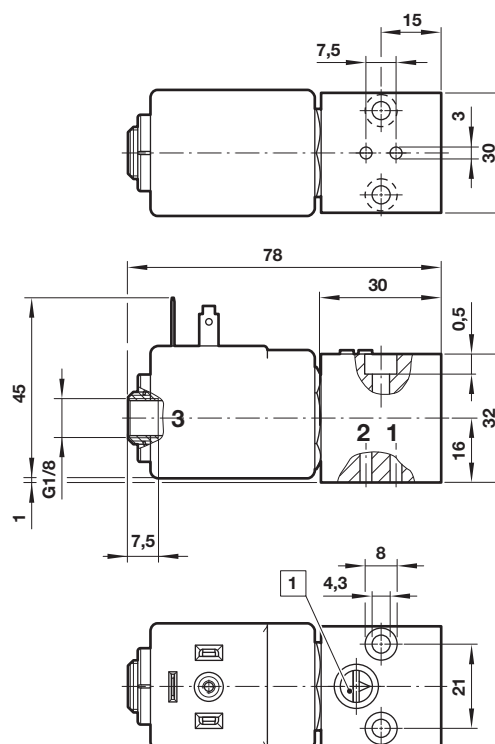
These products are intended for use in air, neutral gas and liquid systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult IMI Precision Engineering, Fluid Automation Systems s.a.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

CNOMO-Type connection (available for 2/2 NC & 3/2 NC valves)

Dimensions in mm
Projection/first angle



1 Manual override

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.