

- > 2/2, 3/2;  
Manifold mounting
- > Compact design
- > Easy integration
- > Long life - in excess of  
25 Mio. cycles

- > Up to 2000 cycles per  
minute
- > Up to 1,8 mm orifice



### Technical features

#### Medium:

Air, neutral gases and liquids

#### Operation:

Direct acting 2-way and 3-way valves, normally closed and normally opened, universal, with manual override

#### Operating pressure:

0 ... 15 bar

#### Flow (kv factor):

0,6 ... 1,0 (Cv: 0.04 ... 0.06)

#### Mounting:

Flange mount

#### Orifice:

1,2 ... 1,8 mm (0.05 ... 0.07")

#### Response time:

8 ... 15 ms

Response time measured according to ISO 12238

#### Life time:

25 million cycles

#### Ambient/media temperature:

-15 ... +50 °C (+5 ... +122°F)

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

#### Materials:

Body: brass, PA

Seal: NBR, FPM, EDPM

### Electrical details

<b>Voltage tolerances:</b>	-10 % ... +15 %
<b>Duty cycle</b>	100% ED
<b>Insulation class:</b>	F (155 °C)
<b>Protection class according to EN 60529:</b>	IP 65 with connector
<b>Electrical connection</b>	Interface according to DIN EN 175301-803, Form B
<b>Coil orientation</b>	Rotable 360°
<b>Coil mounting</b>	M8 x 0.75 mm nut

### Following options on request

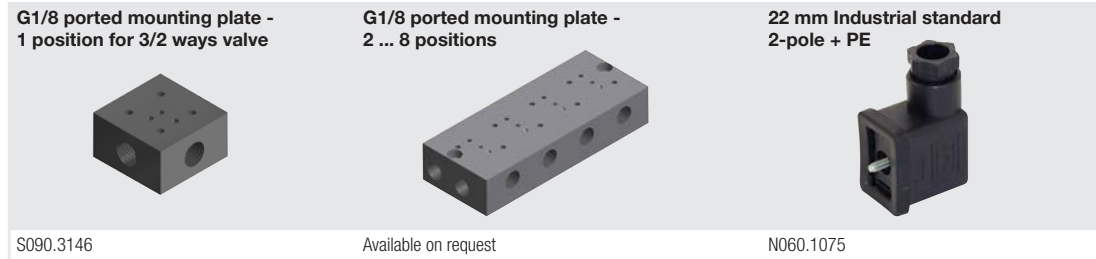
Pneumatic configuration
Voltage
Operating pressure (also vacuum)
Materials
Power consumption
Electrical connections (type of connector & coil orientation)

### Technical data - standard models

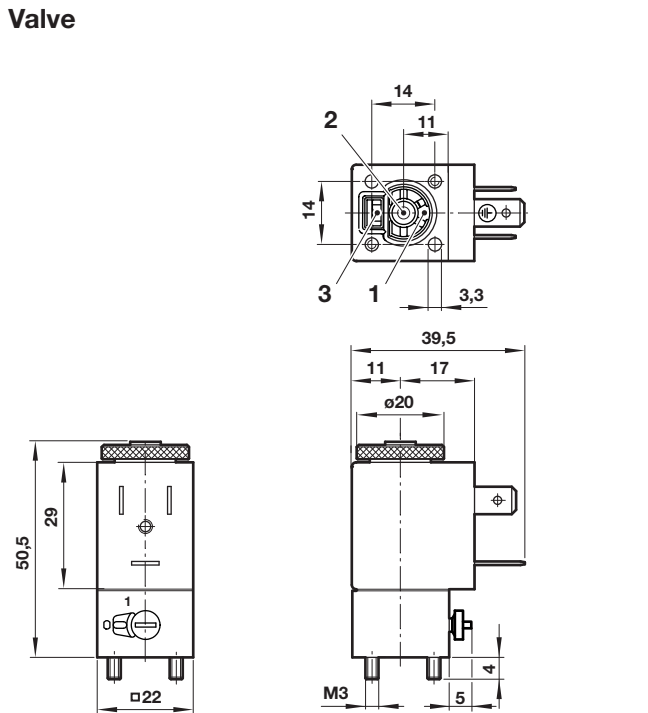
Symbol	Function	Orifice (mm)	Operating pressure (bar)	(psi)	kv *1) (l/min)	Voltage (V d.c.)	Power consumption (W)	Material Body	Seal	Model
	2/2 NC	1,2	0 ... 15	0 ... 217	0,60	24	3,8	PA	NBR	09-2111-02-30+AQF
	2/2 NC	1,6	0 ... 10	0 ... 145	0,80	24	3,8	PA	NBR	09-2111-03-30+AQF
	2/2 NC	1,8	0 ... 8	0 ... 116	1,00	24	3,8	PA	NBR	09-2111-01830+AQF
	2/2 NO	1,8	0 ... 12	0 ... 174	0,75	24	3,8	PA	NBR	09-2211-01830+AQF
	3/2 NC	1,2	0 ... 15	0 ... 217	0,60	24	3,8	PA	NBR	09-3111-02-30+AQF
	3/2 NC	1,4	0 ... 12	0 ... 174	0,70	24	3,8	PA	NBR	09-3111-01430+AQF
	3/2 NC	1,6	0 ... 10	0 ... 145	0,80	24	3,8	PA	NBR	09-3111-03-30+AQF
	3/2 NC	1,8	0 ... 8	0 ... 116	1,00	24	3,8	PA	NBR	09-3111-01830+AQF
	3/2 NO	1,2	0 ... 10	0 ... 145	0,60	24	3,8	PA	NBR	09-3211-02-30+AQF
	3/2 NO	1,4	0 ... 7	0 ... 101	0,75	24	3,8	PA	NBR	09-3211-01430+AQF
	3/2 NO	1,8	0 ... 6	0 ... 87	0,85	24	3,8	PA	NBR	09-3211-01830+AQF
	3/2 NC	1,2	0 ... 8	0 ... 116	0,60	24	3,8	PA	NBR	09-3311-02-30+AQF
	3/2 NC	1,8	0 ... 4	0 ... 58	0,85	24	3,8	PA	NBR	09-3311-01830+AQF

\*1) Cv - Value in [gal/min] = kv x 0.07

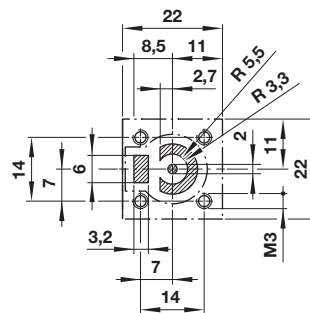
### Accessories



### Valve



#### Manifold fitting



Dimensions shown in mm  
Projection/First angle



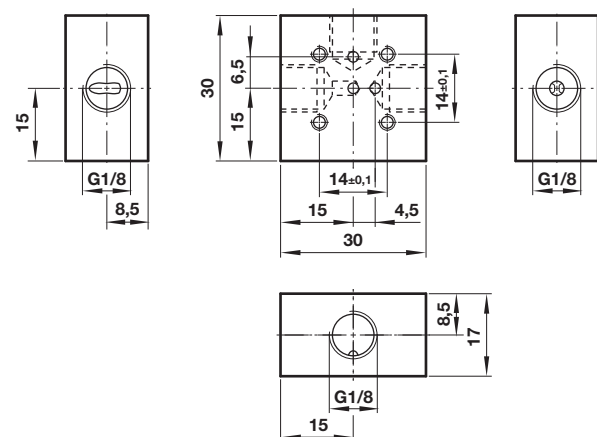
#### Port identification for

	Ports		
	1	2	3
2/2 NC	A	P	-
2/2 NO	P	-	A
3/2 NC	A	P	R
3/2 NO	A	R	P
3/2 UNI (SEL)	P	A <sub>1</sub>	A <sub>2</sub>
3/2 UNI (MIX)	A	P <sub>1</sub>	P <sub>2</sub>

P, P<sub>1</sub>, P<sub>2</sub> = Inlet; A, A<sub>1</sub>, A<sub>2</sub> = Outlet; R = Exhaust  
Please refer to marking on the valve body for flow direction or port identification.

All solenoids are supplied with mounting screws and gasket.

### Mounting plate



### 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 FAS.

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

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.