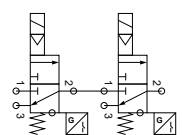


Supply and discharge valve double (V2S)

Pneumatic symbol



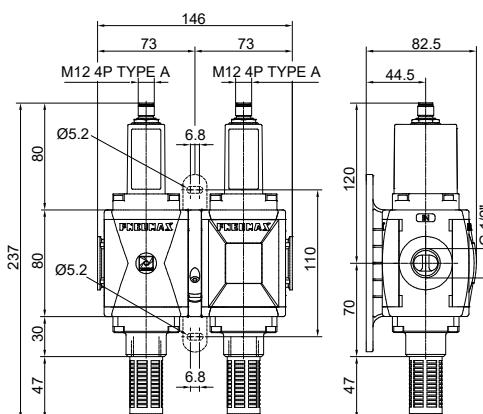
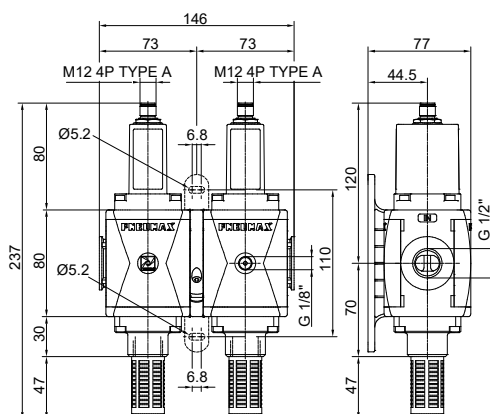
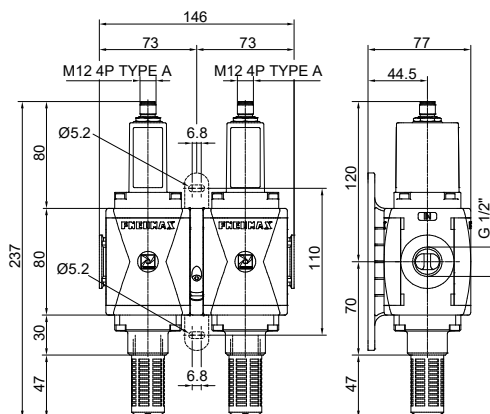
ATEX

II 3G Ex nA IIC T6 Gc (X)

II 3D Ex tc IIIC T=80°C Dc (X) IP65

Electrical connection

PIN	Description
1	+24 VDC (Sensor)
2	+24 VDC (EV)
3	GND (Sensor+EV)
4	SENSOR OUTPUT



Electrical characteristics

Electrical connection	Male M12 4 PIN TYPE A connector
Coil Features	24 VDC, 1 Watt + 1 Watt
Suppressor diode for coil reverse voltage spike	Present
Supply voltage allowance	-5% ... +10%

Electrical characteristics of sensor

Sensor characteristics	10 ... 30 VDC
Operating principle	Hall effect
Contact type	N.O.
Output type	PNP
Permanent maximum current	100 mA + 100 mA
Permanent maximum power	3 Watt + 3 Watt
Voltage drop max.	2 V + 2 V

Safety characteristics

Regulatory compliance	EN ISO 13849-1
Safety function fulfilled	Interruption of supply and unloading of the downstream pneumatic circuit
Performance Level (PL)	e
UNI EN 13849 category	4
Safety Integrity Level (SIL)	3
PFH _D	4,7*10 ⁻⁶
CE marking	In accordance with the EU Machinery Directive, annex V

Technical characteristics

Connections	G1/2" UNI-ISO 228/1
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous.
Function	3/2 N.C. monostable
Minimum working pressure	2,5 bar
Maximum working pressure	10 bar
Working temperature	-10°C ... +50°C
Flow rate at 6bar Δp (from 1 to 2)	2500 NL/min
Flow rate at 6bar Δp (from 2 to 3)	2000 NL/min
Flow rate at 6bar (from 2 to 3) with free discharge	3800 NL/min
Type of installation	Stand alone
Assembly positions	Indifferent
Noise level	90 dB
Response time ON ISO 12238	68 ms
Response time OFF ISO 12238	79 ms
IP Rating	IP65 (with connector installed)

Ordering code

N173BV2S	
VERSIONS	
= Standard* (without connections)	
= Integrated pressure gauge	
= G1/8" pressure gauge connection	
FIXING	
= Flange X	
= Flange Y	
= Aluminium flange Y	
= Aluminium flange X	
FLOW RATE DIRECTION	
= Standard* (Left-Right)	
= (Right-Left)	

* no additional letter required

Installation tip of a safety system by means of a double valve

**Please note: the safety valve is not sufficient alone to guarantee the safety function.
Its setup requires the use of a monitoring device.**

In this setup, the SIEMENS 3SK2112 monitoring device has been indicated, activated by an S2 start / reset pushbutton, blocked by an S1 emergency shutdown key. Said monitoring device, by means of the readings of the sensors placed inside the double valve, operates the activation of the valve itself. The preliminary estimate and the final verification of the achieved PL are the responsibility of the designer of the part of the system dedicated to providin the safety function.

Setup suggestions

- The double stop pushbutton is connected to clamps T1-F-IN1 and T2-F-IN2 of 3SK2112.
- The start /reset pushbutton is connected between +24 V and the F-IN10 clamp of 3SK2112.

The double valve, for notation simplicity, is indicated as consisting of 2 valves: EV1 and Ev2

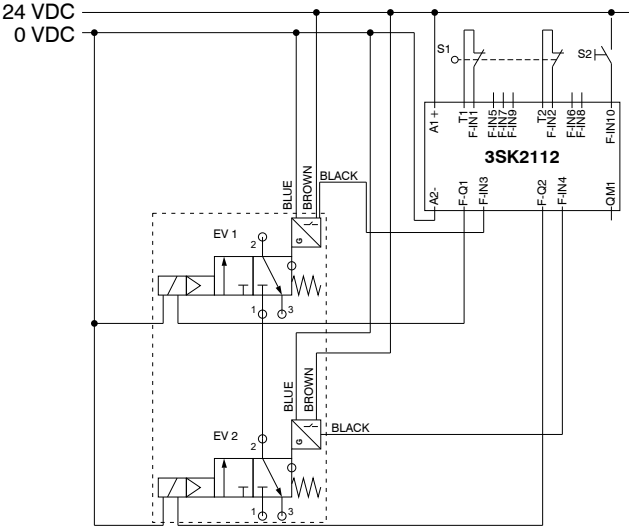
EV1

- The valve is supplied between 0 V (Pin 3 of the supply connector) and the F-Q1 clamp of 3SK2112 (Pin 2 of the supply connector).
- The HALL effect sensor is supplied between 0 V (Pin 3 of the supply connector) and 24 V (Pin 1 of the supply connector).
- The HALL effect sensor is attached (Pin 4 of the supply connector) to the monitoring device's F-IN3 clamp.

EV2

- The valve is supplied between 0 V (Pin 3 of the supply connector) and the F-Q2 clamp of 3SK2112 (Pin 2 of the supply connector).
- The HALL effect sensor is supplied between 0 V (Pin 3 of the supply connector) and 24 V (Pin 1 of the supply connector).
- The HALL effect sensor is attached (Pin 4 of the supply connector) to the monitoring device's F-IN4 clamp.

The circuit diagram of the **suggested** configuration is provided.



Analysis of malfunctions

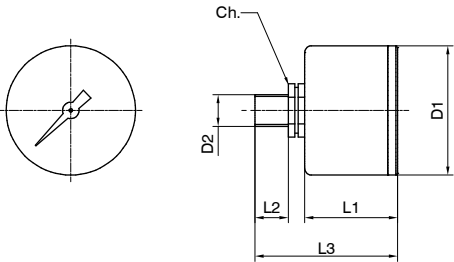
The diagnostic system (monitoring device plus sensors) has the purpose of verifying the appearance of malfunctions within the valves, which undermine the safety function. In particular, the monitoring device must be appropriately programmed to avoid the system's reset by means of S2 when both coils are de-energised and at least one sensor remains in an OFF position.

Accessories

Pressure gauge

17070 A C

Version	
A	Dial Ø 40
B	Dial Ø 50
Scale	
A	0 - 4 bar
B	0 - 6 bar
C	0 - 12 bar



Model	L1	L2	L3	D1	D2	Ch
17070A..	26	10	44	41	Gc - 1/8"	14
17070B..	27	10	45	49	Gc - 1/8"	14