

# Series K8 directly operated solenoid valves

2/2-way - Normally Closed (NC) and Normally Open (NO)  
3/2-way - Normally Closed (NC) and Normally Open (NO)  
3/2-way - Universal (UNI)



The universal (UNI) version enables to mix two different gaseous fluids or to select the path of the gaseous fluid in the pneumatic circuit.

- » Compact design
- » High performances
- » Manifold mounting
- » Long life
- » Version for use with oxygen available

Thanks to their particular design these valves can be used in applications where very compact solutions are required as well as high performances.

Series K8 is used to control actuators or very small devices and it is suitable for portable equipments thanks to low power consumption, reduced weight and dimensions.

## GENERAL DATA

### TECHNICAL FEATURES

Function	2/2 NC - 3/2 NC - 2/2 NO - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	manifold cartridge
Nominal diameter	0.5 - 0.7 mm
Nominal flow	see kv
Flow efficient kv (l/min)	0.08 - 0.15
Operating pressure	-1 ÷ 3 ... 7 bar
Operating temperature	0°C ÷ 50°C
Media	filtered compressed air, unlubricated, according to ISO 8573-1 class 3.4.3, inert gas
Response time (ISO 12238)	ON <10 msec - OFF <10 msec
Installation	in any position

### MATERIALS IN CONTACT WITH THE MEDIUM

Body	brass - stainless steel - PBT technopolymer
Seals	FKM
Internal parts	stainless steel

### ELECTRICAL FEATURES

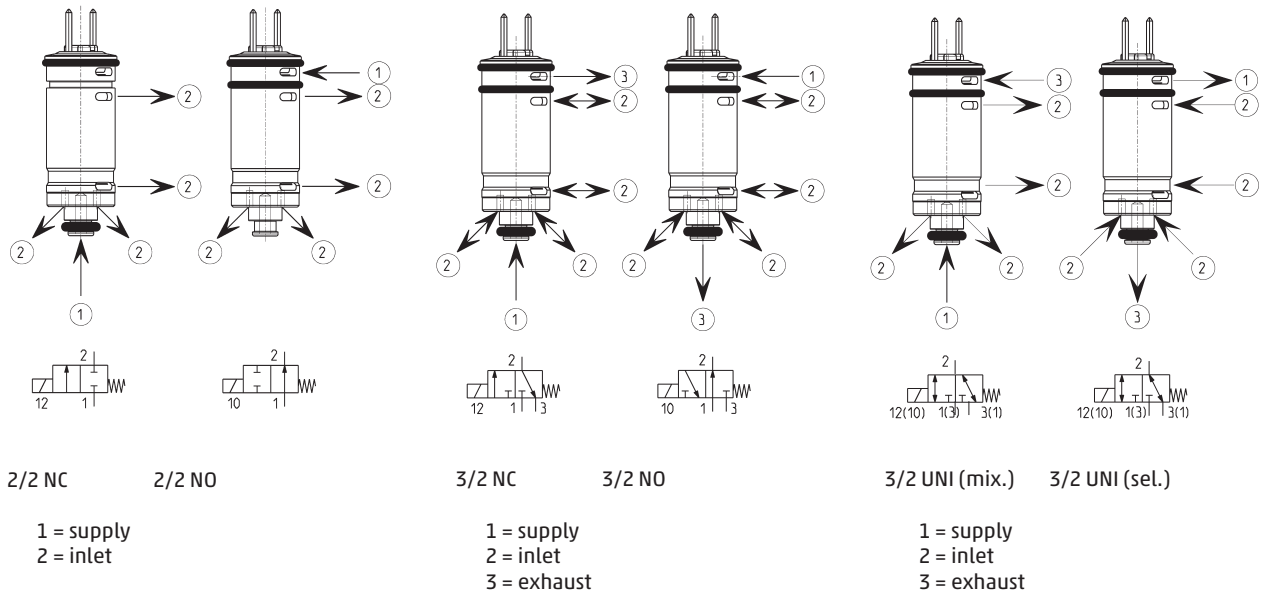
Voltage	24 V DC - 12 V DC - 6 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	0.6 W
Duty cycle	ED 100%
Electrical connection	2 Pin 0.5 x 0.5 spacing 4 mm
Protection class	IP00

**Special versions available on demand** To order the version for use with oxygen, please add OX1 at the end of the standard code.

CODING EXAMPLE

<b>K8</b>	<b>0</b>	<b>00</b>	<b>-</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>-</b>	<b>K</b>	<b>2</b>	<b>3</b>	
<b>K8</b> SERIES											
<b>0</b> BODY DESIGN: 0 = single valve											
<b>00</b> NUMBER OF POSITIONS: 00 = valve without seat											
<b>3</b> NUMBER OF WAYS - FUNCTIONS: 0 = single base 3 = 3-way NC 4 = 3-way NO 5 = 2-way NC 6 = 2-way NO 7 = 3-way UNI											
<b>0</b> MATERIALS AND SEALS: 0 = poppet, FKM seals											
<b>3</b> NOMINAL DIAMETER: 3 = Ø 0.5 mm (max pressure 7 bar) 5 = Ø 0.7 mm 6 = Ø 0.5 mm (max pressure 4 bar)											
<b>K</b> MATERIALS: K = stainless steel body, brass cage											
<b>2</b> ELECTRICAL CONNECTION: 2 = pin interface size 4 mm											
<b>3</b> VOLTAGE - POWER CONSUMPTION: 1 = 6V DC - 0.6 W 2 = 12V DC - 0.6 W 3 = 24V DC - 0.6 W 5 = 5V DC - 0.6 W											
OPTIONS: = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m <sup>2</sup> )											

AVAILABLE FUNCTIONS



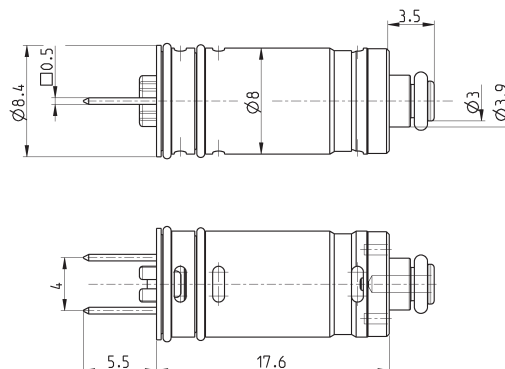
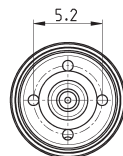
The 3/2 UNI version can be used also for 3/2 NC or 3/2 NO functions.

## 8 mm solenoid valve, 2/2-way NC, NO - 3/2 NC, NO, UNI



NOTE TO THE TABLE:

\* to complete the code add  
VOLTAGE - POWER  
CONSUMPTION (see the  
CODING EXAMPLE)



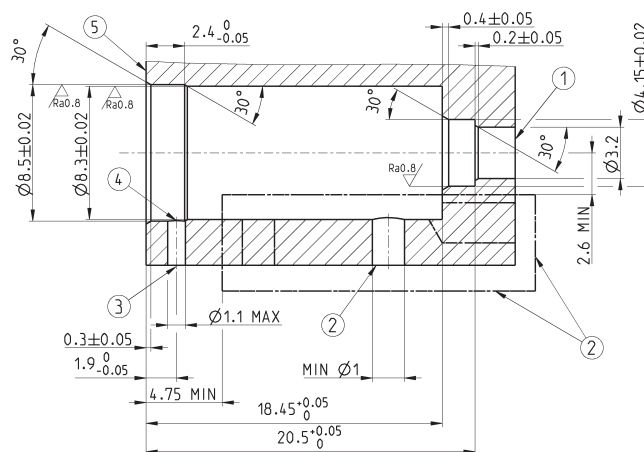
Mod.	Function	Orifice Ø (mm)	kv (l/min) 1 → 2	Qn (NL/min) 1 → 2	kv (l/min) 2 → 3	Qn (NL/min) 2 → 3	Min= max pressure (bar)
K8000-503-K2 <sup>®</sup>	2/2 NC	0.5	0.08	5	-	-	1 ÷ 7
K8000-506-K2 <sup>®</sup>	2/2 NC	0.5	0.08	-	-	-	-1 ÷ 4
K8000-505-K2 <sup>®</sup>	2/2 NC	0.7	0.15	-	-	-	-1 ÷ 3
K8000-603-K2 <sup>®</sup>	2/2 NO	0.6	0.10	6.5	-	-	1 ÷ 7
K8000-303-K2 <sup>®</sup>	3/2 NC	0.5	0.08	5	0.10	6.5	1 ÷ 7
K8000-306-K2 <sup>®</sup>	3/2 NC	0.5	0.08	-	0.10	-	-1 ÷ 4
K8000-305-K2 <sup>®</sup>	3/2 NC	0.7	0.15	-	0.10	-	-1 ÷ 3
K8000-403-K2 <sup>®</sup>	3/2 NO	0.6	0.10	6.5	0.08	5	1 ÷ 7
K8000-405-K2 <sup>®</sup>	3/2 NO	0.6	0.10	6.5	0.15	9.5	1 ÷ 7
K8000-703-K2 <sup>®</sup>	3/2 UNI	0.5	0.08	-	0.10	-	0 ÷ 3
K8000-705-K2 <sup>®</sup>	3/2 UNI	0.7	0.15	-	0.10	-	-1 ÷ 2

## 8 mm solenoid valve seat, 2/2-way NC, NO - 3/2 NC, NO, UNI

Note: better performances can be achieved if the valve seat holes are in line with the respective valve holes.

LEGEND:

- 1 = Port 1
- 2 = Port 2
- 3 = Port 3
- 4 = Free from burrs
- 5 = Surface to be aligned with the upper surface of the valve reinforcement



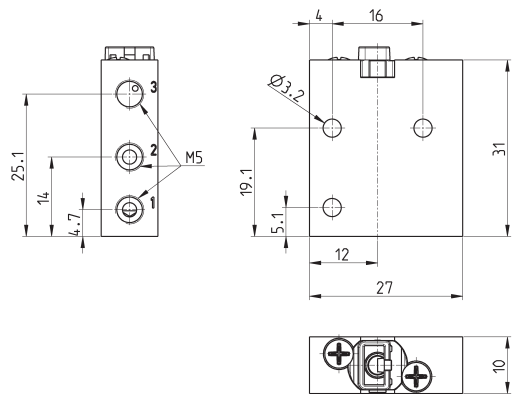
FUNCTION	2/2 NC	2/2 NO	3/2 NC	3/2 NO	3/2 UNI (mix.)	3/2 UNI (sel.)
PORT 1	Inlet	-	Inlet	Exhaust	Inlet	Outlet
PORT 2	Outlet	Outlet	Outlet	Outlet	Outlet	Inlet
PORT 3	-	Inlet	Exhaust	Inlet	Inlet	Outlet

Single body for Series K8 solenoid valve



Material: anodized aluminium  
Pneumatic connections: M5 threads

NOTE: to be used only with the electrical connector Mod. 120-J...

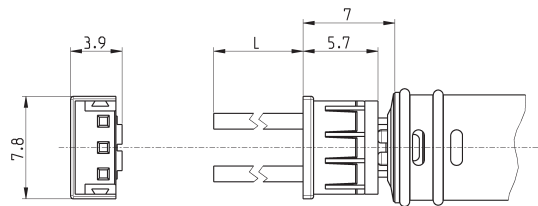


Mod.
K8303/14C

Connector Mod. 120-..



Cable section: 0.25 mm<sup>2</sup>  
Cable external diameter: 1.2 mm  
Material for the cable insulation: PVC

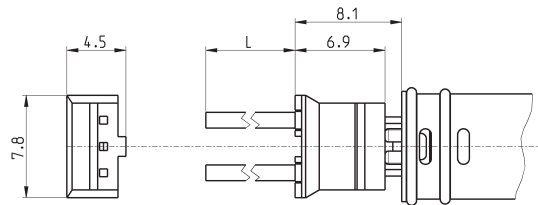


Mod.	description	colour	L = cable length (mm)	cable holding
120-803	crimped cable	white	300	crimping
120-806	crimped cable	white	600	crimping

Connector with flying leads Mod. 120-J...



Flying leads section: 0.25 mm<sup>2</sup>  
Flying lead external diameter: 1.2 mm  
Material for the flying leads insulation: PVC



Mod.	description	colour	L = cable length (mm)	cable holding
120-J803	crimped cable connector J	white	300	crimping
120-J806	crimped cable connector J	white	600	crimping