

# Automatic valves

## Series SCS, VNR, VSO, VSC and VMR

New model 

Circuit selector Mod. SCS  
 Unidirectional valves Series VNR  
 Quick exhaust valves Series VSO - VSC  
 Valve with adjustable exhaust Mod. VMR



- » Mod. SCS: channelling of two signals coming alternately from two different points towards the same point
- » Series VNR: operations at low pressures
- » Series VSC - VSO: able to increase the speed of cylinders
- » Series VSC - VSO: depressurisation of tanks containing compressed air
- » Mod. VMR: able to maintain pressure constant at a set value which allows the overpressure to exhaust

**Automatic valves are defined as those valves which change their state simply as a result of compressed air being present or absent at their inlets.**

**The circuit selector Mod. SCS - 668-06 enables two signals coming alternately from two different points to be channelled towards the same point.**

The unidirectional valves Series VNR allow operation at low pressures both when there is a free flow and during retention.

Quick exhaust valves Series VSC and VSO are commonly used to increase the speed of cylinders or for rapid depressurisation of tanks containing compressed air.

The adjustable valves Mod. VMR 1/8-B10 allow to maintain tank/capacity at a constant pressure value and thus enable a quick exhaust in the atmosphere even in case of an internal overpressure.

### GENERAL DATA

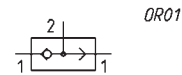
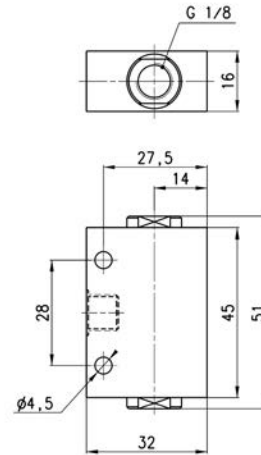
<b>Valve group</b>	automatic valves
<b>Construction</b>	Mod. SCS, Series VNR, Series VSO and Series VSC: poppet-type Mod. VMR: diaphragm type
<b>Materials</b>	Series SCS: AL body - brass bush - NBR seals - Delrin poppet Series VNR: brass body - NBR seals - stainless steel spring Series VSO: brass body - NBR seals Series VSC: brass body - Desmopan seal Mod. VMR: brass body - zinc-plated steel spring - NBR seals
<b>Mounting</b>	in any position
<b>Ports</b>	according to the different models (see tables)
<b>Operating temperature</b>	Mod. SCS, Series VNR, Series VSO and Series VSC: 0°C + 80°C (with dry air -20°C) Mod. VMR: -5°C + 50°C (with the dew point of the fluid lower than 2°C at the min. working temperature)
<b>Fluid</b>	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

### Circuit selector Series SCS

The selector is mounted by through holes in the body.



- Materials used:
- AL body
  - brass bush
  - NBR seals
  - Delrin poppet



DIMENSIONS		
Mod.	Q (NI/min)	P (bar)
SCS-668-06	800	0,2

Q = Flow  
P = Minimum working pressure

### Unidirectional valves Series VNR

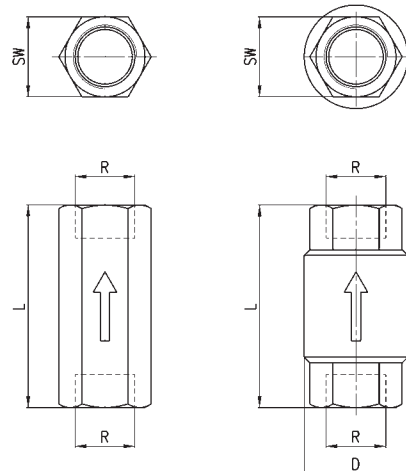
The poppet-type construction of these valves allow operation at low pressures both when there is a free flow and during retention.



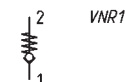
- Ports: M5 - G1/8 - G1/4 - G3/8 - G1/2 - G3/4
- Materials used:
- brass body
  - NBR seals
  - stainless steel spring

M5-G1/8-G1/4

G3/8-G1/2-G3/4



DIMENSIONS						
Mod.	R	L	SW	D	Q (NI/min)	P (bar)
VNR-205-M5	M5	25	8	9	50	1
VNR-210-1/8	G1/8	34	13	15	600	0,2
VNR-843-07	G1/4	43	17	20	1400	0,2
VNR-238-3/8	G3/8	55	23	34,5	3000	0,02
VNR-212-1/2	G1/2	58,5	27	34,5	5800	0,02
VNR-234-3/4	G3/4	65	33	41,5	8000	0,06



Q = Flow  
P = Minimum working pressure

**Quick exhaust valves Series VSO**

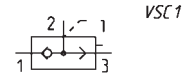
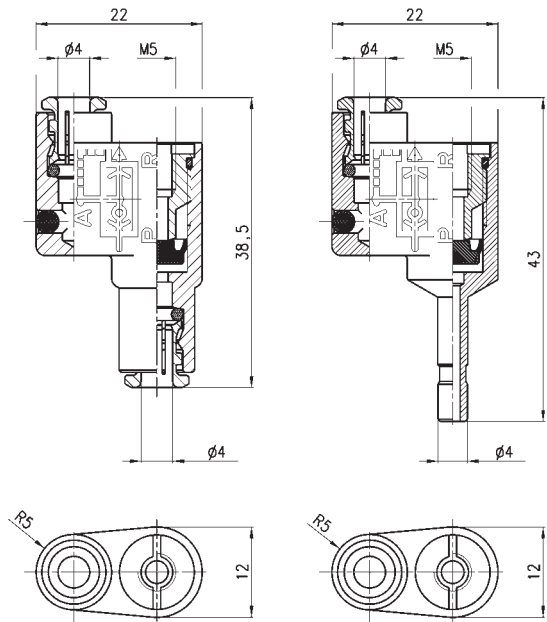


The models VSO 425 -M5 and VSO 426-04 are particularly suitable to be mounted on solenoid valves and valves incorporating a  $\varnothing 4$  cartridge.

Ports: M5 or  $\varnothing 4$  cartridge  
 Materials used:  
 - brass body  
 - NBR seal

VSO...-04

VSO...-M5



Mod.	Q (NI/min) 1 > 2	Q (NI/min) 2 > 3	P (bar)
VSO 425-M5	50	100	1
VSO 426-04	50	100	1

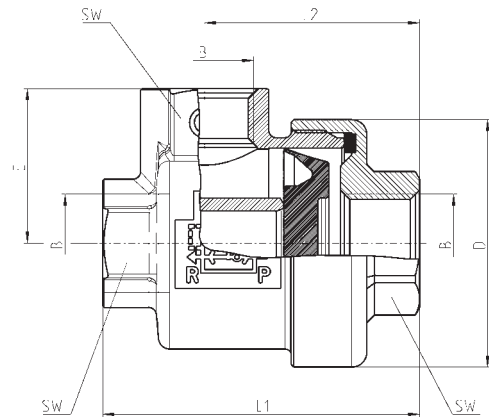
Q = Flow at 6 bar  $\Delta P$  1  
 P = Minimum working pressure

**Quick exhaust valves Series VSC**



These models are particularly suitable to be mounted directly on the cylinder mouth through the use of a nipple. It is recommended to mount a silencer on the outlet.

Ports: G1/8 - G1/4 - G1/2  
 Materials used:  
 - brass body  
 - Desmopan seal

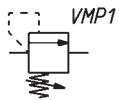
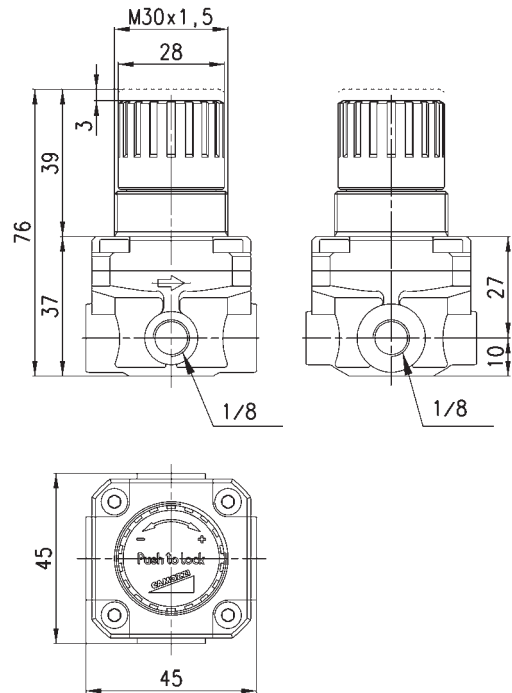


Mod.	B	D	E	L1	L2	SW	Q (NI/min) 1 > 2	Q (NI/min) 2 > 3	P (bar)
VSC 588-1/8	1/8	28	17,5	36,5	25	14	650	1000	0,5
VSC 544-1/4	1/4	33	20,5	42	28,5	17	1100	2300	0,3
VSC 522-1/2	1/2	43	27	57,5	39,5	24	4500	6700	0,2

Q = Flow at 6 bar  $\Delta P$  1  
 P = Minimum working pressure

## Valve with maximum adjustable pressure Mod. VMR 1/8-B10

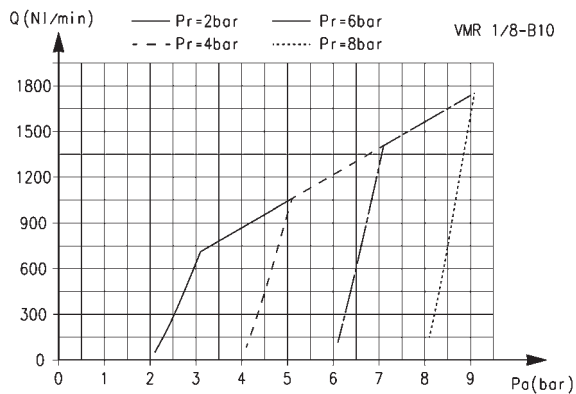
Working pressure: 1 bar + 8 bar



Mod.

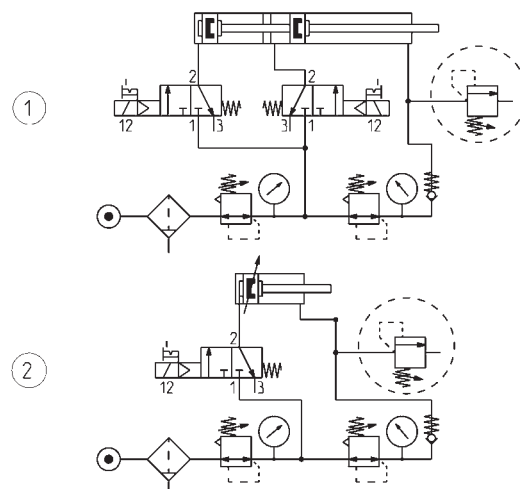
VMR 1/8-B10

## VALVE Mod. VMR 1/8-B10 - FLOW DIAGRAM and FUNCTIONING SCHEMES



## FLOW DIAGRAM

$P_a$  = Inlet pressure  
 $P_r$  = Regulated pressure  
 $Q$  = Flow



FUNCTIONING SCHEME 1: overpressure exhaust in a cylinder chamber or in a tank when the set value has been exceeded.

FUNCTIONING SCHEME 2: VMR valve with maximum adjustable pressure allows pressure in a cylinder chamber or in tank to exhaust in the atmosphere every time the set regulation value is exceeded.