



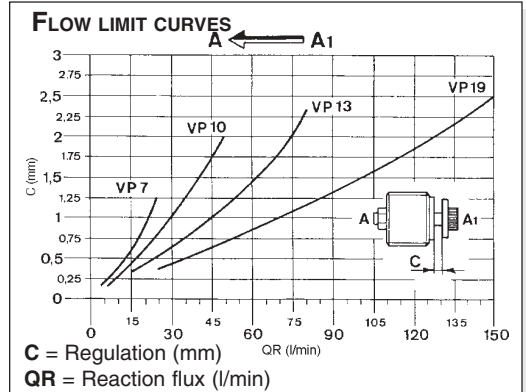
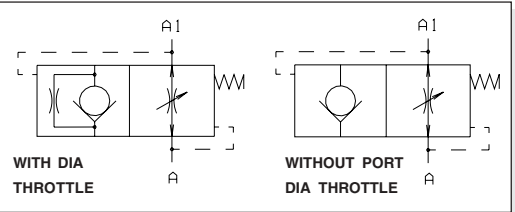
VP...

## VP... ONE-WAY CARTRIDGE CHECK VALVES



One-way check valves type VP.. are mounted directly onto the cylinder ports to prevent uncontrolled load drop in case of hydraulic system failure. A disc supported in the raised position by a spring allows A → A1 free flow. Under normal conditions reverse flow A1 → A takes place as usual, but should the reverse (reaction) flow rate go beyond the value set for the valve, the disc will position itself in such a way as to interrupt completely or partially the A1 → A flow. Total or partial A1 → A flow shut-off is ensured in the first case by a nearly perfect disk seal on the valve seat, which allows the load blocking in the position it happens to be at the moment of failure. In the second case, on the other hand, a choked opening provided on the disk allows for a blow-by to take place in the direction A1 → A, such as to make the load drop slowly. These valves are manufactured in heat-treated steel.

Max. operating pressure	350 bar
Max. flow	150 l/min
Hydraulic fluids	Mineral oils DIN 51524
Fluid viscosity	2.8 ÷ 380 mm <sup>2</sup> /s
Fluid temperature	-30°C ÷ 80°C
Max. contamination level	class 10 in accordance with NAS 1638 with filter β <sub>25</sub> ≥ 75
Weight	See table below



For the correct use it is advisable to carry out adjustment "C" so that the reaction flow is 1.5 times the flow rate of the system.

### ORDERING CODE

- VP** Check valve (cartridge only)
- \*\*** Size: 07 / 10 / 13 / 19
- \*** Reaction flow setting (l/min) see Table 1  
**Omit for setting standard (\*) A / B / C / D / E / F / G / H**
- \*\*** Ø throttle port dia - see Table 2 (omit if not required)  
05 = 0.5 mm  
08 = 0.8 mm  
10 = 1 mm  
15 = 1.5 mm  
20 = 2 mm
- 00** No variant
- 1** Serial No.

**TABLE 1 - REACTION FLOW SETTINGS (l/min)**

Valve type	A	B	C	D	E	F	G	H
VP*07	4	6	10	16	25*			
VP*10	6	10	16	25	40	50*		
VP*13	16	25	40	50	60	80*		
VP*19	25	40	50	60	80	100	125	150*

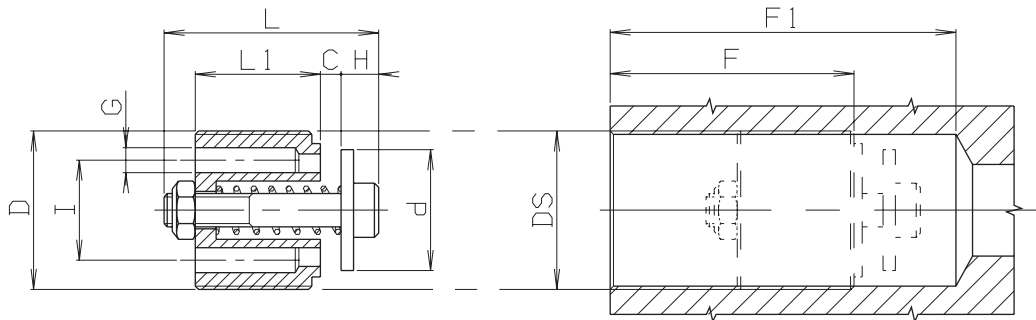
(\*)Standard setting if is omit the code

**TABLE 2**

Valve type	Ø THROTTLE PORT DIA REQUEST			
	D	Ø	Ø	Ø
VP07	1/4"BSP	0.5	0.8	1
VP10	3/8"BSP	0.5	0.8	1.2 1.5
VP13	1/2"BSP	0.5	0.8	1.2 1.5
VP19	3/4"BSP	0.5	1.2	1.5 2

For "VP\*" in line mounting one-way check valves, see Chapter VI.

### OVERALL DIMENSIONS



Valve type	Reaction flow (l/min)	PRESSURE max. (bar)	I	G	D/DS	d	L1	C	H	L	F	F1	Weight (Kg)
VP07	25	350	8.5	2.4	1/4"BSP	9.5	8		4.5	19	24	35	0.007
VP10	50	350	11	3.5	3/8"BSP	12.5	11		5	23	26	37	0.012
VP13	80	350	13	4.5	1/2"BSP	15	13	See curves	6	29	30	45	0.020
VP19	150	350	16	6	3/4"BSP	18.5	18		6.5	34	38	54	0.040