

**HOYEA**

## Mobile Hydraulics

**HOYEA**

**Specialist In Electrohydraulics**



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**NINGBO HOYEA MACHINERY MANUFACTURE CO.,LTD.**

## Brief Introduction

Hoyea, established in 1993, is an innovative modern enterprise, which is worthy of its name “fluid power transmission and control expert” and devotes itself to the development of Electro-hydraulic control technology.

With strong technology basis and the advantage of hydromechatronics, Hoyea develops innovative ability, and at present has large quantities of independent technology, which fill the domestic blank market a lot. Multiple advanced patents, such as “differential pressure proportional pressure flow composite valve”, and “bidirectional different pressing feedback type of proportional pilot-operated slide valve” shape a high quality technical supporting system of HOYEA. The company won the title of “National High Technological Enterprise”, “Zhejiang Patent Demonstrating Firm”, “Zhejiang Excellent Technology Innovation Enterprise”. Various kinds of products win the 2nd and 3rd place of “Science and Technology Progress Prize of Zhejiang Province” and “Outstanding New Products Prize” awarded by the national industrial organization. Among them, the proportional electro-hydraulic relief and flow control valve is classified as the national key new product, national-level Torch program project, whereas the proportional hydraulic component of new electro-hydraulic valve and the other two products has won the innovative fund project of National Science and Technology Department for technology-based small and medium-size enterprises, moreover, the proportional hydraulic component of new electro-hydraulic valve has also won the “National Major Achievements Transformation Projects” issued by the National Industrial Information Department.

The company has passed through ISO9001 quality system authentication, CE certificate, explosion-proof safety certificate and typical certificate of mineral products safety. The company has advanced processing equipment and hardware facility. The products cover the whole fields of hydraulic components, and have already been widely applied in each field. There are routine hydraulic pressure valves, proportional valves, cartridge valves, restrictive valves, explosion isolation valves and proportional solenoid, internal gear pump and valve terminal.

Therefore, Hoyea can offer its customers with comprehensive and advanced electro-hydraulic solutions, high cost-effective products, help them face the high market competition, initiate its competitive ability, and create more value for the customers.

## Certificates



# Product Catalogue

## 1 Double pilot operated check valves

1	Double pilot operated check valves	N.1.1.1–1.1.2
2	Double pilot operated check valves for 12mm pipe mounting (Din 2353)	N.1.2.1–1.2.2
3	Double pilot operated check valves for 12 mm banjo mounting (Din 2353)	N.1.3.1–1.3.2
4	Double pilot operated check valves with adjustable banjo union	N.1.4.1–1.4.2
5	Double pilot operated check valves – typea	N.1.5.1–1.5.2
6	Double pilot operated check valves flangeable	N.1.6.1–1.6.2
7	Cylindric double pilot operated check valve	N.1.7.1–1.7.2
8	Double pilot operated check valves with lateral joins	N.1.8.1–1.8.2
9	Double pilot operated check valves to weld	N.1.9.1–1.9.2

## 2 Single pilot operated check valves

1	Single pilot operated check valves	N.2.1.1–2.1.2
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3	3Ways Single pilot operated check valves, in line	N.2.3.1–2.3.2
4	Single pilot operated check valves, high pilot	N.2.4.1–2.4.2
5	Single pilot operated check valves typea	N.2.5.1–2.5.2
6	Single pilot operated check valves flangeable	N.2.6.1–2.6.2
7	Single pilot operated check valves with manual shut-off	N.2.7.1–2.7.2
8	external single pilot operated check valves	N.2.8.1–2.8.2

## 3 Overcentre valves

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2	Double overcentre valves	N.3.2.1–3.2.2
3	Single overcentre valves typea	N.3.3.1–3.3.2
4	Double overcentre valves typea	N.3.4.1–3.4.2
5	Single overcentre valves flangeable	N.3.5.1–3.5.2
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7	Thread mounting overcentre valve	N.3.7.1–3.7.2
8	Single overcentre valves flangeable by screw	N.3.8.1–3.8.2
9	Double overcentre valves flangeable by screw	N.3.9.1–3.9.2
10	Single overcentre valves, 3 ways	N.3.10.1–3.10.2
11	Single overcentre valves for colsed centre	N.3.11.1–3.11.2
12	Double overcentre valves for centre colsed	N.3.12.1–3.12.2
13	Overcentre valves flangeable on danfoss motors omp/omr	N.3.13.1–3.13.2
14	Overcentre valves flangeable on danfoss motors oms	N.3.14.1–3.14.2

## 4 Relief valves

1	Light relief valves	N.4.1.1–4.1.2
2	Relief valves	N.4.2.1–4.2.2
3	Differential type relief valves	N.4.3.1–4.3.2
4	Double relief ouble relief valves	N.4.4.1–4.4.2

## 5 Dual cross relief valves

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2	Dual cross relief valve	N.5.2.1–5.2.2
3	Differential dual cross relief valves, 1”	N.5.3.1–5.3.2
4	Dual cross relief valves	N.5.4.1–5.4.2
5	Dual cross relief valve flangeable on danfoss motors oms omp/omr–omt	N.5.5.1–5.5.2
6	Dual cross relief valve flangeable on samhyd raulik motorsag ar	N.5.6.1–5.6.2
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8	Dual cross relief valve with pilot check valveU	N.5.8.1–5.8.2

# Product Catalogue

## 6 2Ways flow divider

1	2 Ways flow divider	N.6.1.1–6.1.2
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2	Sequence valves	N.7.2.1–7.2.2

## 8 Two pump “I-Low” unloading valves

1	Two pumo “Hi-low” unloading valves	N.8.1.1–8.1.2
2	Two pump “Hi-low” unloading valves flangeable (base NG6–NG10 and NG16)	N.8.2.1–8.2.2

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## 11 End stroke valves

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2	Stroke valve	N.11.2.1–11.2.2
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4	Pushbutton end stroke valves, normally opened	N.11.4.1–11.4.2
5	Press–type stroke valve (normal open)	N.11.5.1–11.5.2

## 12 Plough overturning valves

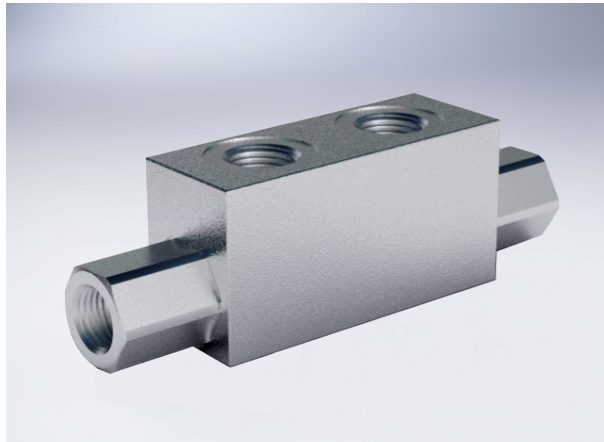
1	Single acting plough overturning valves	N.12.1.1–12.1.2
2	Double acting plough overturning valves	N.12.2.1–12.2.2
3	Double acting plough overturning valves with relief valve	N.12.3.1–12.3.2
4	Double acting plough overturning valve by down mouldboard load shifting	N.12.4.1–12.4.2
5	Double acting plough overturning valve by up mouldboard load shifting	N.12.5.1–12.5.2
6	Double acting plough outside drills overturning valves for cylinder with memory and without memory	N.12.6.1–12.6.2
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4	Hyyf hydro–operated directional valve	N.13.4.1–13.4.2
5	Hyyzfy hydro–operated directional valve	N.13.5.1–13.5.2
6	Manual operated directional control valve	N.13.6.1–13.6.2
7	Manual operated directional valve	N.13.7.1–13.7.2
8	Manual operated directional valve ( pc )	N.13.8.1–13.8.2
9	Full range pressure compensating variable flow control valve ( fc )	N.13.9.1–13.9.2

# Double Pilot Operated Check Valves

## Technical specification

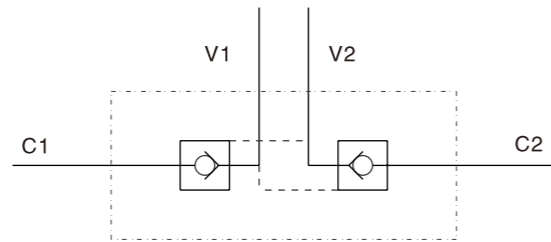


Specification	1/4"L	3/8"L	1/2"L	3/8"	18	1/2"	3/4"	
Pilot ratio	1:5.5	1:5.5	1:5	1:5	1:5	1:4	1:4	
Max flow (L/min)	20	35	50	45	45	70	100	
Max pressure (Bar)	350						300	
Cracking Pressure(Bar)	4	3	6	8	3.5	3.5	2	

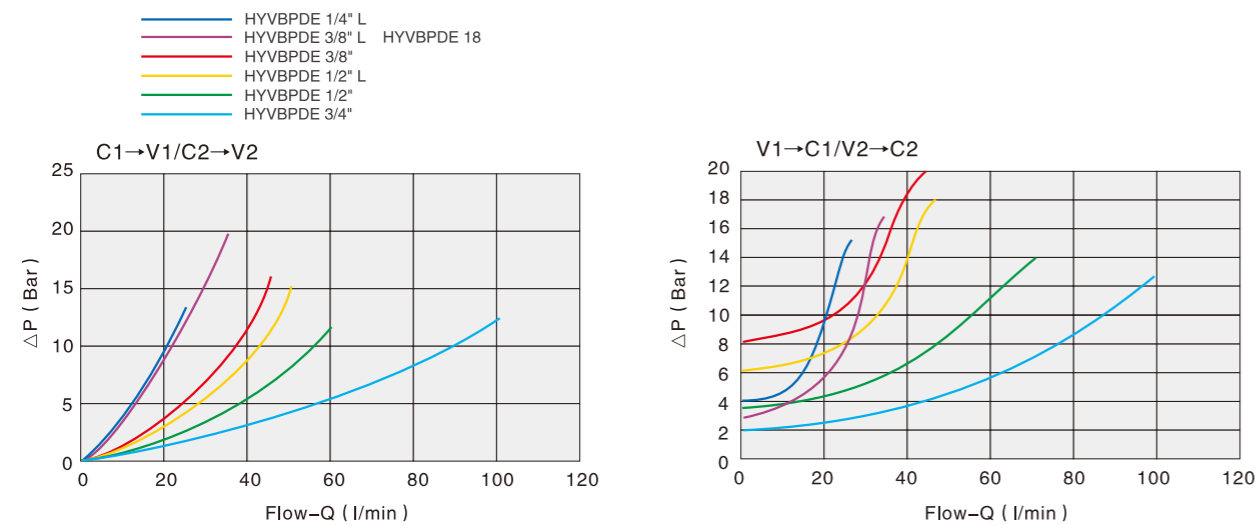
**Use and operation:**  
Pilot check valves are used to block the cylinder in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied.

**Applications:**  
Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator.

## Code symbol

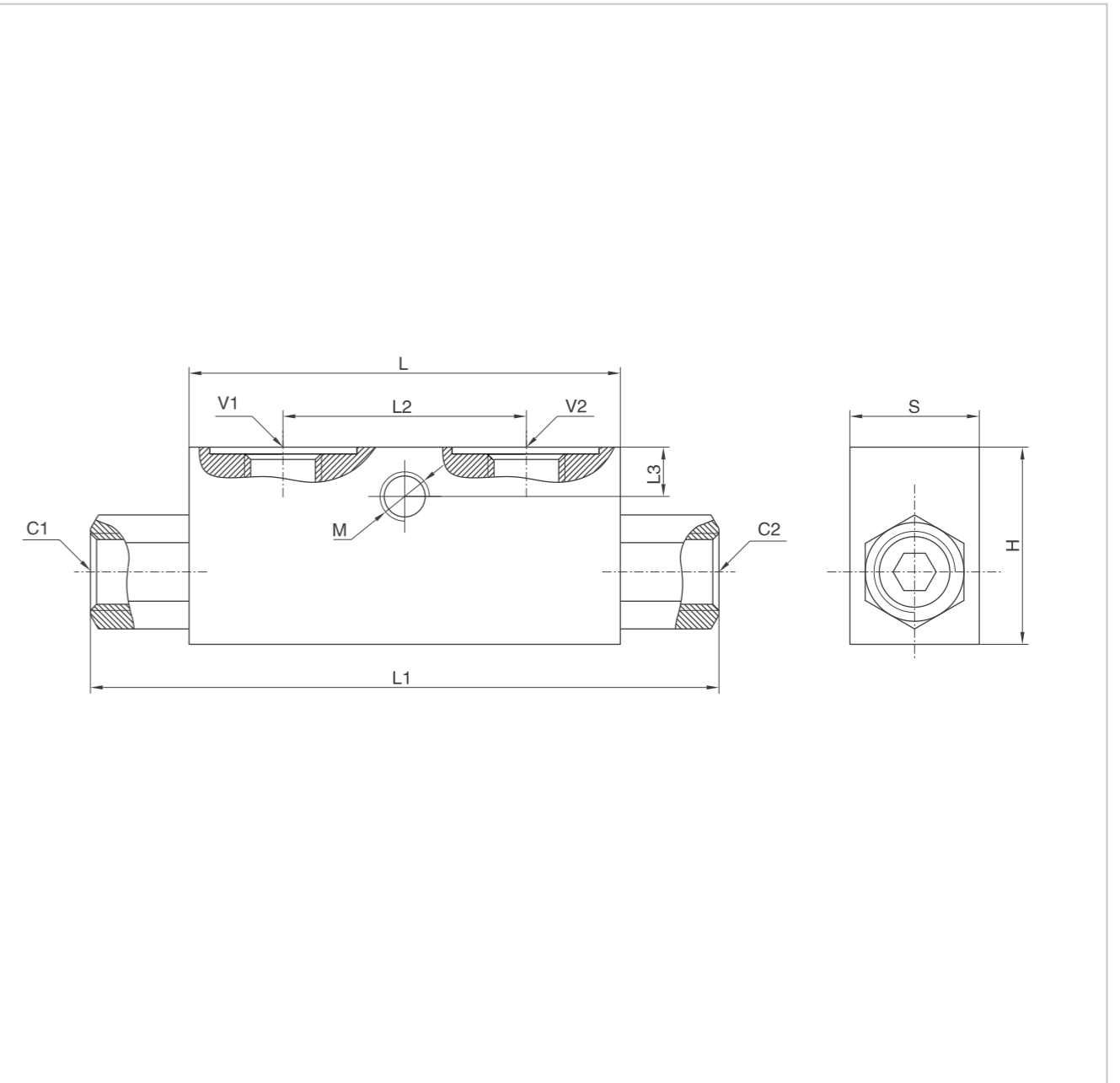


## Pressure drops curve



# Double Pilot Operated Check Valves

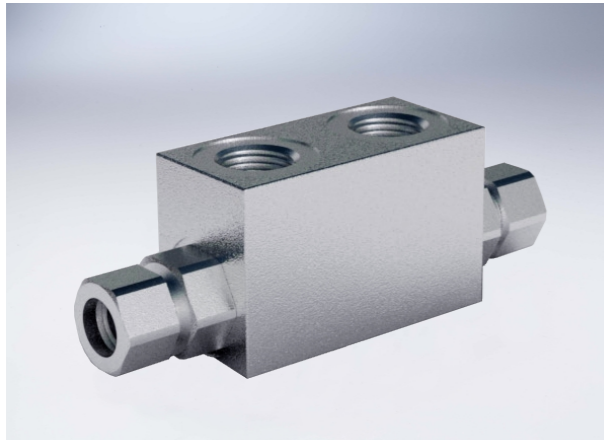
## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	M	H	S
HYVBPDE 1/4" L	G 1/4"	68	118	38	7	M8	40	30
HYVBPDE 3/8" L	G 3/8"	68	118	38	7	M8	40	30
HYVBPDE 1/2" L	G 1/2"	80	143	40	14.8	M8	50	30
HYVBPDE 3/8"	G 3/8"	90	156	45	8	M8	45	35
HYVBPDE 18	M18x1.5	90	156	45	8	M8	45	35
HYVBPDE 1/2"	G 1/2"	80	144	40	18	M8	60	35
HYVBPDE 3/4"	G 3/4"	100	192	46	8	M8	60	40

# Double Pilot Operated Check Valves For 12 mm Pipe Mounting (Din 2353)

## Technical specification

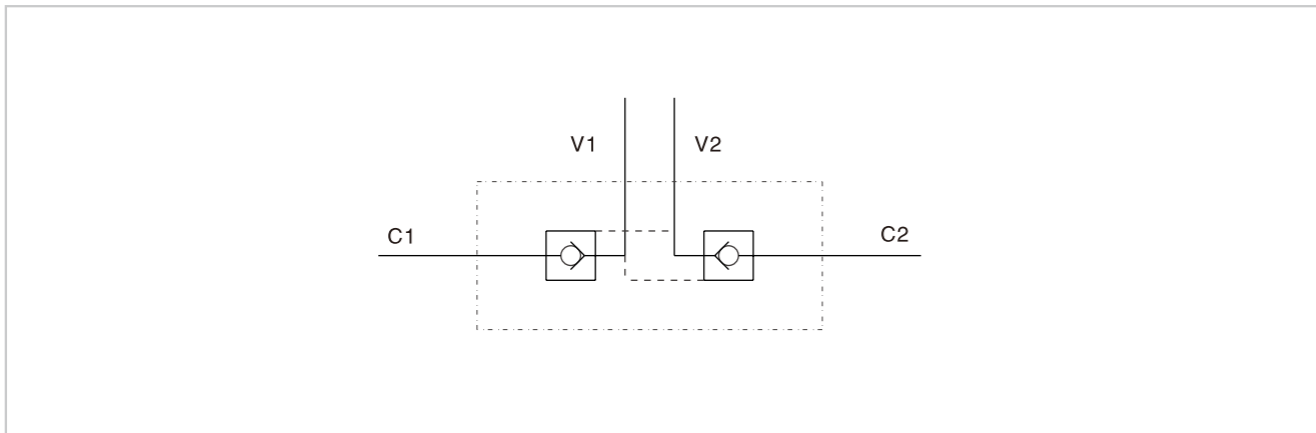


Specification	1/4" L 2 CEXC	3/8" L 2 CEXC	1/4" L 2 CEXC-10L
Pilot ratio	1:5.5		
Max flow (L/min)	20	30	20
Max pressure (Bar)	350		
Cracking Pressure (Bar)	4	4	5.5

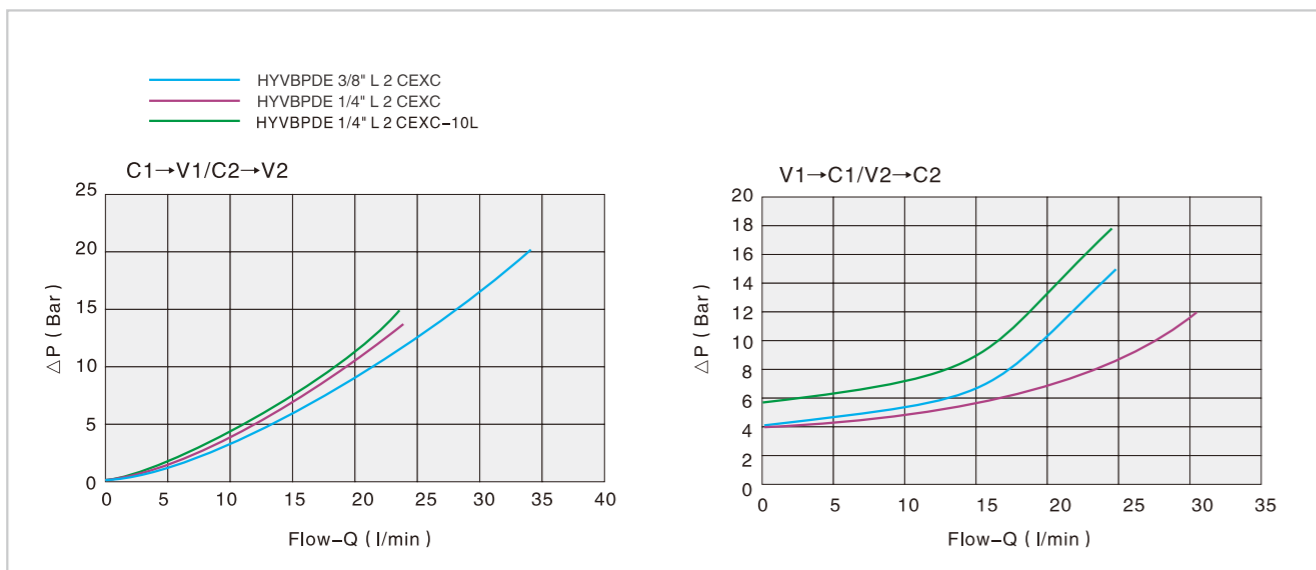
**Use and operation**  
Pilot check valves are used to block the actuator in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. They are easily assembled on a cylinder. We supply on request fittings kit for mounting on cylinders with a specific centre distance.

**Applications**  
Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator with the pipe.

## Code symbol



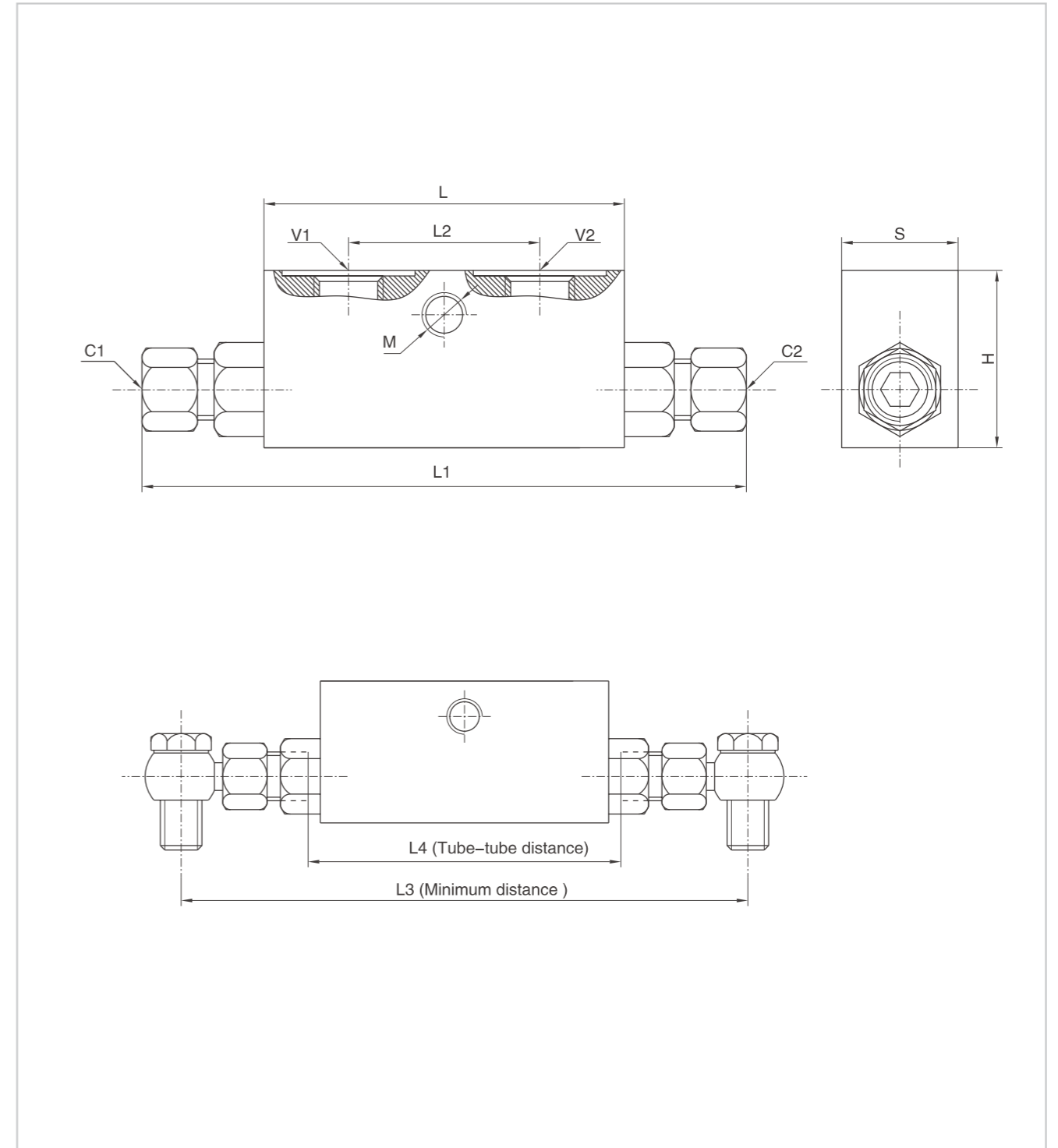
## Pressure drops curve



# Double Pilot Operated Check Valves For 12 mm Pipe Mounting (Din 2353)



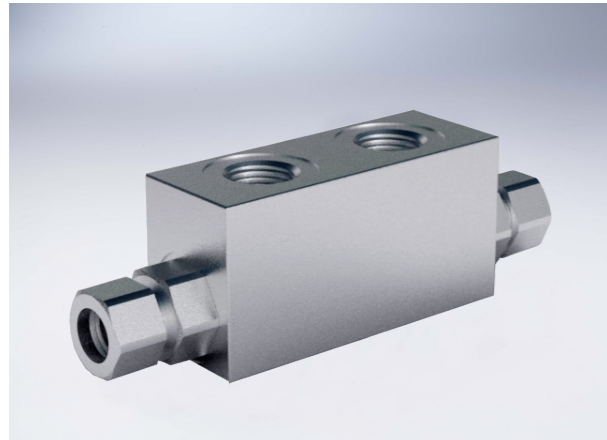
## External dimensions



Type	V1/V2	C1/C2	L	L1	L2	L3	L4	M	H	S
HYVBPDE 1/4" L 2 CEXC	G 1/4"	12L	64	134	36	160	84	M8	40	30
HYVBPDE 3/8" L 2 CEXC	G 3/8"	12L	64	134	36	166	84	M8	40	30
HYVBPDE 1/4" L 2 CEXC-10L	G 1/4"	10L	64	131	36	160	84	M8	40	30

# Double Pilot Operated Check Valves For 12 mm Banjo Mounting (Din 2353)

## Technical specification



Specification	3/8" L 2 CC	1/2" L 2 CC
Pilot ratio	1:5.5	1:5
Max flow (L/min)	35	50
Max pressure (Bar)	350	
Cracking Pressure (Bar)	3	

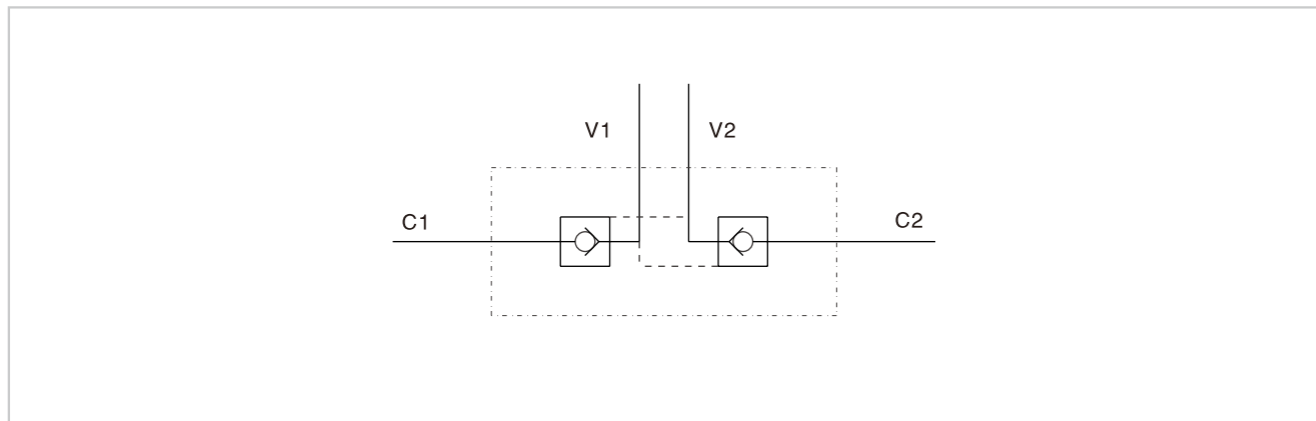
### Use and operation

Pilot check valves are used to block the actuator in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. They are easily assembled on a cylinder. We supply on request fittings kit for mounting on cylinders with a specific centre distance.

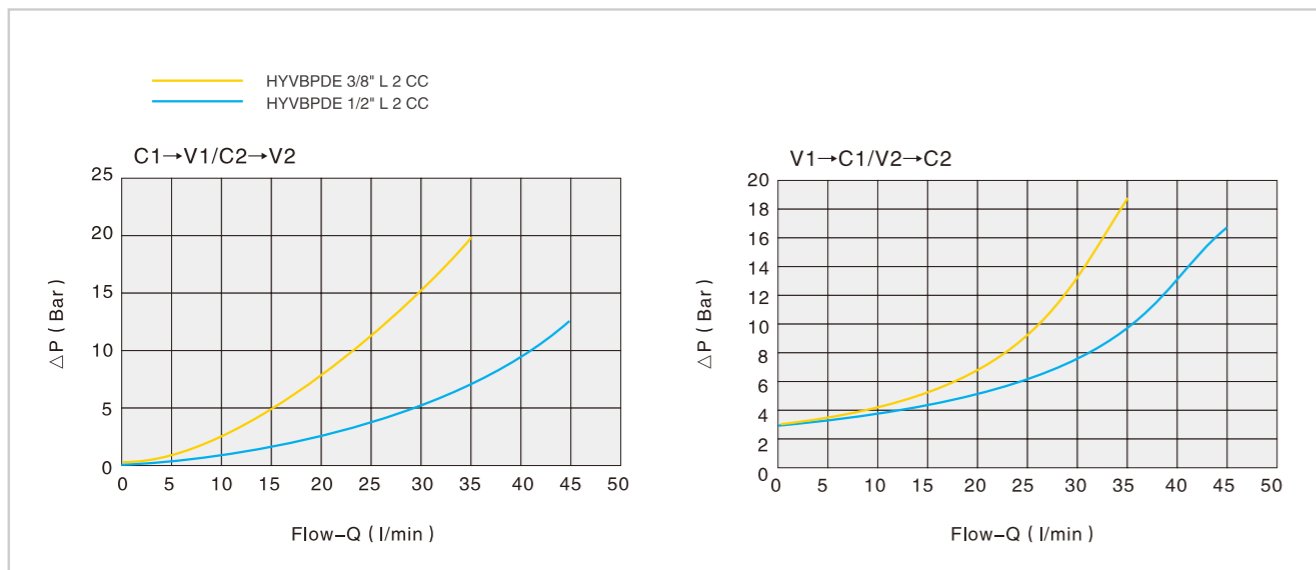
### Applications

Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator with a banjo.

## Code symbol



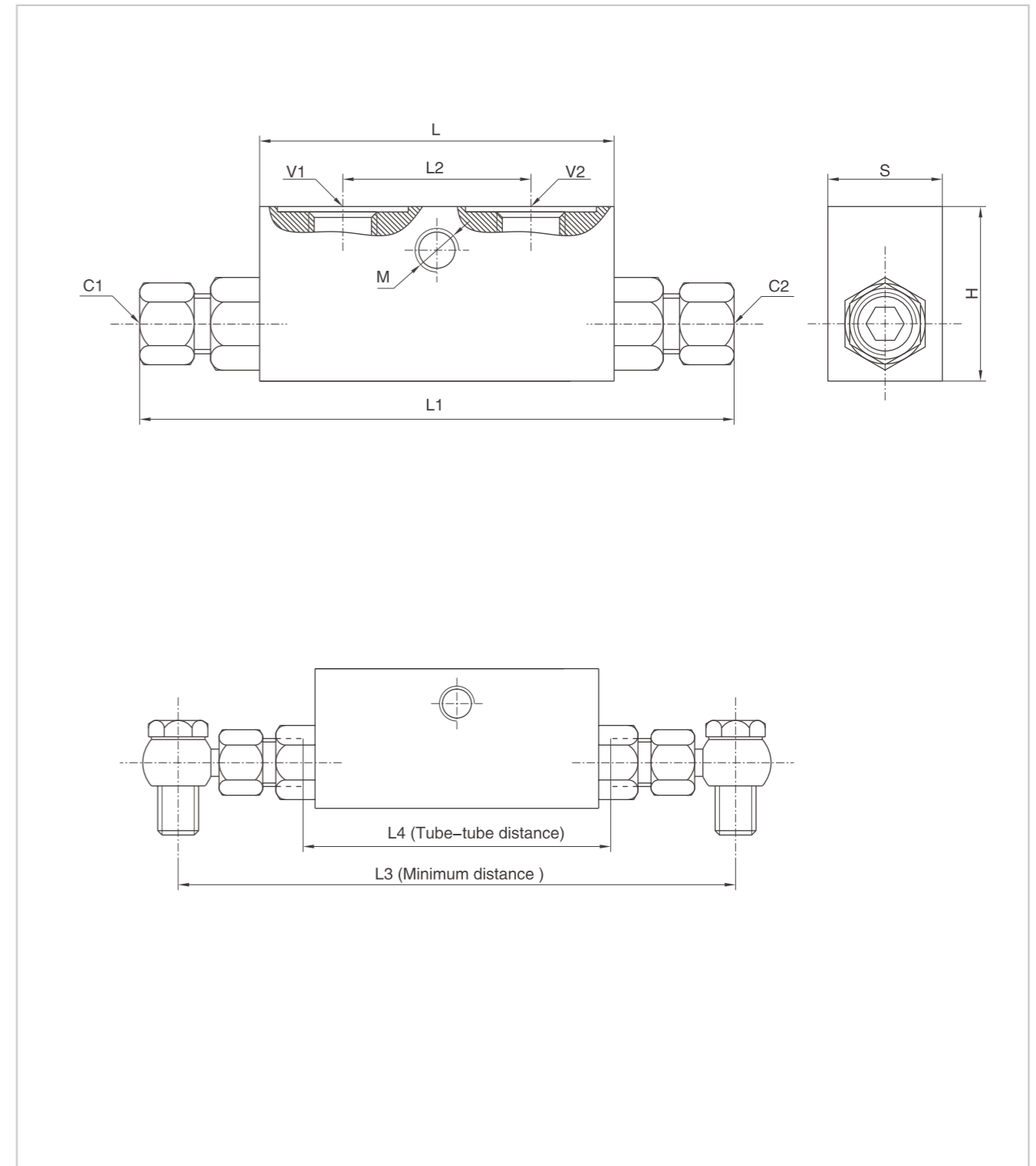
## Pressure drops curve



# Double Pilot Operated Check Valves For 12 mm Banjo Mounting (Din 2353)



## External dimensions



Type	V1/V2	C1/C2	L	L1	L2	L3	L4	M	H	S
HYVBPDE 3/8" L 2 CC	G 3/8"	12L	80	150	38	180	96	M8	40	30
HYVBPDE 1/2" L 2 CC	G 1/2"	15L	90	164	45	196	106	M8	45	35

# Double Pilot Operated Check Valve With Adjustable Banjo Union

## Technical specification

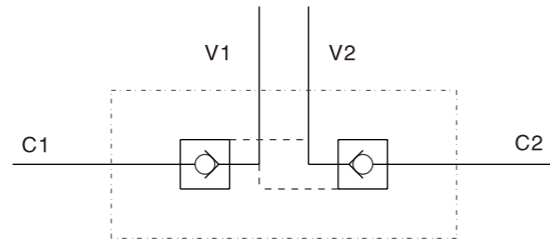


Specification	3/8" L SC
Pilot ratio	1:5.5
Max flow (L/min)	30
Max pressure (Bar)	350
Cracking Pressure (Bar)	4

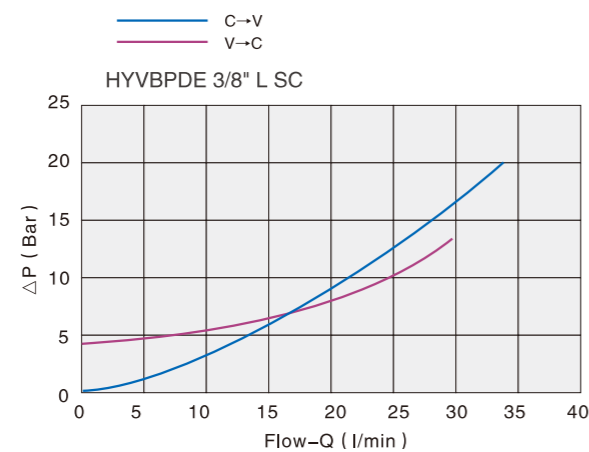
**Use and operation:**  
 Pilot check valves are used to block the cylinder in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. This valve is ideal for very short distance centre cylinders. The check cartridge serves also as fixing banjo, allowing after nut releasing a 90° regulation.

**Applications:**  
 Connect V1 and V2 to the pressure flow, connect C1 directly to the cylinder through the 3/8" screw and C2 to the cylinder through the banjo.

## Code symbol



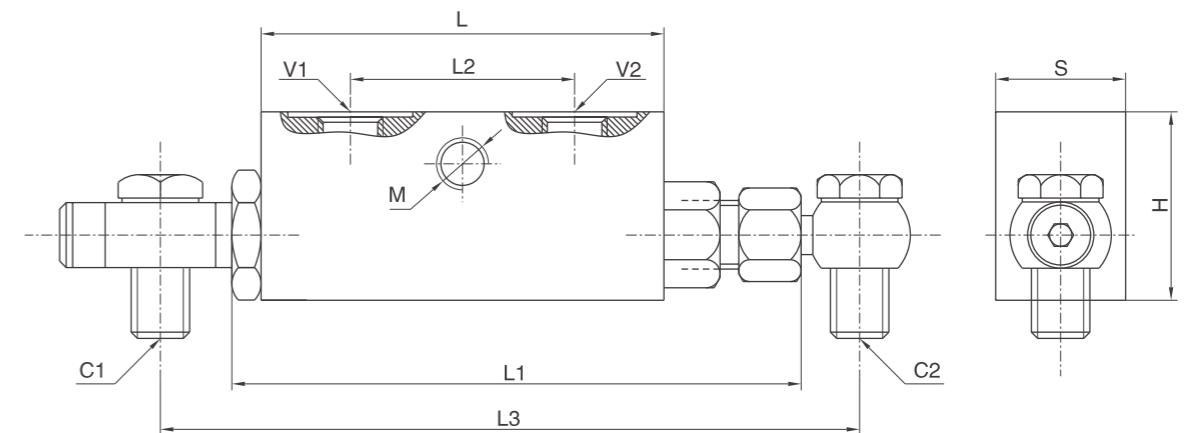
## Pressure drops curve



# Double Pilot Operated Check Valve With Adjustable Banjo Union



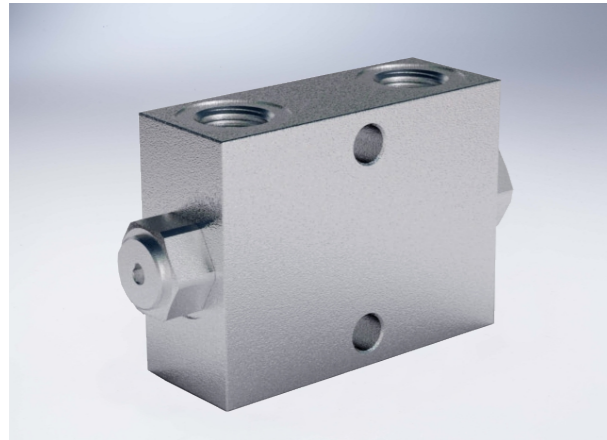
## External dimensions



Type	V1/V2	C1/C2	L	L1	L2	L3	M	H	S
HYVPDE 3/8" L SC	G 3/8"	12L	64	106	36	136	M8	40	30

# Double Pilot Operated Check Valves – type A

## Technical specification

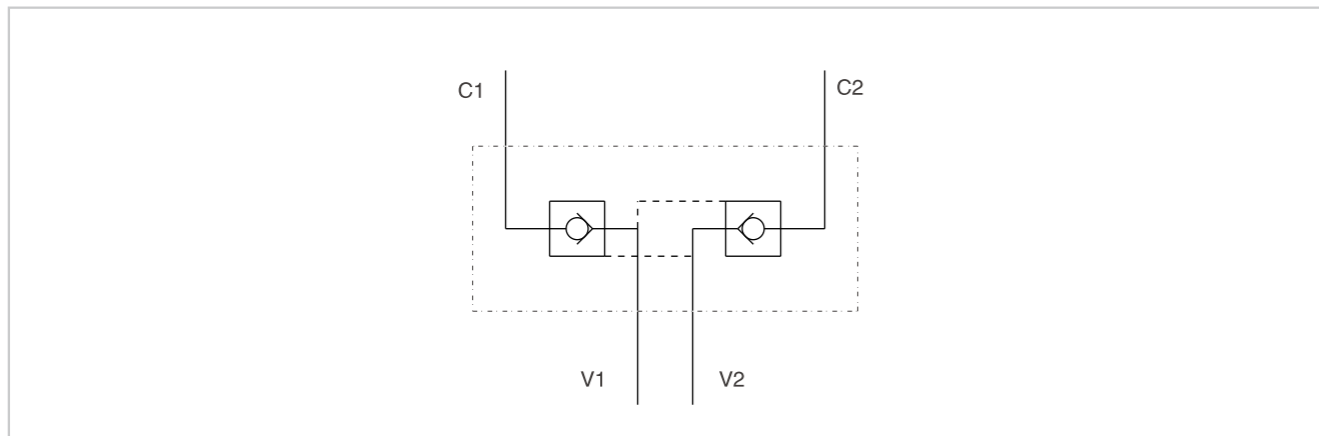


Specification	1/4" A	3/8" A	1/2" A
Pilot ratio	1:5.5	1:5.5	1:4.5
Max flow (L/min)	20	30	55
Max pressure (Bar)	350		
Cracking Pressure (Bar)	4.5	4.5	3

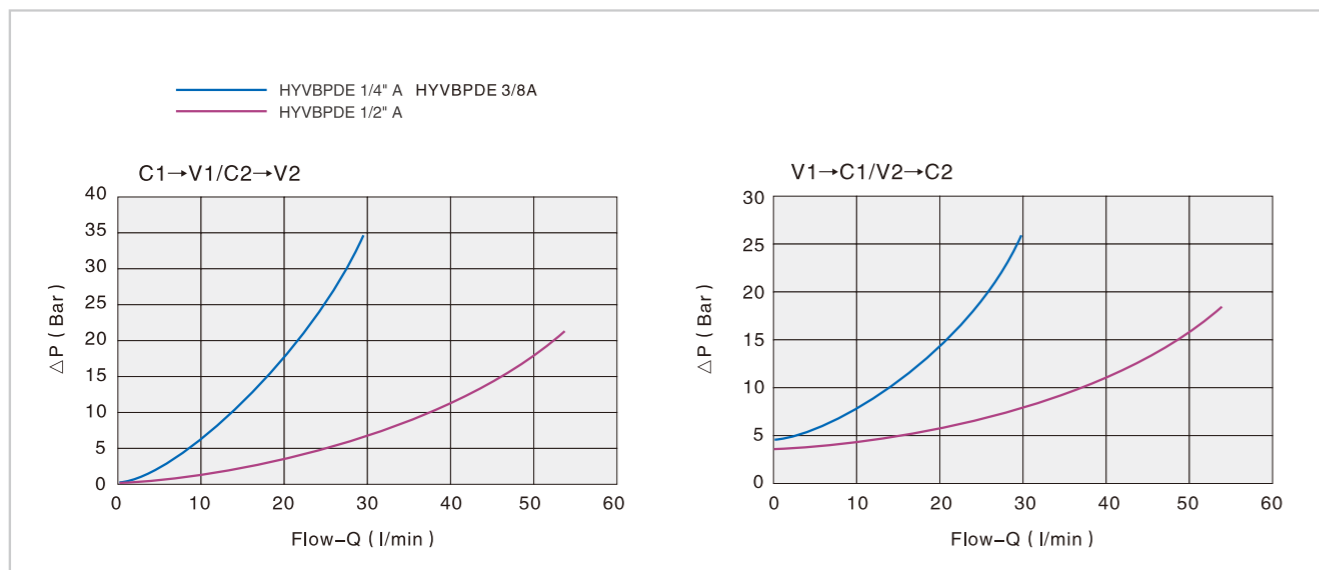
**Use and operation:**  
 Pilot check valves are used to block the cylinder in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied.

**Applications:**  
 Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator.

## Code symbol

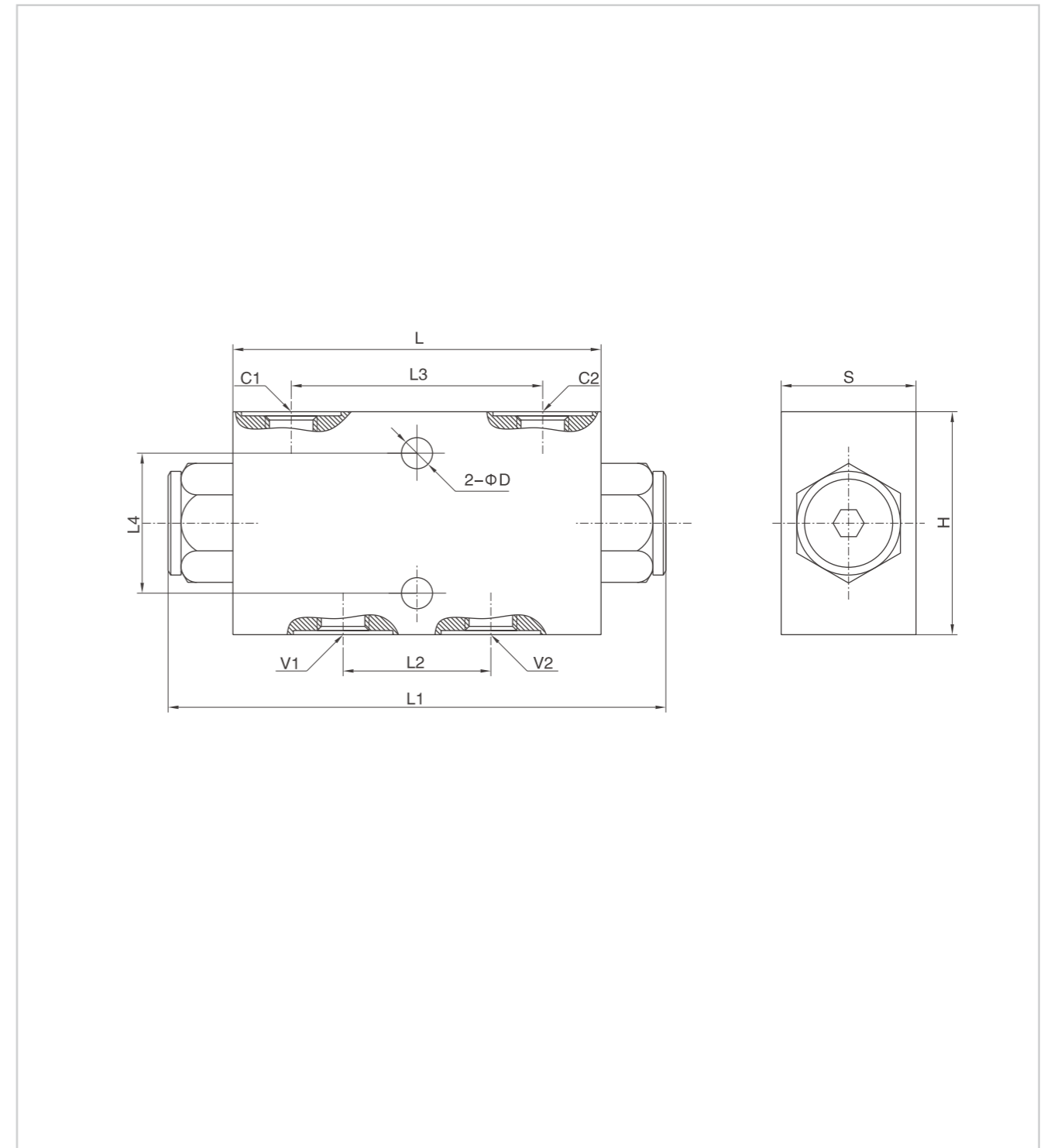


## Pressure drops curve



# Double Pilot Operated Check Valves – type A

## External dimensions

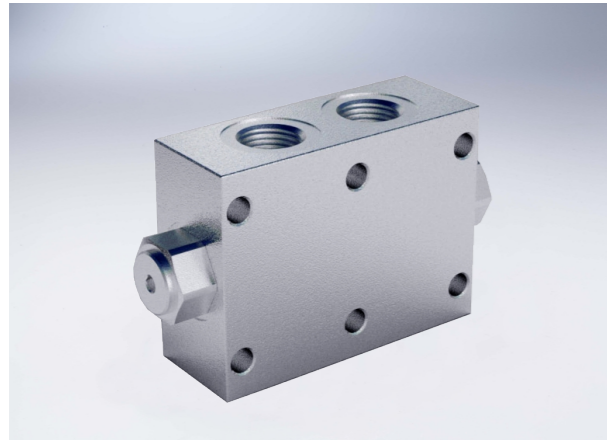


Type	V1/V2/C1/C2	L	L1	L2	L3	L4	D	H	S
HYVBPDE 1/4" A	G 1/4"	80	116.8	30	52	44	7	60	30
HYVBPDE 3/8" A	G 3/8"	80	116.8	30	52	44	7	60	30
HYVBPDE 1/2" A	G 1/2"	110	139	34.2	68	40	8.5	70	35



# Double Pilot Operated Check Valves Flangeable

## Technical specification

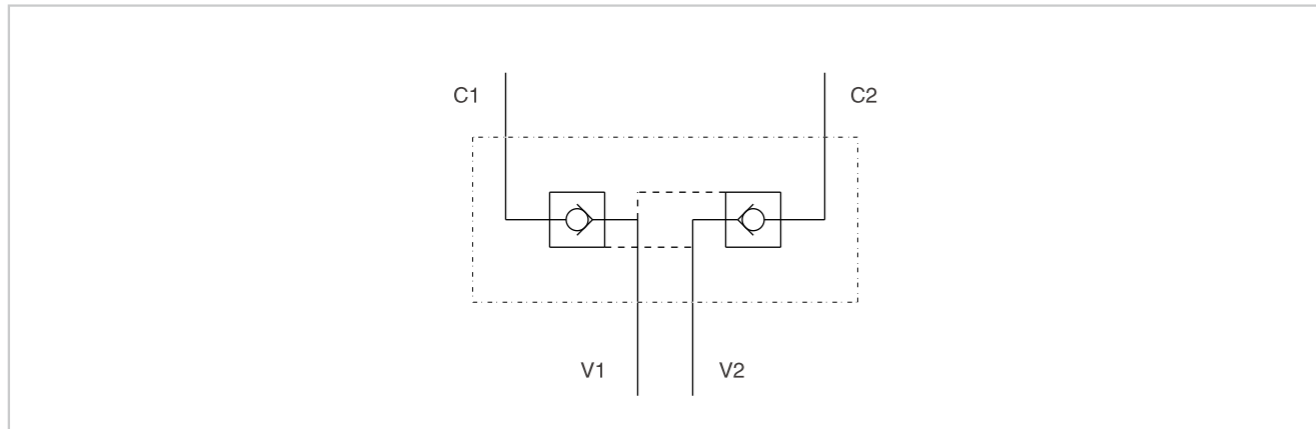


Specification	HYVBPDE 3/8" FL	HYVBPDE 1/2" FL
Pilot ratio	1:5.5	1:4.5
Max flow (L/min)	30	55
Max pressure (Bar)	350	
Cracking Pressure (Bar)	4.5	3

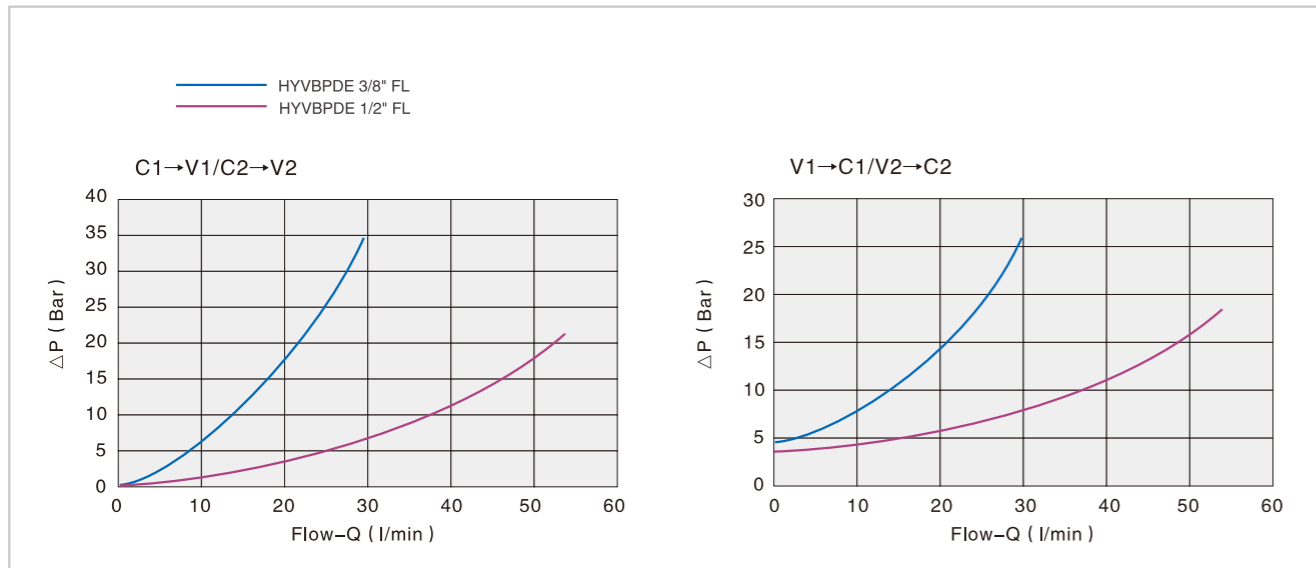
**Use and operation:**  
Pilot check valves are used to block the cylinder in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. Face mounting enables assembly directly on the cylinder.

**Applications:**  
Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator through the flange.

## Code symbol



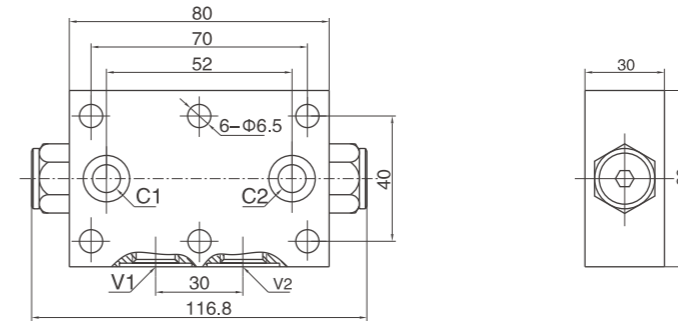
## Pressure drops curve



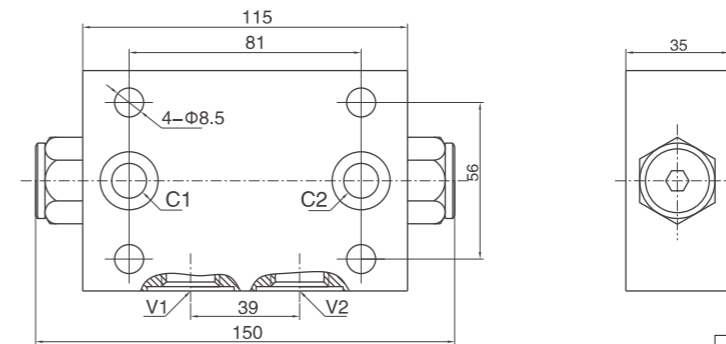
# Double Pilot Operated Check Valves Flangeable **HOYEA**

## External dimensions

HYVBPDE 3/8" FL



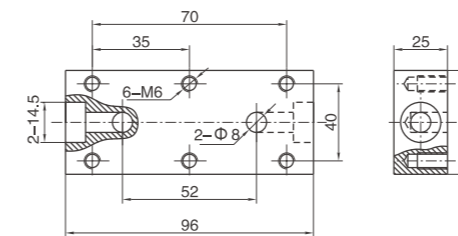
HYVBPDE 1/2" FL



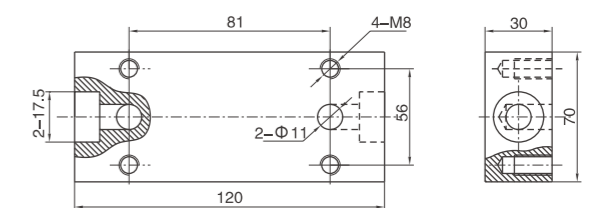
Specification	V1/V2	C1/C2
HYVBPDE 3/8" FL	G 3/8"	Φ6.5
HYVBPDE 1/2" FL	G 1/2"	Φ8.5

## Valve's flanges

TYPE B5000 (3/8")



TYPE B5500 (1/2")



# Cylindric Double Pilot Operated Check Valve

## Technical specification

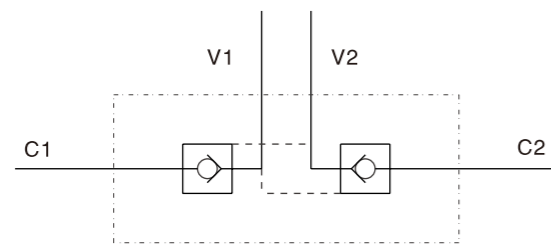


Specification	3/8" CILINDRICA
Pilot ratio	1:5
Max flow (L/min)	45
Max pressure (Bar)	350
Cracking Pressure (Bar)	3

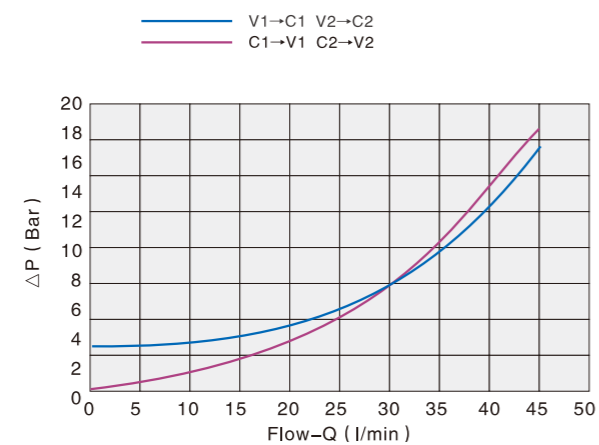
**Use and operation:**  
Pilot check valves are used to block the actuator in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. cylinder through instead of the standard one(parallelepiped).

**Applications:**  
Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator.

## Code symbol

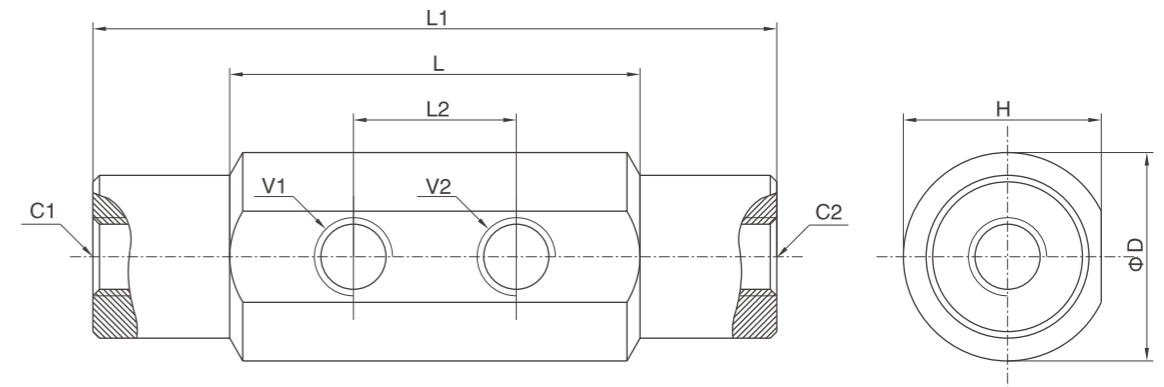


## Pressure drops curve



# Cylindric Double Pilot Operated Check Valve

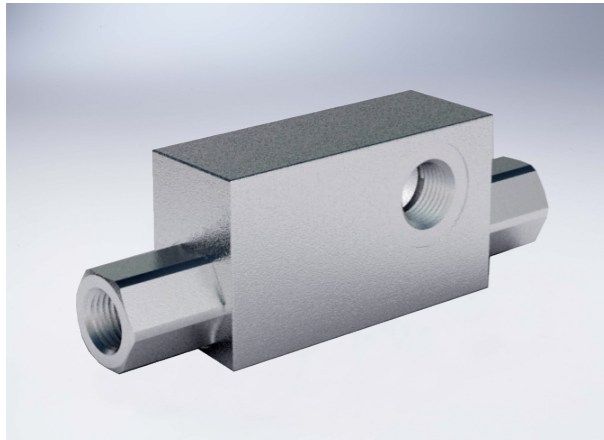
## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	H	D
HYVBPDE 3/8" CILINDRICA	G 3/8"	100	156	41	44	44	48

# Double Pilot Operated Check Valves With Lateral Joins

## Technical specification

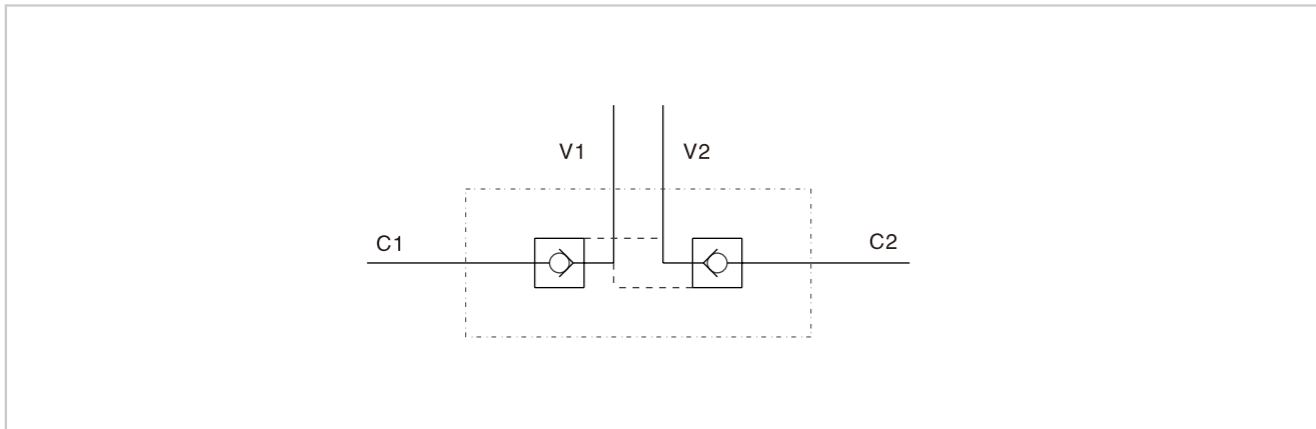


Specification	1/4" AL	3/8" AL
Pilot ratio	1:5.5	
Max flow (L/min)	20	35
Max pressure (Bar)	350	
Cracking Pressure (Bar)	4	3

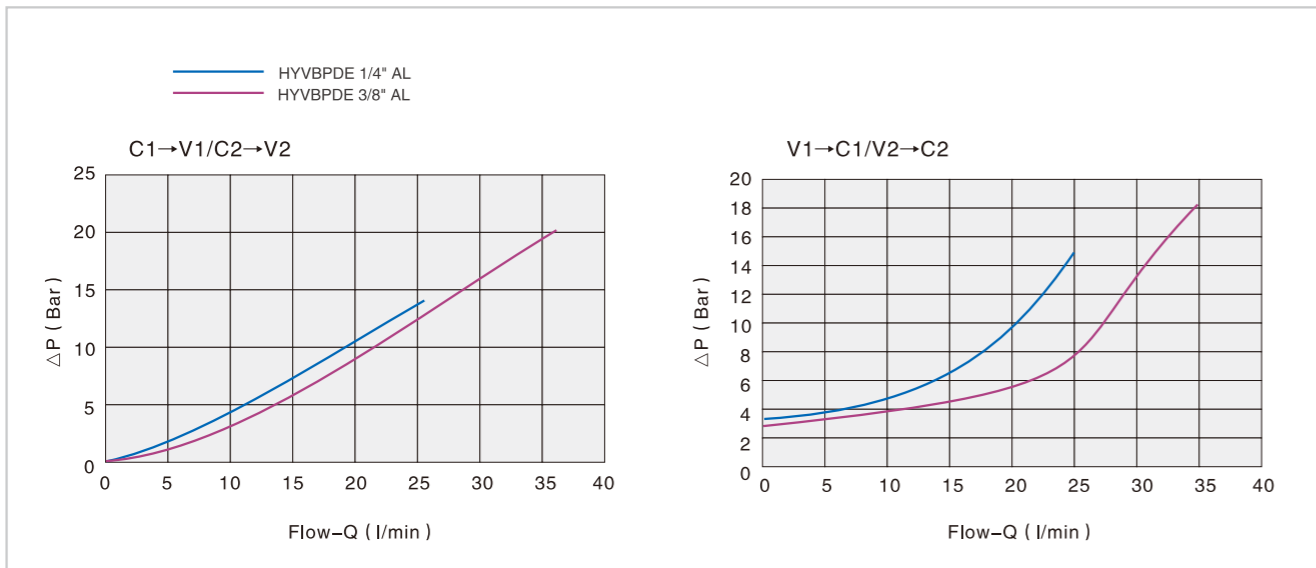
**Use and operation:**  
 Pilot check valves are used to block the cylinder in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. The feature of valve is the side positioned ports.

**Applications:**  
 Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator.

## Code symbol

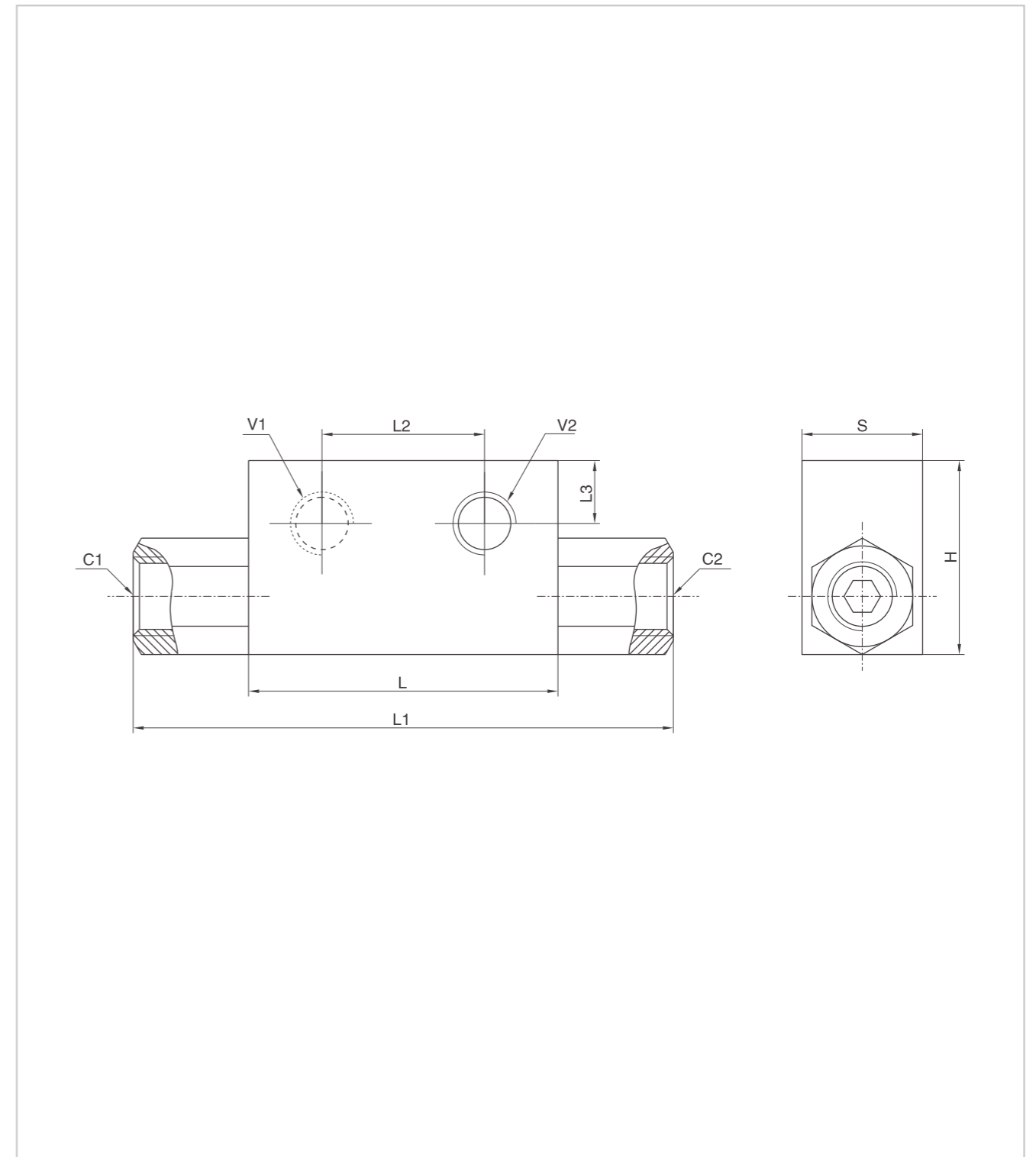


## Pressure drops curve



# Double Pilot Operated Check Valves With Lateral Joins

## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	H	S
HYVBPDE 1/4" AL	G 1/4"	68	118	34	13	40	30
HYVBPDE 3/8" AL	G 3/8"	80	130	38	16	45	30

# Double Pilot Operated Check Valves To Weld

## Technical specification

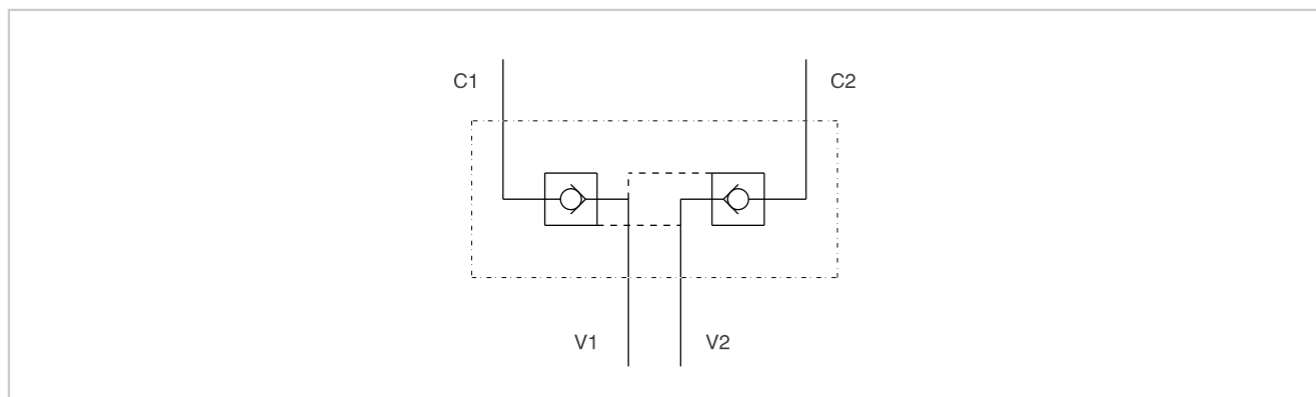


Specification	70	80	90
Pilot ratio		1:5.5	
Max flow (L/min)		25	
Max pressure (Bar)		350	
Cracking Pressure (Bar)		3	

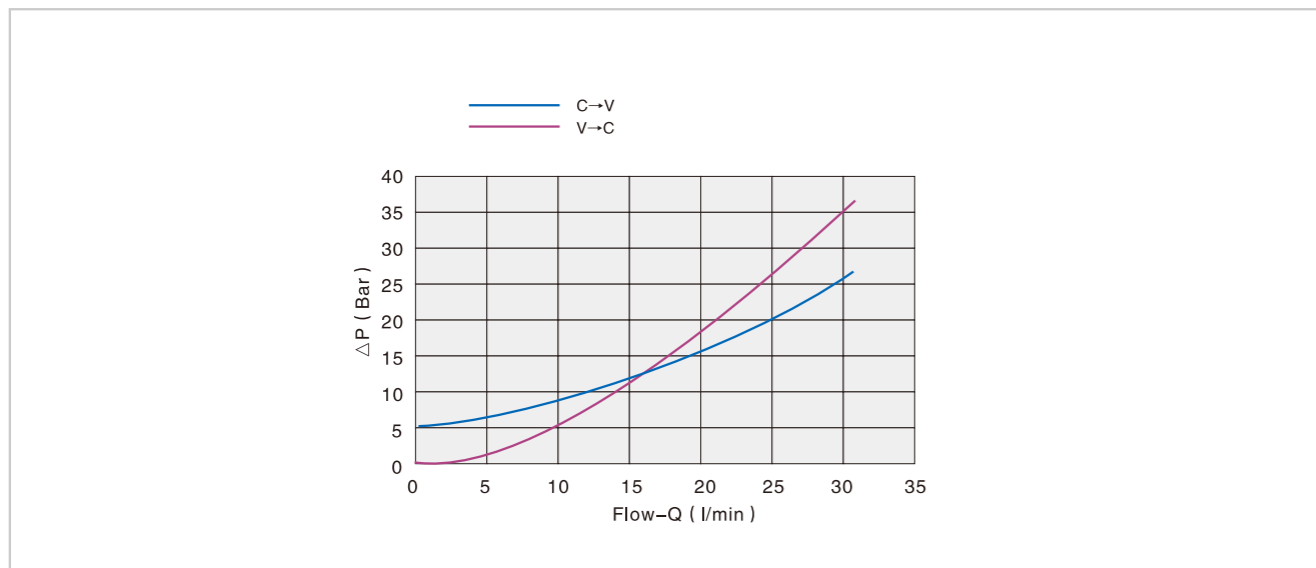
**Use and operation:**  
Having the check cartridge inside, the function of this valve is nearly the same of the pilot check valves. Directly weld on the cylinder. Q70 available in the single operated type. The feature of this valve is the high pressure drop, so as to reduce speed and to limit vibrations.

**Applications:**  
Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator. The check cartridge and the pilot piston have to be mounted after installation of the valve. therefore they are supplied separately.

## Code symbol

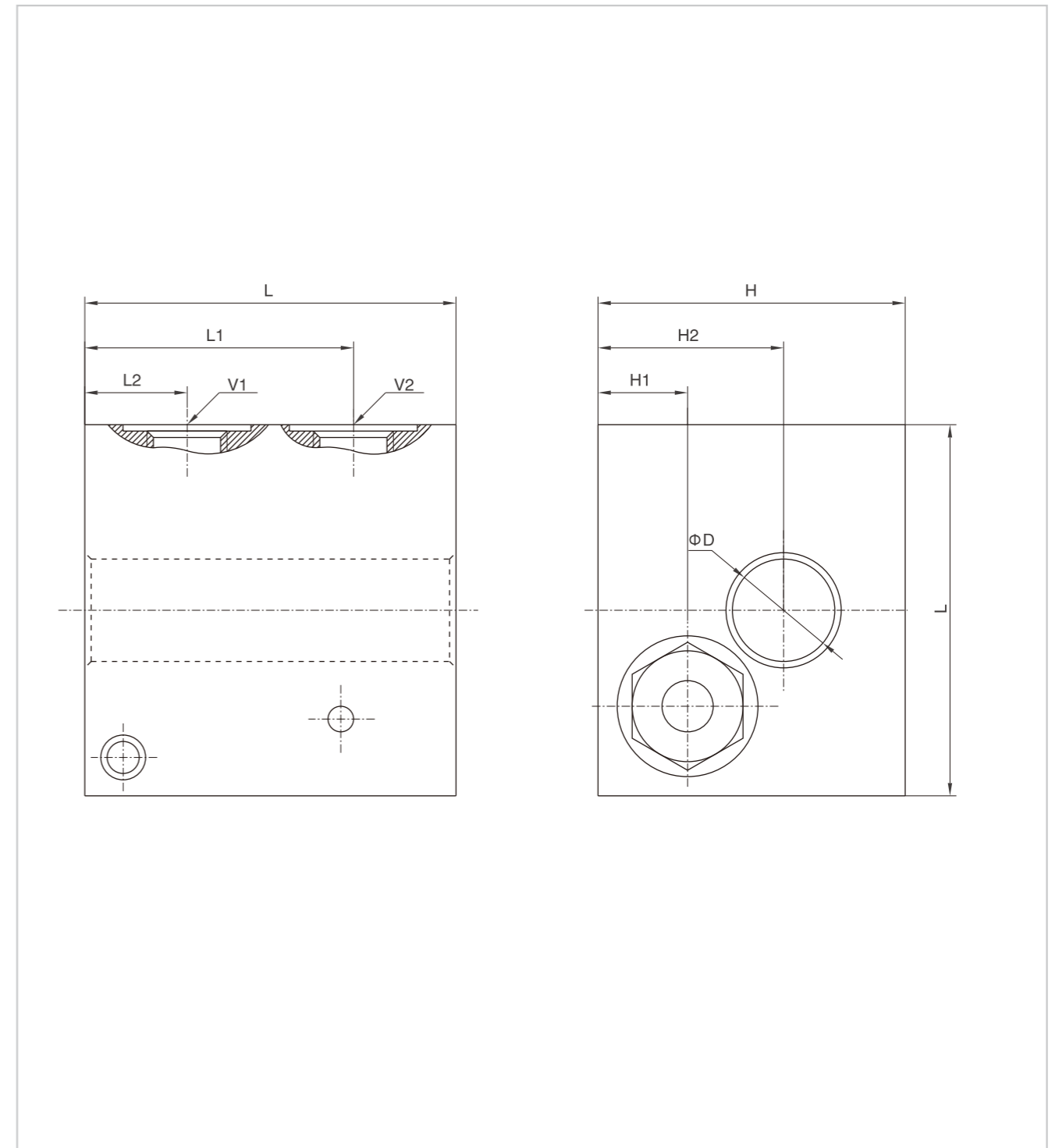


## Pressure drops curve



# Double Pilot Operated Check Valves To Weld

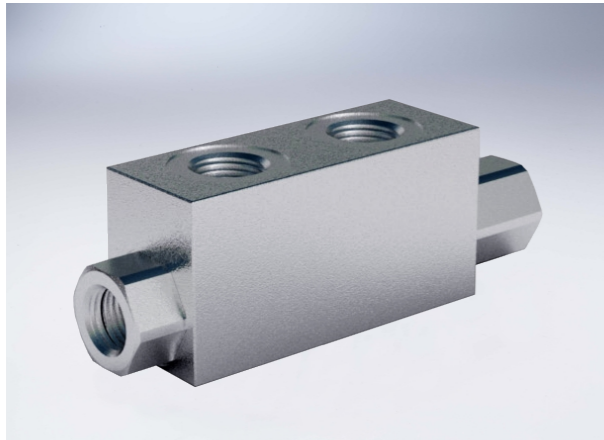
## External dimensions



Type	V1/V2	L	L1	L2	D	H	H1	H2
HYVBAS 70	G 3/8"	70	54	26	25.5	65	17	41
HYVBAS 80	G 3/8"	80	54	26	25.5	65	19	41
HYVBAS 90	G 3/8"	90	59	31	25.5	65	19	41

# Single Pilot Operated Check Valves

## Technical specification

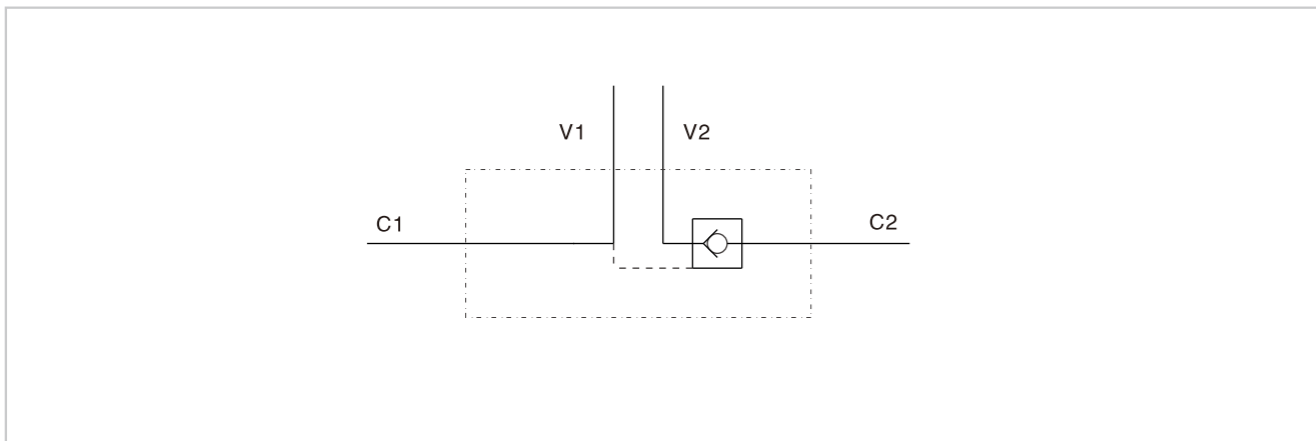


Specification	1/4" L 4 VIE	3/8" L 4 VIE	1/2" L 4 VIE	3/8" 4 VIE	1/2" 4 VIE	3/4" 4 VIE
Pilot ratio	1:5.5	1:5.5	1:5	1:5	1:4	1:4
Max flow (L/min)	20	35	50	45	70	100
Max pressure (Bar)	350					
Cracking Pressure (Bar)	4	3	6	8	3.5	2

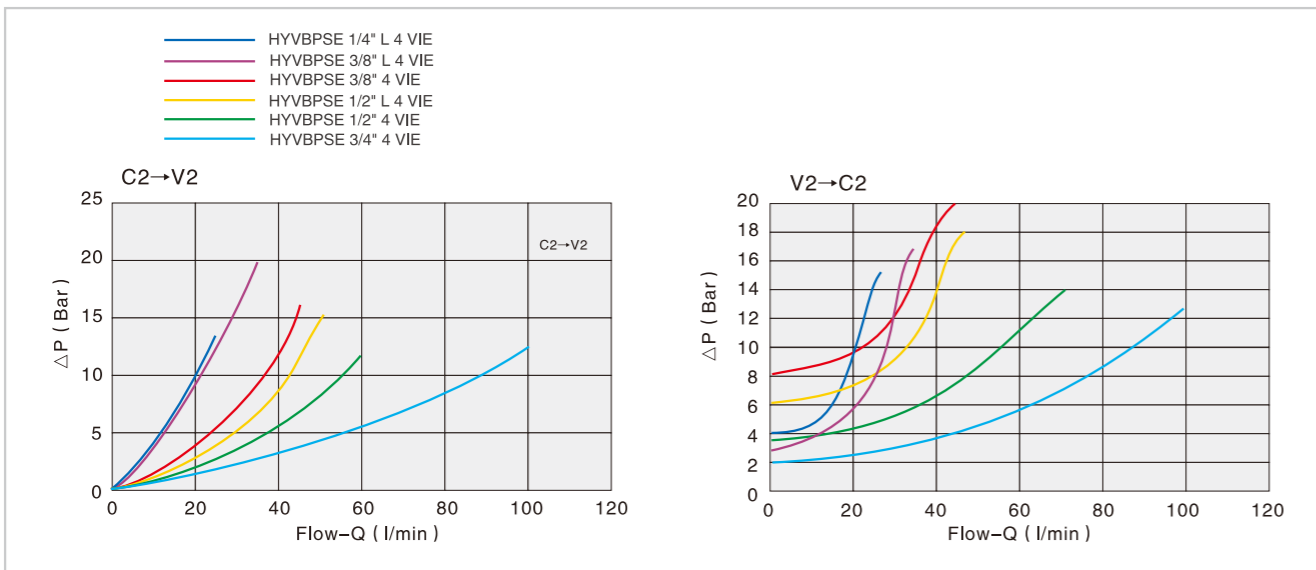
**Use and operation:**  
 These valves are used to block the cylinder in one direction. The flow is free in one direction and blocked in the reverse direction until pilot pressure is applied.

**Applications:**  
 Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and C2 to the actuator's side you want the flow to be blocked.

## Code symbol

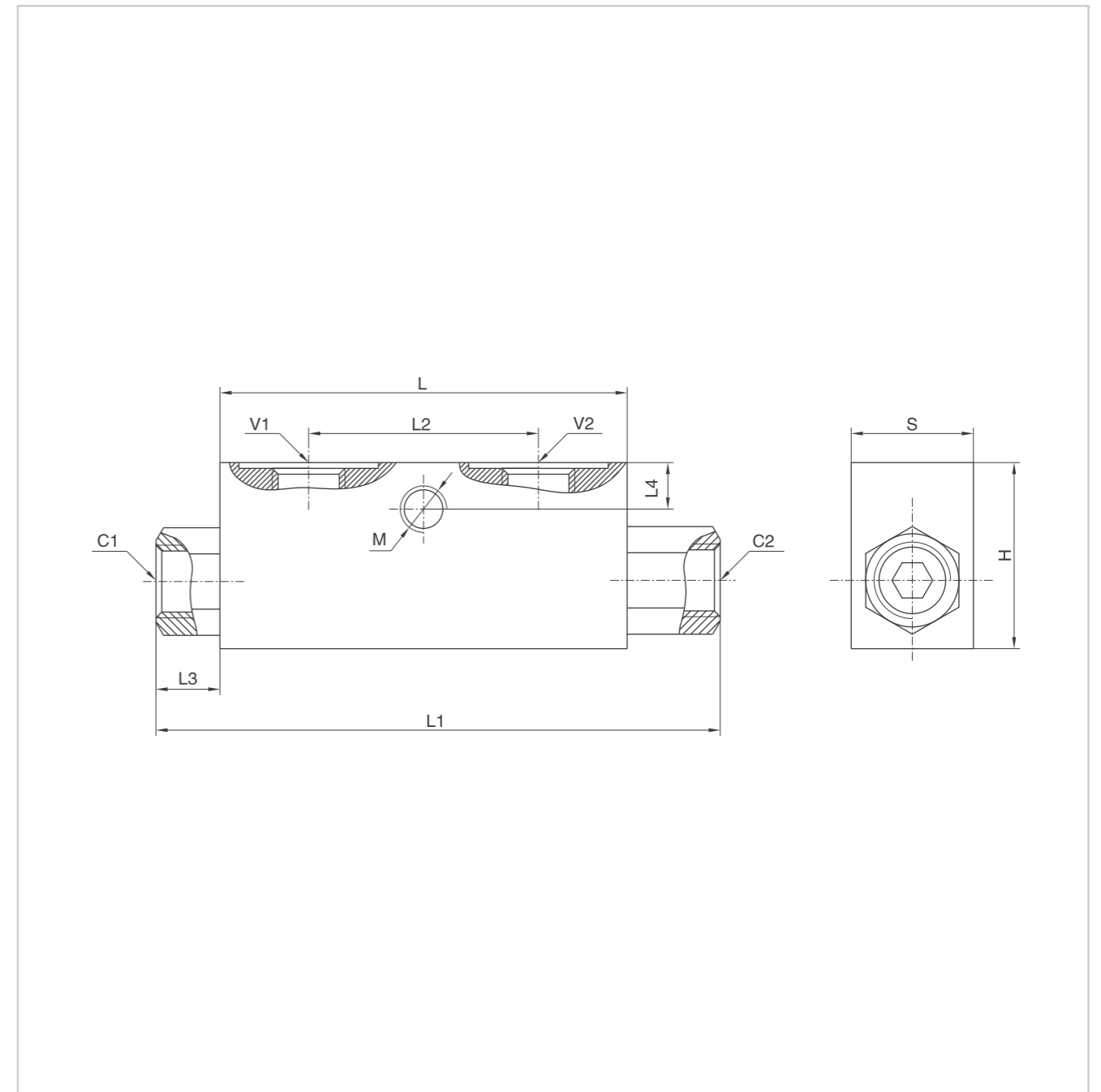


## Pressure drops curve



# Single Pilot Operated Check Valves

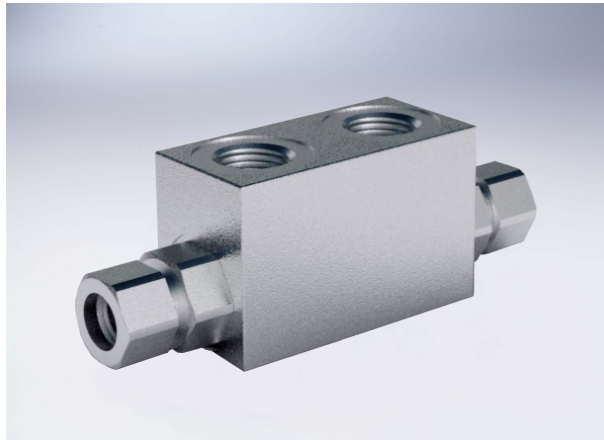
## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	M	H	S
HYVBPSE 1/4" L 4 VIE	G 1/4"	64	106.5	36	18.5	8	M8	40	30
HYVBPSE 3/8" L 4 VIE	G 3/8"	80	120	38	16	8	M8	40	30
HYVBPSE 1/2" L 4 VIE	G 1/2"	90	133	45	17	8	M8	45	35
HYVBPSE 3/8" 4 VIE	G 3/8"	90	148	45	25	8	M8	45	35
HYVBPSE 1/2" 4 VIE	G 1/2"	80	134	40	23	18	M8	60	35
HYVBPSE 3/4" 4 VIE	G 3/4"	100	182	48	36	8	M8	60	40

# Single Pilot Operated Check Valves For 12 mm Pipe Mounting (Din 2353)

## Technical specification

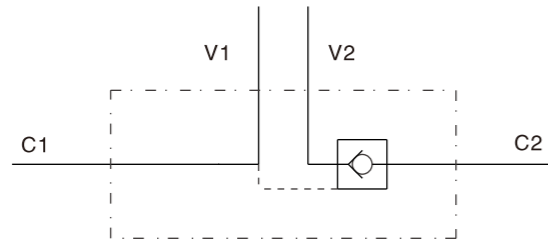


Specification	1/4" L 2 CEXC	3/8" L 2 CEXC	1/2" L 2 CC
Pilot ratio	1:5.5	1:5.5	1:5
Max flow (L/min)	20	30	50
Max pressure (Bar)	350		
Cracking Pressure (Bar)	4	4	3

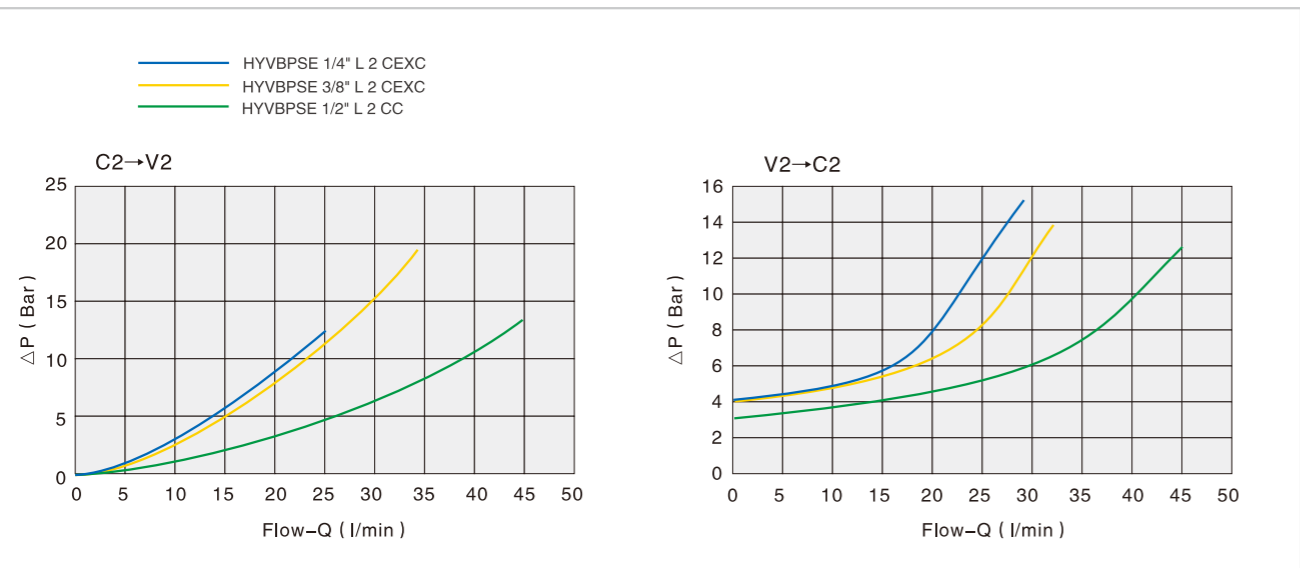
**Use and operation:**  
These valves are used to block the cylinder in one direction. The flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. They are easily assembled on cylinders. Specific distance-centre mounting fittings kit on request.

**Applications:**  
Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and C2 to the actuator's side you want the flow to be blocked.

## Code symbol



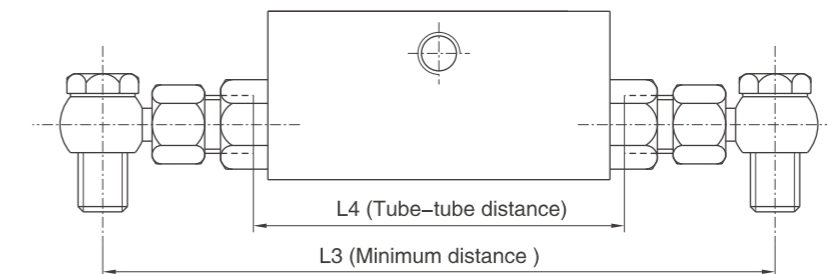
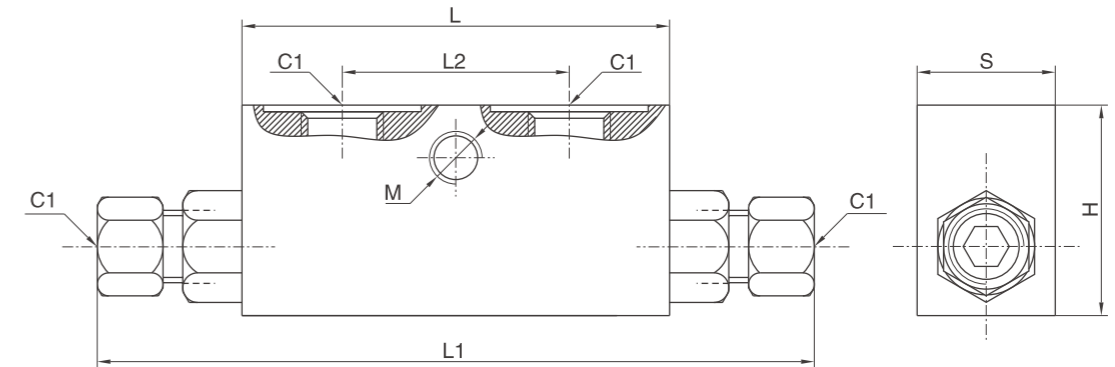
## Pressure drops curve



# Single Pilot Operated Check Valves For 12 mm Pipe Mounting (Din 2353)



## External dimensions



Type	V1/V2	C1/C2	L	L1	L2	L3	L4	M	H	S
HYVBPSE 1/4" L 2 CEXC	G 1/4"	12L	64	134	36	160	84	M8	40	30
HYVBPSE 3/8" L 2 CEXC	G 3/8"	12L	64	134	36	166	84	M8	40	30
HYVBPSE 1/2" L 2 CC	G 1/2"	15L	90	164	45	196	106	M8	45	35

### 3 Ways Single Pilot Operated Check Valves, In Line

#### Technical specification

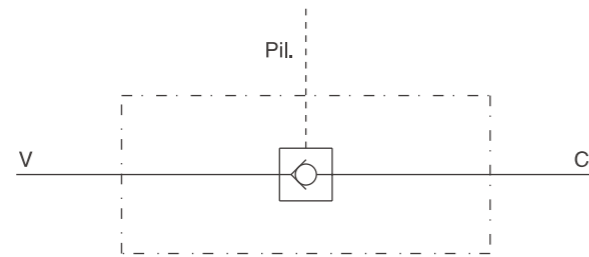


Specification	1/4"	3/8"	1/2"	3/4"
Pilot ratio	1:9.8	1:6.5	1:4.6	1:4.4
Max flow (L/min)	15	30	45	80
Max pressure (Bar)	350	300	300	250
Cracking Pressure (Bar)	2.5	5	3	0.5

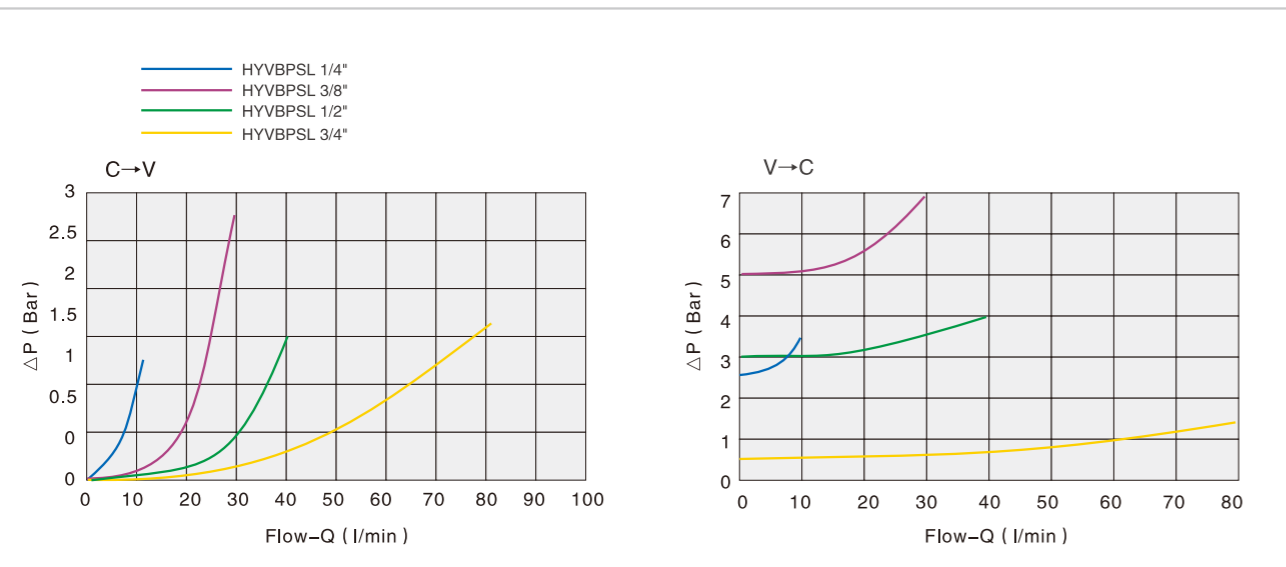
**Use and operation:**  
 These valves are used to block the cylinder in one direction. The flow is free in one direction and blocked in the reverse direction until pilot pressure is applied.

**Applications:**  
 Connect V to the pressure flow, C to the actuator's side you want the flow to be blocked and Pil to the pilot line.

#### Code symbol



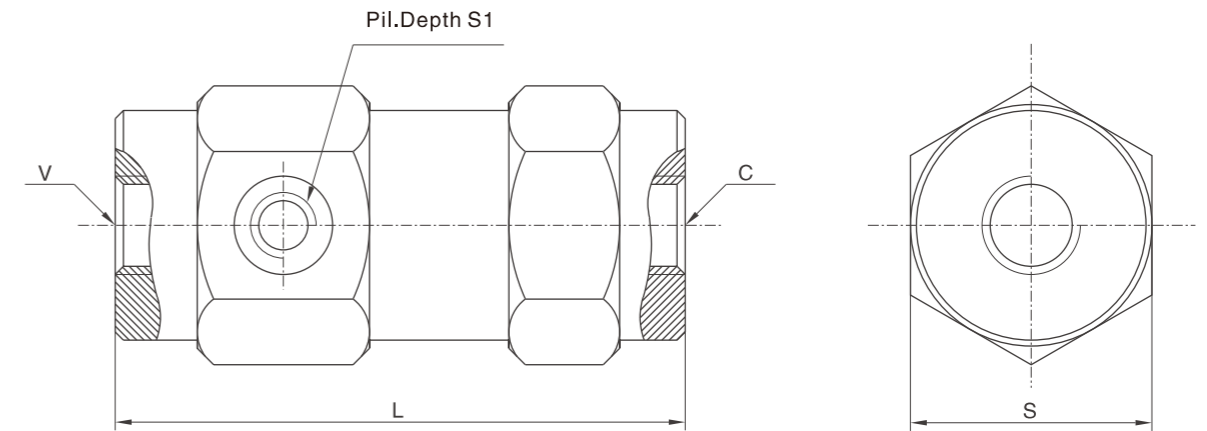
#### Pressure drops curve



### 3 Ways Single Pilot Operated Check Valves, In Line



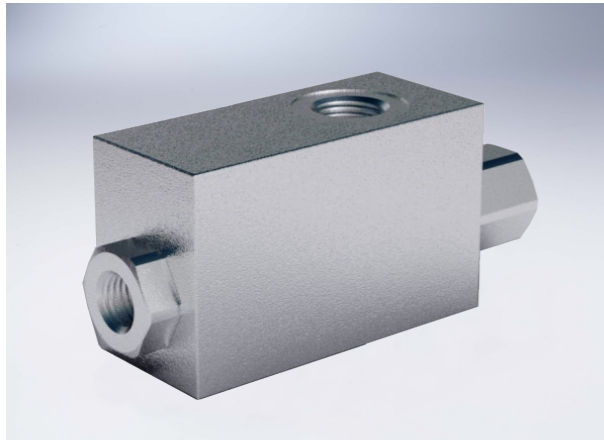
#### External dimensions



Type	V/C	Pil.	L	S	S1
HYVBPSL 1/4"	G 1/4"	G 1/4"	103	36	11
HYVBPSL 3/8"	G 3/8"	G 1/4"	109	40	11.5
HYVBPSL 1/2"	G 1/2"	G 1/4"	120	42	11
HYVBPSL 3/4"	G 3/4"	G 1/4"	131	55	14
HYVBPSL 1"	G 1"	G 1/4"	185	70	14

# Single Pilot Operated Check Valves, High Pilot

## Technical specification

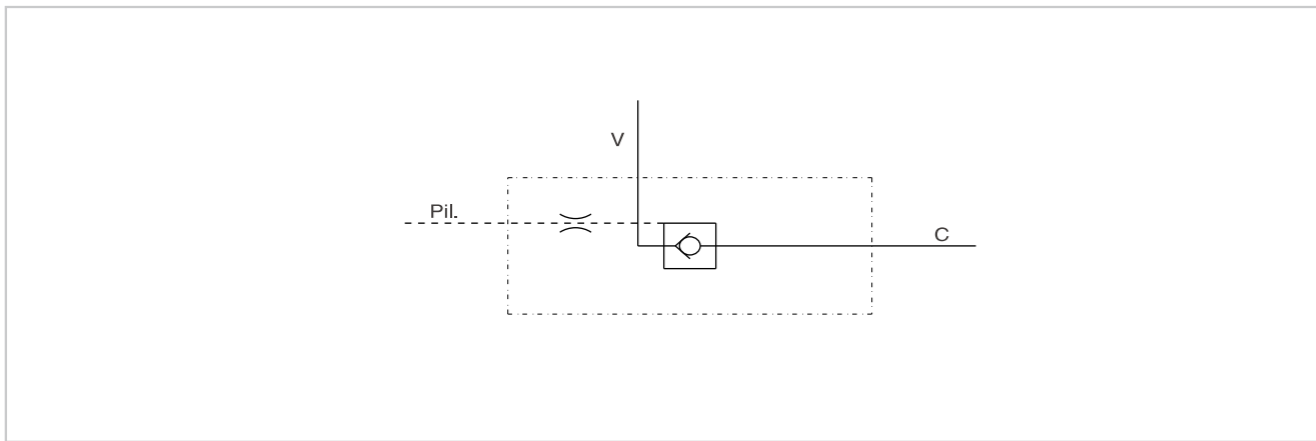


Specification	SE 1/4"	SE 3/8"	SE 1/2"
Pilot ratio	1:8	1:8	1:7
Max flow (L/min)	20	40	70
Max pressure (Bar)	350		
Cracking Pressure (Bar)	4	3.5	3.5

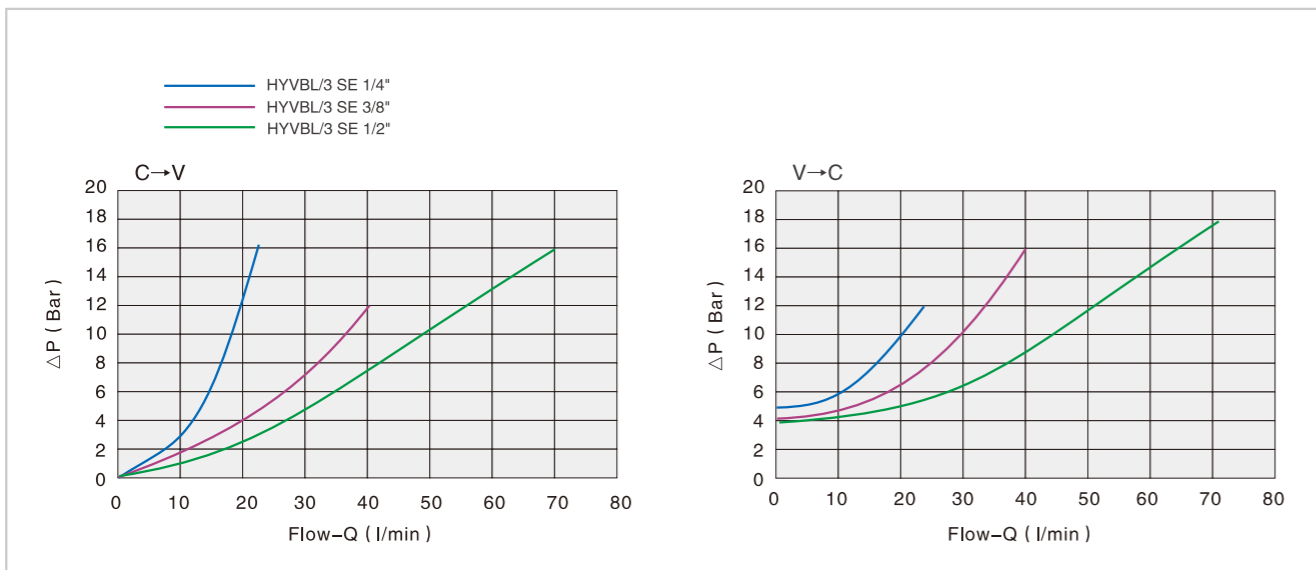
**Use and operation:**  
 These valves are used to block the cylinder in one direction. The flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. Thanks to its high pilot ratio and to a time-lag locking device, it's suitable to avoid vibrations in circuits with heavy loads.

**Applications:**  
 Connect V to the pressure flow, C to the actuator's side you want the flow to be blocked and Pil to the pilot line.

## Code symbol



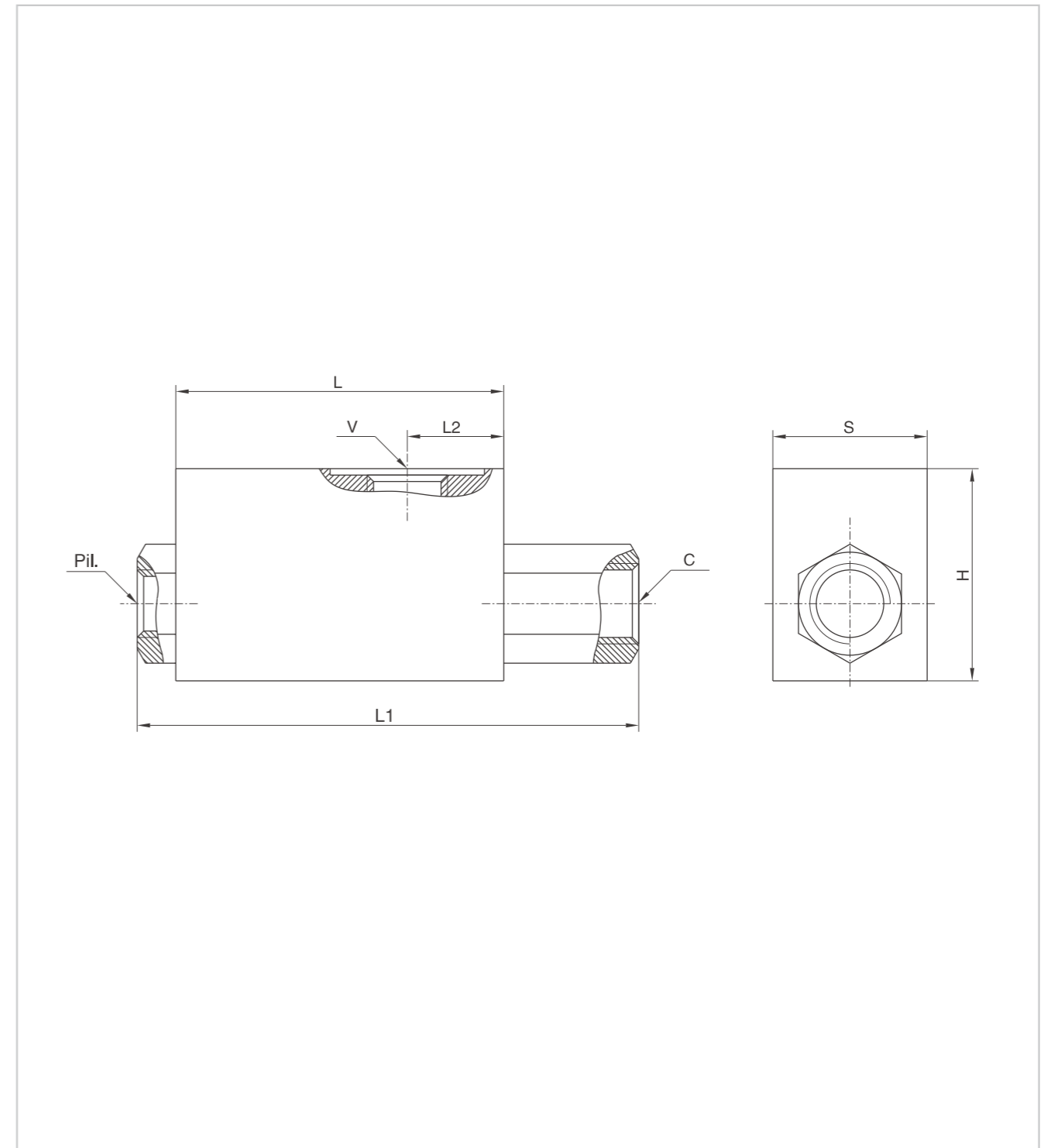
## Pressure drops curve



# Single Pilot Operated Check Valves, High Pilot



## External dimensions

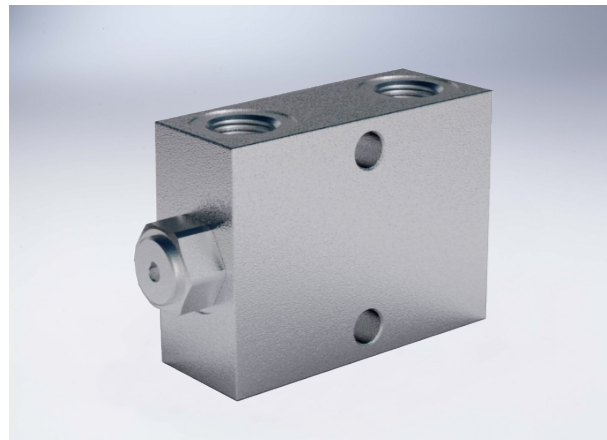


Type	V/C	Pil.	L	L1	L2	H	S
HYVBL/3 SE 1/4"	G 1/4"	G 1/4"	70	104	22	40	30
HYVBL/3 SE 3/8"	G 3/8"	G 1/4"	80	120	24	48	35
HYVBL/3 SE 1/2"	G 1/2"	G 1/4"	80	120	26	52	40



# Single Pilot Operated Check Valves Type A

## Technical specification

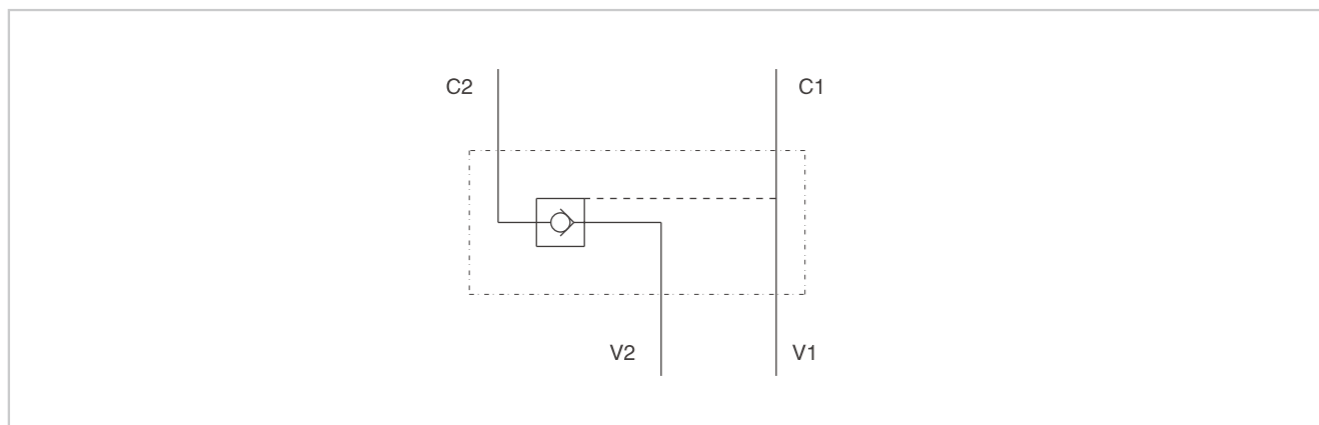


Specification	1/4" A	3/8" A	1/2" A
Pilot ratio	1:5.5	1:5.5	1:4.5
Max flow (L/min)	20	30	55
Max pressure (Bar)	350		
Cracking Pressure (Bar)	4.5	4.5	3

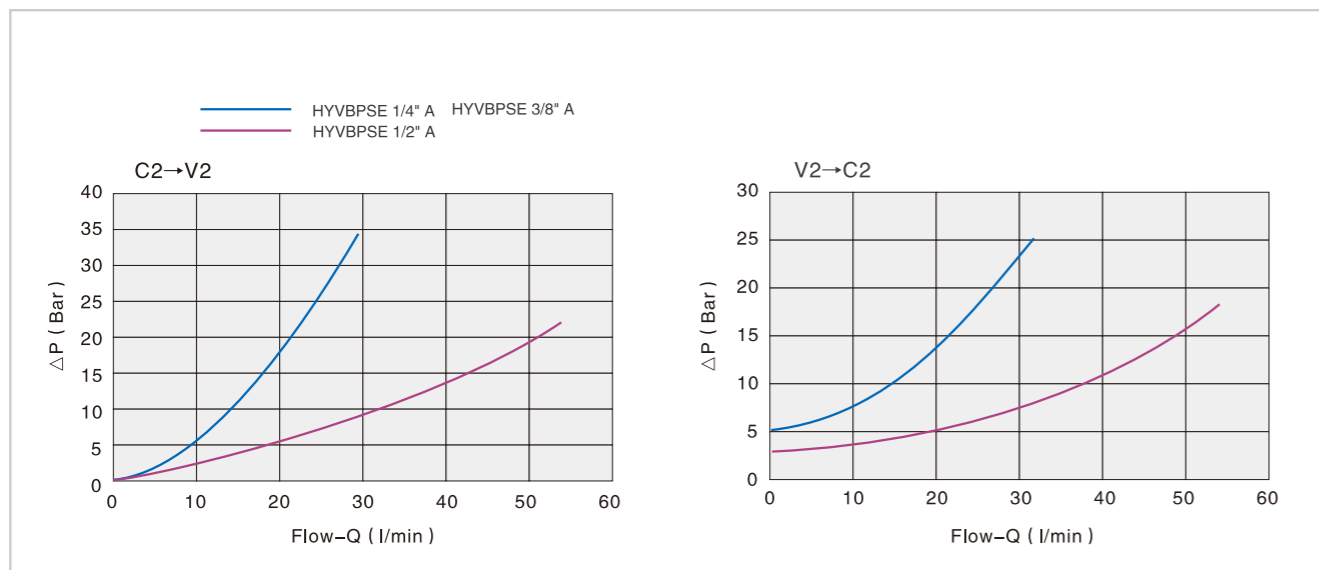
**Use and operation:**  
 These valves are used to block the cylinder in one direction. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied.

**Applications:**  
 Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and C2 to the actuator's side you want the flow to be blocked.

## Code symbol

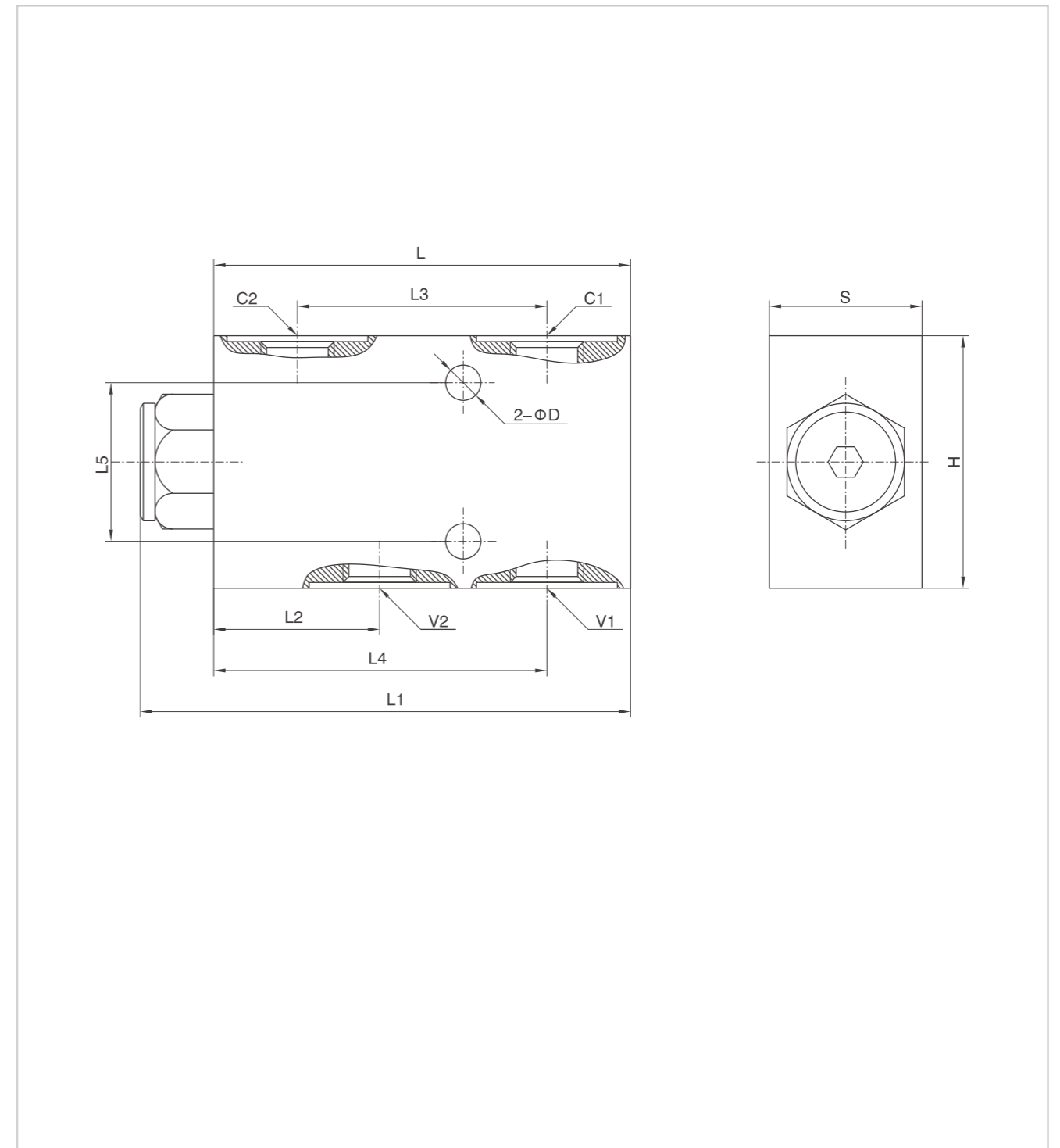


## Pressure drops curve



# Single Pilot Operated Check Valves Type A

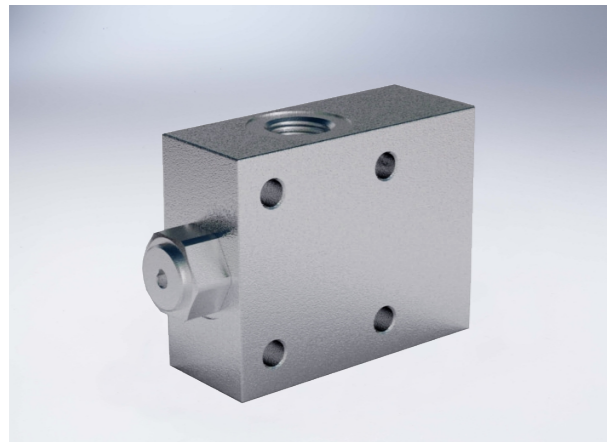
## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	D	H	S
HYVBPSE 1/4" A	G 1/4"	80	98.4	31.5	50	65	40	7	60	30
HYVBPSE 3/8" A	G 3/8"	80	98.4	31.5	50	65	40	7	60	30
HYVBPSE 1/2" A	G 1/2"	105	121	38.5	70	62.5	40	8.5	80	35

# Single Pilot Operated Check Valves Flangeable

## Technical specification

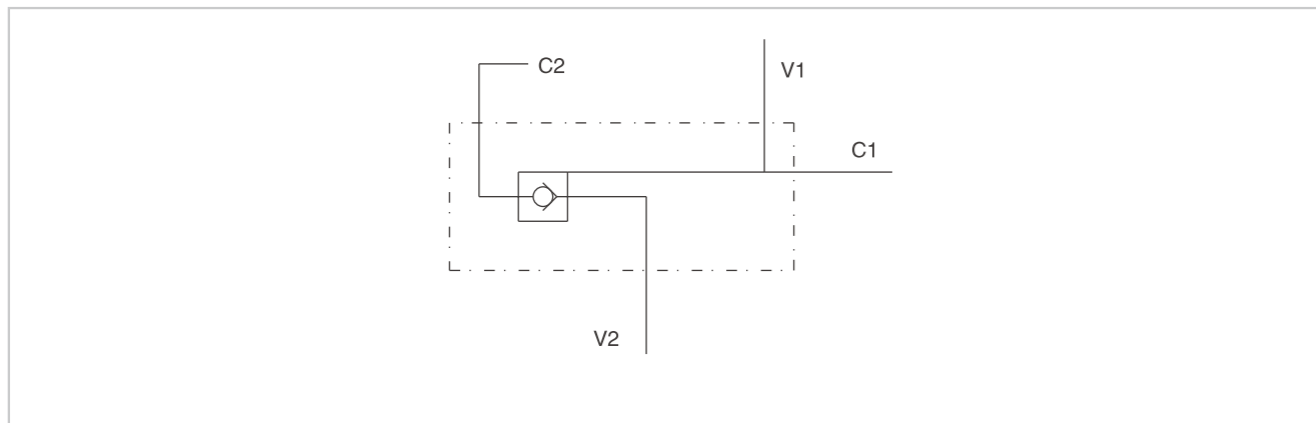


Specification	1/4" FL	3/8" FL	1/2" FL
Pilot ratio	1:5.5	1:5.5	1:4.5
Max flow (L/min)	20	30	55
Max pressure (Bar)	350		
Cracking Pressure (Bar)	4.5	4.5	3

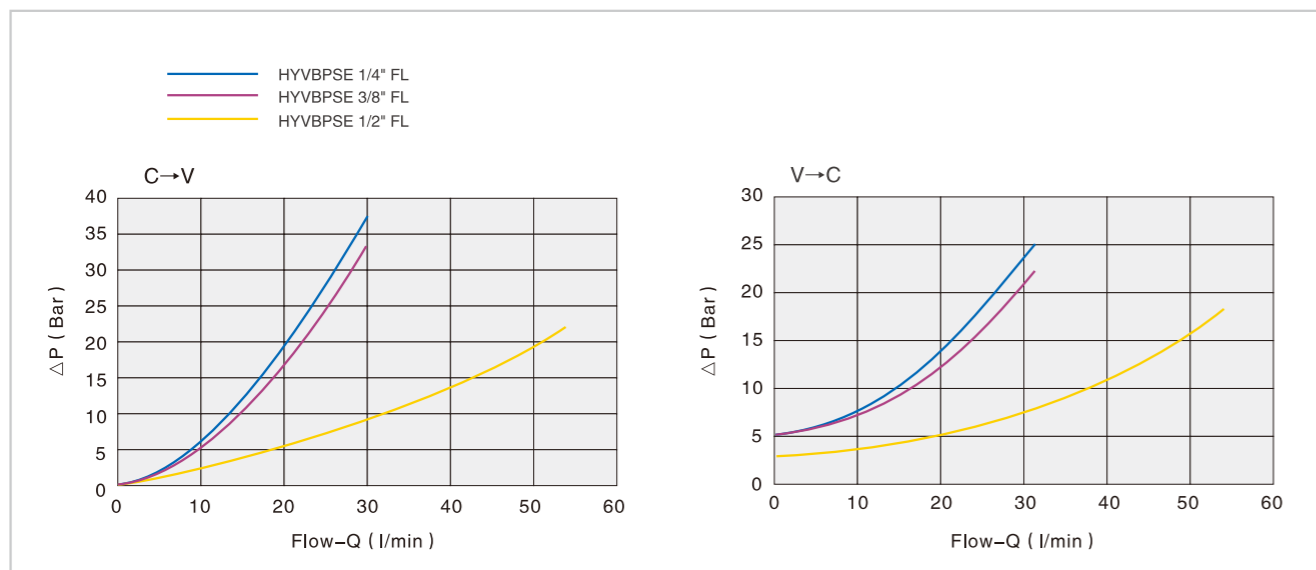
**Use and operation:**  
 These valves are used to block the cylinder in one direction. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. This valve can be fixed directly on cylinder.

**Applications:**  
 Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and C2 to the actuator's side you want the flow to be blocked.

## Code symbol

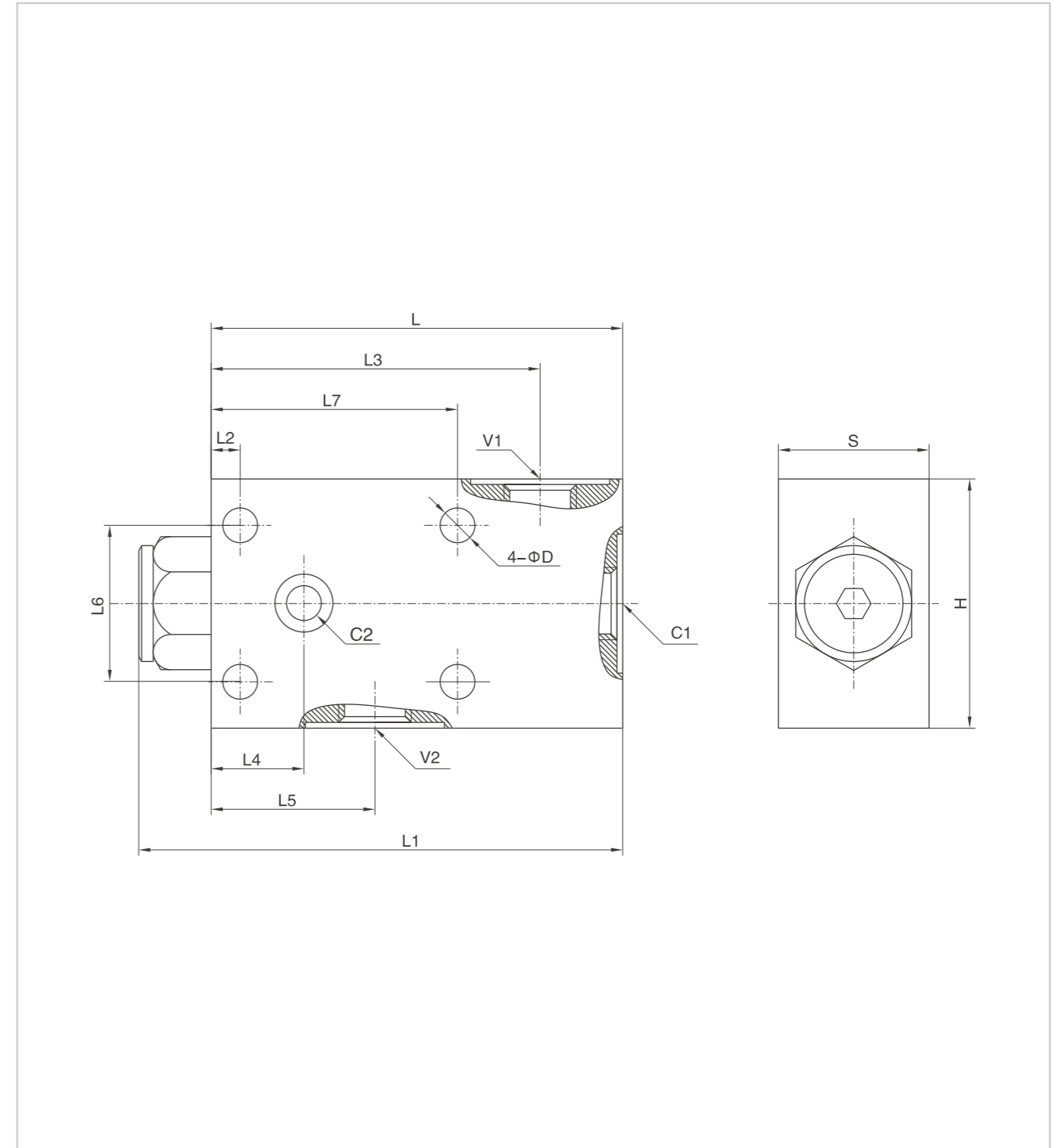


## Pressure drops curve



# Single Pilot Operated Check Valves Flangeable **HOYEA**

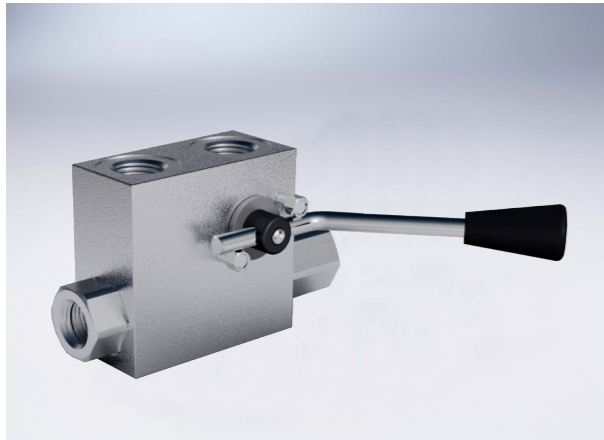
## External dimensions



Type	V1/V2/C1	C2	L	L1	L2	L3	L4	L5	L6	L7	D	H	S
HYVBPSE 1/4" FL	G 1/4"	Φ 5	70	88	6.5	57	15.5	27	35	41.5	6.5	50	30
HYVBPSE 3/8" FL	G 3/8"	Φ 5	75	93.4	10	61	14	27	40	45	6.5	60	30
HYVBPSE 1/2" FL	G 1/2"	Φ 9	100	116	10.5	82	18	32	40	50.5	8.5	80	35

# Single Pilot Operated Check Valves With Manual Shut-off

## Technical specification

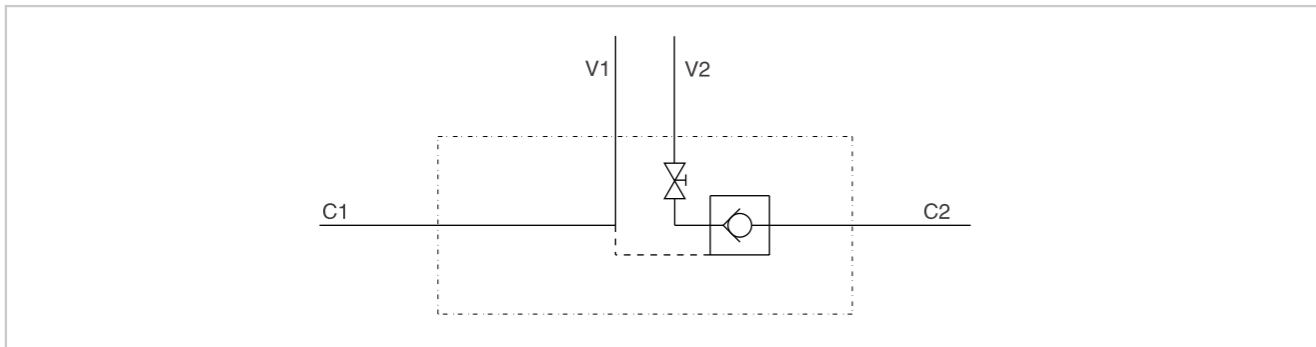


Specification	1/4" Lc/ RUBINETTO	3/8" Lc/ RUBINETTO	1/2" Lc/ RUBINETTO	1/4" Lc RUB.2 CEXC	3/8" Lc RUB.2 CEXC	1/2" Lc RUB.2 CC
Pilot ratio	1:5.5	1:5.5	1:5	1:5.5	1:5.5	1:5
Max flow (L/min)	20	30	50	20	30	50
Max pressure (Bar)	350					
Cracking Pressure (Bar)	4	3	3	4	4	3

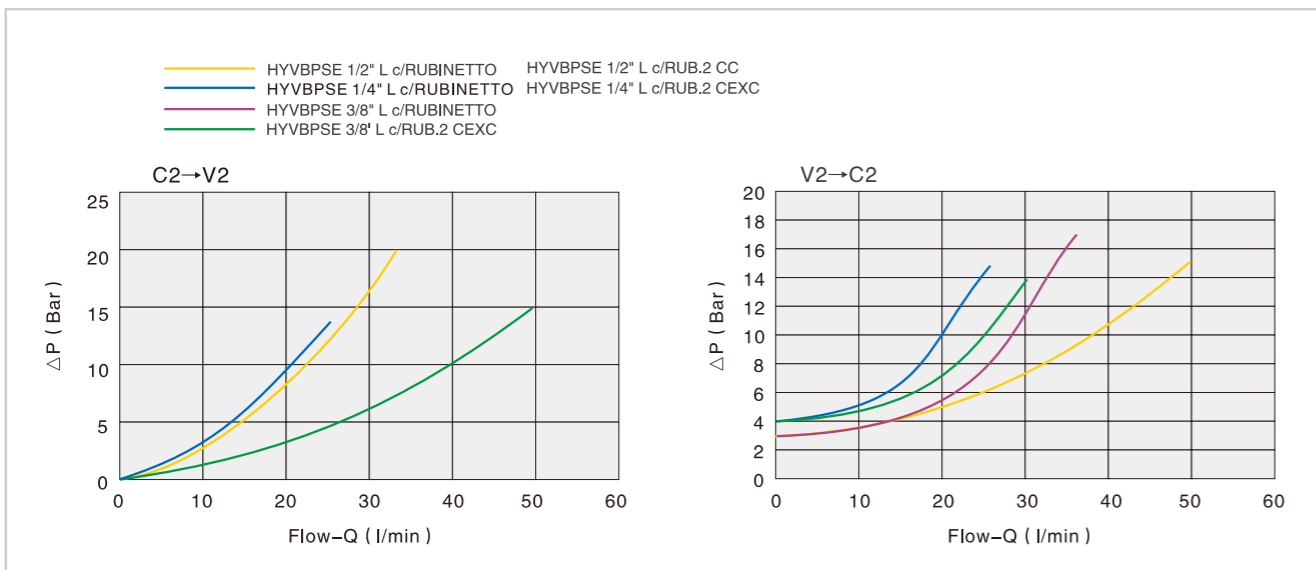
**Use and operation:**  
Pilot check valves are used to block the actuator in both directions. Flow is free in one direction and blocked in the reverse direction until pilot pressure is applied. These valves are very safe, that's why they are ideal to be assembled on crane hydraulic cylinders. The shut-off system enables to exclude any risk caused by possible manoeuvring errors.

**Applications:**  
Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and C2 to the actuator's side you want the flow to be blocked.

## Code symbol

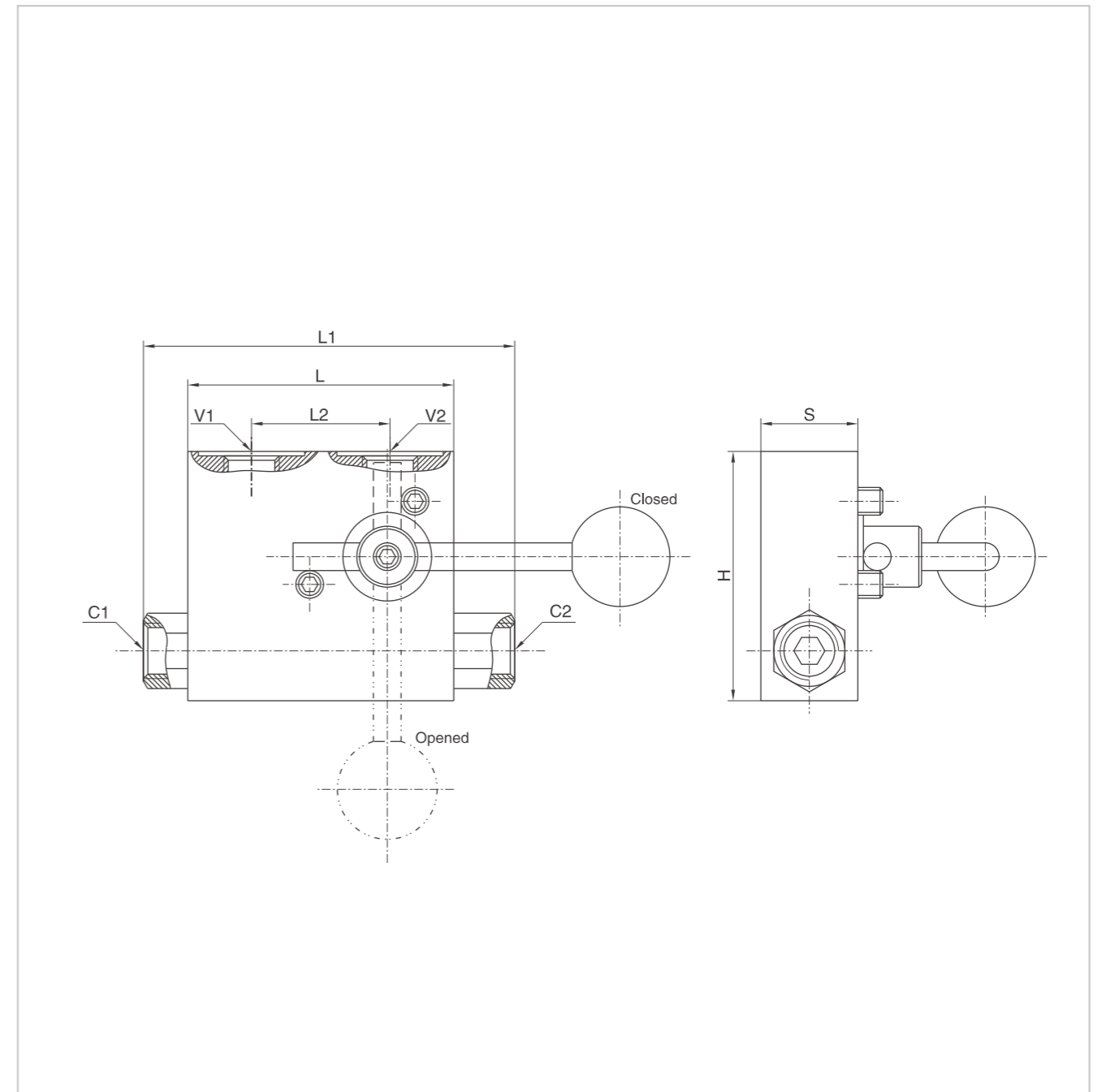


## Pressure drops curve



# Single Pilot Operated Check Valves With Manual Shut-off

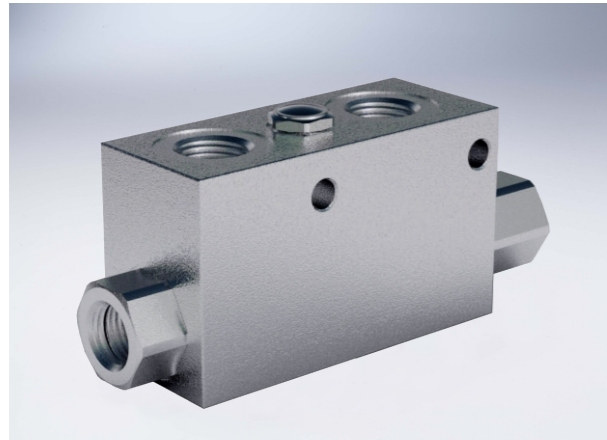
## External dimensions



Type	V1/V2/ C1/C2	L	L1	L2	H	S
HYVBPSE 1/4" L c/ RUBINETTO	G 1/4"	64	112	34	60	30
HYVBPSE 3/8" L c/ RUBINETTO	G 3/8"	64	118	36	60	30
HYVBPSE 1/2" L c/ RUBINETTO	G 1/2"	90	142	45	70	35
HYVBPSE 1/4" L c/RUB.2 CEXC	G 1/4" 12L	64	131	34	60	30
HYVBPSE 3/8" L c/RUB.2 CEXC	G 3/8" 12L	64	131	36	60	30
HYVBPSE 1/2" L c/RUB.2 CC	G 1/2" 15L	90	164	45	70	35

# External Single Pilot Operated Check Valves

## Technical specification

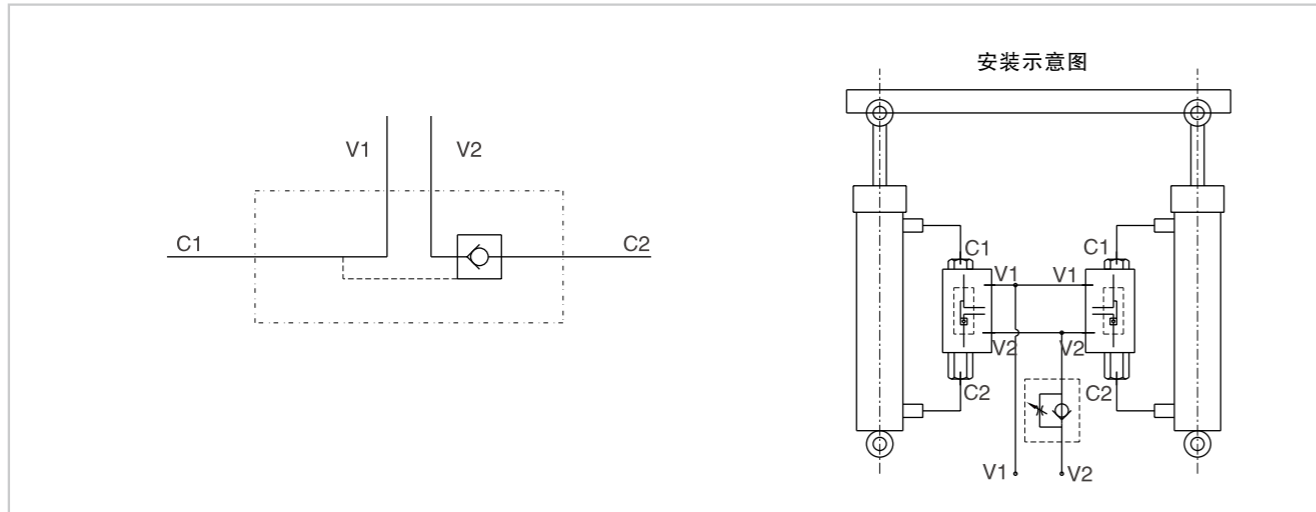


Type	3/8" PS
Pilot ratio	1:12
Max flow (L/min)	35
Max pressure (Bar)	350
Cracking Pressure (Bar)	3

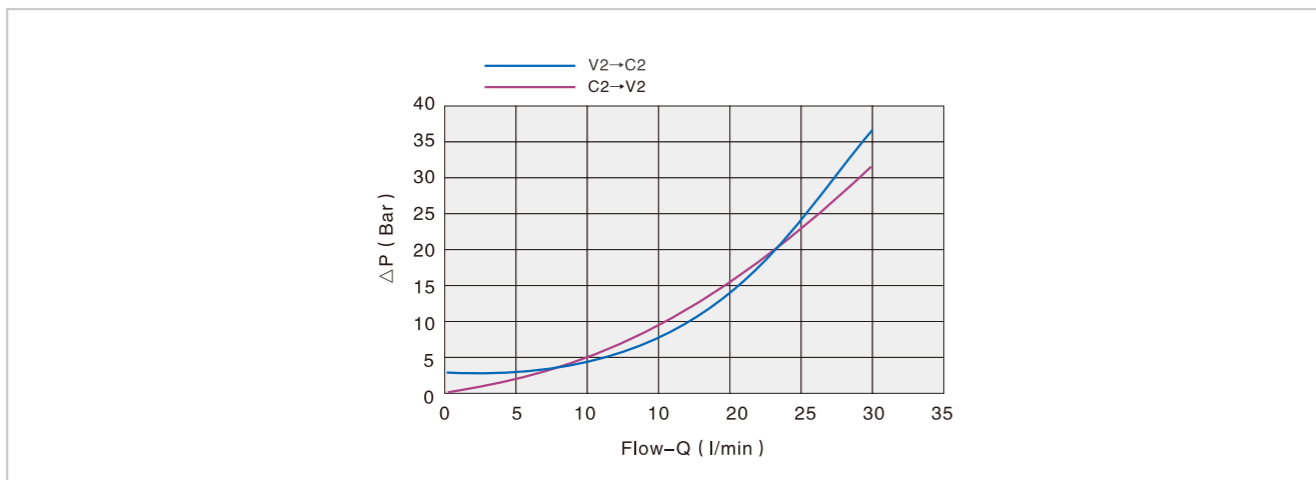
**Use and operation:**  
 These valves are used to block the cylinder in one direction. The flow is free in one direction and blocked in the reverse one until pilot pressure is applied. Separated mounting enables valves to be insensitive to back pressure on the line V. Assembly on 2 or more parallel cylinders with a flow regulator valve to allow balanced and soft descent is highly recommended.

**Applications:**  
 Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator as indicated in the diagram

## Code symbol

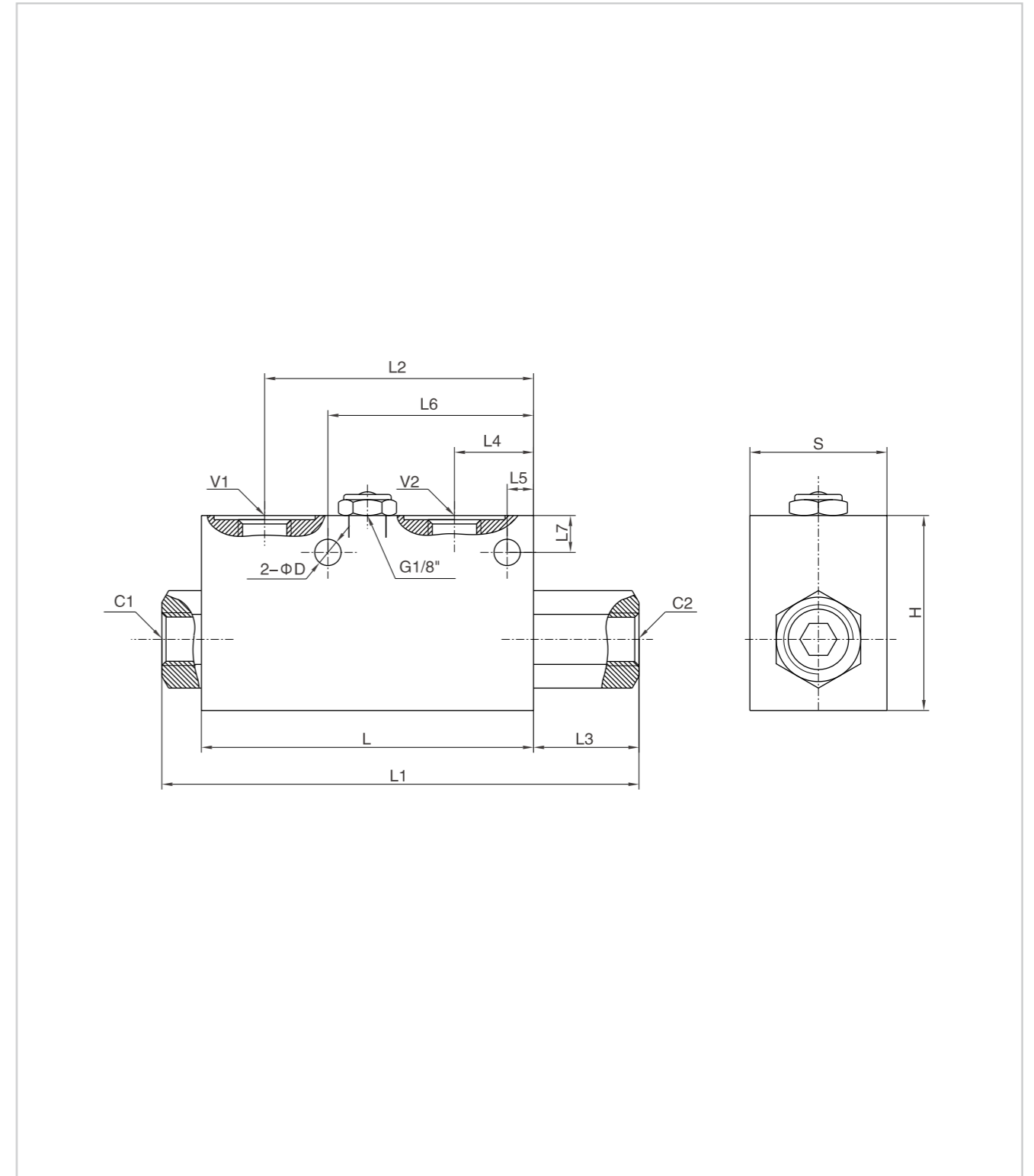


## Pressure drops curve



# External Single Pilot Operated Check Valves

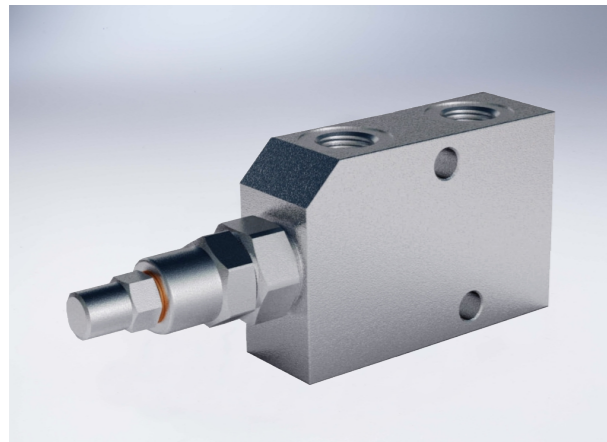
## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	L6	L7	D	H	S
HYVBPSE 3/8" PS	G 3/8"	85	122	69	27	20	6	52	10	65	50	35

# Single Overcentre Valves

## Technical specification



Specification	3/8" SE	1/2" SE	1/4" SE
Pilot ratio	1:3.1	1:3.1	1:5.5
Max flow (L/min)	35	50	105
Max pressure (Bar)	350		

### Use and operation:

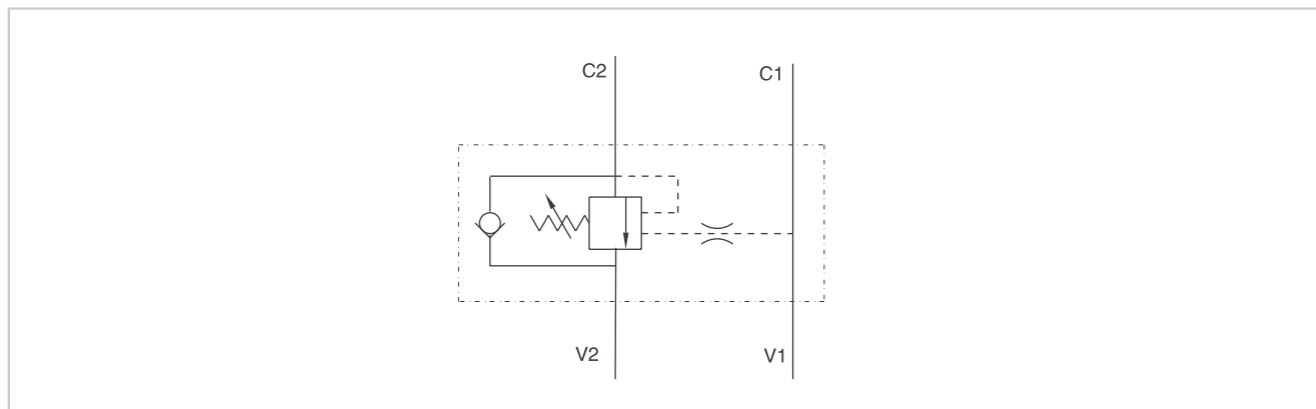
These valves are used to control actuator's movement and block in one direction in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

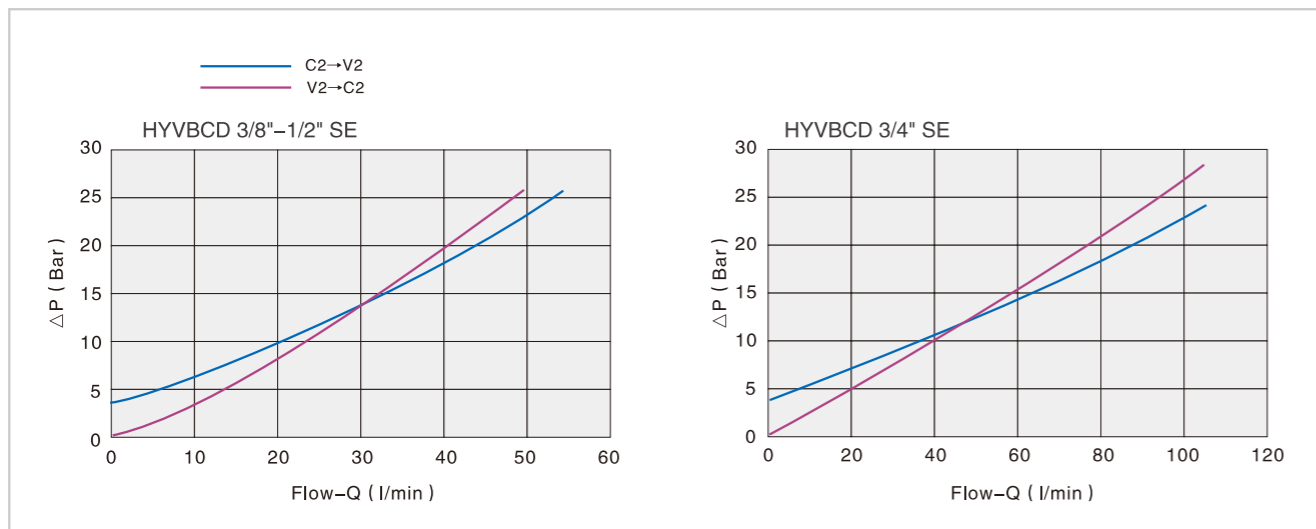
### Applications:

Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and C2 to the actuator's side you want the flow to be blocked. In-line mounting.

## Code symbol

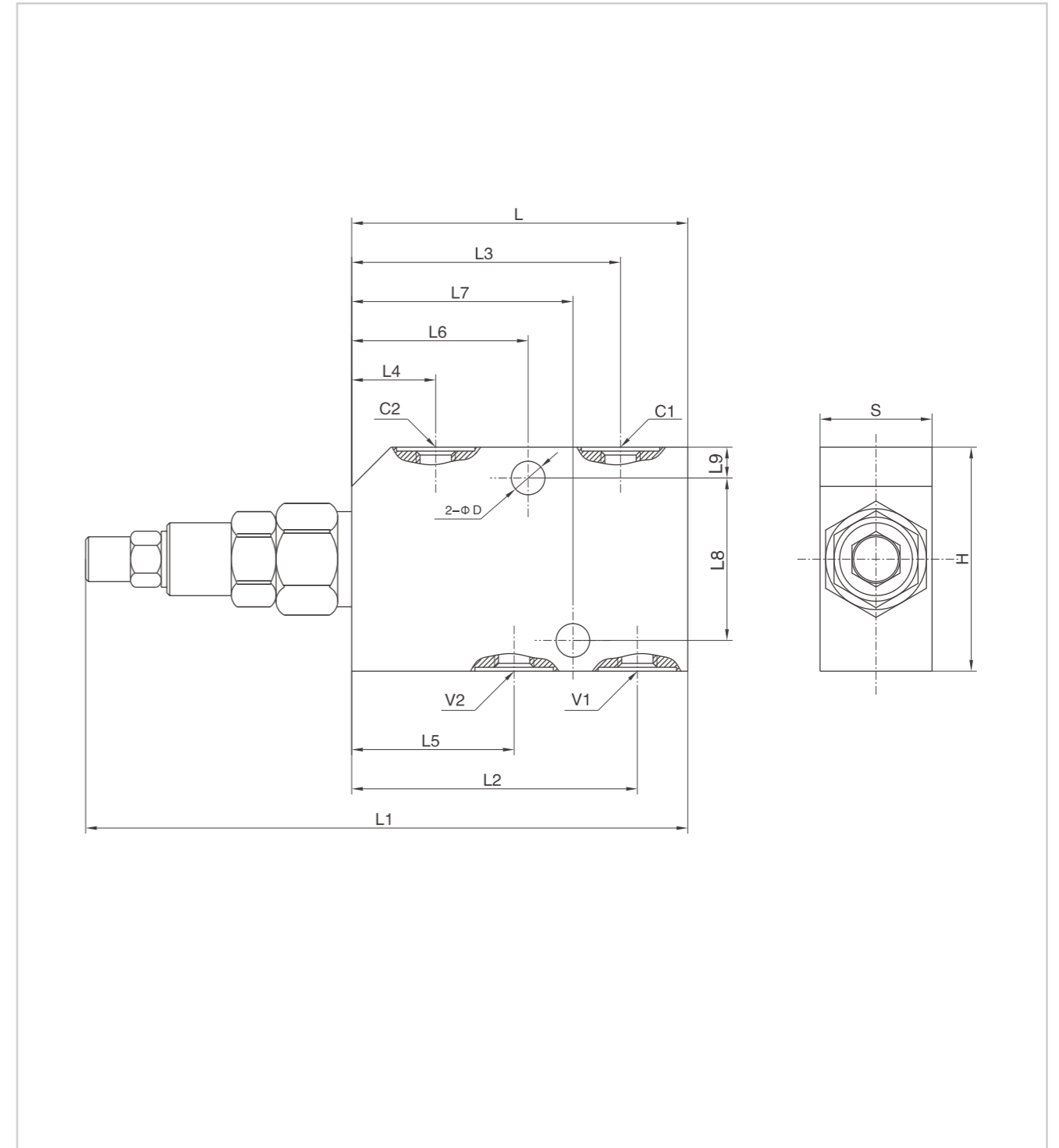


## Pressure drops curve



# Single Overcentre Valves

## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	D	H	S
HYVBCD 3/8" SE	G 3/8"	90	162	76	71	23	42	48	58	44	8	8.5	60	30
HYVBCD 1/2" SE	G 1/2"	90	162	75.5	71	23	40.5	48	58	44	8	8.5	60	30
HYVBCD 3/4" SE	G 3/4"	118	190	94	94	23	47	72.5	72.5	44	21	8.5	80	35

# Double Overcentre Valves

## Technical specification



Specification	3/8" DE	1/2" DE	1/4" DE
Pilot ratio	1:3.1	1:3.1	1:5.5
Max flow (L/min)	35	50	105
Max pressure (Bar)	350		

### Use and operation:

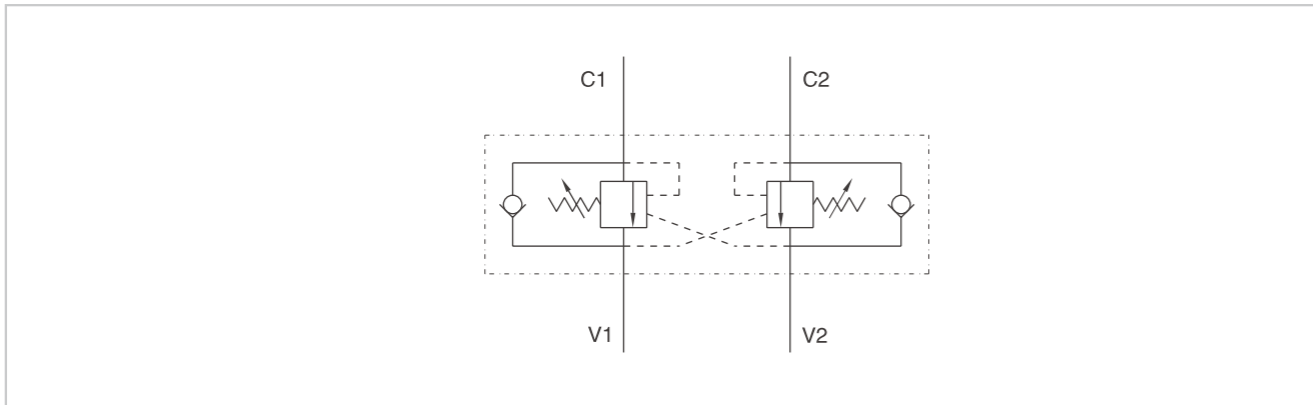
These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

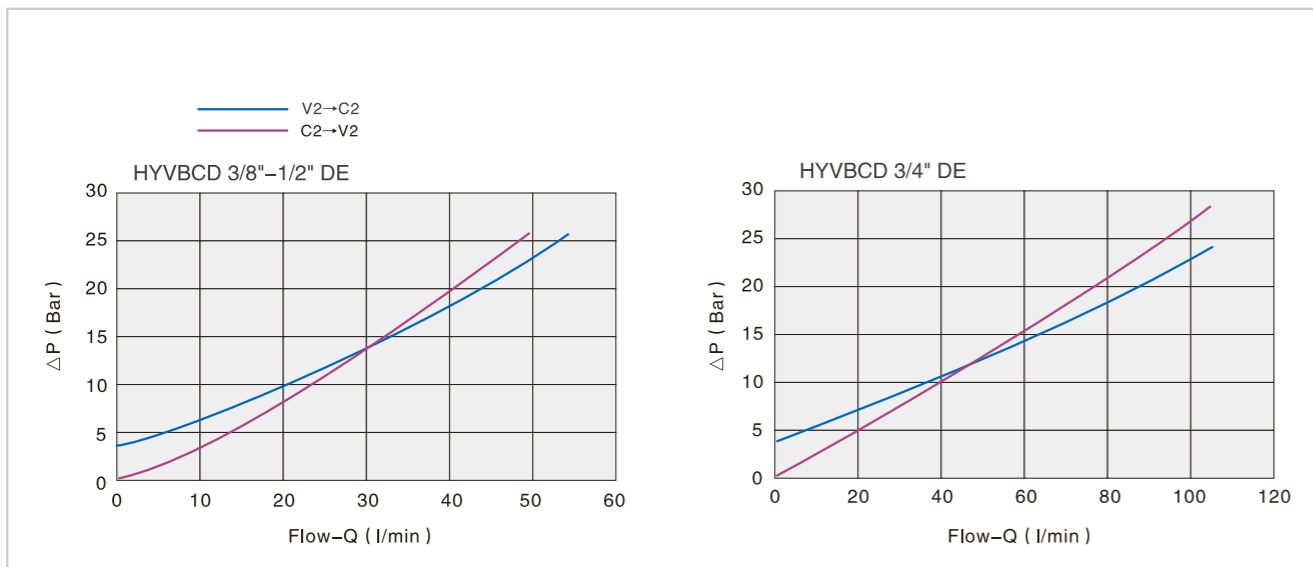
### Applications:

Connect V1 and V2 to the pressure flow, C1 and C2 to the actuator to be controlled. In-line mounting.

## Code symbol

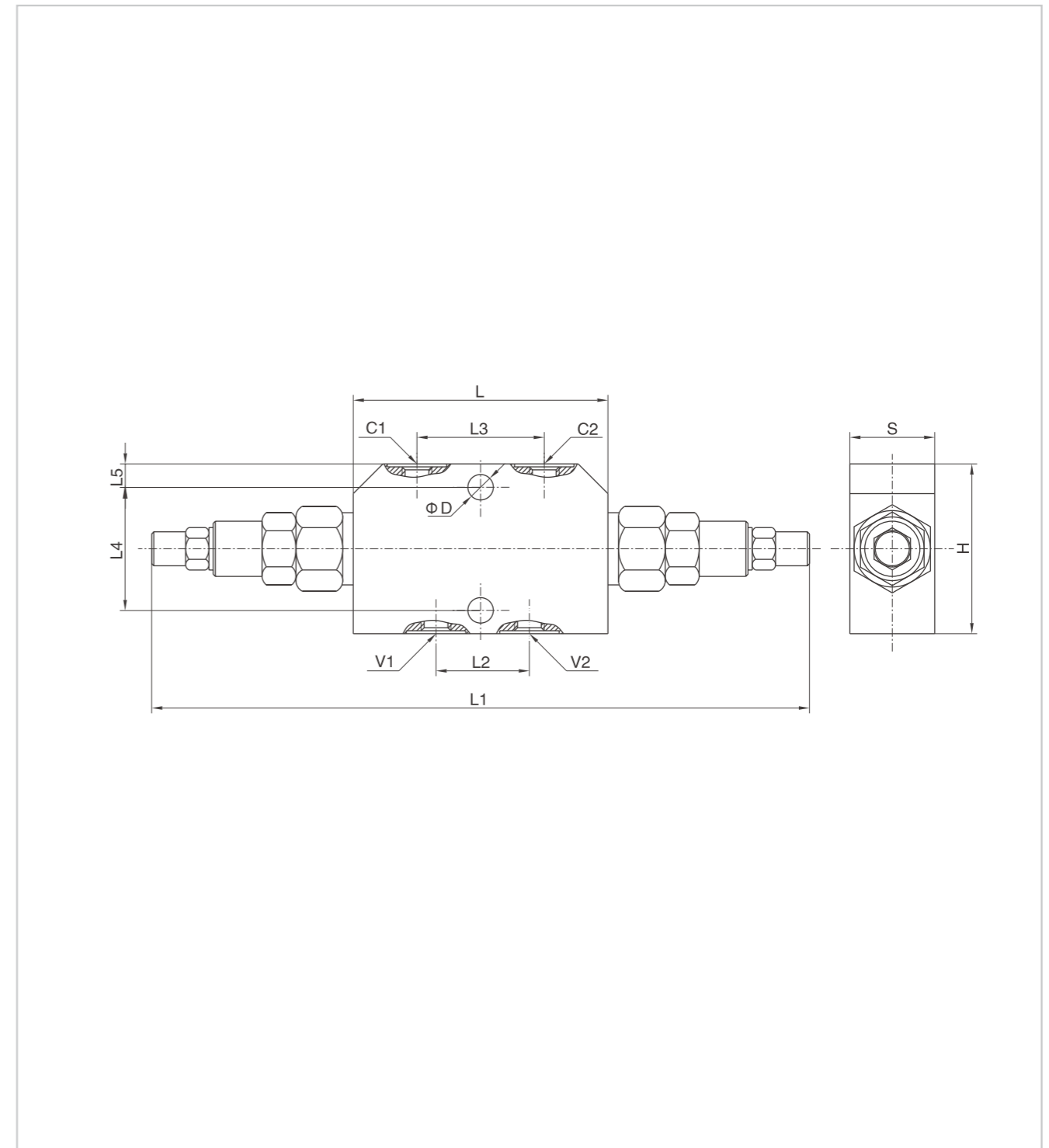


## Pressure drops curve



# Double Overcentre Valves

## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	D	H	S
HYVBCD 3/8" DE	G 3/8"	120	264	34	73	44	8	8.5	60	30
HYVBCD 1/2" DE	G 1/2"	120	264	36	73	44	8	8.5	60	30
HYVBCD 3/4" DE	G 3/4"	152	296	58	106	44	21	8.5	80	35

# Single Overcentre Valves Type A

## Technical specification



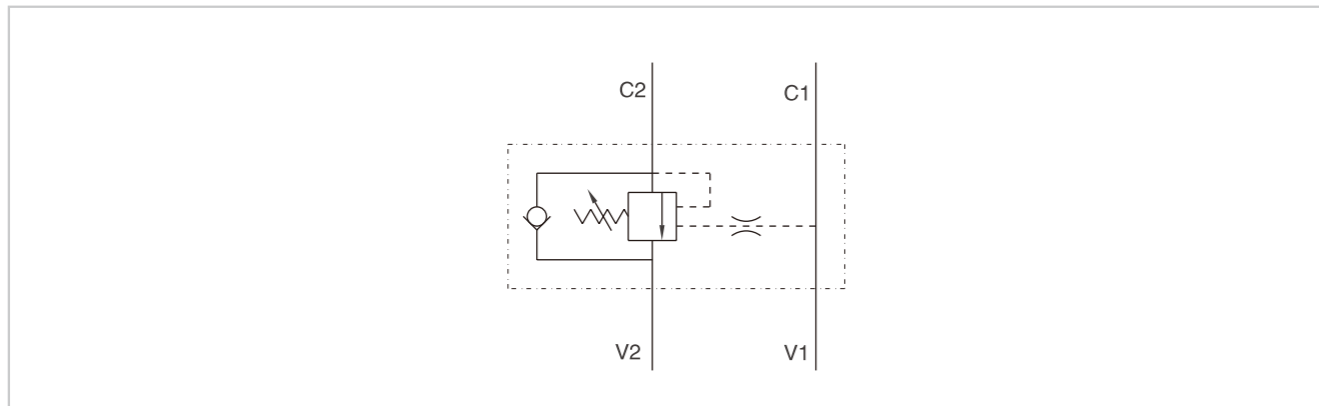
Specification	1/4" SE/A	3/8" SE/A	1/2" SE/A	3/4" SE/A
Pilot ratio	1:4.5	1:4.5	1:4.5	1:5.5
Max flow (L/min)	20	40	60	95
Max pressure (Bar)	350			

**Use and operation:**  
 These valves are used to control actuator's movement and block in one direction in order to enable the following functions:

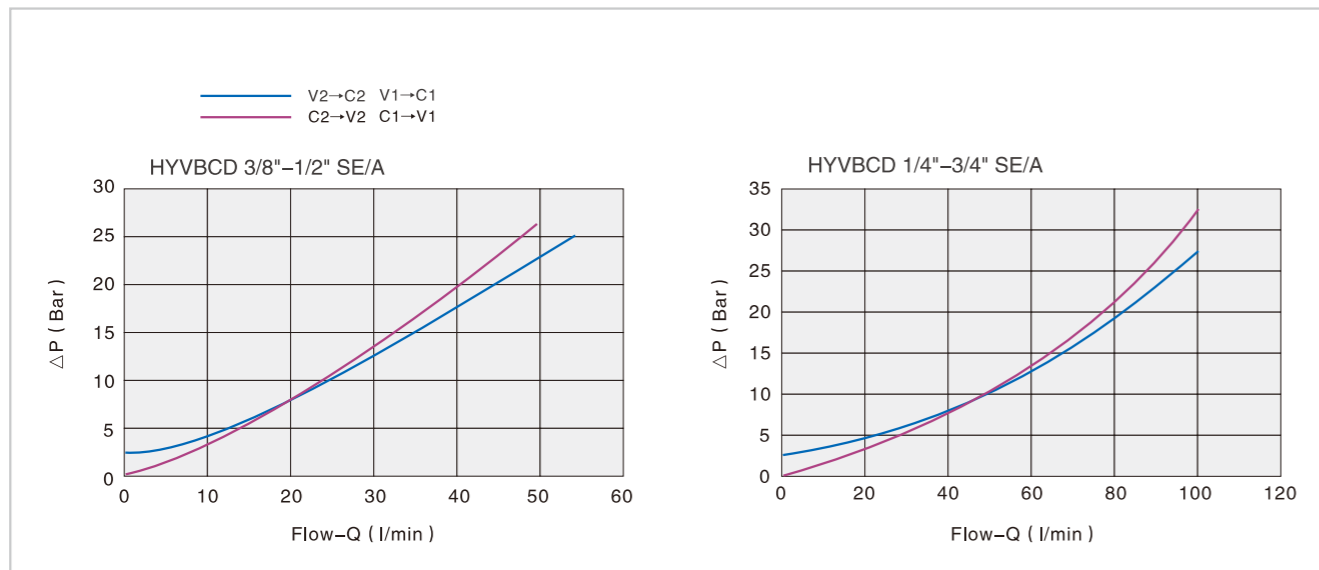
- under control descent of a load: load's weight doesn't carry it away as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

**Applications:**  
 Connect V1 and V2 to the free flow side of the actuator and C2 to the actuator's side you want the flow to be blocked. In-line mounting.

## Code symbol

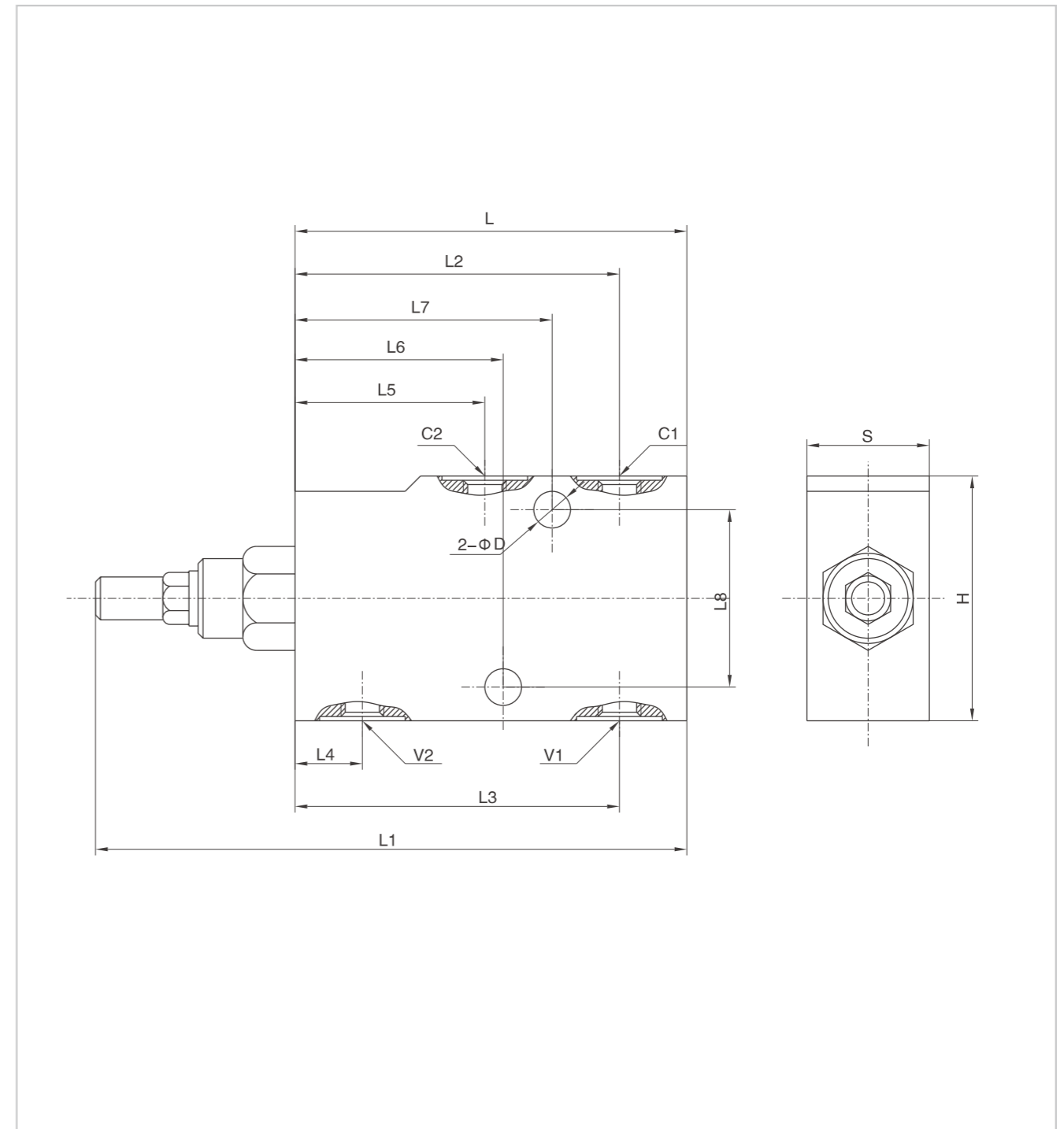


## Pressure drops curve



# Single Overcentre Valves Type A

## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	L6	L7	L8	D	H	S
HYVBCD 1/4" SE/A	G 1/4"	100	148	80.5	80.5	20.5	50.5	54.5	64.5	44	8.5	60	30
HYVBCD 3/8" SE/A	G 3/8"	100	148	80.5	80.5	20.5	50.5	54.5	64.5	44	8.5	60	30
HYVBCD 1/2" SE/A	G 1/2"	100	148	86.5	84.5	19.5	50.5	57.5	67.5	44	8.5	60	30
HYVBCD 3/4" SE/A	G 3/4"	127	184	109	109	24	63	75	85	44	8.5	80	35

# Double Overcentre Valves Type A

## Technical specification



Specification	1/4" DE/A	3/8" DE/A	1/2" DE/A	3/4" DE/A
Pilot ratio	1:4.5	1:4.5	1:4.5	1:5.5
Max flow (L/min)	20	40	60	95
Max pressure (Bar)	350			

### Use and operation:

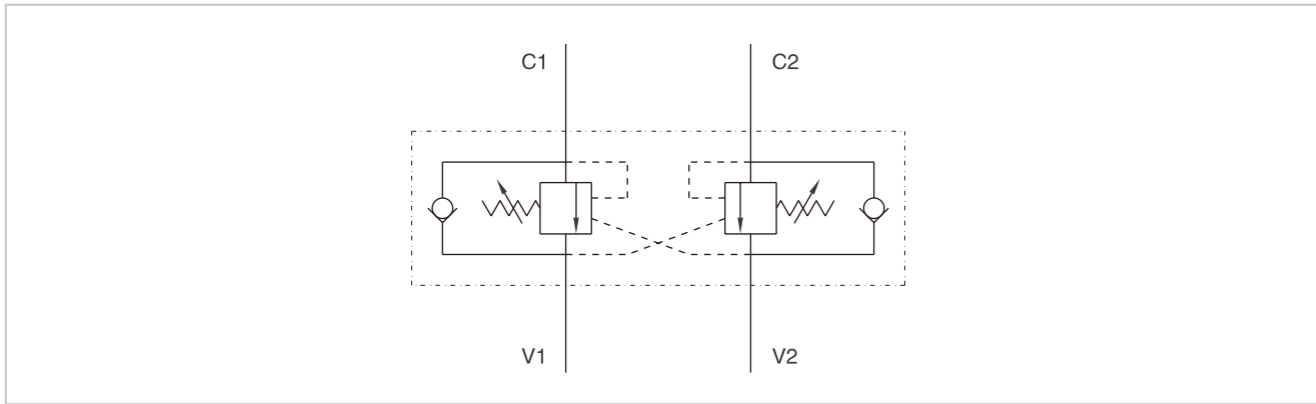
These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

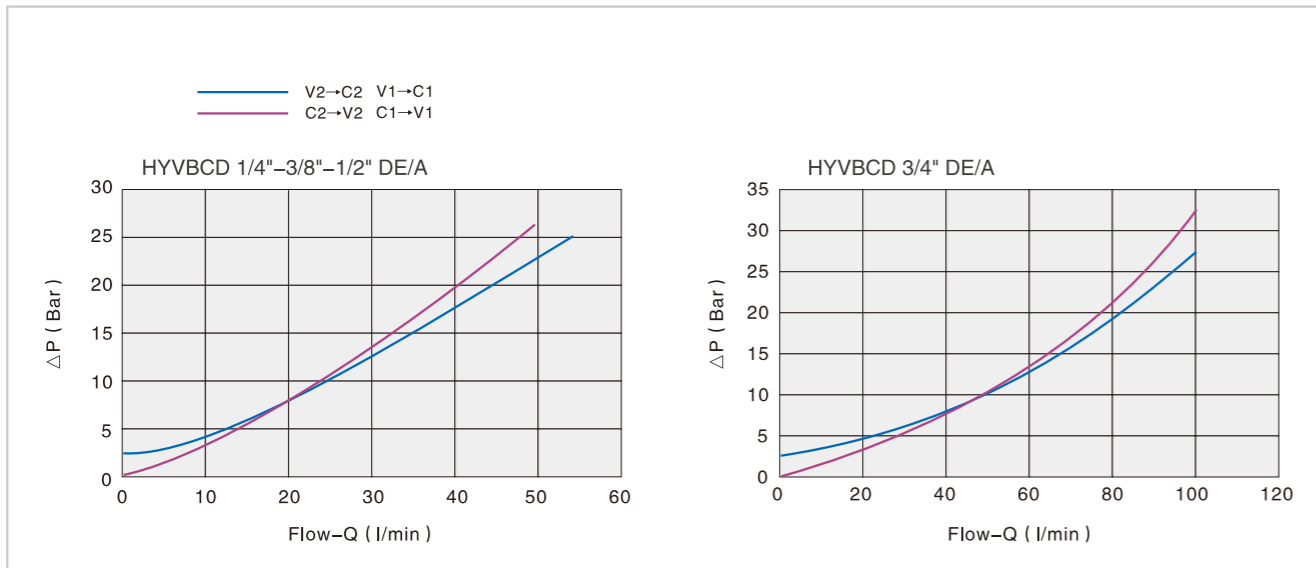
### Applications:

Connect V1 and V2 to the pressure flow, C1 and C2 to the actuator to be controlled. In-line mounting.

## Code symbol

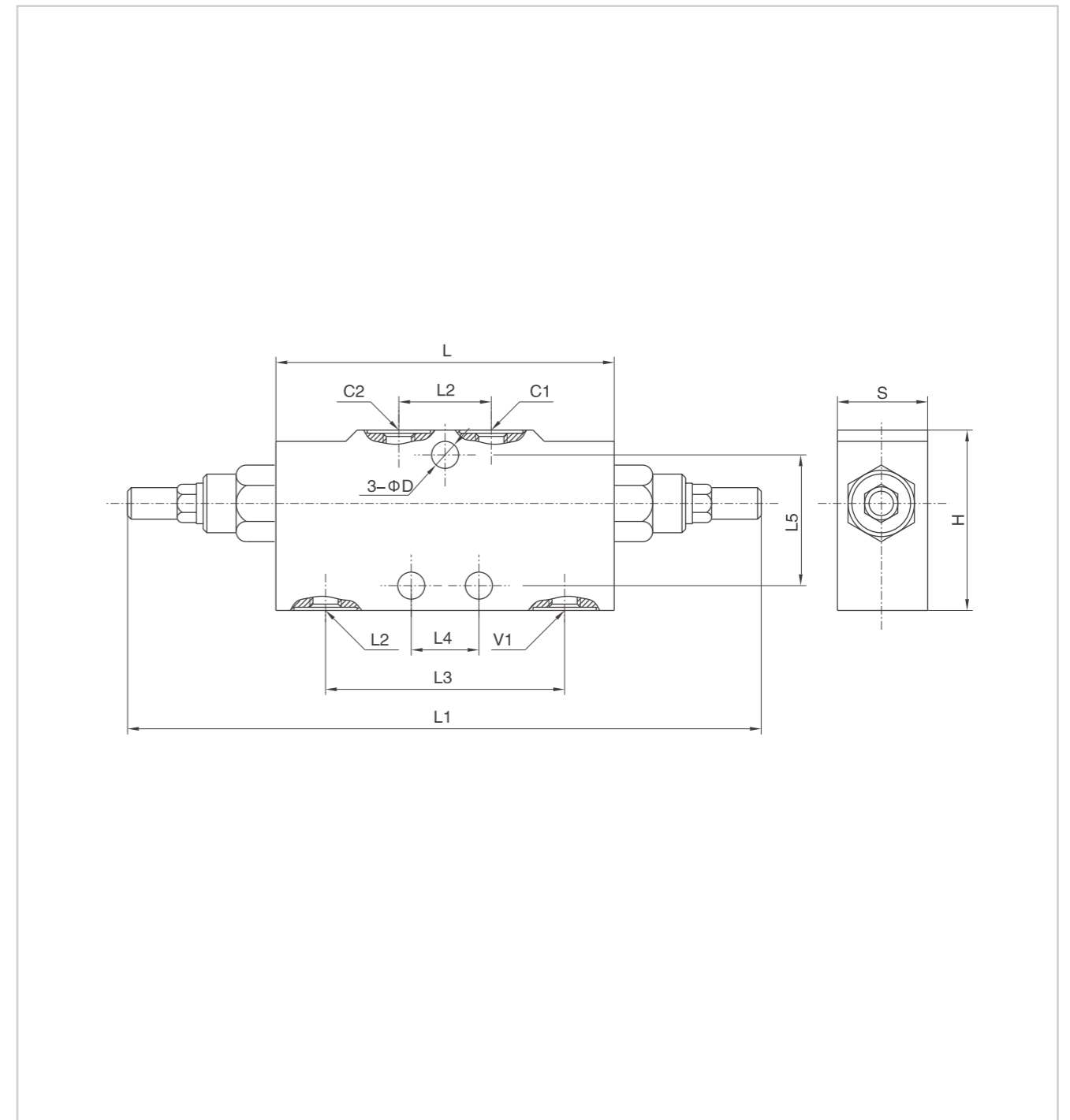


## Pressure drops curve



# Double Overcentre Valves Type A

## External dimensions

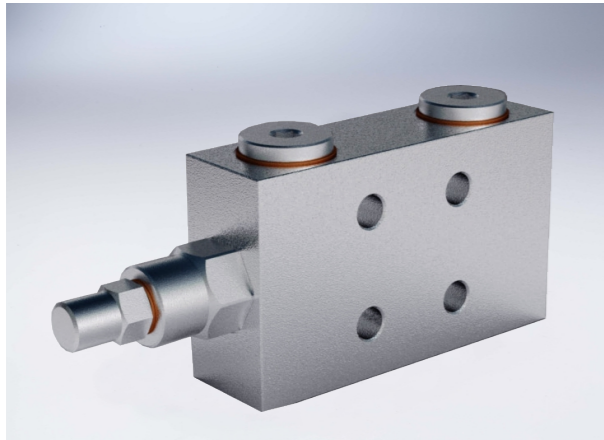


Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	D	H	S
HYVBCD 1/4" DE/A	G 1/4"	151	247	50	110	30	44	8.5	60	30
HYVBCD 3/8" DE/A	G 3/8"	151	247	50	110	30	44	8.5	60	30
HYVBCD 1/2" DE/A	G 1/2"	151	247	50	110	30	44	8.5	60	30
HYVBCD 3/4" DE/A	G 3/4"	190	304	65	143	44	64	8.5	80	35



# Single Overcentre Valves Flangeable

## Technical specification



Specification	3/8" SE/FL	1/2" SE/FL
Pilot ratio	1:4.5	
Max flow (L/min)	40	60
Max pressure (Bar)	350	

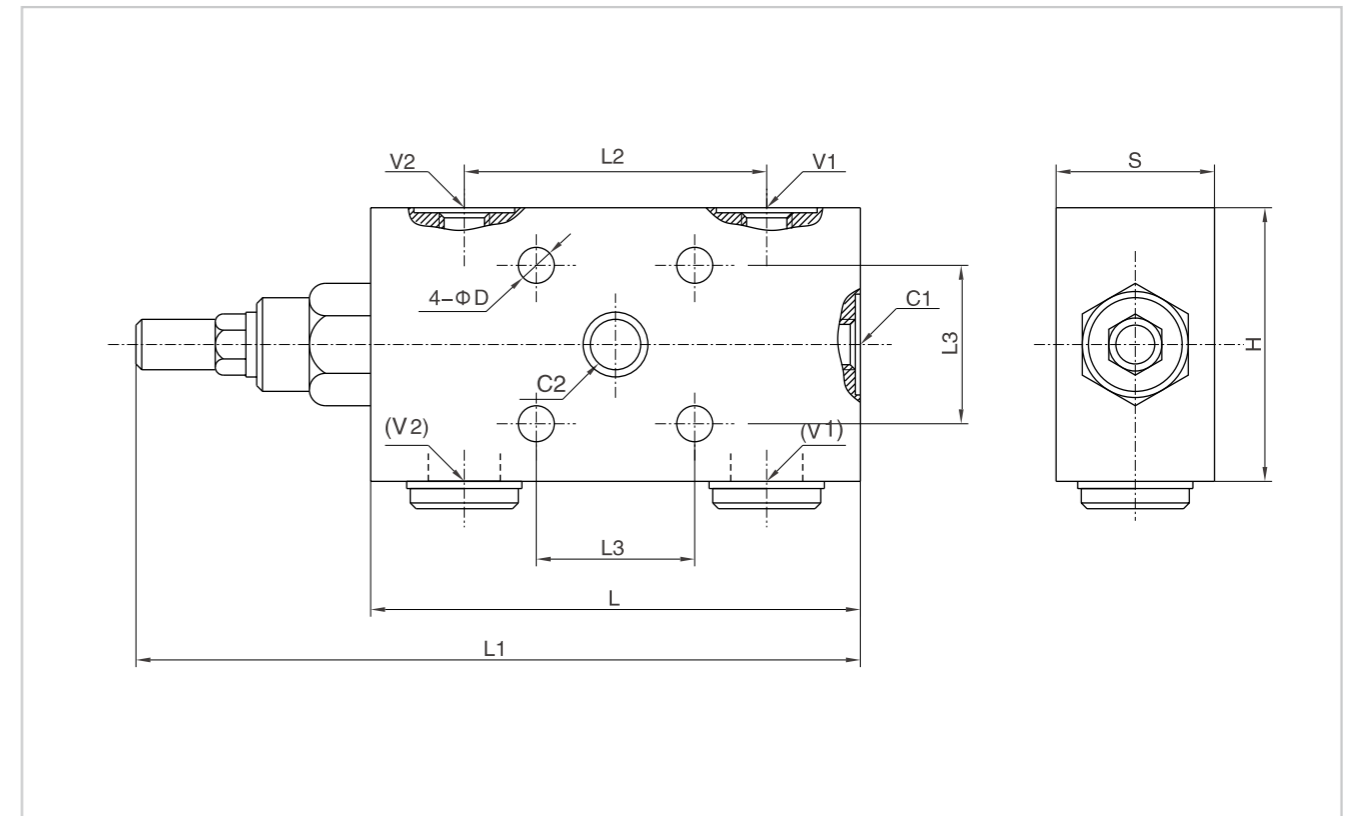
**Use and operation:**  
 These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

**Applications:**  
 Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and flange C2 to the actuator's side you want the flow to be blocked. V1 and V2 ports are reversible.

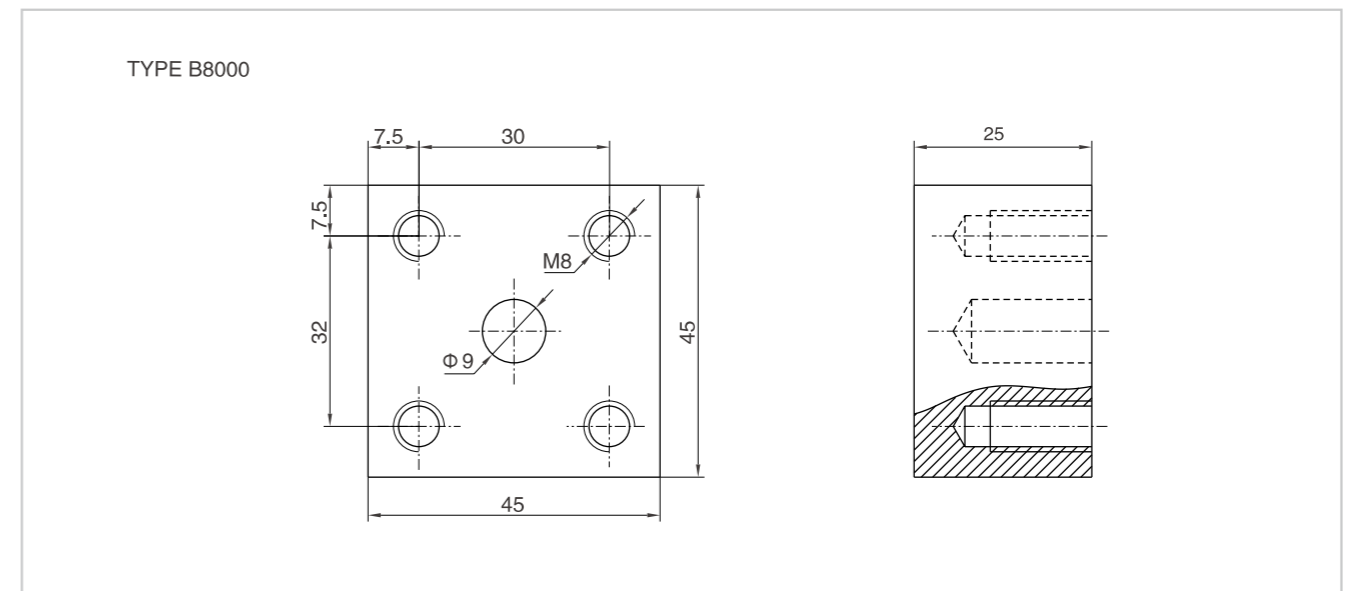
# Single Overcentre Valves Flangeable

## External dimensions



Type	V1/V2/C1	C2	L	L1	L2	L3	H	S
HYVBCD 3/8" SE/FL	G 3/8"	9	100	148	60	30	60	30
HYVBCD 1/2" SE/FL	G 1/2"	9	100	148	65	30	60	30

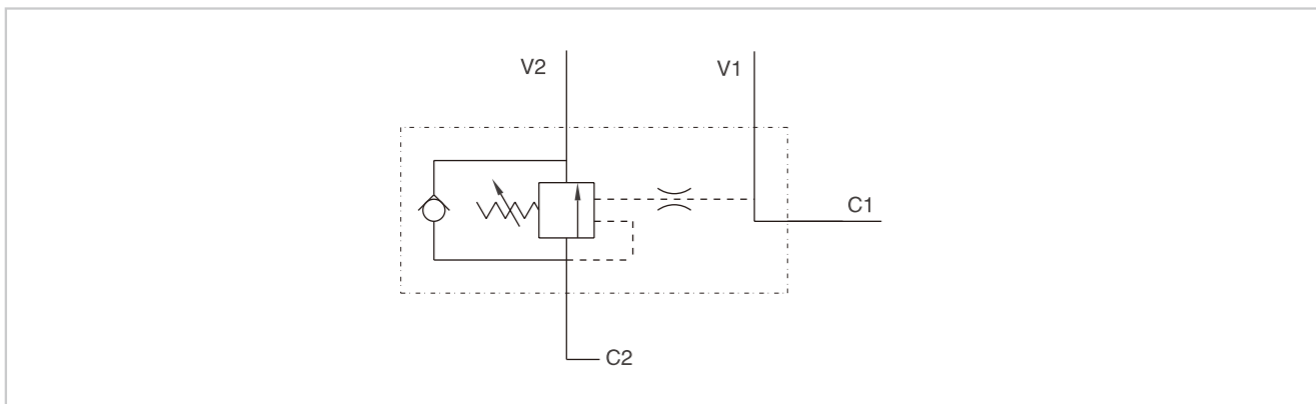
## Valve's flanges



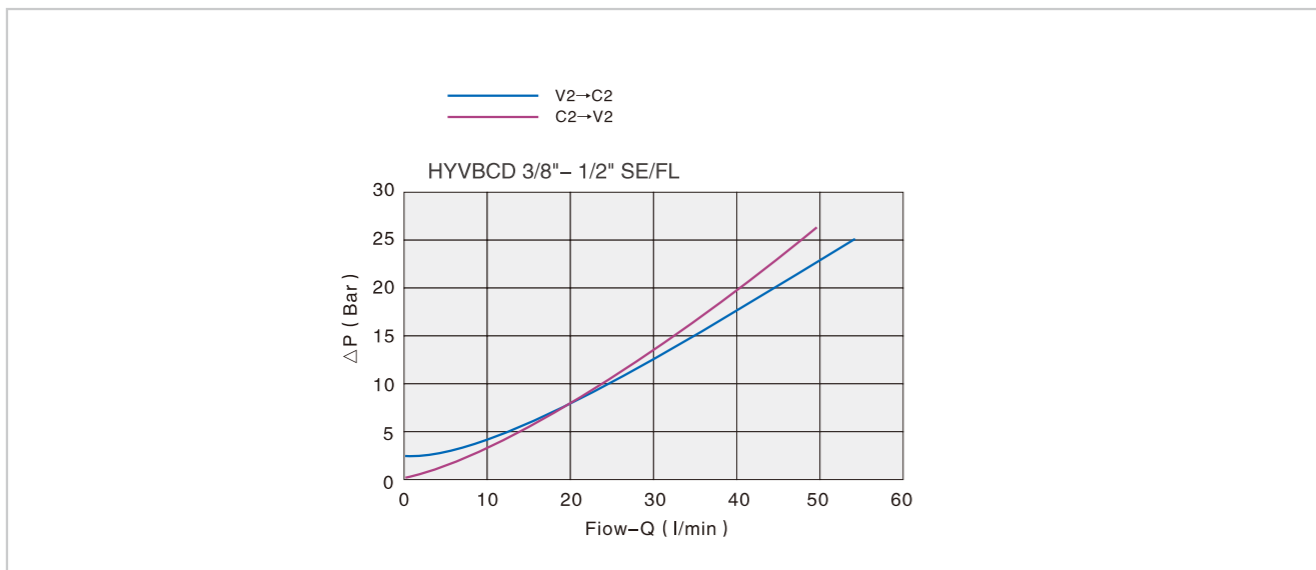
N.3.5.1

N.3.5.2

## Code symbol



## Pressure drops curve



# Double Overcentre Valves Flangeable

## Technical specification



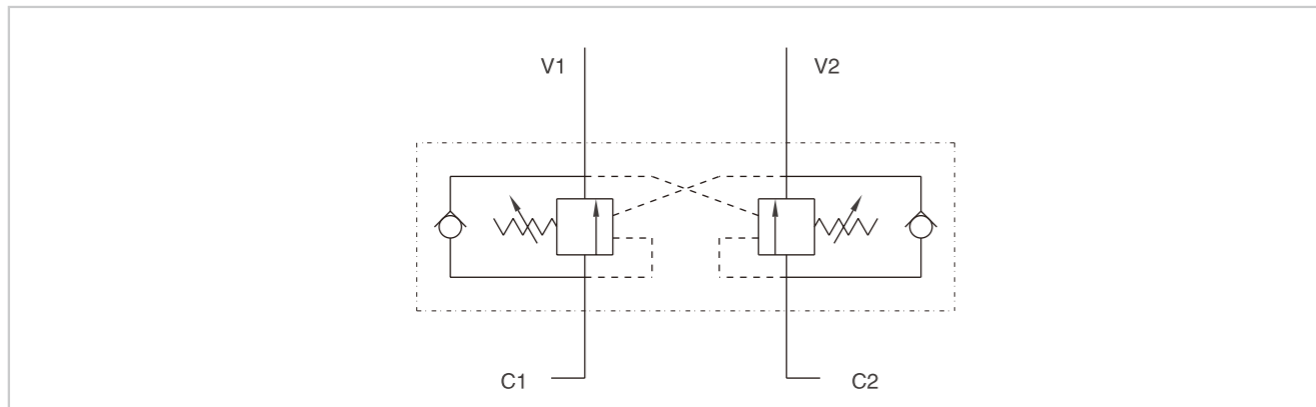
Specification	3/8" DE/FL	1/2" DE/FL
Pilot ratio	1:4.5	
Max flow (L/min)	40	60
Max pressure (Bar)	350	

**Use and operation:**  
 These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

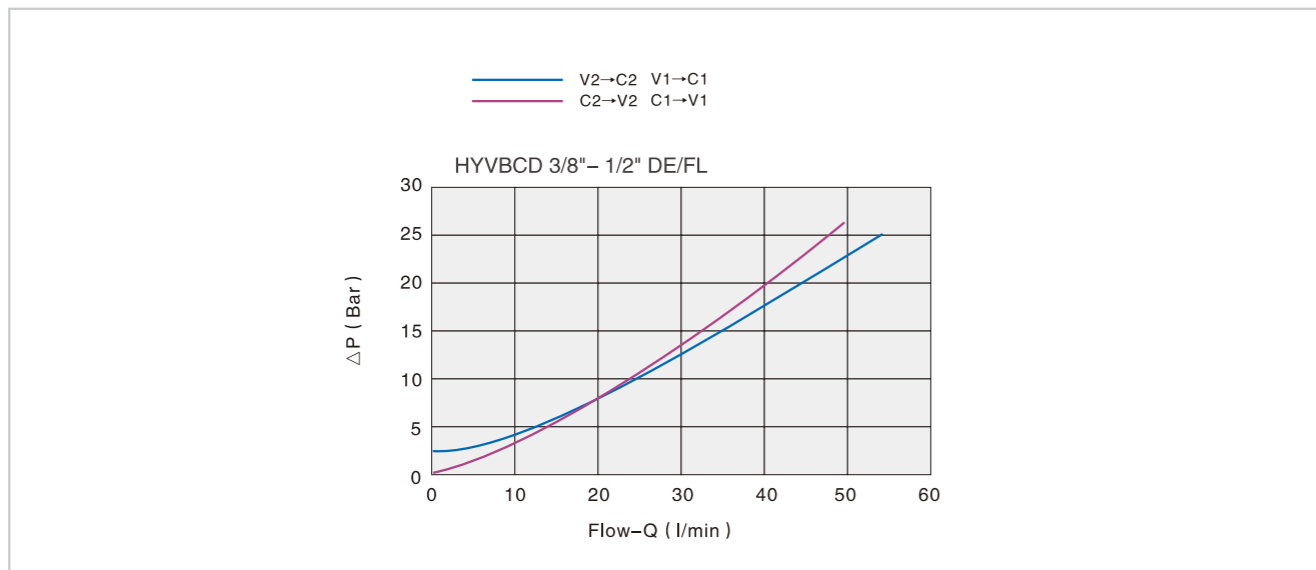
- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

**Applications:**  
 Connect V1 and V2 to the pressure flow and flange C1 and C2 directly to the actuator.

## Code symbol

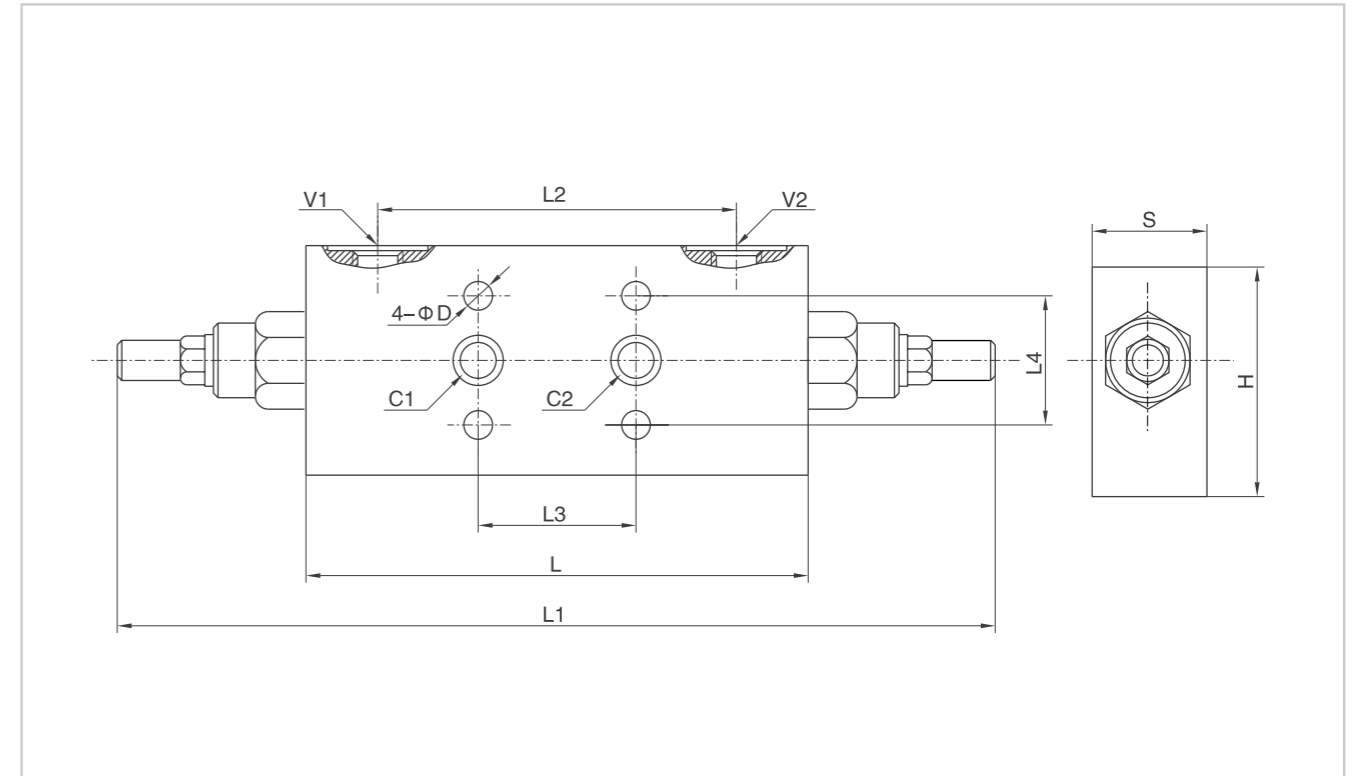


## Pressure drops curve



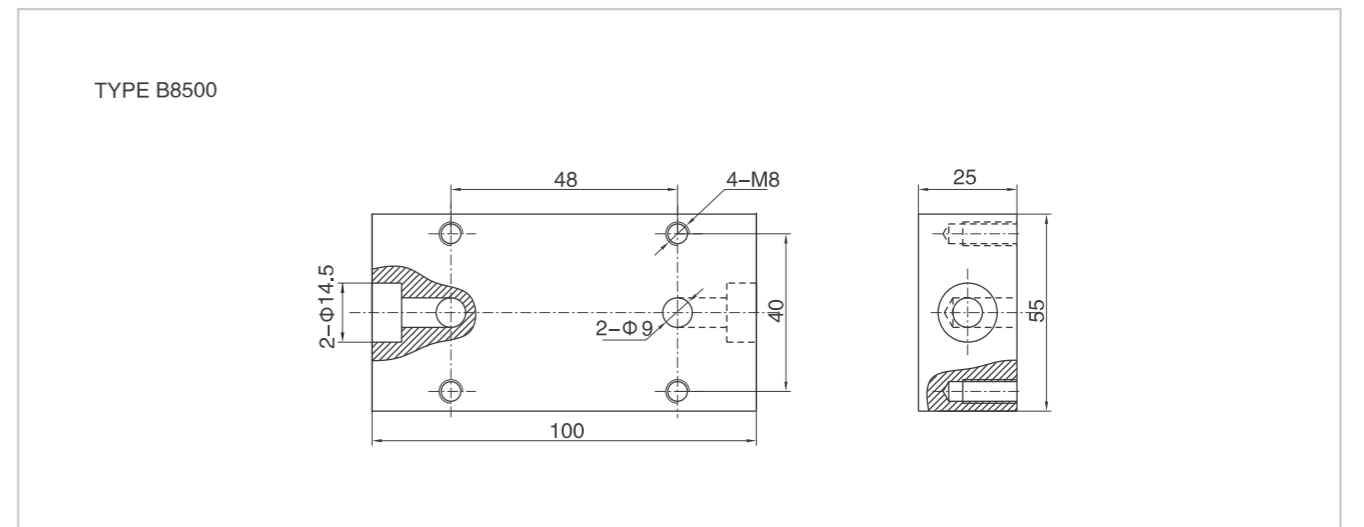
# Double Overcentre Valves Flangeable

## External dimensions



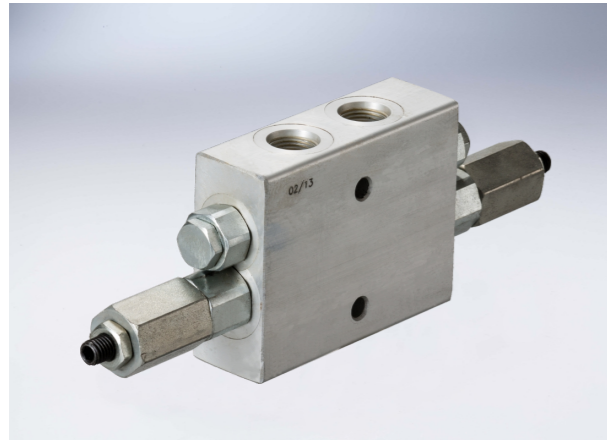
Type	V1/V2	C1/C2	L	L1	L2	L3	L4	D	H	S
HYVBCD 3/8" DE/FL	G 3/8	Φ 9	150	246	110	48	40	8.5	60	30
HYVBCD 1/2" DE/FL	G 1/2"	Φ 9	150	246	110	48	40	8.5	60	30
HYVBCD 3/4" DE/FL	G 3/4"	Φ 12.5	190	304	143	64	60	8.5	80	35

## Valve's flanges



# Thread Mounting Overcentre Valve

## Technical specification



Model	HYPYZ-3/4 X	
Specification	HYPYZ-3/4 S	HYPYZ-3/4 D
Max Pressure (Mpa)	350	
Max Flow (L/min)	40	
Installation site	Any	
Working fluid	Mineral oil, phosphate hydraulic oil	
Storage temp (°C)	-20~80	
Working temp (°C)	-10~60	
Cleanliness	the max allowed cleanliness of the oil shall be as per Standard NAS1638, grade IX, recommendable filtering precision Min $\beta_{10} \geq 75$ .	

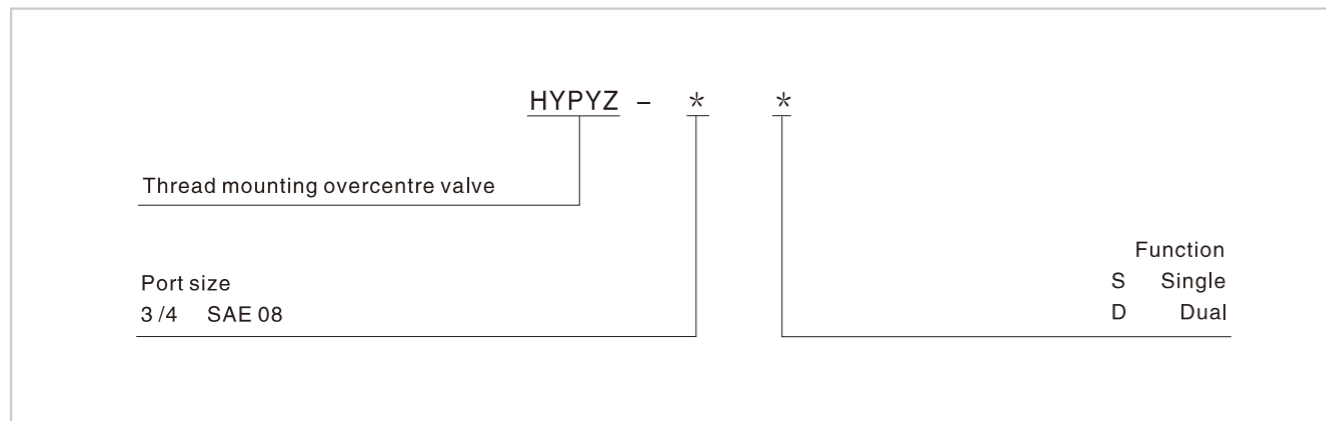
( Please consult with us if your working condition is out of the technical parameter given above. )

### Note:

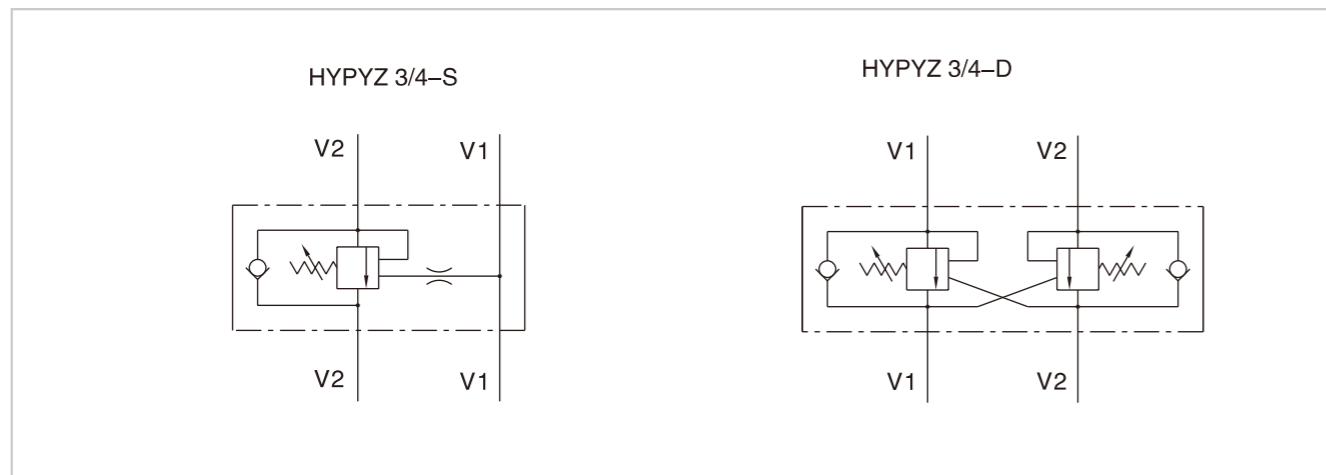
The valve is used to control the actuator's move in single/dual direction, to realize following functions:

- 1.prevent the surge pressure from the actuator
- 2.Limit the possible high-pressure when overloading or impact due to sudden shocking

## Ordering details

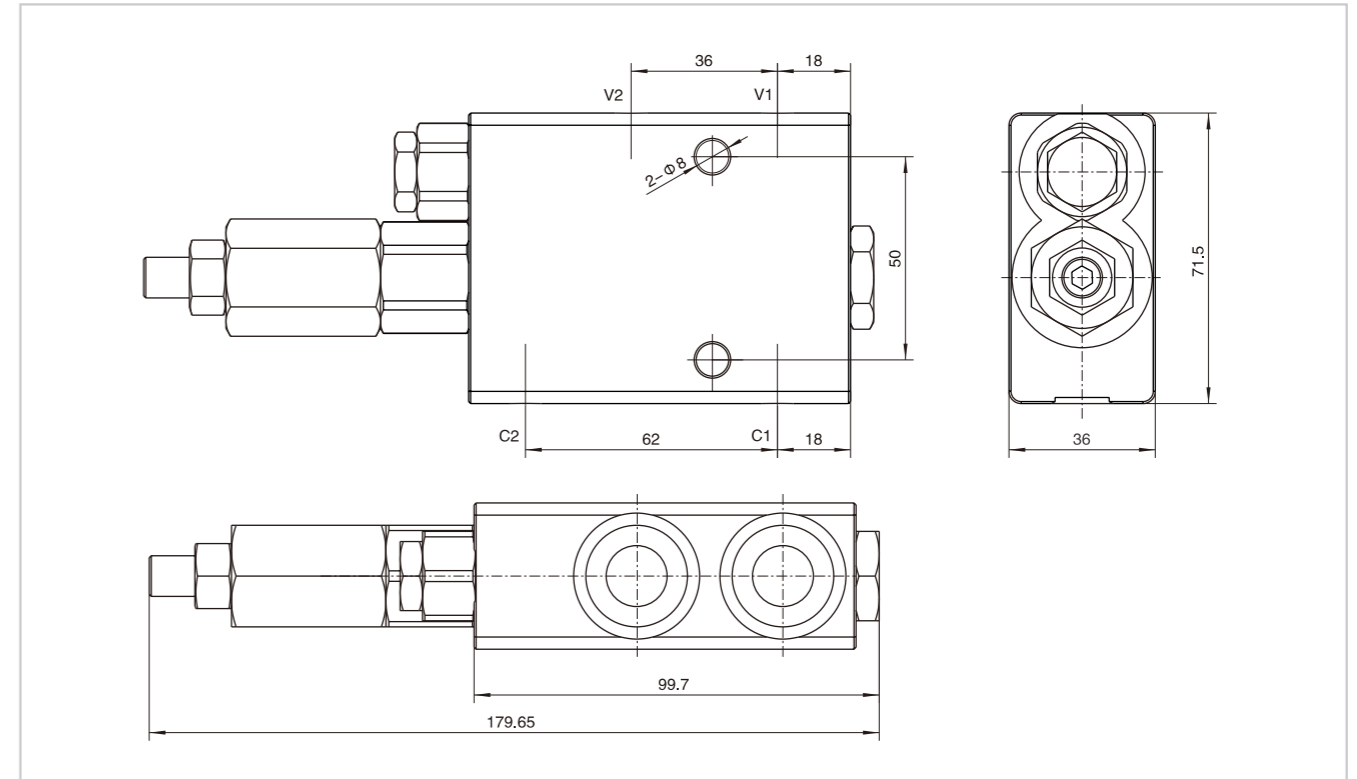


## Symbol

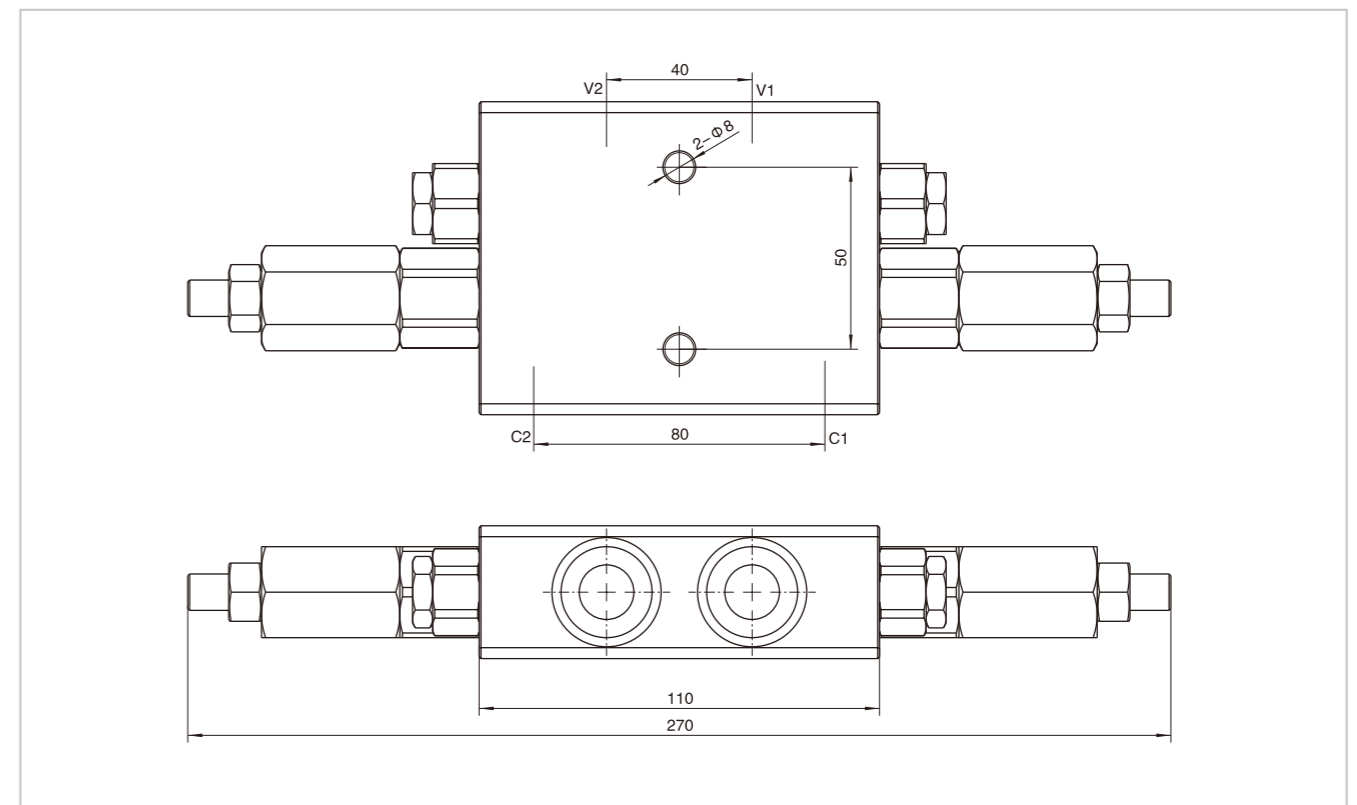


# Thread Mounting Overcentre Valve

## HYPYZ 3/4-S Dimension



## HYPYZ 3/4-D Dimension



# Single Overcentre Valves Flangeable By Screw

## Technical specification



Specification	3/8" SE/A FLV	1/2" SE/A FLV
Pilot ratio	1:4.5	
Max flow (L/min)	40	60
Max pressure (Bar)	350	

### Use and operation:

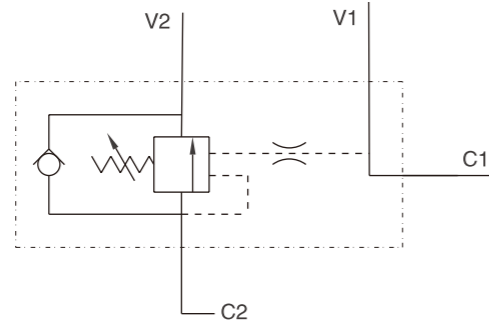
These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

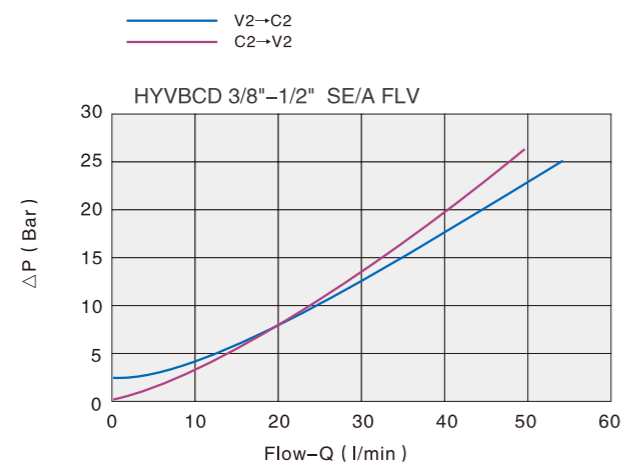
### Applications:

Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and flange C2 directly to the actuator's side you want the flow to be blocked by the screw.

## Code symbol



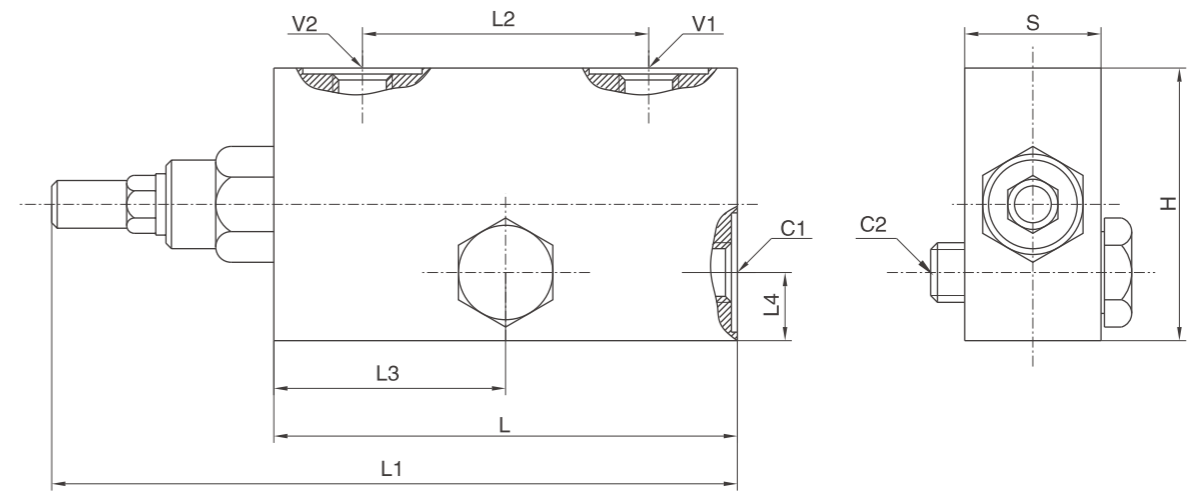
## Pressure drops curve



# Single Overcentre Valves Flangeable By Screw



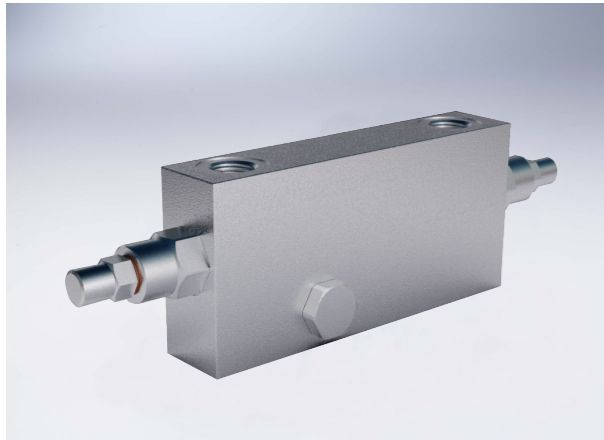
## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	H	S
HYVBCD 3/8" SE/A FLV	G 3/8"	100	150	60	50	15	60	30
HYVBCD 1/2" SE/A FLV	G 1/2"	100	150	60	53	15	60	30

## Double Overcentre Valves Flangeable By Screw

### Technical specification



Specification	3/8" DE/A FLV	1/2" DE/A FLV
Pilot ratio	1:4.5	
Max flow (L/min)	40	60
Max pressure (Bar)	350	

#### Use and operation:

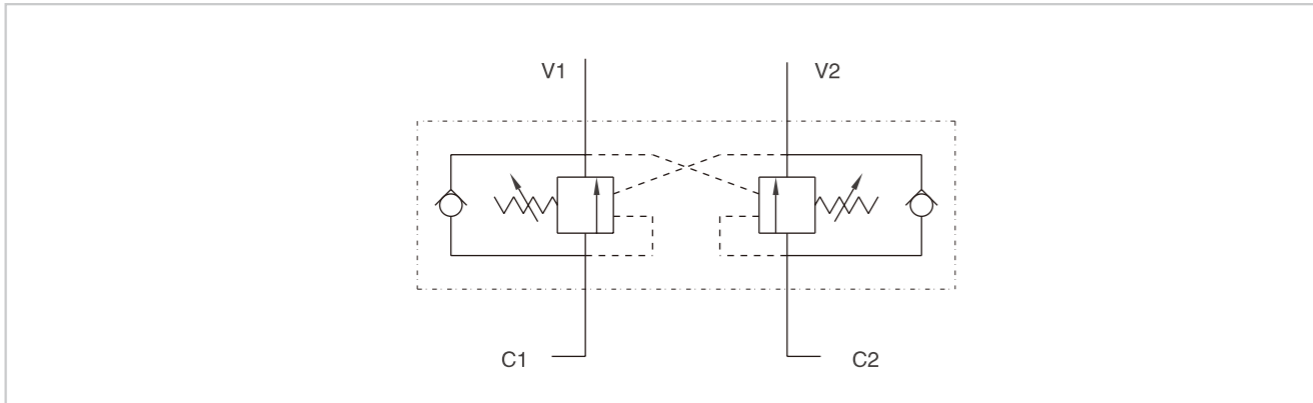
These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

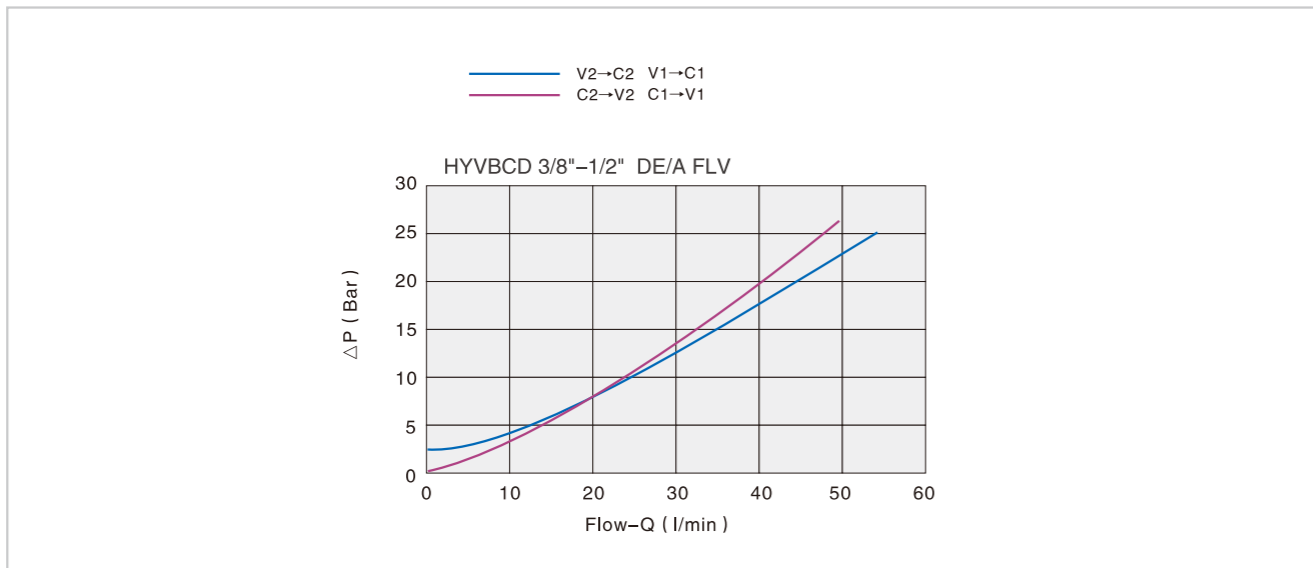
#### Applications:

Connect V1 and V2 to the pressure flow and flange C1 and C2 directly to the actuator through the provided screw.

### Code symbol



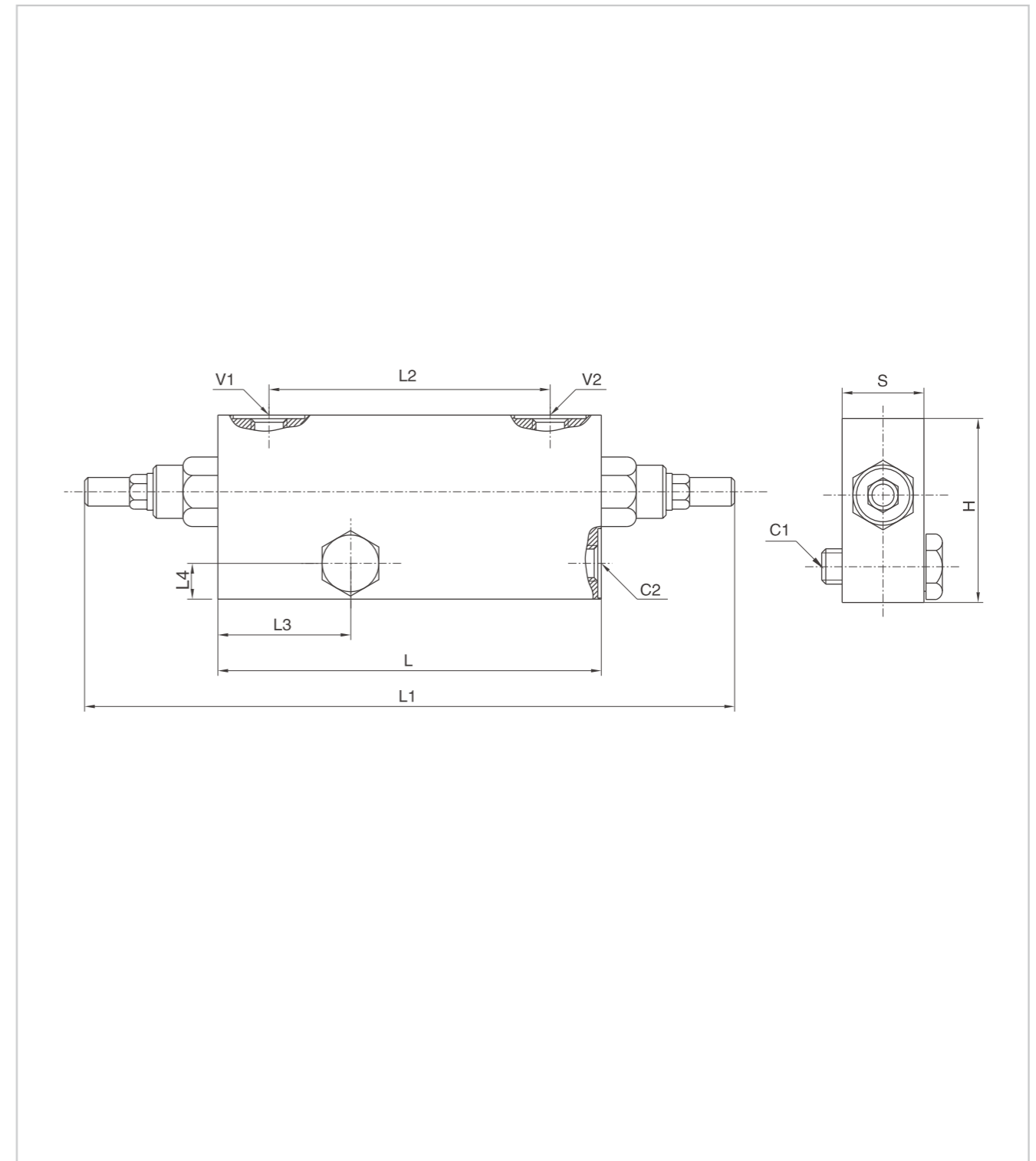
### Pressure drops curve



## Double Overcentre Valves Flangeable By Screw

**HOYEA**

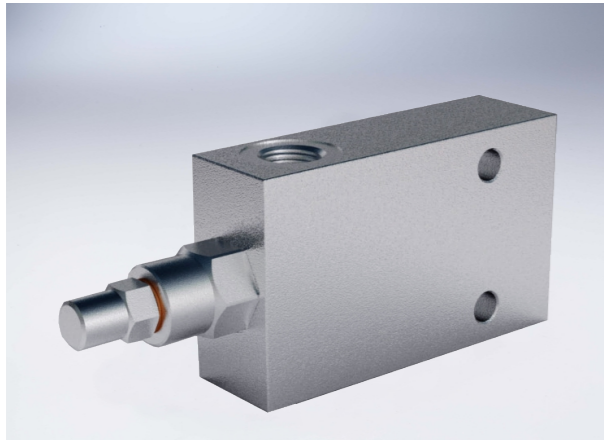
### External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	H	S
HYVBCD 3/8" DE/A FLV	G 3/8"	150	250	110	50	12.5	70	30
HYVBCD 1/2" DE/A FLV	G 1/2"	150	250	110	50	18	80	30

# Single Overcentre Valves, 3 Ways

## Technical specification



Specification	3/8" SE 3 VIE	1/2" SE 3 VIE
Pilot ratio	1:4.5	
Max flow (L/min)	40	60
Max pressure (Bar)	350	

### Use and operation:

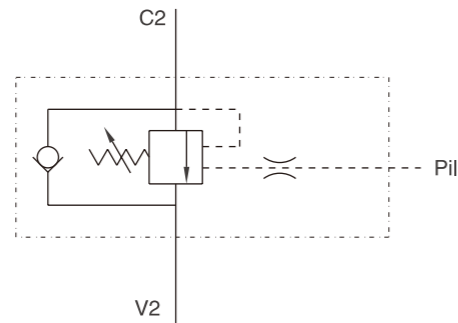
These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

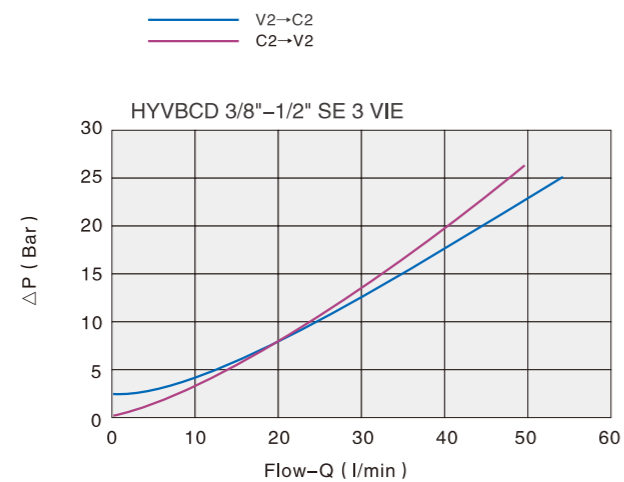
### Applications:

Connect V2 to the pressure flow, C2 to the actuator's side to be controlled and pil. to the pilot pressure.

## Code symbol

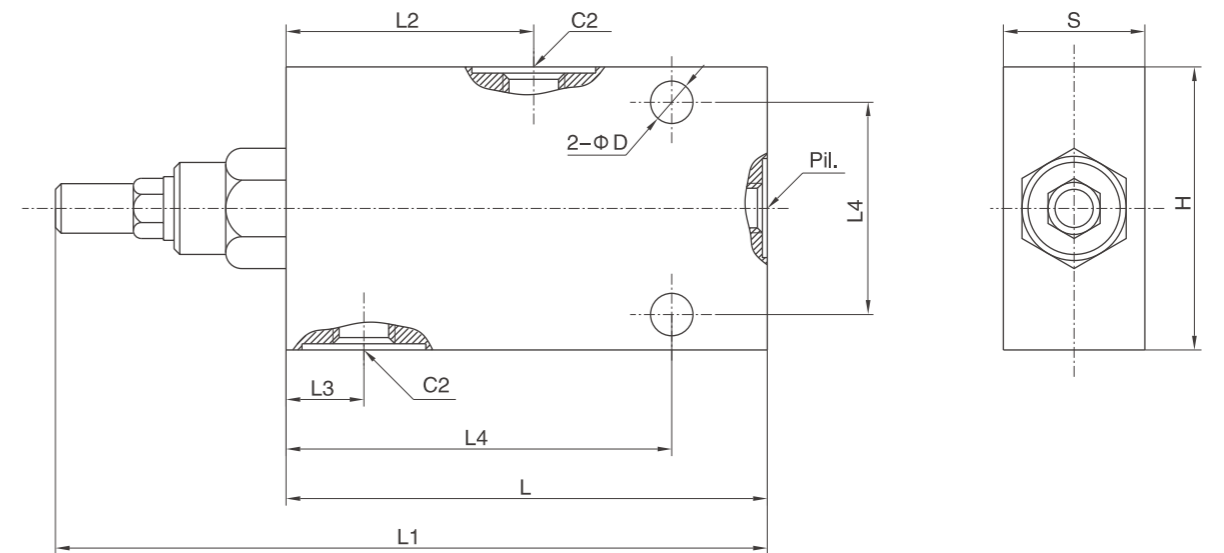


## Pressure drops curve



# Single Overcentre Valves, 3 Ways

## External dimensions



Type	C2/V2	Pil.	L	L1	L2	L3	L4	L5	H	S
HYVBCD 3/8" SE 3 VIE	G 3/8"	G 1/4"	100	149	20	50	75	40	60	30
HYVBCD 1/2" SE 3 VIE	G 1/2"	G 1/4"	100	149	20	50	80	40	60	30

# Single Overcentre Valves For Closed Centre

## Technical specification



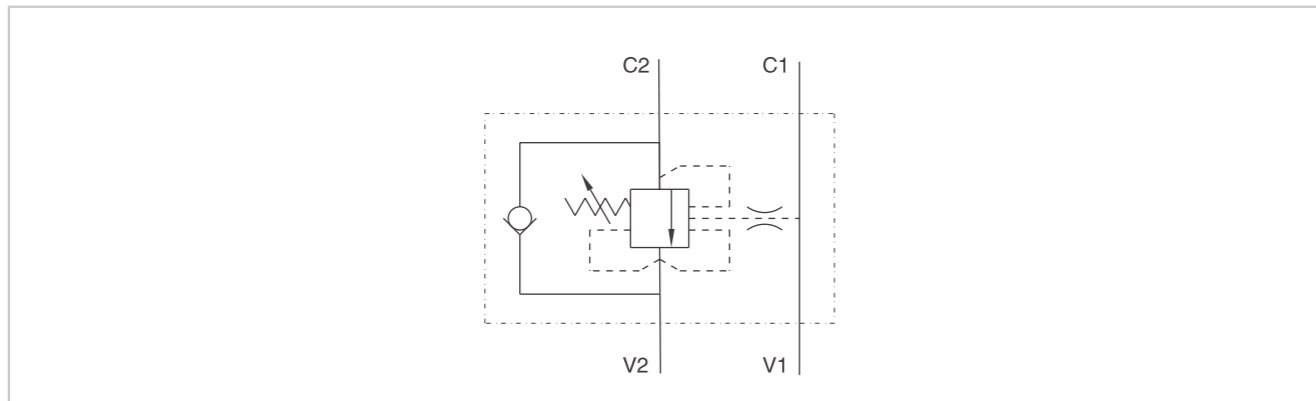
Specification	3/8" SE CC	1/2" SE CC	3/4" SE CC
Pilot ratio	1:3.1	1:3.1	1:5.5
Max flow (L/min)	35	50	105
Max pressure (Bar)	350		

**Use and operation:**  
 These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

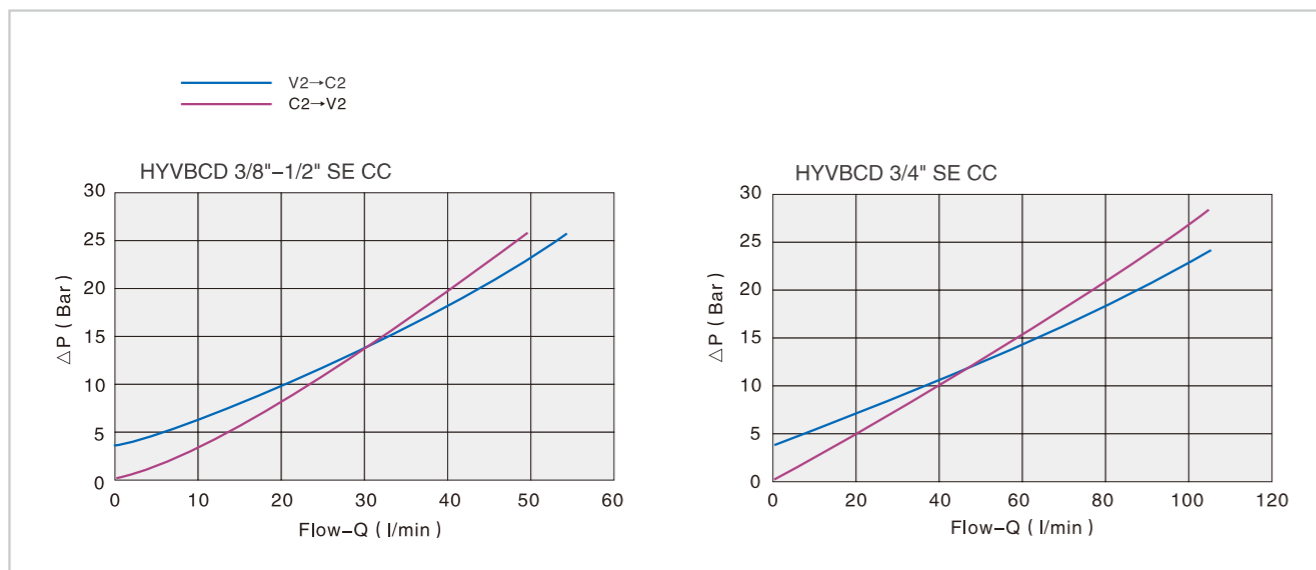
- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

**Applications:**  
 Connect V1 and V2 to the pressure flow, C1 to the free flow side of the actuator and C2 to the actuator's side you want the flow to be blocked. In-line mounting.

## Code symbol

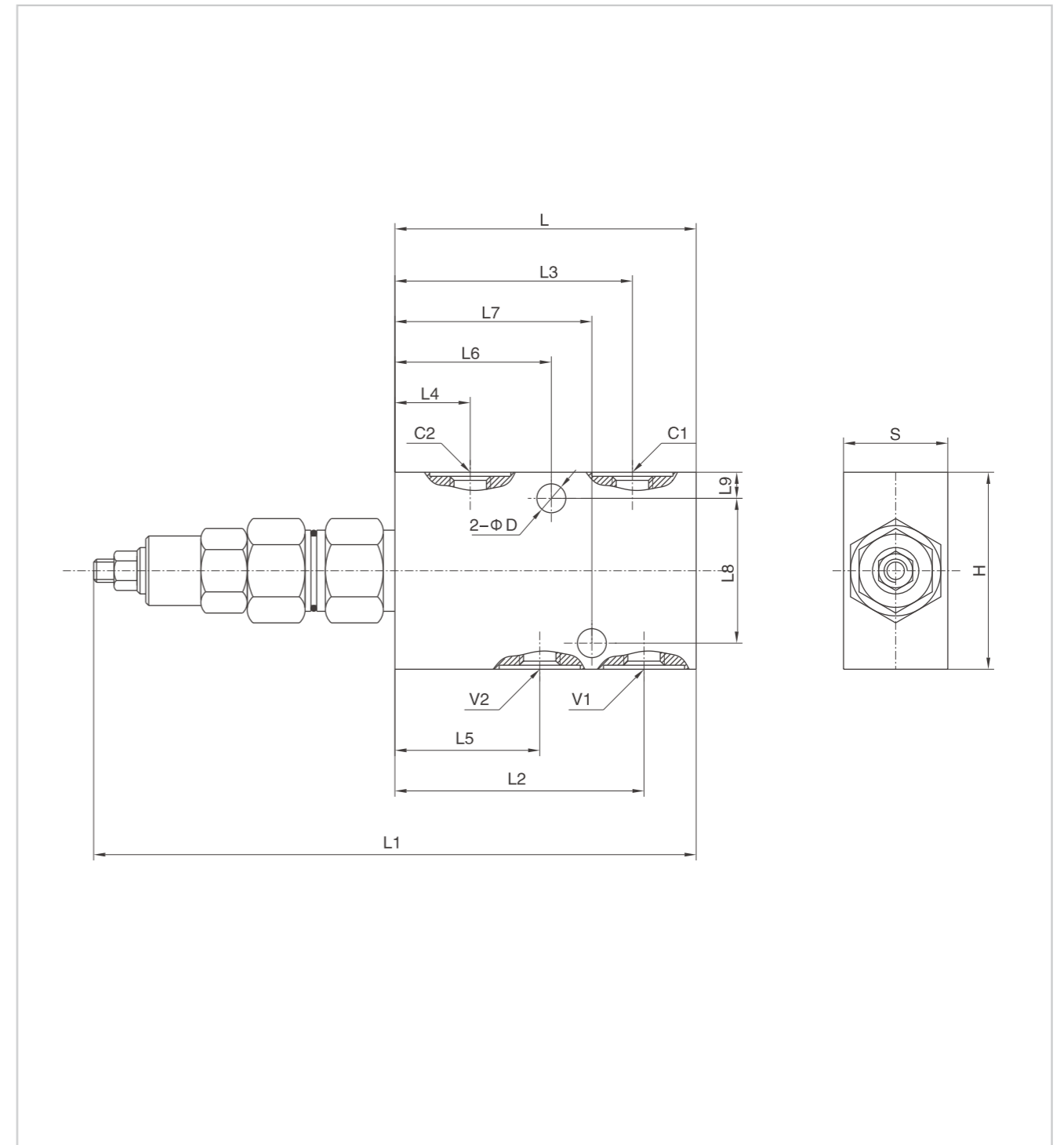


## Pressure drops curve



# Single Overcentre Valves For Closed Centre

## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	D	H	S
HYVBCD 3/8" SE CC	G 3/8"	90	174	74	71	23	42	48	58	44	8	8.5	60	30
HYVBCD 1/2" SE CC	G 1/2"	90	174	75.5	71	23	40.5	48	58	44	8	8.5	60	30
HYVBCD 3/4" SE CC	G 3/4"	118	202	94	94	23	47	72.5	72.5	44	21	8.5	80	35

# Double Overcentre Valves For Centre Closed

## Technical specification



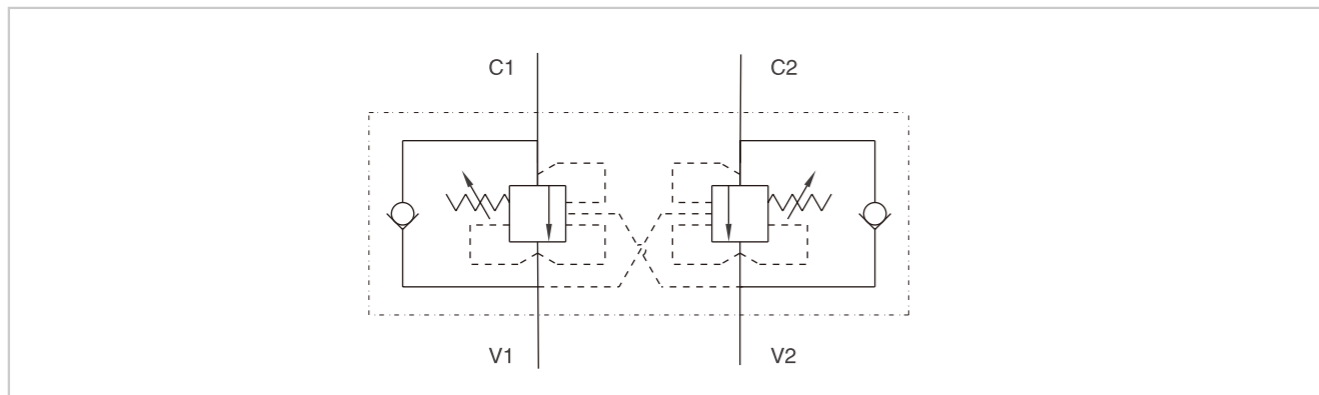
Specification	1/4" DE/A	3/8" DE/A	1/2" DE/A	3/4" DE/A
Pilot ratio	1:4.5	1:4.5	1:4.5	1:5.5
Max flow (L/min)	20	40	60	95
Max pressure (Bar)	350			

**Use and operation:**  
 These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

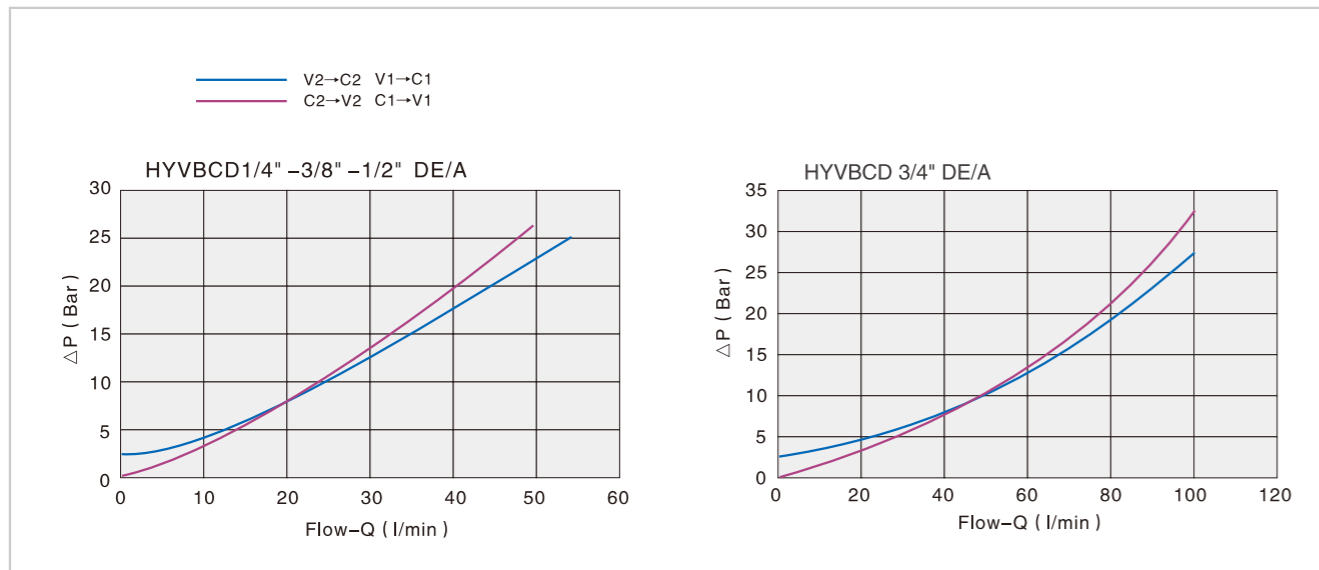
- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

**Applications:**  
 Connect V1 and V2 to the pressure flow, C1 and C2 to the actuator to be controlled.

## Code symbol

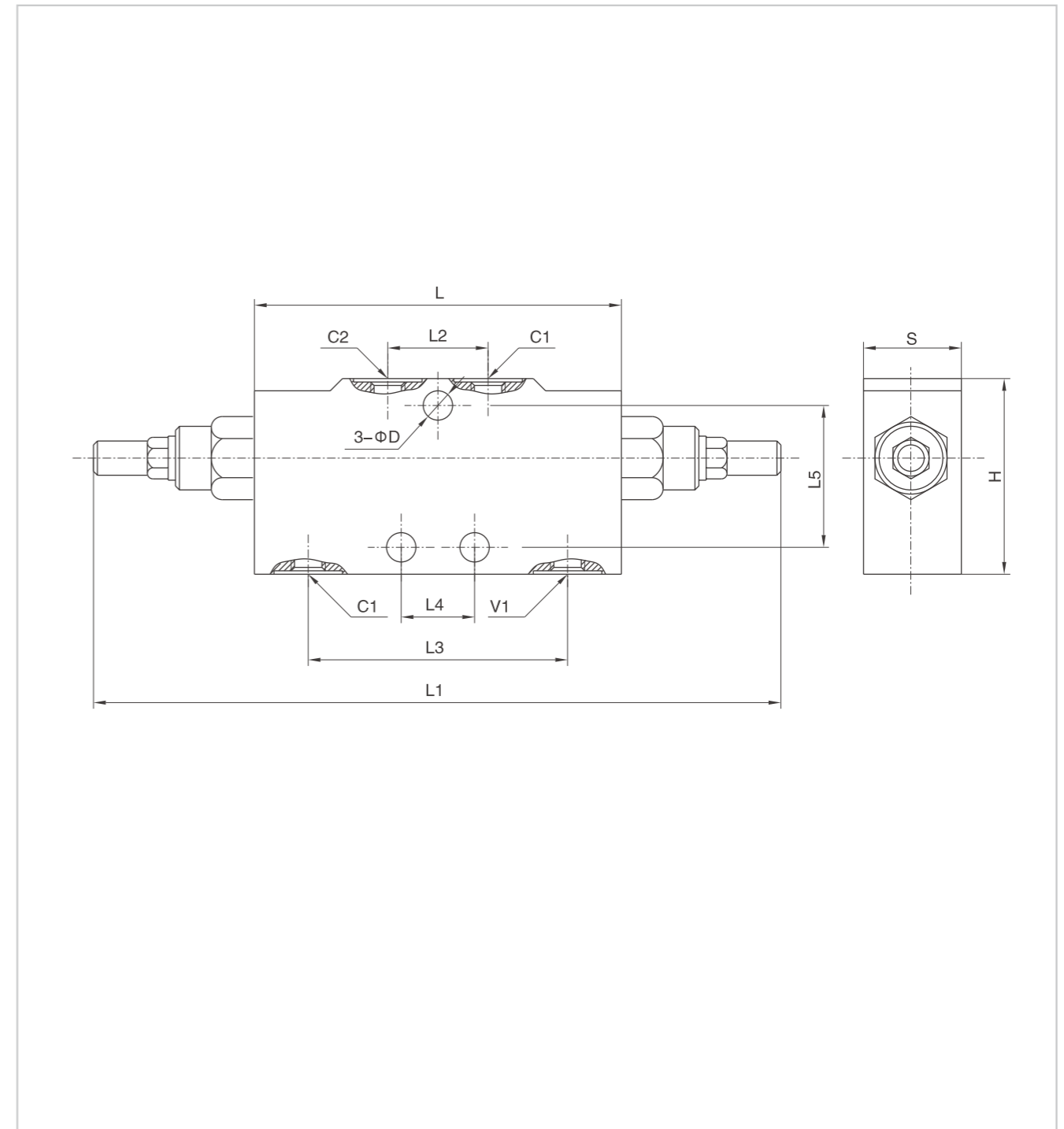


## Pressure drops curve



# Double Overcentre Valves For Centre Closed

## External dimensions

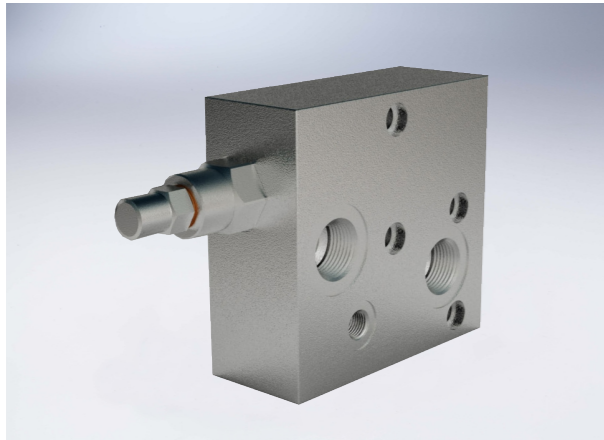


Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	D	H	S
HYVBCD 1/4" DE/A	G 1/4"	150	248	50	110	30	44	8.5	60	30
HYVBCD 3/8" DE/A	G 3/8"	150	248	50	110	30	44	8.5	60	30
HYVBCD 1/2" DE/A	G 1/2"	150	248	50	110	30	44	8.5	60	30
HYVBCD 3/4" DE/A	G 3/4"	190	320	65	143	44	64	8.5	80	35



# Overcentre Valves Flangeable On Danfoss Motors Omp/Omr

## Technical specification



Specification	1/2" SE OMP-OMR	1/2" DE OMP-OMR
Pilot ratio	1:4.5	
Max flow (L/min)	40	60
Max pressure (Bar)	350	

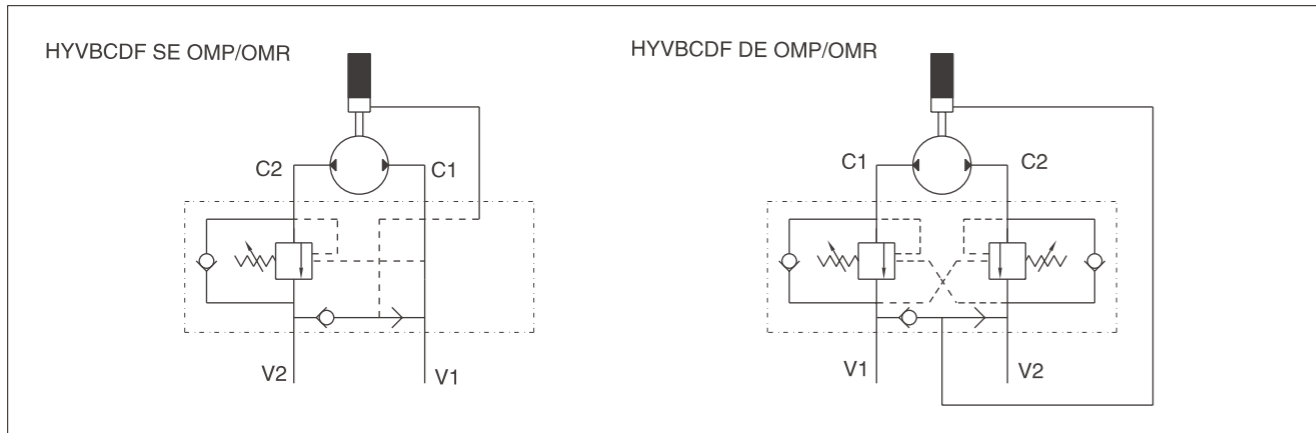
**Use and operation:**  
 These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

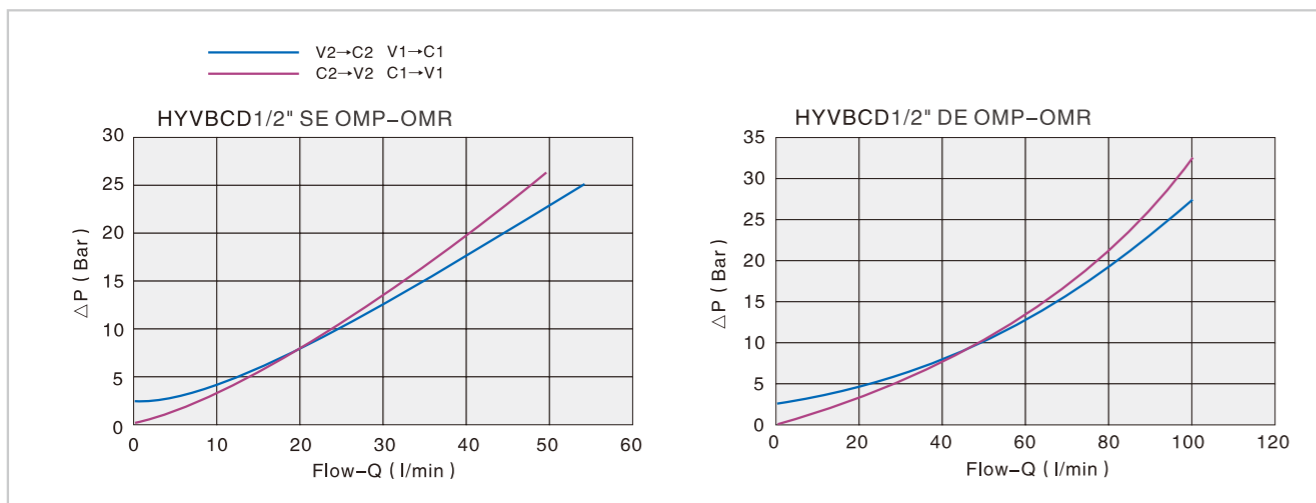
Direct flange is ideal for Danfoss engine type OMP-OMR and provides a maximum safety, very low pressure drops and solid installation.

**Applications:**  
 Single pilot: connect V1 and V2 to the pressure flow, C1 to the free flowside of the actuator and flange C2 to the motor's side you want the flow to be blocked.  
 Double pilot: connect V1 and V2 to the pressure flow and flange C1 and C2 directly to the motor.

## Code symbol



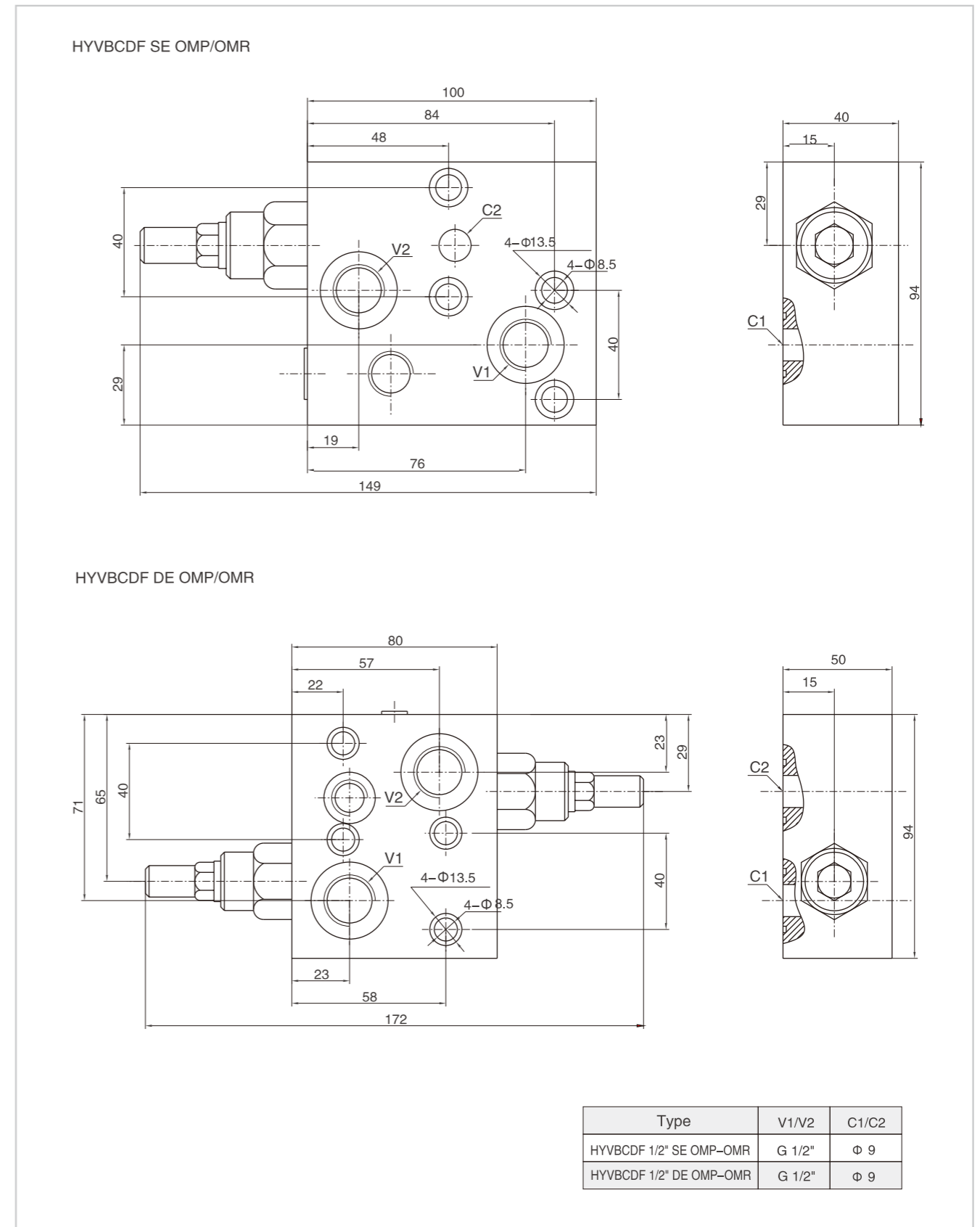
## Pressure drops curve



# Overcentre Valves Flangeable On Danfoss Motors Omp/Omr



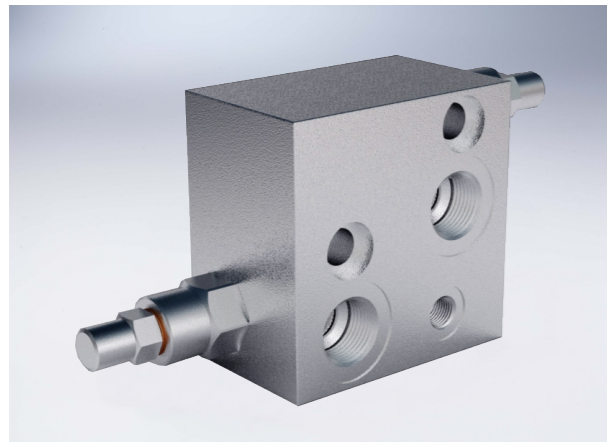
## External dimensions



Type	V1/V2	C1/C2
HYVBCDF 1/2" SE OMP-OMR	G 1/2"	φ 9
HYVBCDF 1/2" DE OMP-OMR	G 1/2"	φ 9

# Overcentre Valves Flangeable On Danfoss Motors Oms

## Technical specification



Specification	1/2" SE OMS	1/2" DE OMS
Pilot ratio	1:4.5	
Max flow (L/min)	50	
Max pressure (Bar)	350	

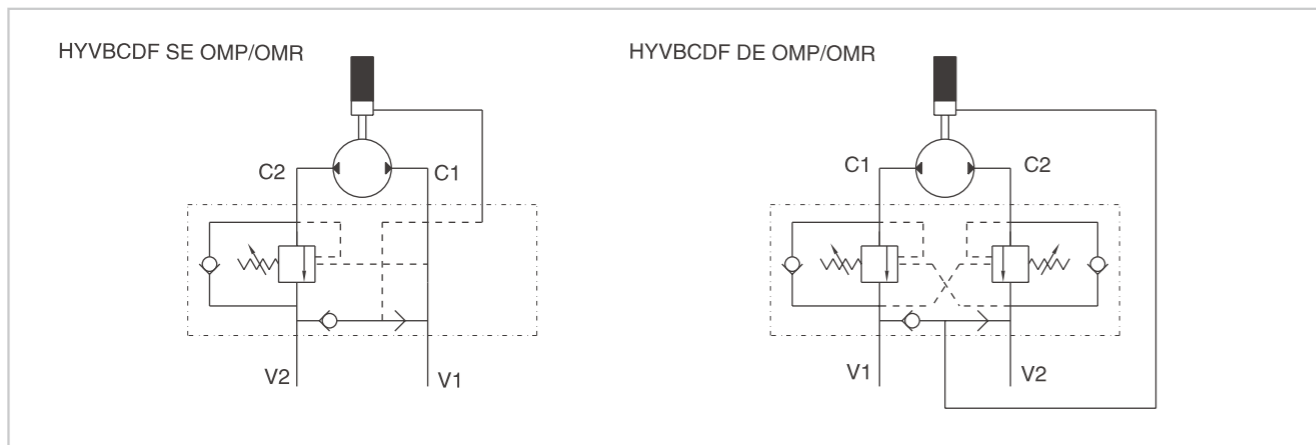
**Use and operation:**  
 These valves are used to control actuator's movement and block in both directions in order to enable the following functions:

- under control descent of a load: load's weight doesn't carry it away, as the valve prevents any cavitations of the actuator;
- limited maximum pressure in case of shocks created by loads, overloads or sudden manoeuvrings (load control with opened centre distributor).

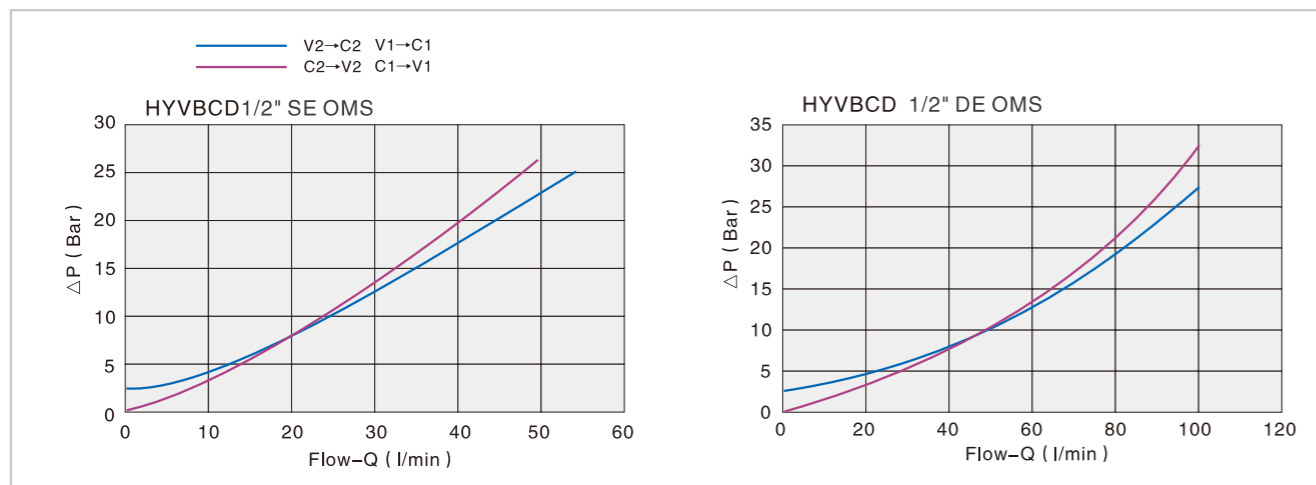
Direct flange is ideal for Danfoss engine type OMP-OMR and provides a maximum safety, very low pressure drops and solid installation.

**Applications:**  
 Single pilot: connect V1 and V2 to the pressure flow, C1 to the free flowside of the actuator and flange C2 to the motor's side you want the flow to be blocked.  
 Double pilot: connect V1 and V2 to the pressure flow and flange C1 and C2 directly to the engine.

## Code symbol

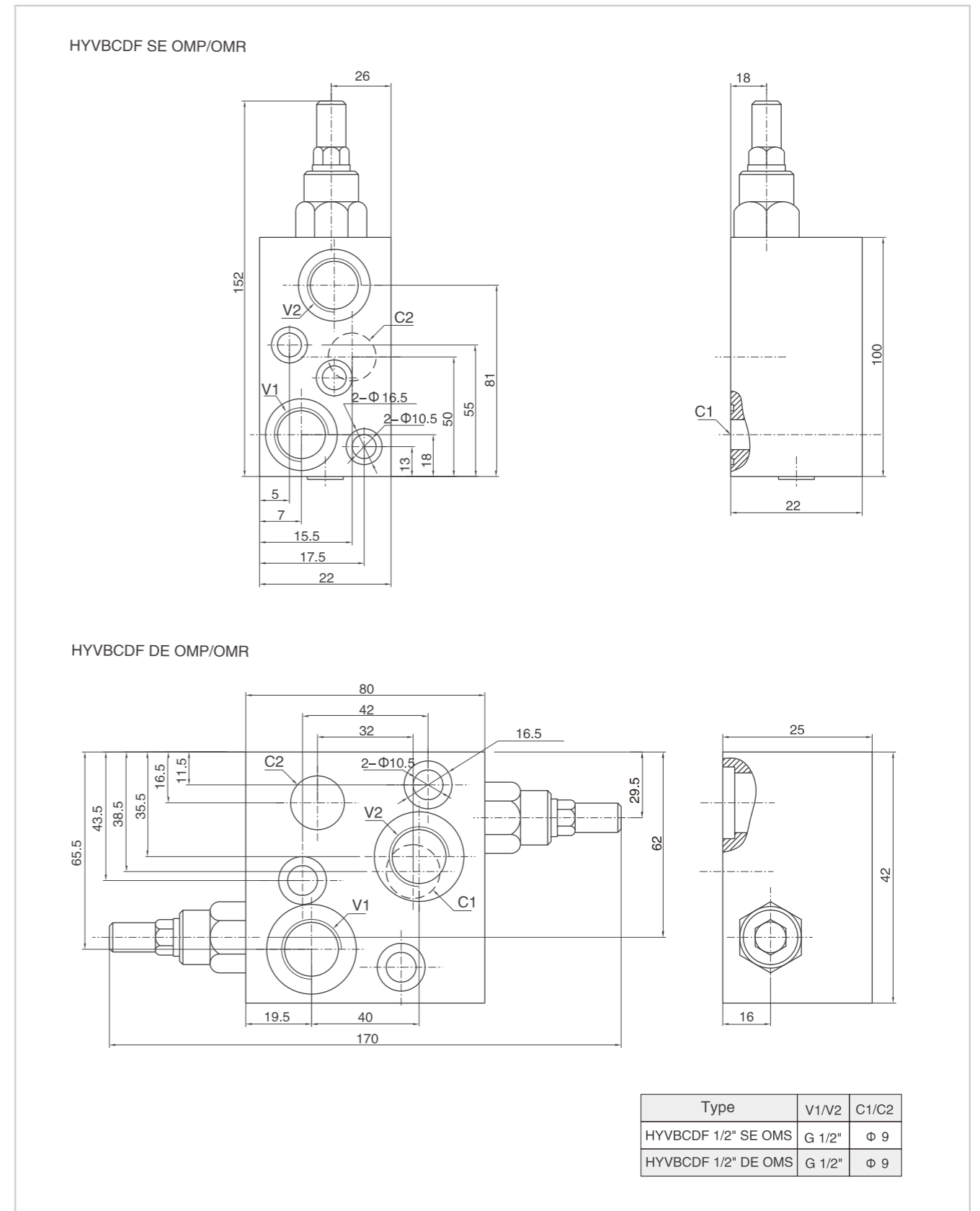


## Pressure drops curve



# Overcentre Valves Flangeable On Danfoss Motors Oms

## External dimensions



# Light Relief Valves

## Technical specification



Specification	1/4" L	3/8" L
Max.flow (L/min)	40	60

SPRINGS	Setting range (Bar)	10-50*	10-180 Standard	80-300
	Pressure increase (Bar/turn)Q=4L/min	7	40	50
	Standard setting (Bar)	30	100	150

★ For Setting less than 70Bar Q=12L/min

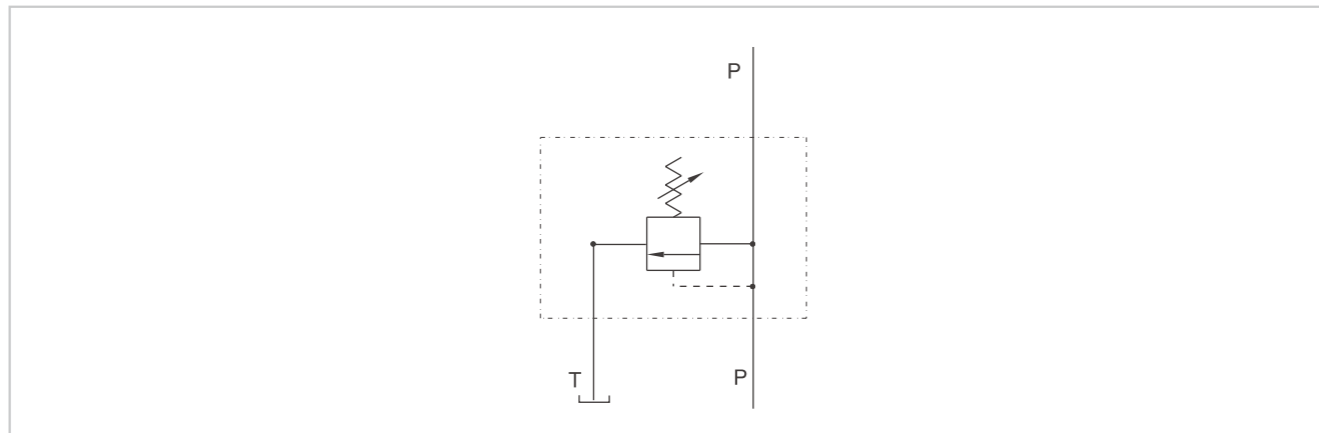
### Use and operation:

The relief valve provides overload protection in a fast and accurate way: when it reaches pressure setting, the valve opens allowing pressure relief in order not to exceed this setting.

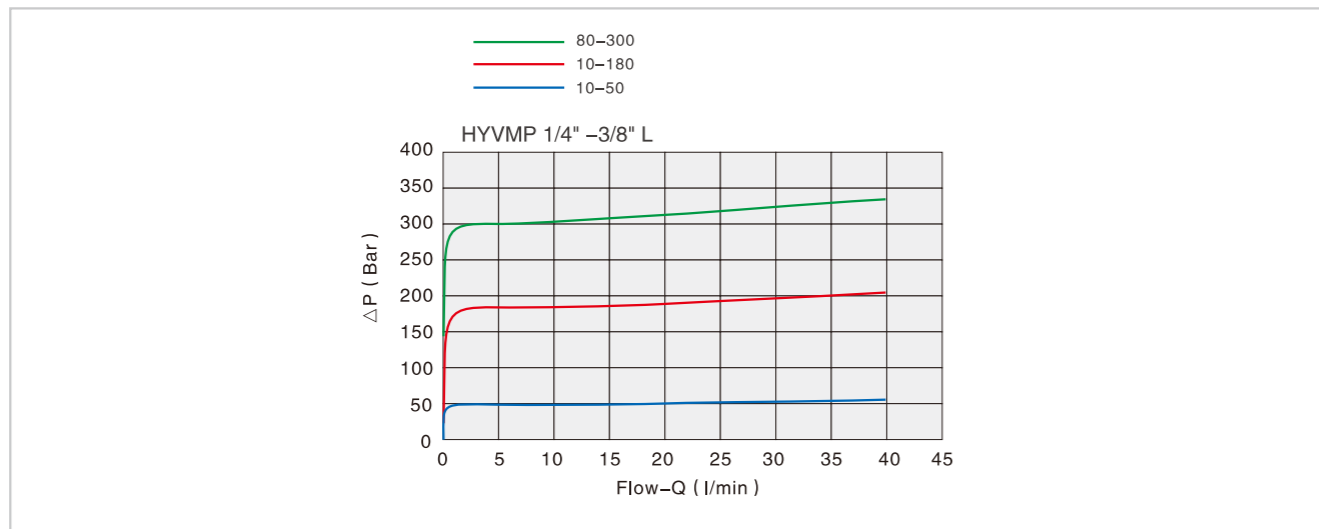
### Applications:

Connect circuit port with pressure to P and tank port to T. Port P is reversible.

## Code symbol

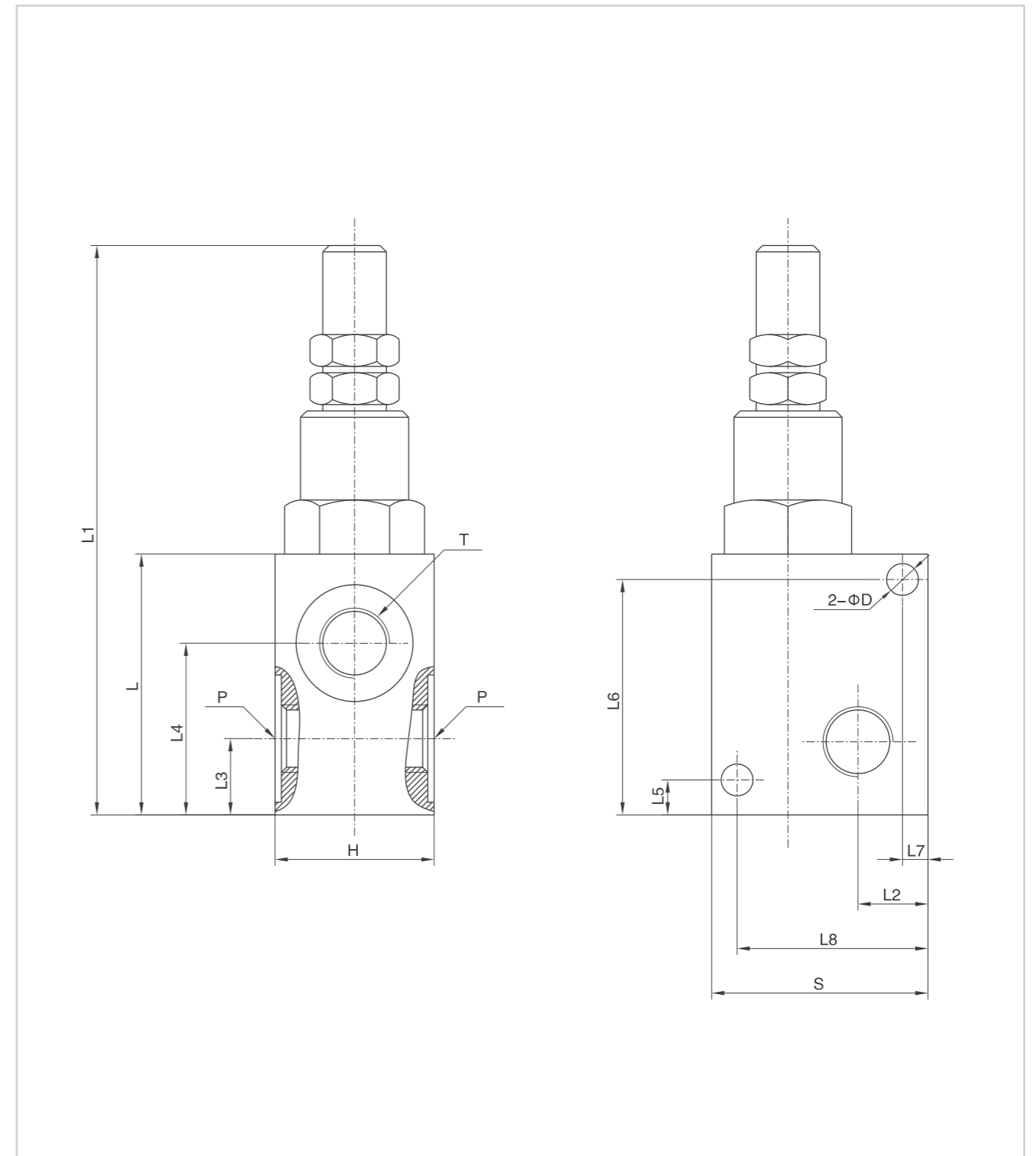


## Pressure drops curve



# Light Relief Valves

## External dimensions



Type	P/T	L	L1	L2	L3	L4	L5	L6	L7	L8	D	H	S
HYVMP 1/4" L	G 1/4"	52	114	12	13	34	7	47	5	35	6.5	30	40
HYVMP 3/8" L	G 3/8"	55	117	12	15	35.5	7	50	5	35	6.5	30	40

# Relief Valves

## Technical specification



Specification	3/8"	1/2"	3/4"
Max.flow (L/min)	45	70	120

SPRINGS	Setting range(Bar)	10-50*	20-100	10-180 Standard	50-250	80-300
	Pressure increase (Bar/turn)Q=4L/min	7	12	30	45	50
	Standard setting(Bar)	30	75	90	130	150

★ For Setting less than 70Bar Q=12L/min

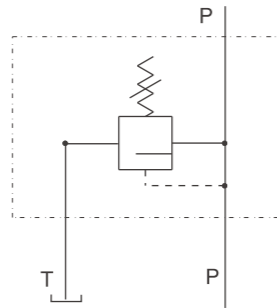
### Use and operation:

The relief valve provides overload protection in a fast and accurate way: when it reaches pressure setting, the valve opens allowing pressure relief in order not to exceed this setting.

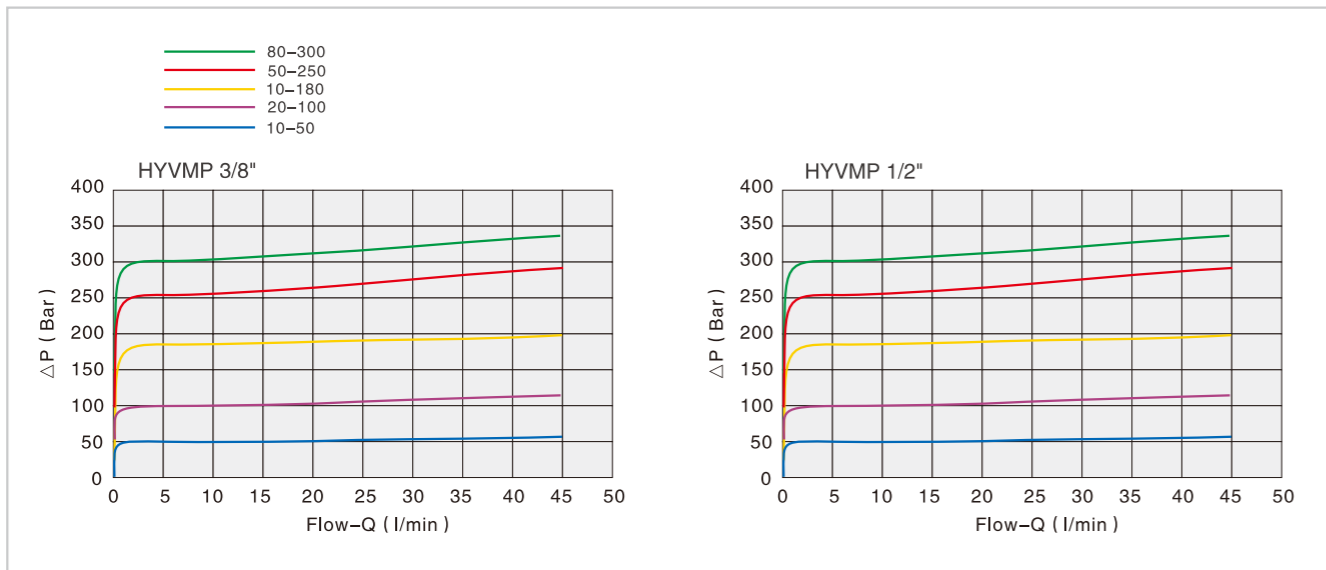
### Applications:

Connect circuit port with pressure to P and tank port to T. Port P is reversible.

## Code symbol

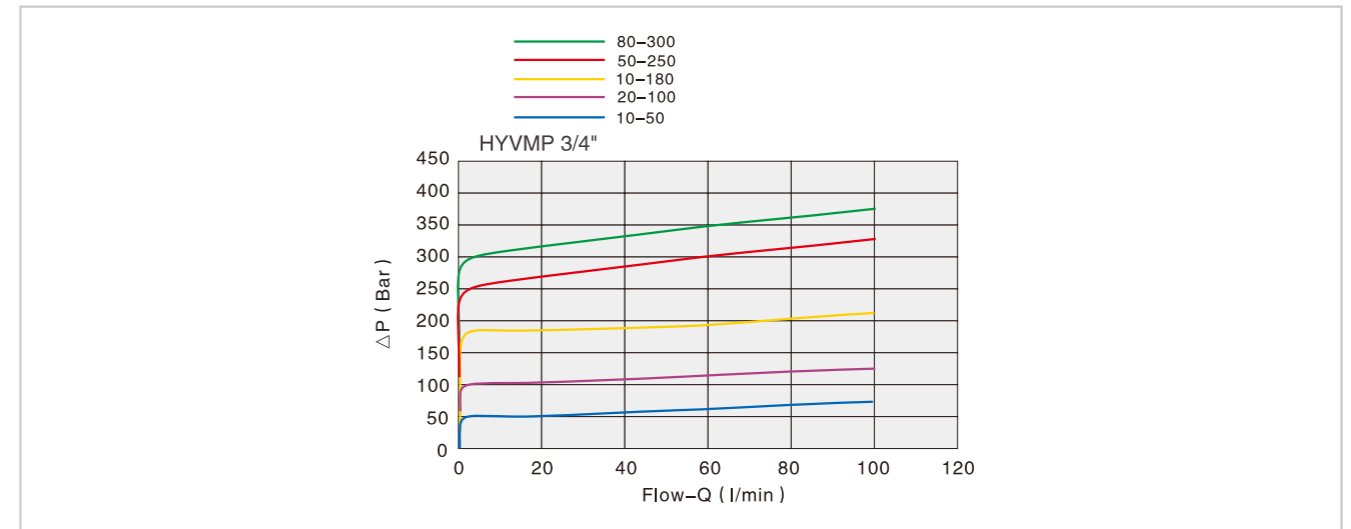


## Pressure drops curve

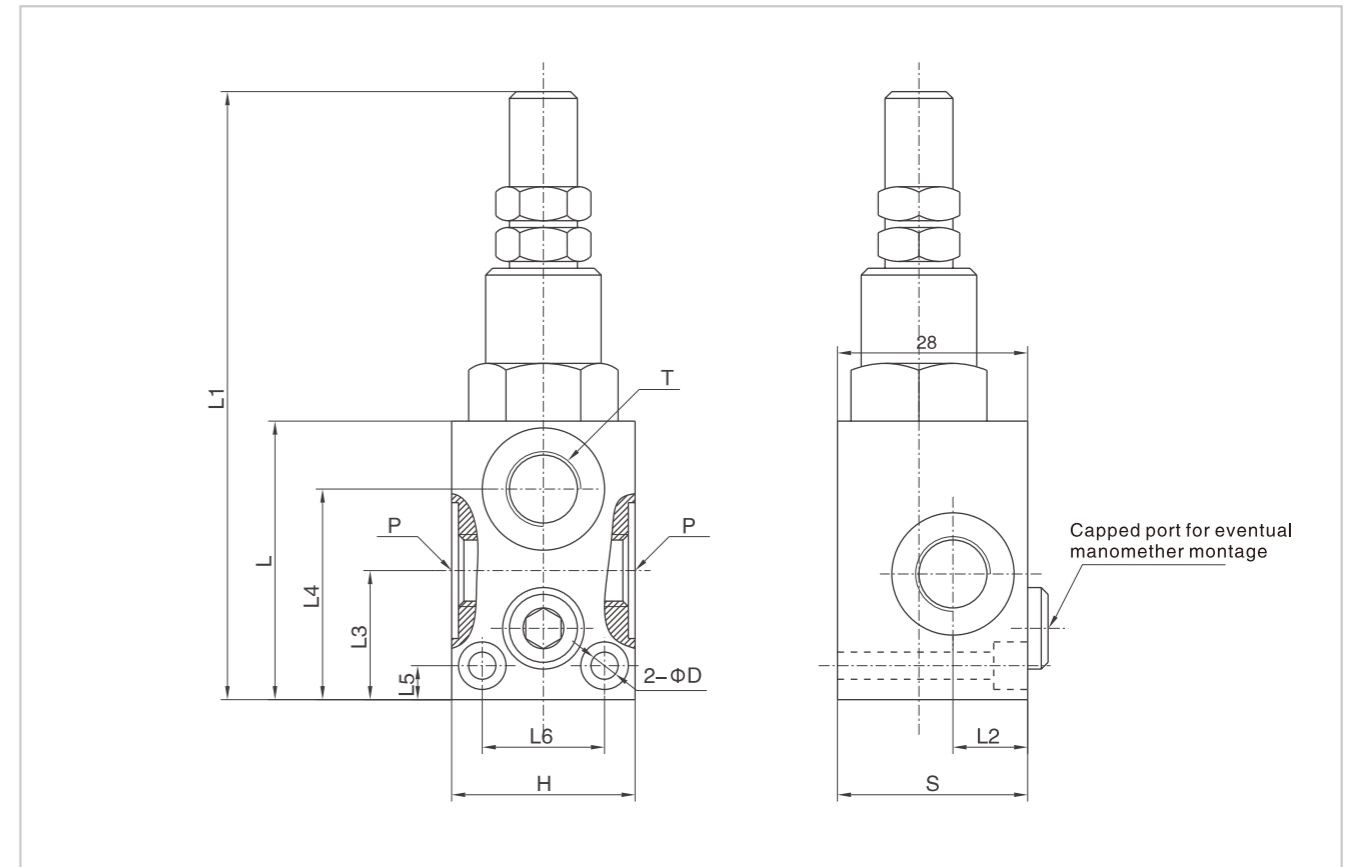


# Relief Valves

## Pressure drops curve



## External dimensions



Type	P/T	L	L1	L2	L3	L4	L5	L6	D	H	S
HYVMP 3/8"	G 3/8"	72	135	15	26	49,5	8,5	26	6,5	40	40
HYVMP 1/2"	G 1/2"	77	140	17,5	29,5	54	8,5	30	6,5	45	45
HYVMP 3/4"	G 3/4"	92	154	17,5	35	68	10	32	9	50	50

# Differential Type Relief Valves

## Technical specification

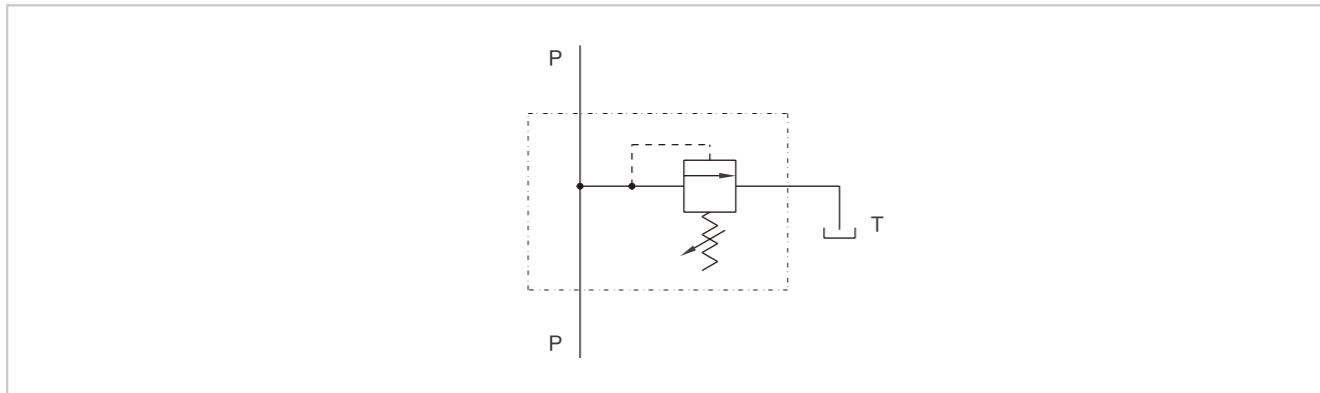


Specification		1/4 "	1"
Max.flow (L/min )		120	180
SPRINGS	Setting range (Bar)	20-200	40-400 Standard
	Pressure increase (Bar/turn)Q=4L/min	40	80
	Standard setting(Bar)	160	180

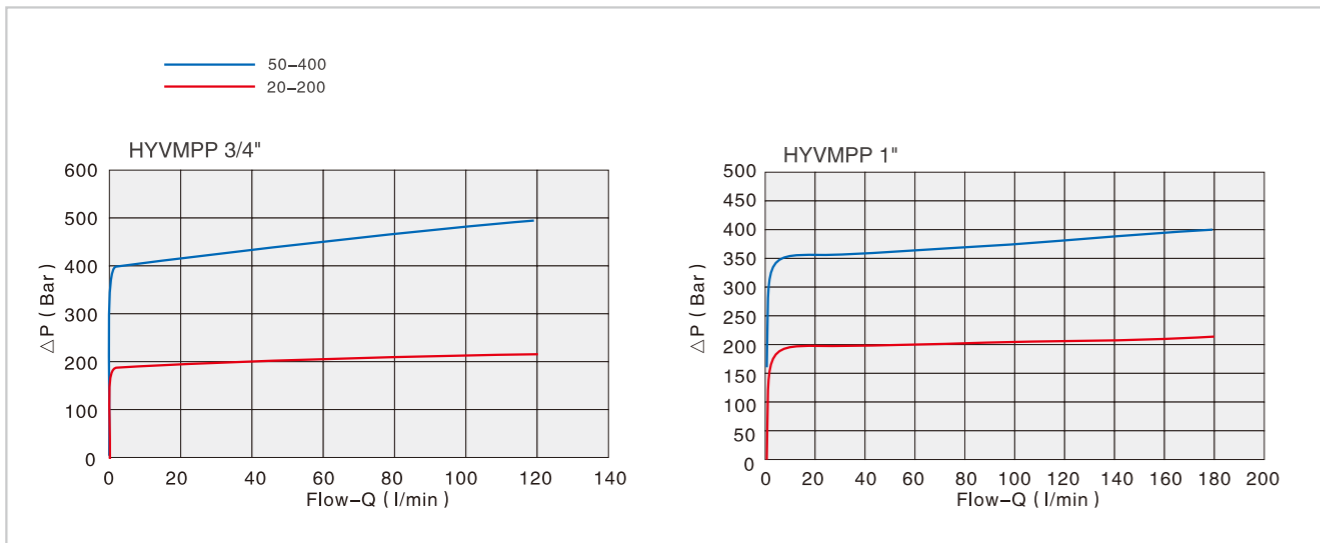
**Use and operation:**  
The relief valve provides overload protection in a fast and accurate way: when it reaches pressure setting, the valve opens allowing pressure relief in order not to exceed this setting. The differential valve opening is slower than the standard one, but the setting is more stable when the flow changes.

**Applications:**  
Connect circuit port with pressure to P and tank port to T. The 1" size is supplied with double exit T (1 exit can be capped according with mounting needs).

## Code symbol

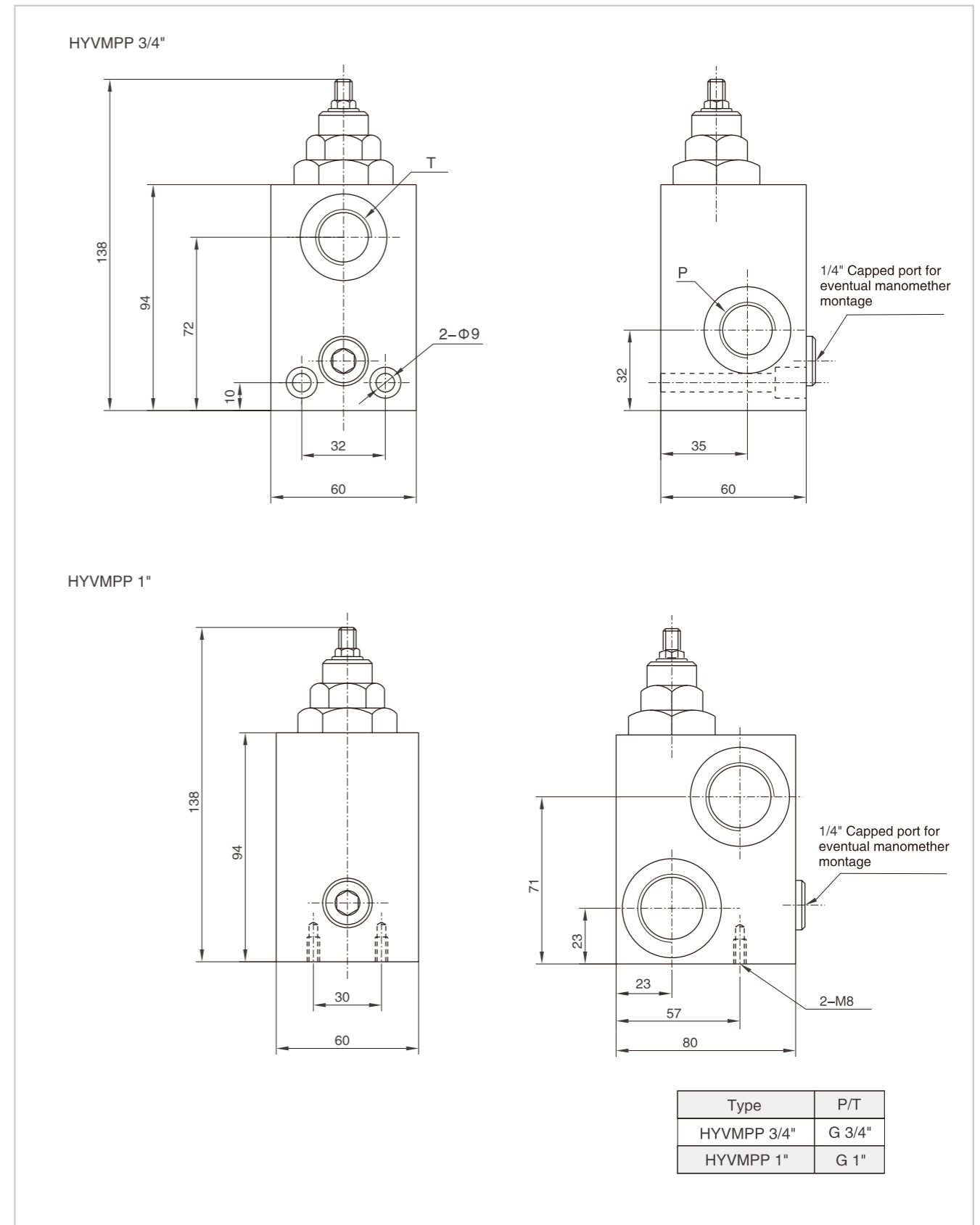


## Pressure drops curve



# Differential Type Relief Valves

## External dimensions



# Double Relief Valves

## Technical specification



Specification	3/8 "	1/2"
Max.flow (L/min )	45	70

SPRINGS	Setting range (Bar)	10-50*	20-100	10-180 Standard	50-250	80-300
	Pressure increase (Bar/turn)Q=4L/min	7	12	30	45	50
	Standard setting (Bar)	30	75	90	130	150

★ For Setting less than 70Bar Q=12L/min

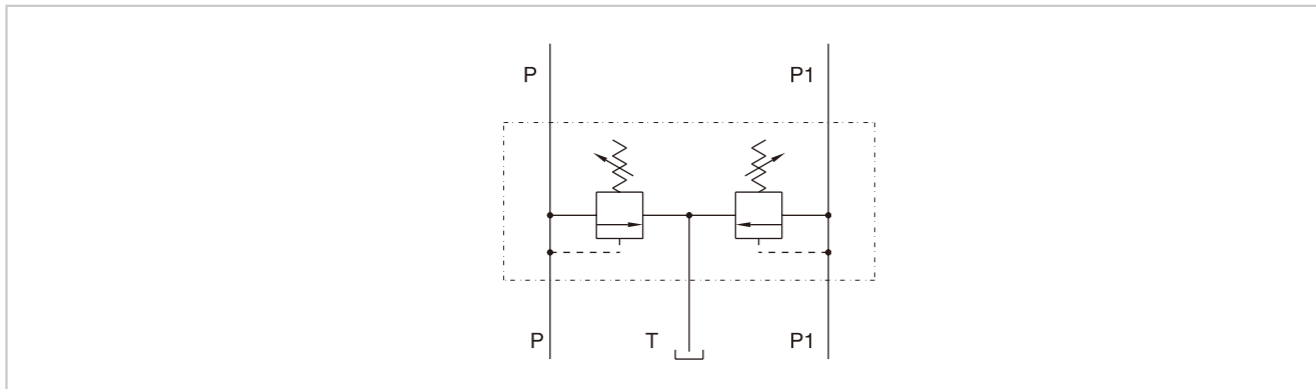
### Use and operation:

Made up by 2 relief valves, the double relief valve provides overload protection in 2 lines-hydraulic circuits with 1 tank. It allows 2 different pressure setting adjustments.

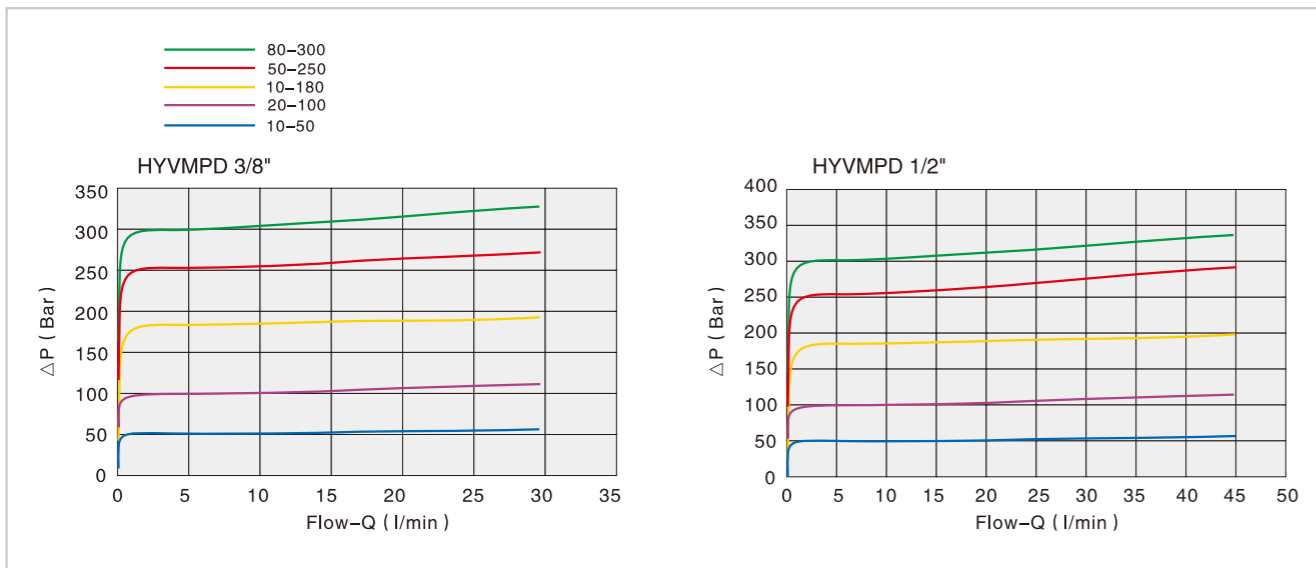
### Applications:

Connect P and P1 to the pressure flow, the remaining P1 and P ports to the 2 lines to be controlled but in the reverse way; connect T to the tank.

## Code symbol

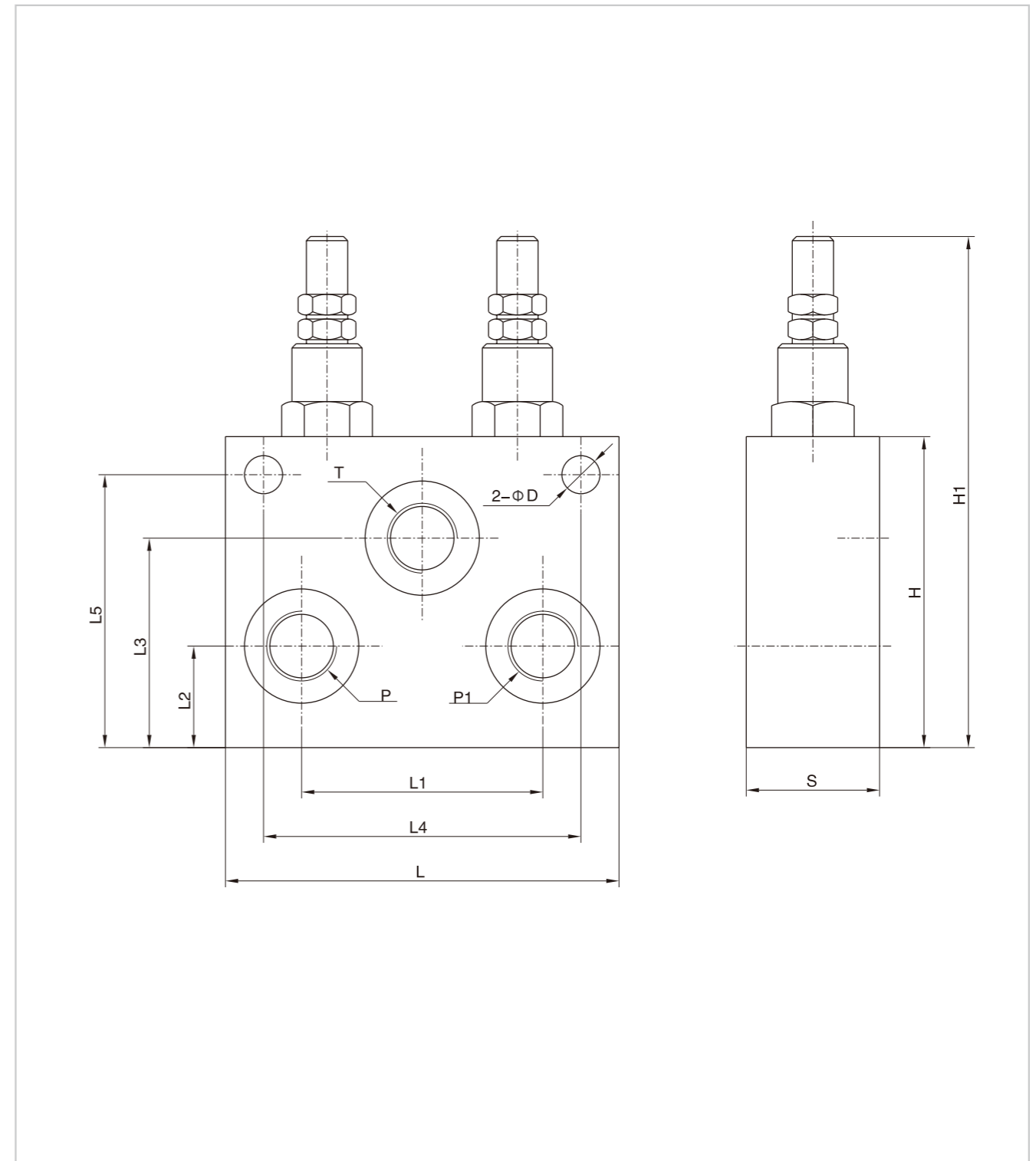


## Pressure drops curve



# Double Relief Valves

## External dimensions



Type	P/T	L	L1	L2	L3	L4	L5	D	H	H1	S
HYVMPD 3/8"	G 3/8"	98	62	24	46	82	62	8.5	70	132	30
HYVMPD 1/2"	G 1/2"	98	65	24	46	82	62	8.5	70	132	30

# Dual Cross Relief Valves

## Technical specification



Specification	1/4"	3/8"	1/2"	4/3"
Max.flow (L/min)	30	45	70	110

SPRINGS	Setting range (Bar)	10-50	20-100	10-180 Standard	50-250	80-300
	Pressure increase (Bar/turn) Q=4L/min	7	12	30	45	50
	Standard setting (Bar)	30	75	90	130	150

★ For Setting less than 70Bar Q=12L/min

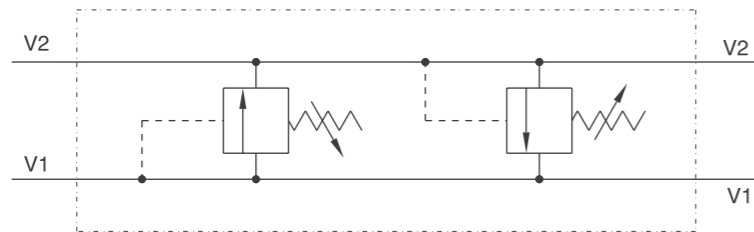
### Use and operation:

Made up by 2 relief valves with crossed tank, this valve is used to block pressure to a certain setting in the 2 ports of an actuator/ hydraulic motor. It's ideal to provide protection against sudden shock pressures and to adjust different pressures in the 2 ports of an hydraulic circuit as well.

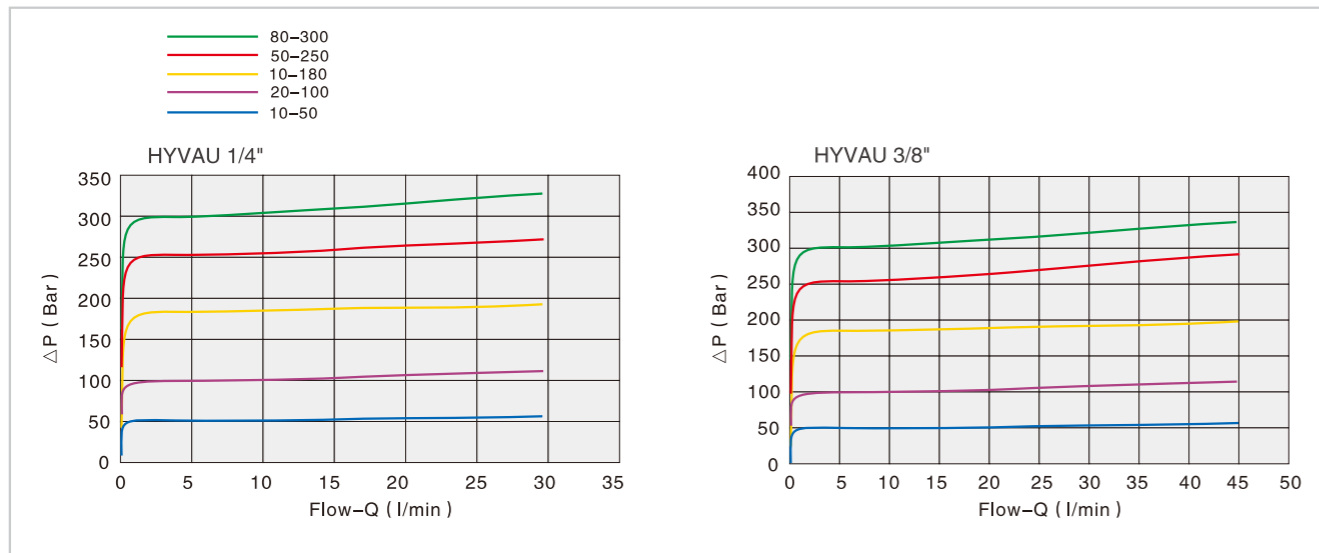
### Applications:

Connect V1 and V2 to the pressure flow or to the actuator/ hydraulic motor. Vice versa for the remaining ports V1 and V2. Mounting by the actuator is highly recommended in order to avoid pressure drops.

## Code symbol



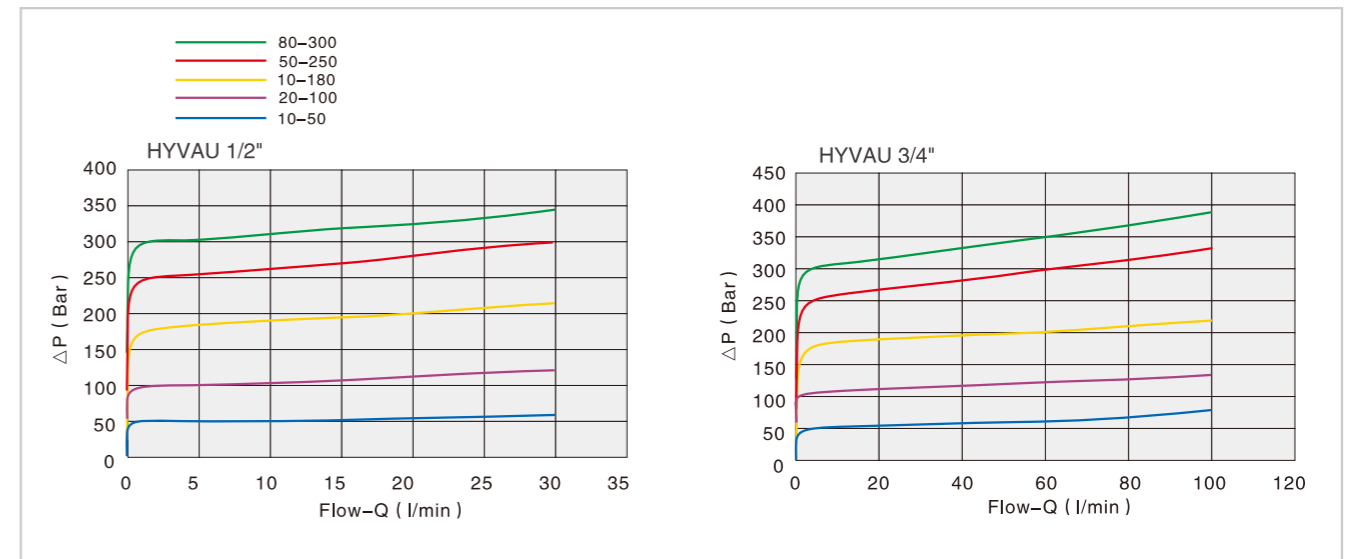
## Pressure drops curve



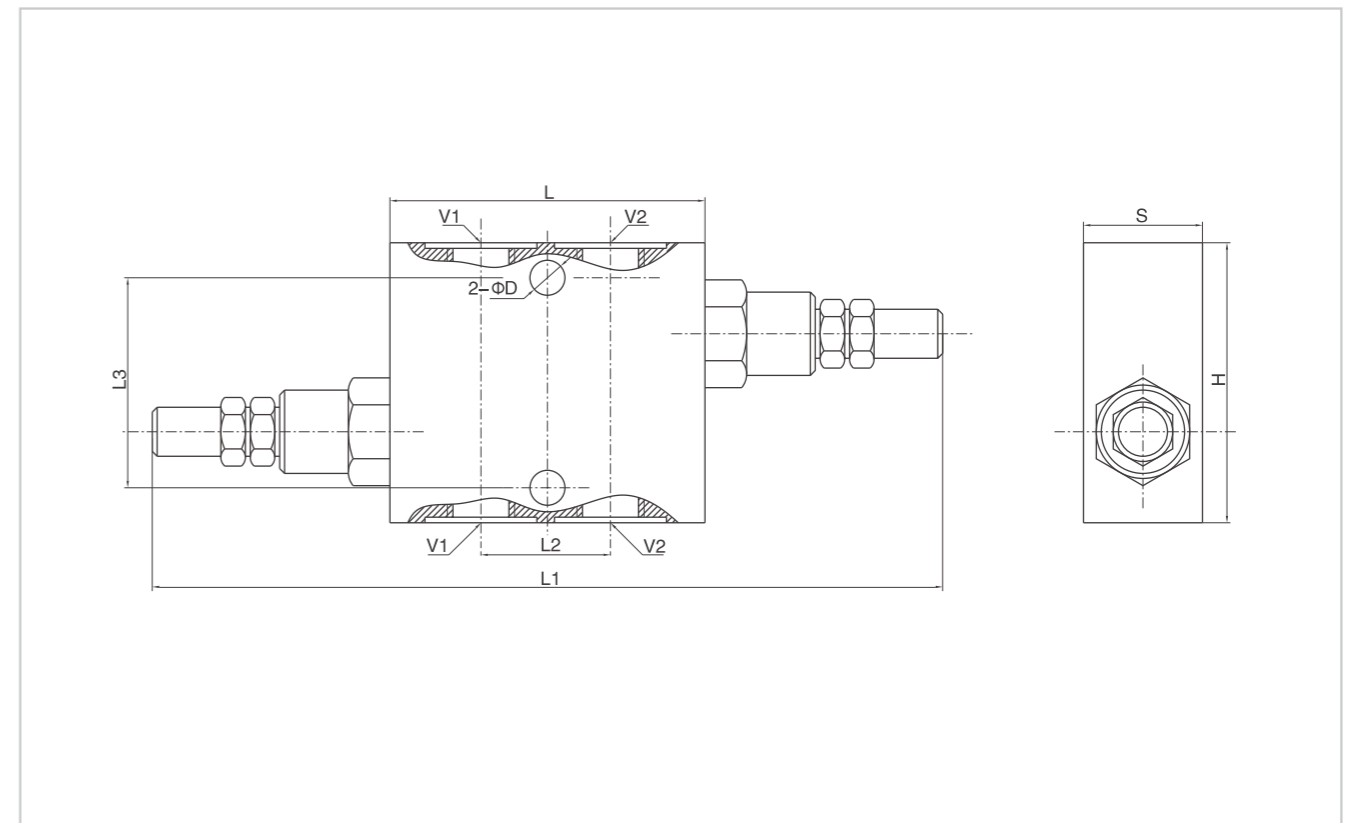
# Dual Cross Relief Valves



## Pressure drops curve



## External dimensions



Type	V1/V2	L	L1	L2	L3	L4	L5	D	H	S
HYVAU 1/4"	G 1/4"	60	186	26	54	6.5	53.5	6.5	70	30
HYVAU 3/8"	G 3/8"	80	206	33	54	/	/	8.5	70	30
HYVAU 1/2"	G 1/2"	80	206	38	54	/	/	8.5	70	30
HYVAU 3/4"	G 3/4"	95	221	44	54	/	/	8.5	80	35

# Dual Cross Relief Valve

## Technical specification



Model	HYVBDC-3501C1 X				
Specification	3/8	1/2			
Max pressure (Mpa)	300	300			
Max flow (L/min)	45	70			
Installation site	Any				
Working fluid	Mineral oil, phosphate hydraulic oil				
Storage temp (°C)	-20~80				
Working temp (°C)	-10~60				
Spring	Setting range (Bar)	20-100	100-180	50-250	100-300
	Pressure increasing (Bar/turn)	12	30	45	50
	Standard setting (Bar)	75	90	130	150
Cleanliness	The max allowed cleanliness of the oil shall be as per standard nas1638, grade ix, recommendable filtering precision min $\beta_{10} \geq 75$ .				

### Usage:

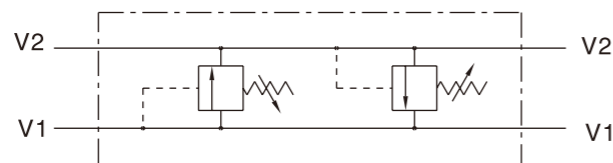
It is made from 2 cross relief valves, to block actuator or ensure the pressure to the certain setting value of the motor oil ports. In theory, it can prevent pressure pulsation, also can adjust the pressure of the two circuits.

(Please consult with us if your working condition is out of the technical parameter given above.)

## Ordering details

Product ID	HYVBDC - * *	Port size	G3/8 3/8
3503C1		G1/2 1/2	

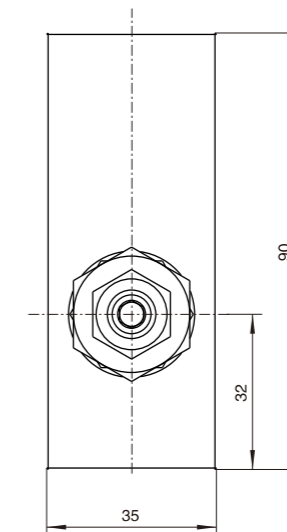
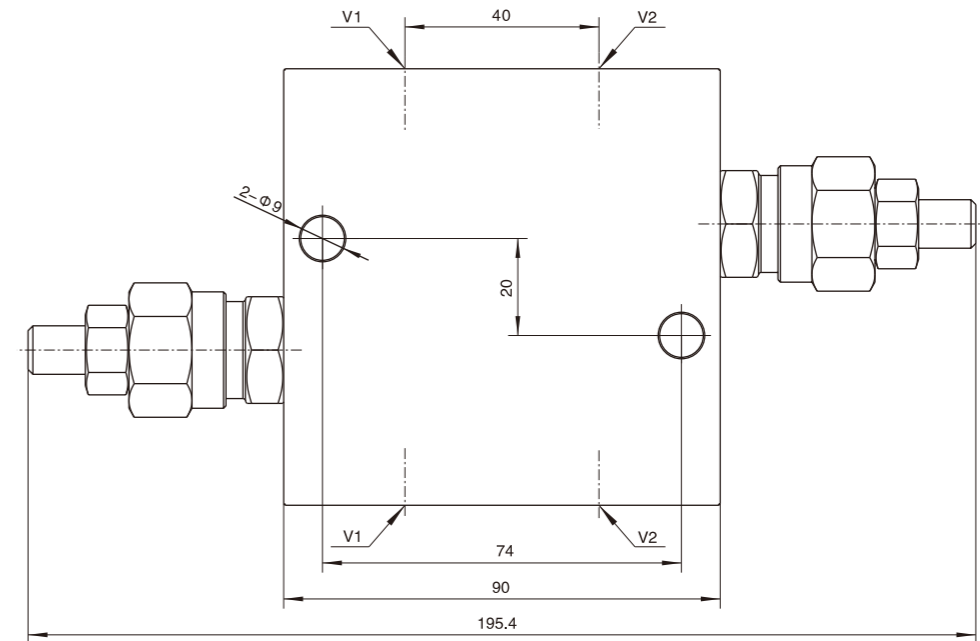
## Code symbol



# Dual Cross Relief Valve



## External dimensions

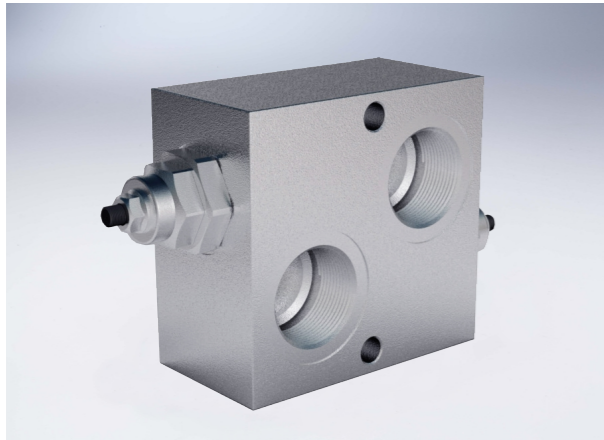


Model type	V1	V2
HYVBDC-3503C1 3/8	G3/8	G3/8
HYVBDC-3503C1 1/2	G1/2	G1/2



# Differential Dual Cross Relief Valves, 1"

## Technical specification



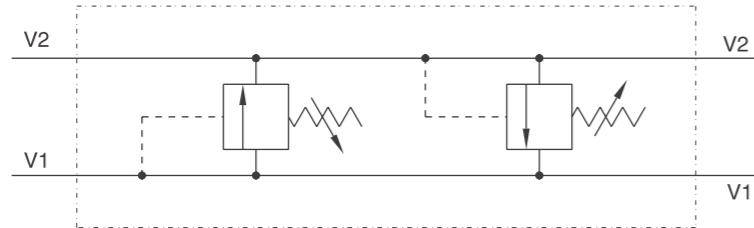
Specification	1"	
Max.flow (L/min)	160	

SPRINGS	Setting range (Bar)	20-200	50-400 Standard
	Pressure increase (Bar/turn)Q=4L/min	40	80
	Standard setting (Bar)	160	180

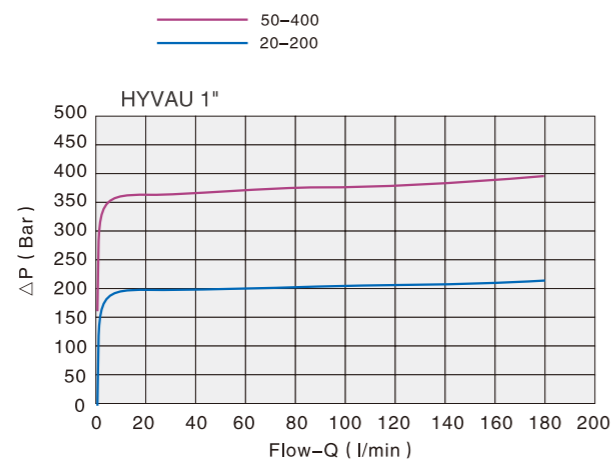
**Use and operation:**  
 Made up by 2 relief valves with crossed tank, this valve is used to block pressure to a certain setting in the 2 ports of an actuator/ hydraulic motor. It's ideal to provide protection against sudden shock pressures and to adjust different pressures in the 2 ports of an hydraulic circuit as well. The differential valve makes the opening slower but more constant setting even with flow changes.

**Applications:**  
 Connect V1 and V2 to the pressure flow or to the actuator/ hydraulic motor. Vice versa for the remaining ports V1 and V2. Mounting by the actuator is highly recommended in order to avoid pressure drops.

## Code symbol

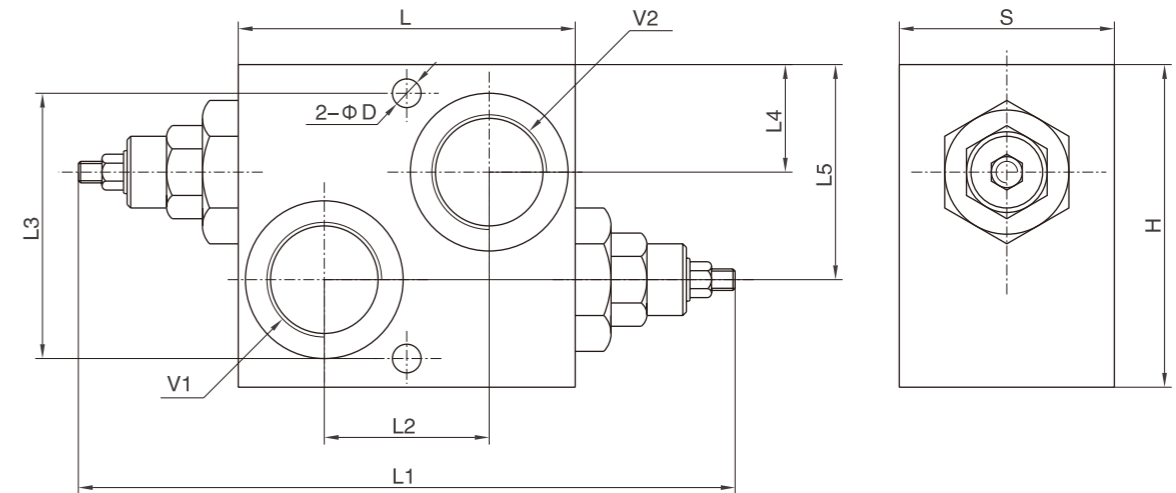


## Pressure drops curve



# Differential Dual Cross Relief Valves, 1"

## External dimensions



Type	V1/V2	L	L1	L2	L3	L4	L5	D	H	S
HYVAU 1"	G 1"	95	177	49	75	30	60	8.5	90	60

# Dual Cross Relief Valves

## Technical specification



Specification		3/8"	1/2"			
Max.flow	(L/min)	45	70			
SPRINGS	Setting range (Bar)	10-50*	20-100	10-180 Standard	50-250	80-300
	Pressure increase (Bar/turn) Q=4L/min	7	12	30	45	50
	Standard setting (Bar)	30	75	90	130	150

★ For Setting less than 70Bar Q=12L/min

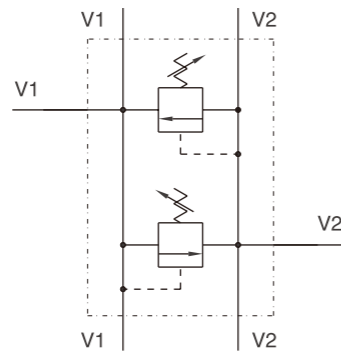
### Use and operation:

Made up by 2 relief valves with crossed tank, this valve is used to block pressure to a certain setting in the 2 ports of an actuator/ hydraulic motor. It's ideal to provide protection against sudden shock pressures and to adjust different pressures in the 2 ports of an hydraulic circuit as well. The 6 ports (2 ways in and 4 ways out reversible) enable to use just 1 valves for 2 cylinders.

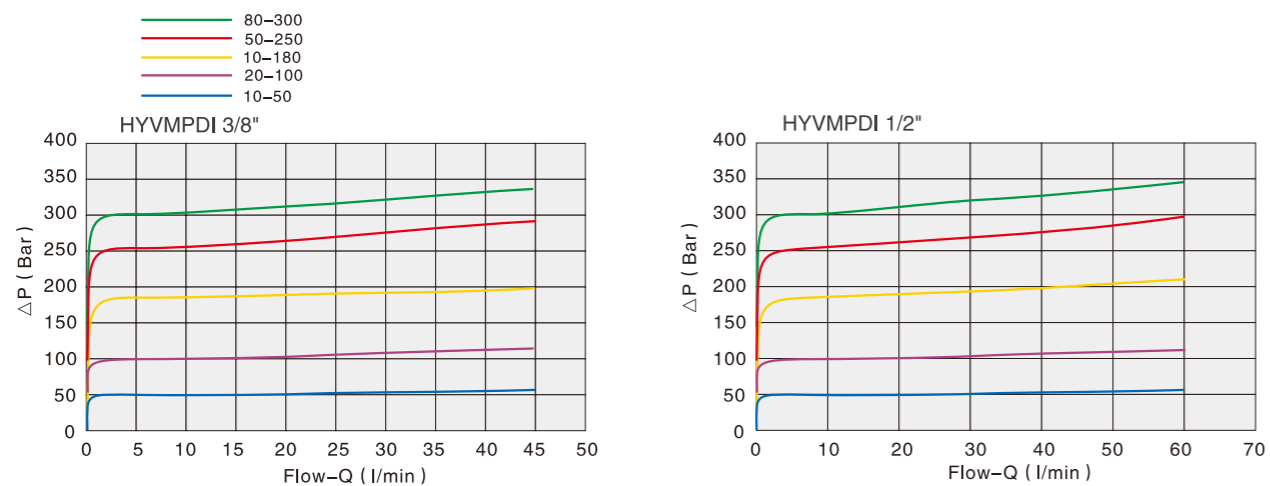
### Applications:

Connect V1 and V2 to the pressure flow or to the actuator/hydraulic motor. Vice versa for the remaining ports V1 and V2. Mounting by the actuator is highly recommended in order to avoid pressure drops.

## Code symbol



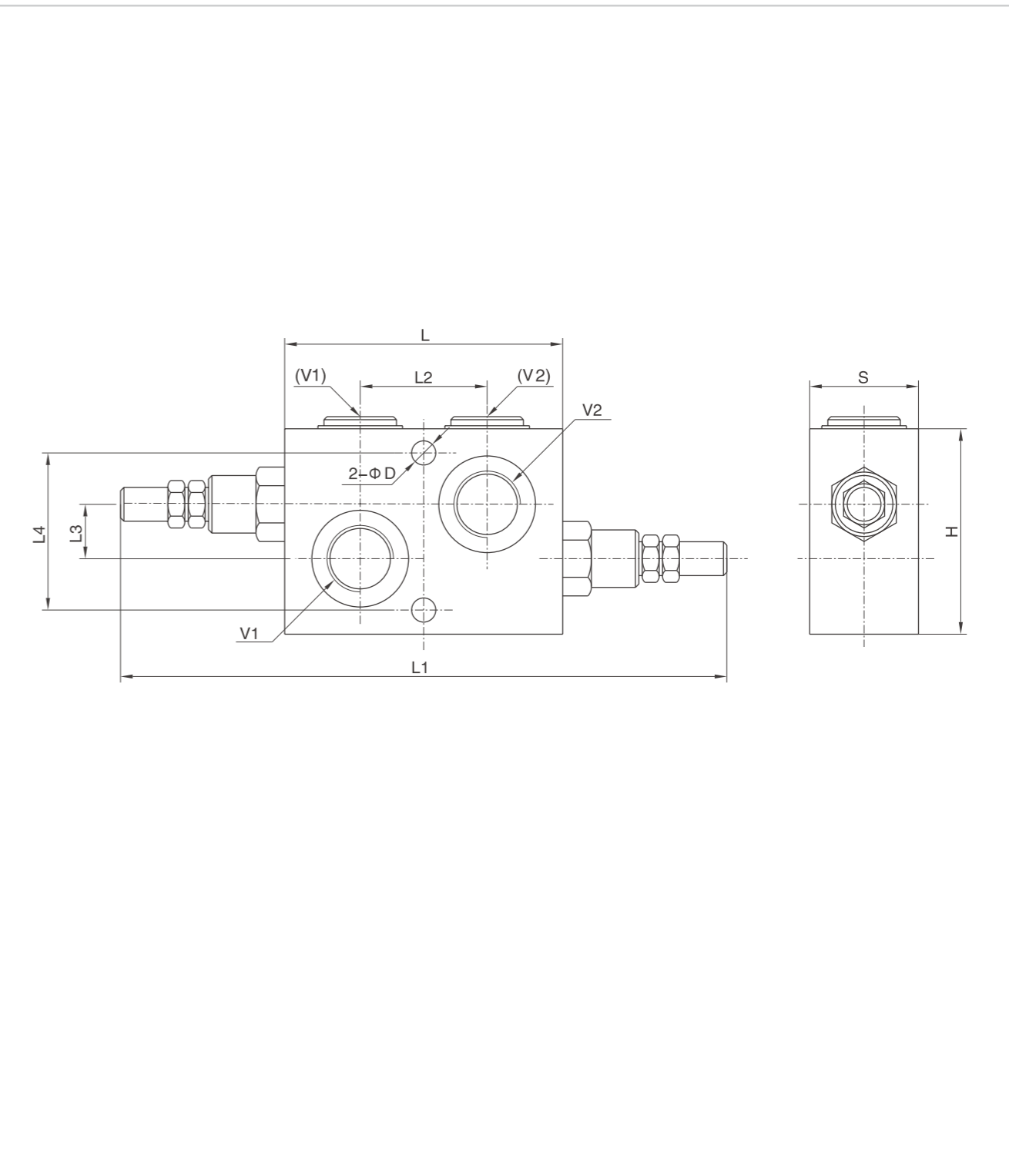
## Pressure drops curve



# Dual Cross Relief Valves



## External dimensions



Type	V1/V2	L	L1	L2	L3	L4	D	H	S
HYVMPDI 3/8"	G 3/8"	90	215	42	18	50	8.5	66	35
HYVMPDI 1/2"	G 1/2"	90	215	42	18	50	8.5	66	35

# Dual Cross Relief Valve Flangeable On Danfoss Motors Oms Omp/Omr – omt

## Technical specification



Specification	1/2" OMS	1/2" OMS/OMR	3/4" OMT
Max.flow (L/min)	50	60	100

SPRINGS	Setting range(Bar)	10-50	20-100	10-180 Standard	50-250	80-300
	Pressure increase (Bar/turn)Q=4L/min	7	12	30	45	50
	Standard setting (Bar)	30	75	90	130	150

★ For Setting less than 70Bar Q=12L/min

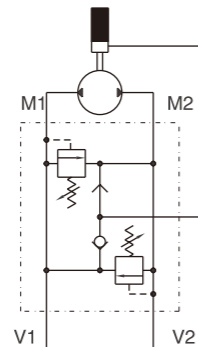
### Use and operation:

Made up by 2 relief valves with crossed tank, this valve is used to block pressure to a certain setting in the 2 ports of an actuator/ hydraulic motor. It's ideal to provide protection against sudden shock pressures and to adjust different pressures in the 2 ports of an hydraulic circuit as well. Direct flange is ideal for Danfoss motors type OMS, OMP-OMR and OMT and provides a maximum safety, very low pressure drops and solid installation.

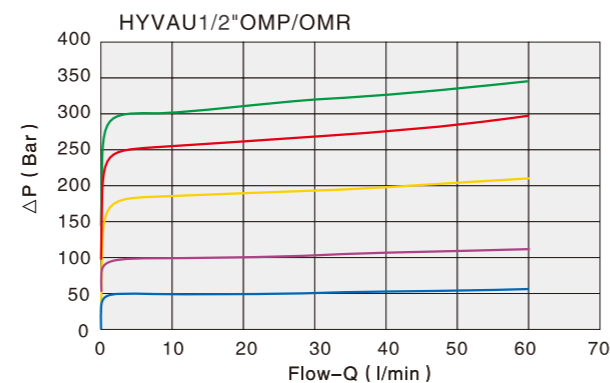
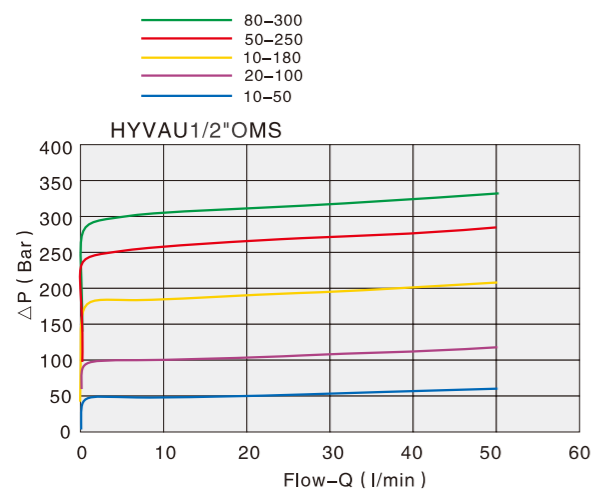
### Applications:

Flange M1 and M2 directly to the motor and connect ports V1 and V2 to pressure flow.

## Code symbol



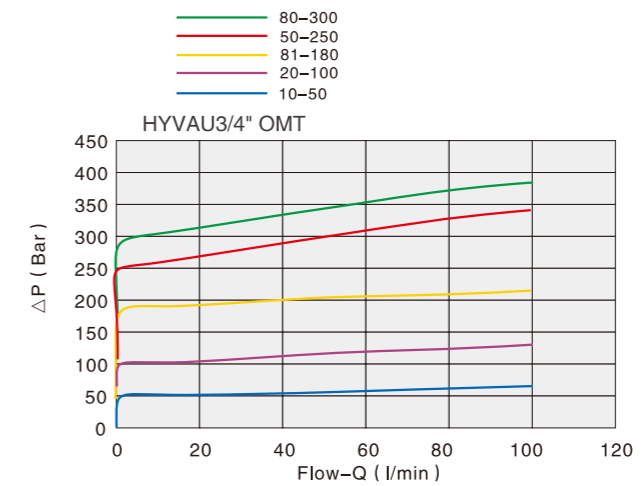
## Pressure drops curve



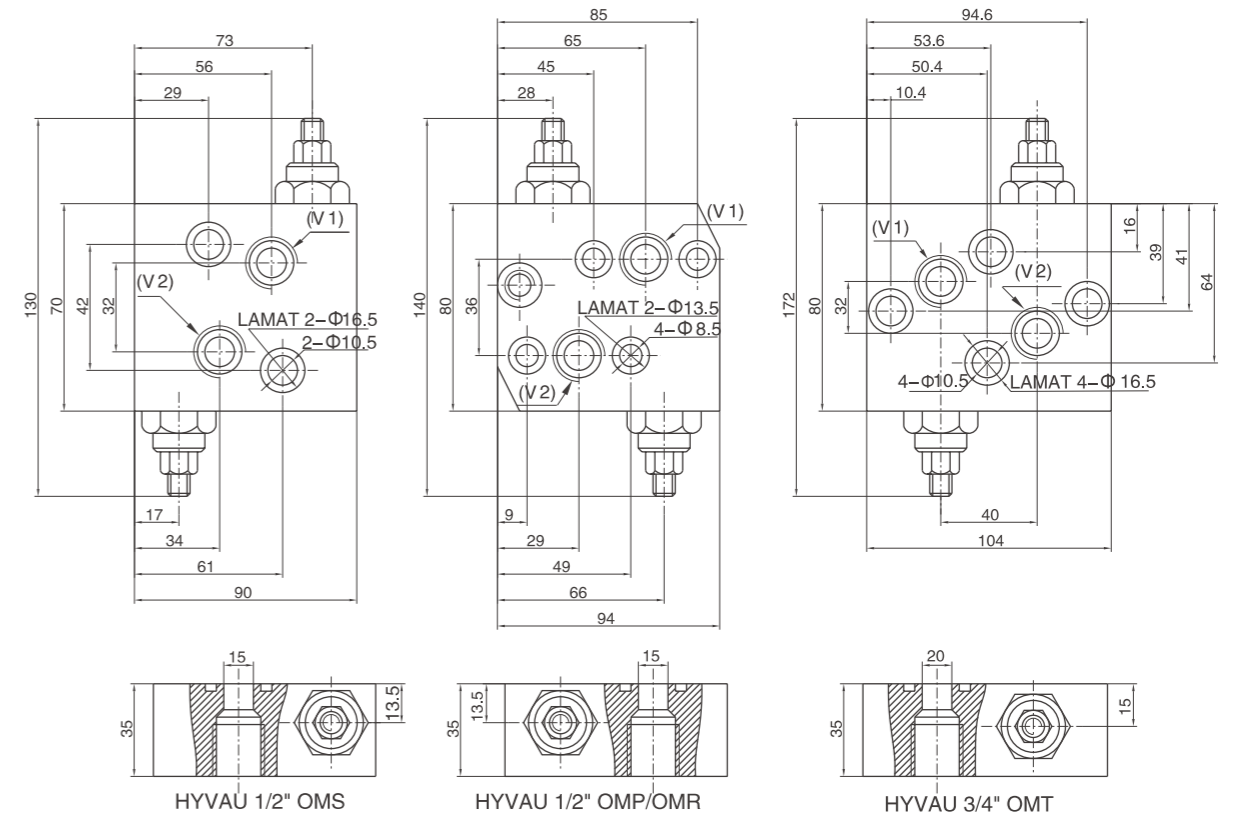
# Dual Cross Relief Valve Flangeable On Danfoss Motors Oms Omp/Omr – omt



## Pressure drops curve



## External dimensions

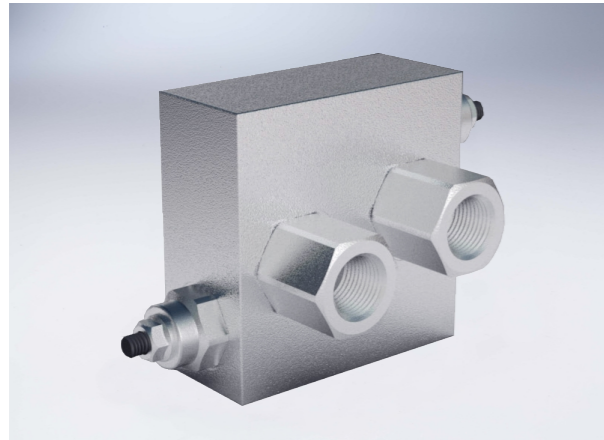


Type	V1/V2
HYVAU 1/2" OMS	G 3/8"
HYVAU1/2" OMP/OMR	G 1/2"
HYVAU3/4" OMT	G 1/2"

# Dual Cross Relief Valve Flangeable On Samhydraulik Motors Ag-ar



## Technical specification



Specification	1/2" AG-AR				
Max.flow (L/min)	60				

SPRINGS	Setting range(Bar)	10-50	20-100	10-180 Standard	50-250	80-300
	Pressure increase (Bar/turn)Q=4L/min	7	12	30	45	50
	Standard setting (Bar)	30	75	90	130	150

★ For Setting less than 70Bar Q=12L/min

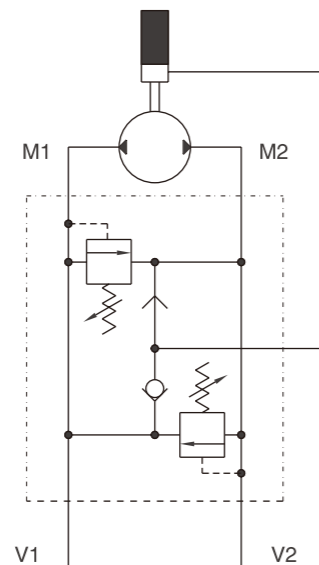
### Use and operation:

Made up by 2 relief valves with crossed tank, this valve is used to block pressure to a certain setting in the 2 ports of an actuator/ hydraulic motor. It's ideal to provide protection against sudden shock pressures and to adjust different pressures in the 2 ports of an hydraulic circuit as well. Direct flange is ideal for Samhydraulik motors type AG-AR and provides a maximum safety, very low pressure drops and solid installation.

### Applications:

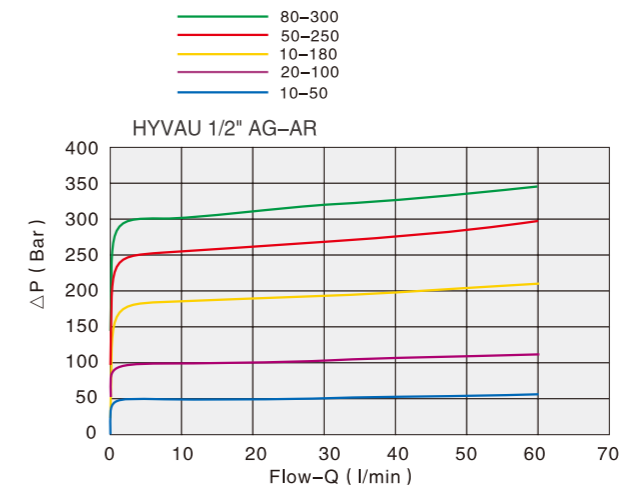
Flange M1 and M2 directly to the motor and connect ports V1 and V2 to pressure flow.

## Code symbol

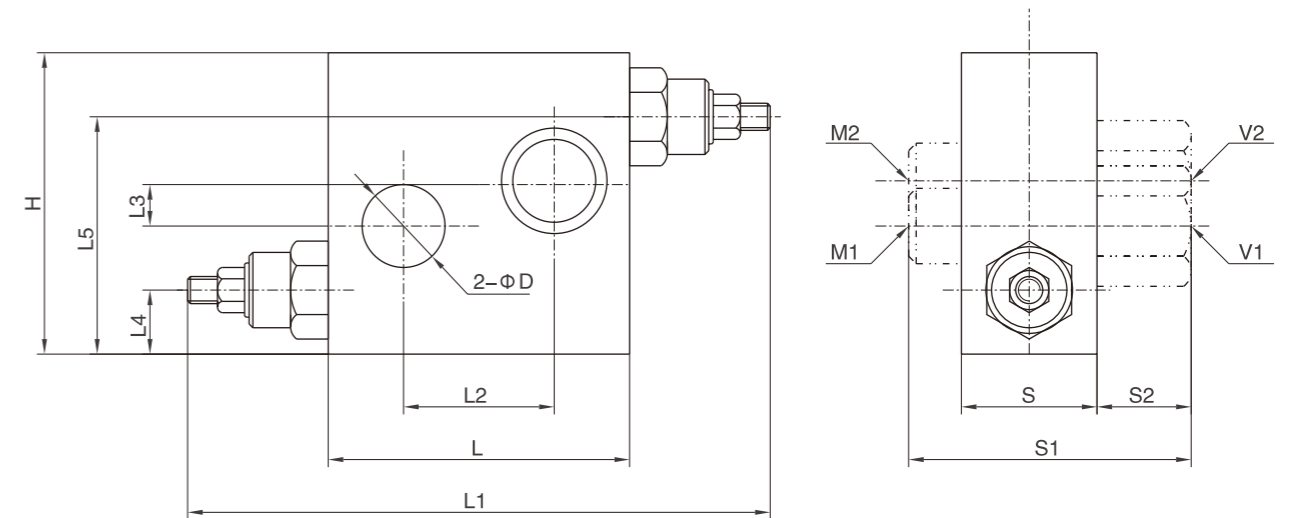


# Dual Cross Relief Valve Flangeable On Samhydraulik Motors Ag-ar

## Pressure drops curve



## External dimensions



Type	V1/V2	L	L1	L2	L3	L4	L5	D	H	S	S1	S2
HYVAU 1/2" AG-AR	G 1/2"	80	140	40	8	16.75	63.25	21.5	80	35	72	25

# Dual Cross Relief Valves With Anti-cavitation

## Technical specification



Specification	1/2"	3/4"	
Max.flow (L/min)	70	110	
SPRINGS HYVAUAC 1/2"	Setting range (Bar)	10-180STANDARD	50-250
	Pressure increase (Bar/turn)Q=4L/min	30	50
	Standard setting (Bar)	90	150
SPRINGS HYVAUAC 3/4"	Setting range (Bar)	20-200	50-400STANDARD
	Pressure increase (Bar/turn)Q=4L/min	40	80
	Standard setting (Bar)	160	180

### Use and operation:

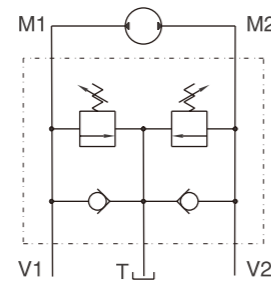
This valve is used to block pressure to a certain setting in the 2 ports of an hydraulic motor: when it reaches pressure setting, the valve opens allowing pressure relief in T. The relief valve provides overload protection in a fast and accurate way and cavitation is avoid tanks to the check valve. It's suggested to mount set check valves to the tank way out.

### MATERIALS AND FEATURES:

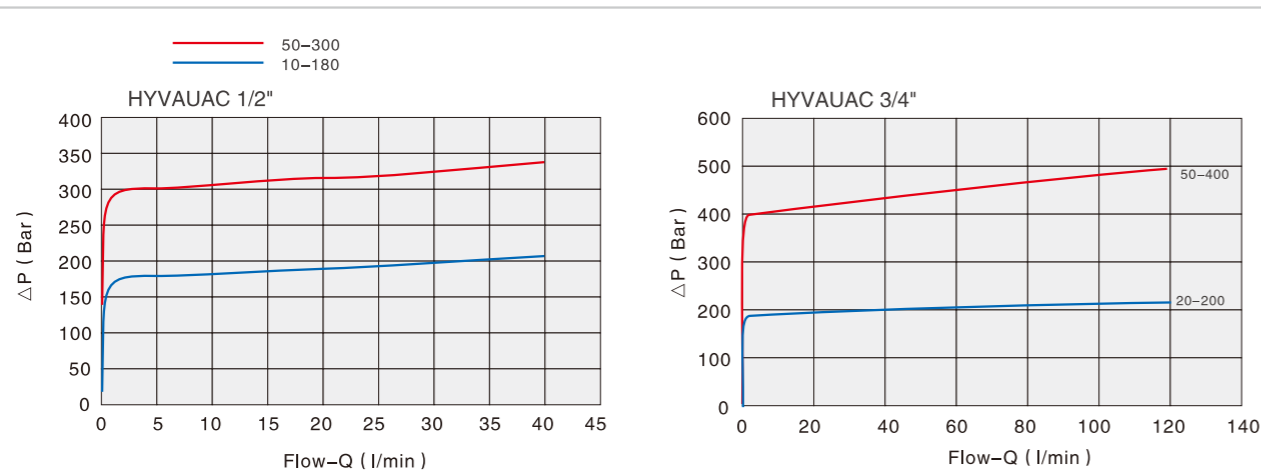
### Applications:

Connect M1 and M2 to the motor and P1 and P2 to the pressure flow. Connect T to the tank. Mounting by the actuator is highly recommended in order to avoid pressure drops and get a prompt duty.

## Code symbol



## Pressure drops curve

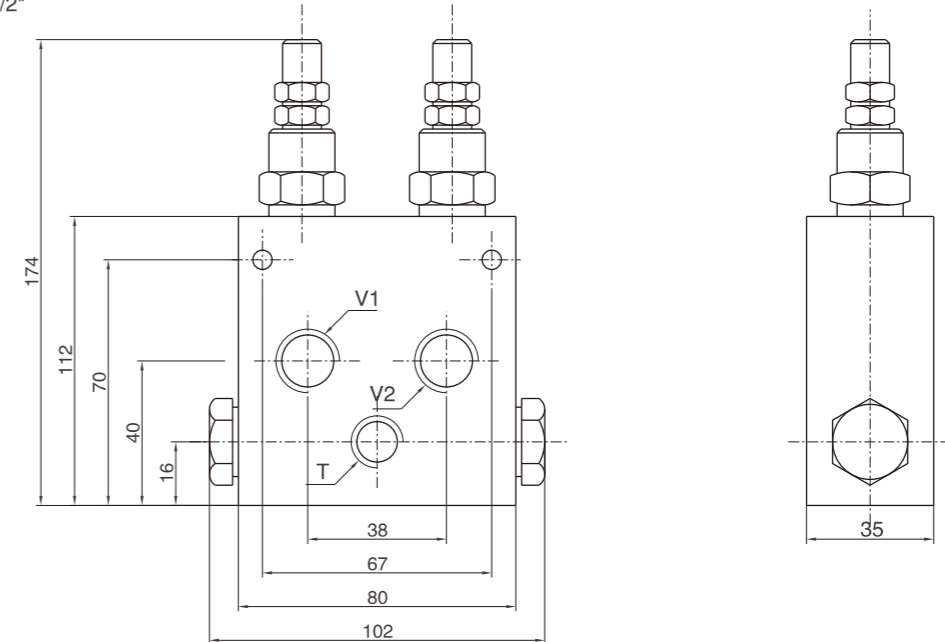


# Dual Cross Relief Valves With Anti-cavitation

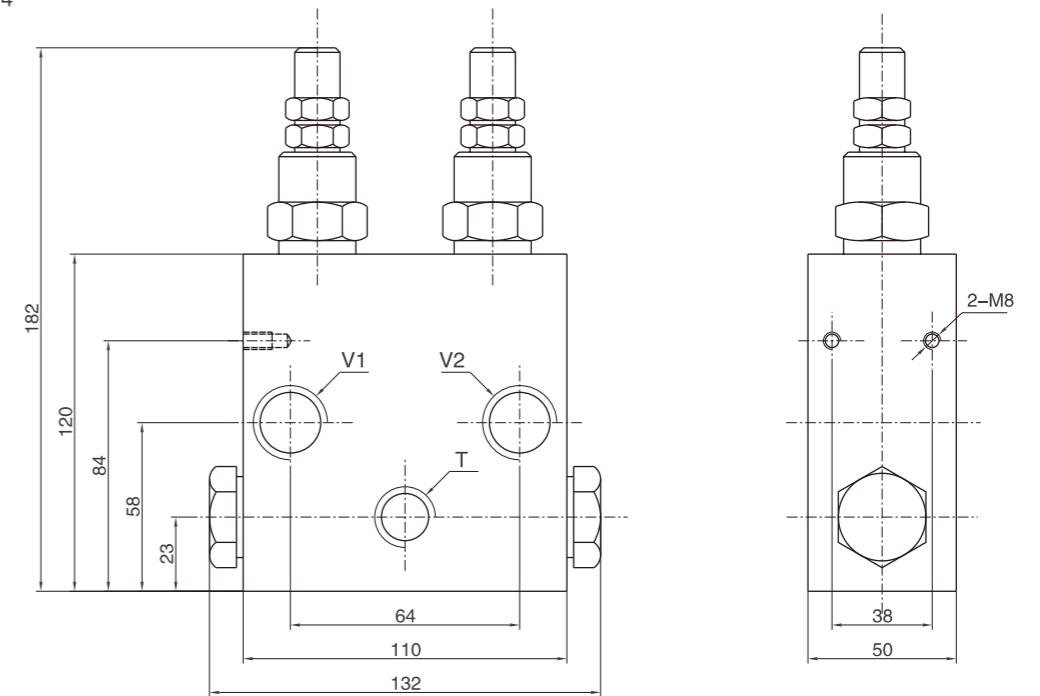


## External dimensions

HYVAUAC 1/2"



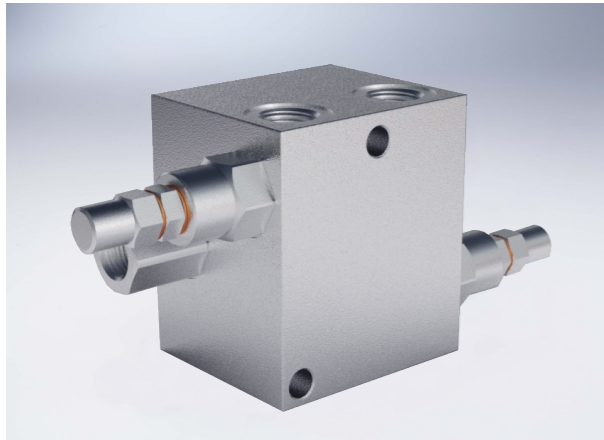
HYVAUAC 3/4"



Type	V1/V2	T
HYVAUAC 1/2"	G 1/2"	G 3/8"
HYVAUAC 3/4"	G 3/4"	G 1/2"

# Dual Cross Relief Valve With Pilot Check Valve

## Technical specification

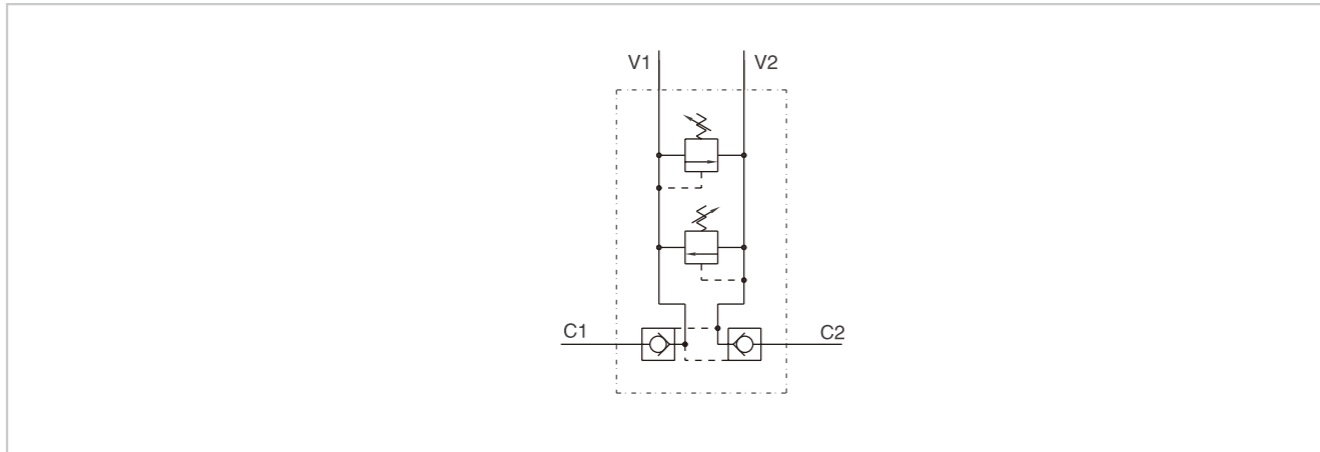


Specification		3/8"
Max.flow (L/min)		35
SPRINGS	Setting range (Bar)	10-180
	Pressure increase (Bar/turn)Q=4L/min	30
	Standard setting (Bar)	90

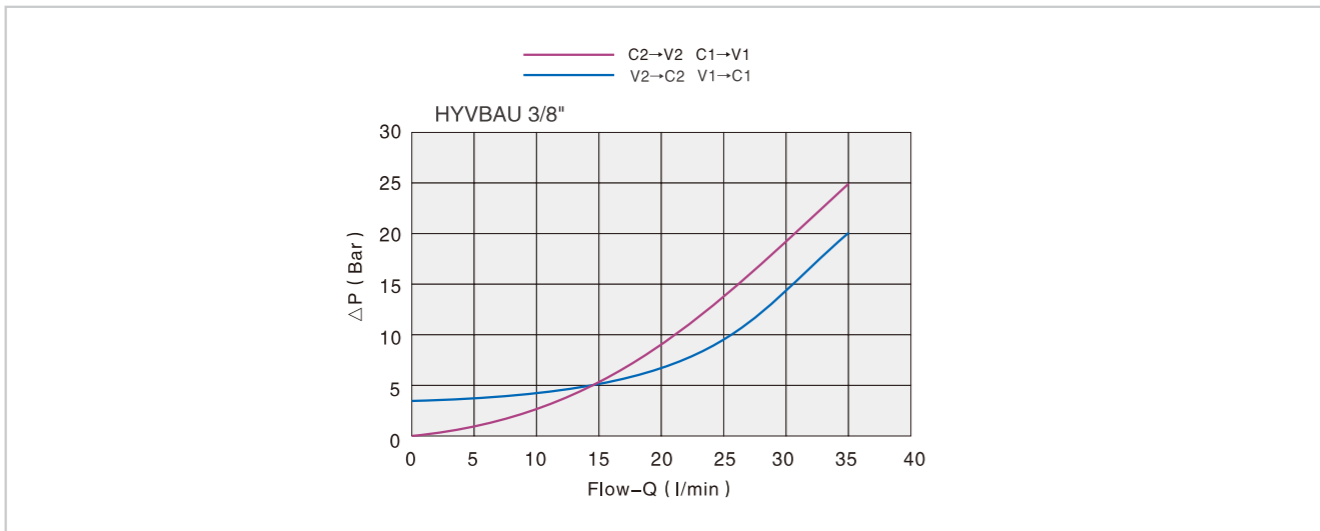
**Use and operation:**  
 Made up by 1 double pilot check valve together with one double cross relief valve, this valve enables to block the actuator in one position and to limit inlet pressure to the actuator.

**Applications:**  
 Connect V1 and V2 to the pressure flow and C1 and C2 to the actuator.

## Code symbol

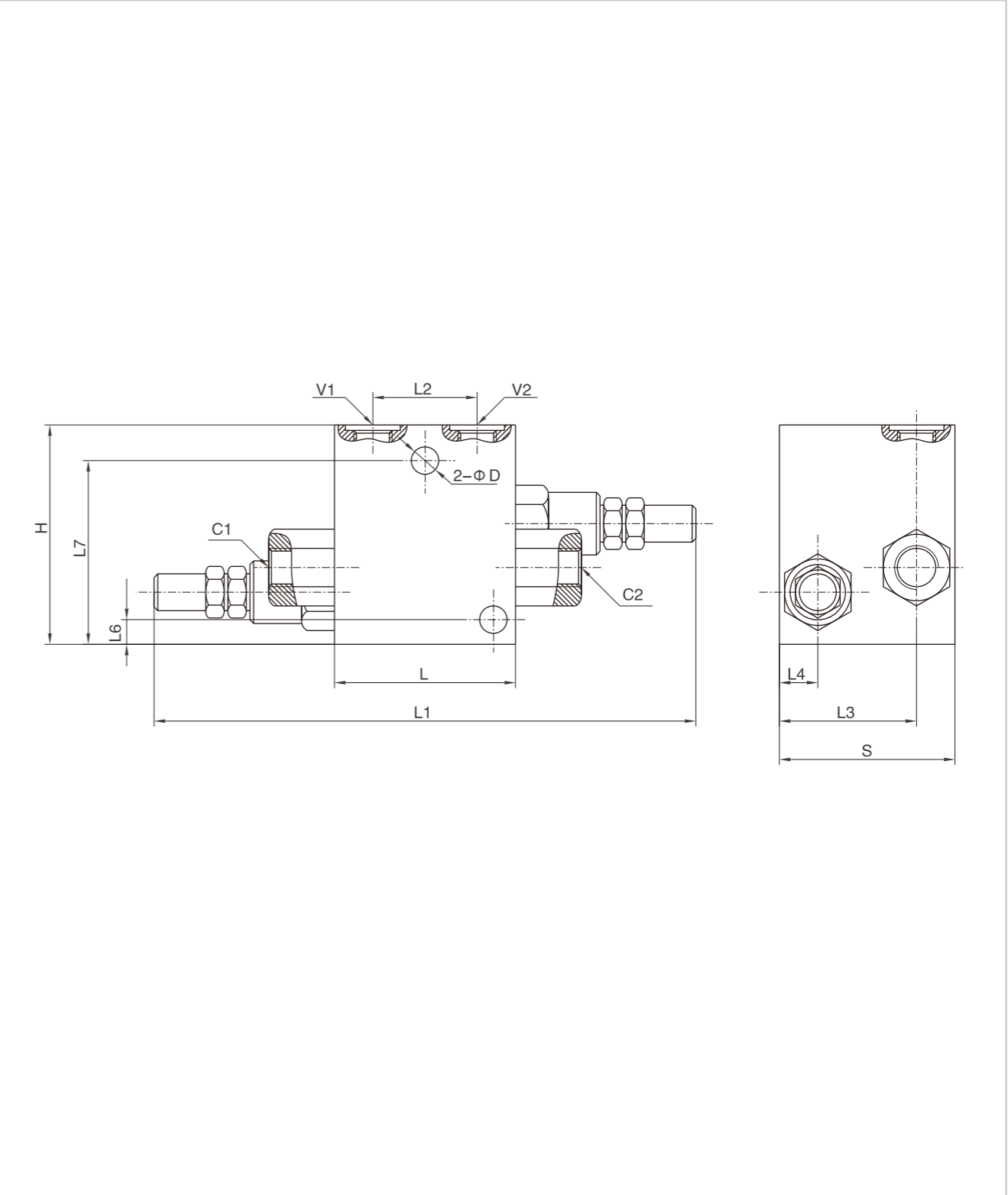


## Pressure drops curve



# Dual Cross Relief Valve With Pilot Check Valve **HOYEA**

## External dimensions



Type	V1/V2/C1/C2	L	L1	L2	L3	L4	L5	L6	L7	D	H	S
HYVBAU 3/8"	G 3/8"	70	194	39	45	15	7	6.5	71.5	8.5	80	60

## 2 Ways Flow Divider

### Technical specification



Specification	8	10	15	20	22	25	30	50
Min.flow (L/min)*	1	3	6	10	20	25	40	60
Max.flow (L/min)	3	6	10	20	32	40	60	80
Working pressure (Bar)	250							
Peak pressure (Bar)	300							

\*Capacity values refers to input P

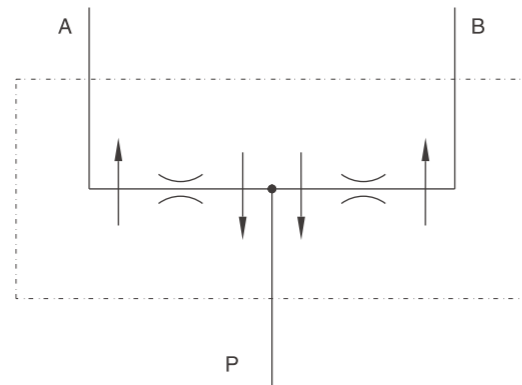
#### Use and operation:

These valves allows the division of inlet flow into two equals parts (50/50) and they unify it in the reverse direction independently of any pressure changes and flow. These valves are used when two equal actuators, that are not mechanically coupled, supplied by the same pump and controlled by a single distributor, must move simultaneously both at input and output

#### Applications:

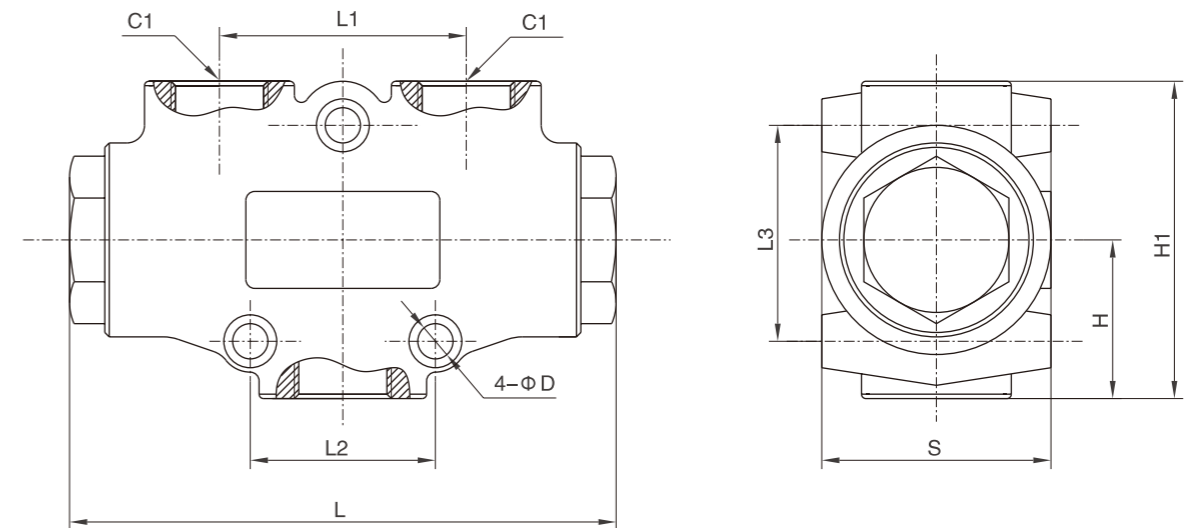
Connect P to pressure flow and A and B to the actuators.

### Code symbol



## 2 Ways Flow Divider

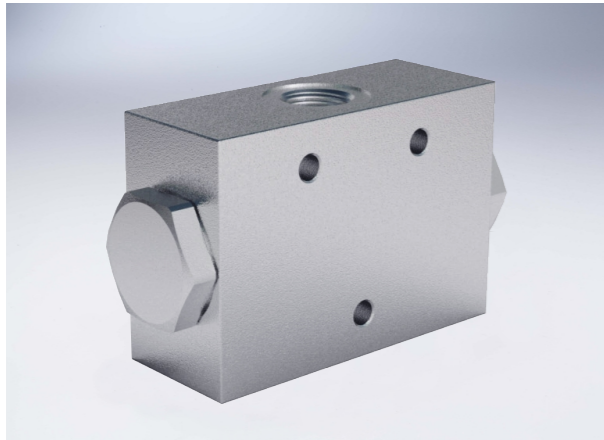
### External dimensions



Type	A/B	P	L	L1	L2	L3	D	H	H1	S
HYV-EQ 8	G 3/8"	G 3/8"	117	53	40	45	7	35	68	48
HYV-EQ 10	G 3/8"	G 3/8"	117	53	40	45	7	35	68	48
HYV-EQ 15	G 3/8"	G 3/8"	117	53	40	45	7	35	68	48
HYV-EQ 20	G 3/8"	G 3/8"	117	53	40	45	7	35	68	48
HYV-EQ 22	G 3/8"	G 3/8"	117	53	40	45	7	35	68	48
HYV-EQ 25	G 1/2"	G 3/8"	117	53	40	45	7	35	68	48
HYV-EQ 30	G 1/2"	G 3/8"	117	53	40	45	7	35	68	48
HYV-EQ 50	G 1/2"	G 3/8"	117	53	40	45	7	35	68	48

# Steel Flow Divider

## Technical specification



Specification	6-10	10-20	25-40
Min.flow (L/min)*	6	10	25
Max.flow (L/min)*	10	20	40
Working pressure (Bar)	250		
Peak pressure (Bar)	300		

\*Capacity values refers to input P

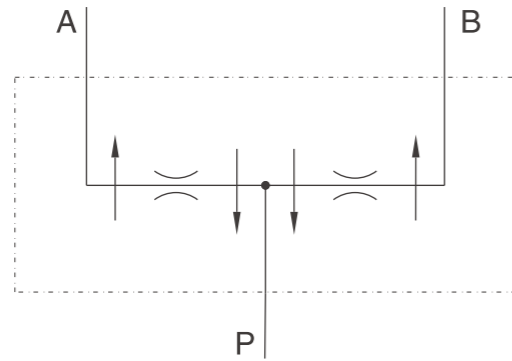
### Use and operation:

These valves allows the division of inlet flow into two equals parts (50/50) and they unify it in the reverse direction irrespective of any pressure differences and flow. These valves are used when two equal actuators, that are not mechanically coupled, supplied by the same pump and controlled by a single distributor, must move simultaneously both at input and output.

### Applications:

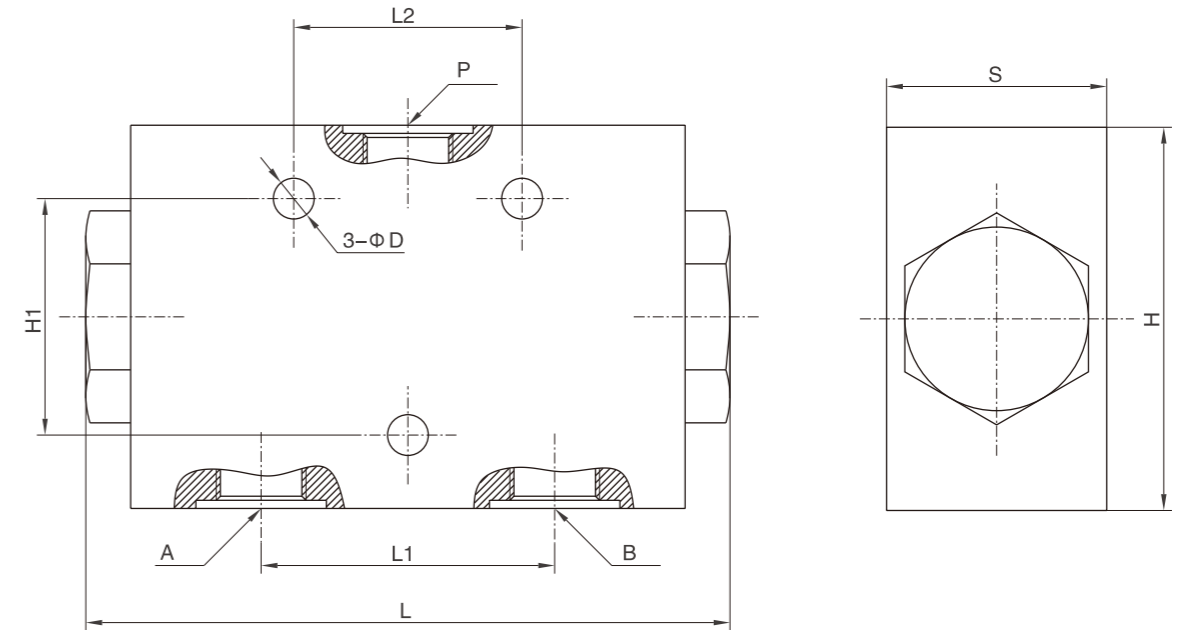
Connect P to pressure flow and A and B to the actuators

## Code symbol



# Steel Flow Divider

## External dimensions



Type	A/B	P	L	L1	L2	H	H1	S
HYV-EQ 8	G 3/8"	G 3/8"	117	53	40	70	45	40
HYV-EQ 10	G 3/8"	G 3/8"	117	53	40	70	45	40
HYV-EQ 15	G 3/8"	G 1/2"	117	53	40	70	45	40



# Non-adjustable Proportional Flow Dividers

## Technical specification



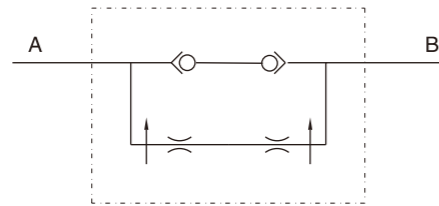
Specification	Z1/2	Z3/4	G1/2	G3/4	SAE10	SAE12
Rated pressure (Bar)	300					
Inlet flow (L/min)	30.2 to 60.5	60.5 to 113.4	30.2 to 60.5	60.5 to 113.4	30.2 to 60.5	60.5 to 113.4

Specification	Z3/8	G3/8
Rated pressure (Bar)	300	
Inlet flow (L/min)	30~60	30~60

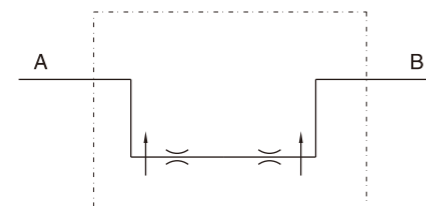
**Use and operation:**  
 it is non-adjustable proportional divider, Flow can travel in reverse through both outlet ports and is not metered when it goes in reverse. The non-metered flow travels past the poppet, down the center of the valve, past the orificed spool and through the inlet. The two outlet flows are pressure compensating and the sum of said flows equals the inlet flow. The ratio of outlet flows must be specified when ordering.

## Code symbol

Z1/2 Z3/4 G1/2 G3/4 SAE10 SAE12

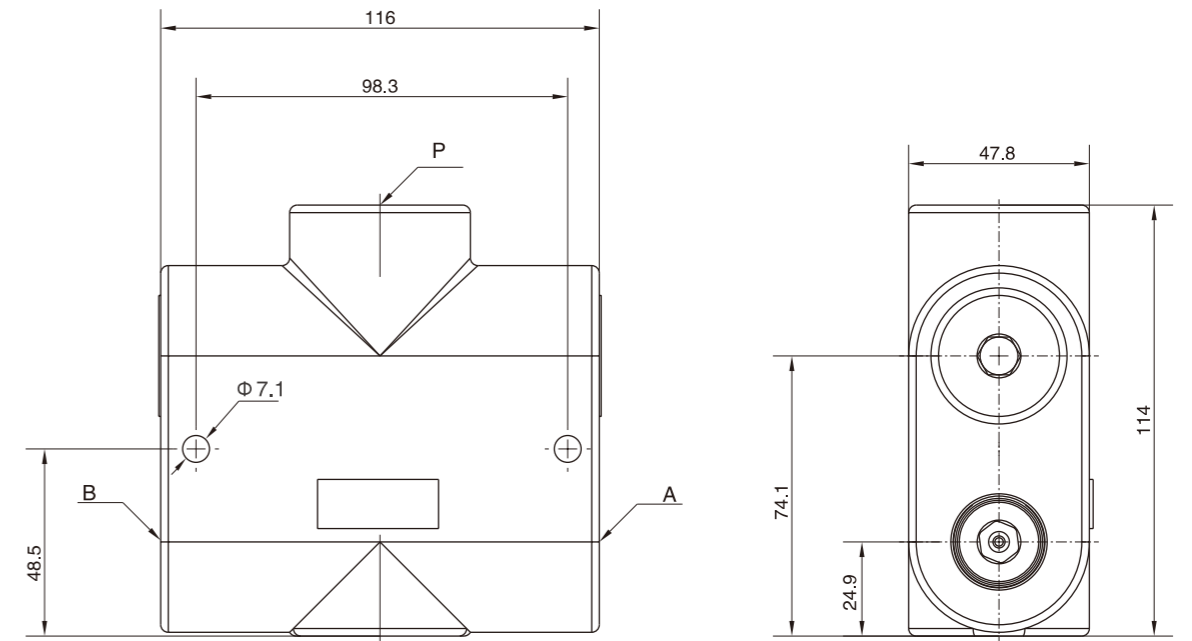


Z3/8 G3/8



# Non-adjustable Proportional Flow Dividers

## External dimensions



Type	P/A/B
B100 Z1/2	Z 1/2"
B100 Z3/4	Z 3/4"
B100 G1/2	G 1/2"
B100 G3/4	G 3/4"
B100 SAE10	SAE 10
B100 SAE12	SAE 12
B50 Z3/8	Z 3/8 "
B50 G3/8	G 3/8 "

# Direct Acting Sequence Valves

## Technical specification



Specification	3/8"	1/2"	3/4"
Max. flow ( L/min )	35	70	110
Max. pressure (Bar)	35	70	110

SPRINGS HYVS2C 3/8" HYVS2C 1/2"	Setting range(Bar)	10-50	20-100	10-180 Standard	50-250	80-300
	Pressure increase (Bar/turn)Q=4L/min	7	12	30	45	50
Standard setting(Bar)	30	75	90	130	150	
SPRINGS HYVS2C 3/4"	Setting range(Bar)	20-200		50-400STANDARD		
	Pressure increase (Bar/turn)Q=4L/min	40		80		
IMPIEGO:	Standard setting(Bar)	160		180		

### Use and operation:

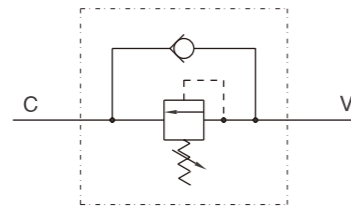
Sequence valve is used to feed 2 cylinders in sequence: it provides flow to the secondary circuit when a primary circuit function has been completed reaching the pressure setting. Return flow is free. It's ideal for circuits with low pressure on the secondary actuator as the pressures add to.

### Applications:

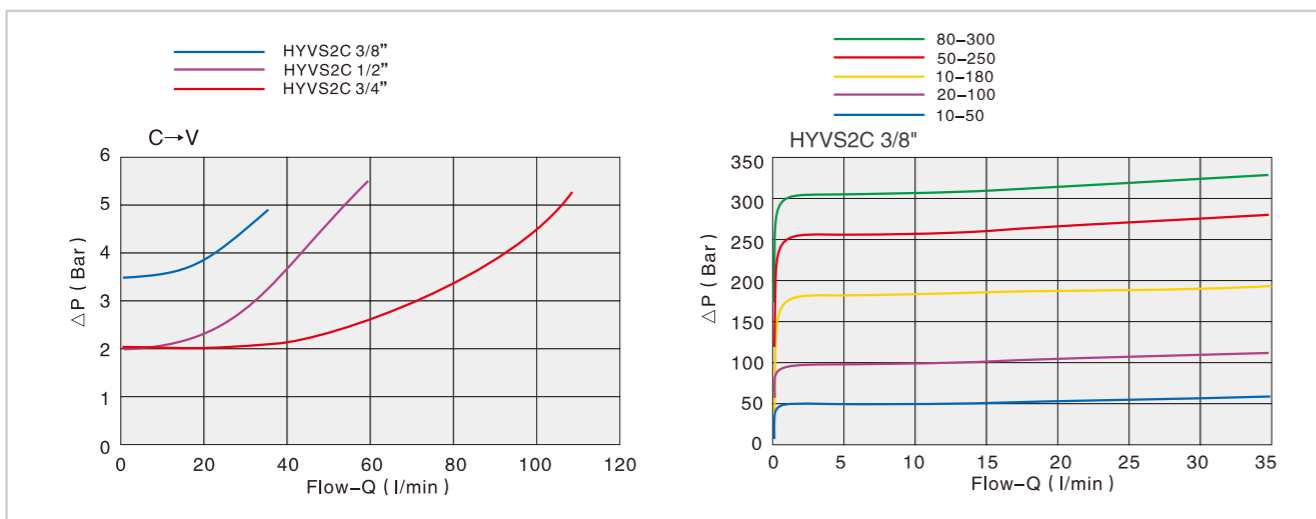
For use with 2 actuators, follow the mounting instructions indicated in the scheme.

For different uses, mount the valve keeping into consideration that, when the valve reaches the setting pressure, the flow goes from V towards C, whilst flow is free from C to V.

## Code symbol

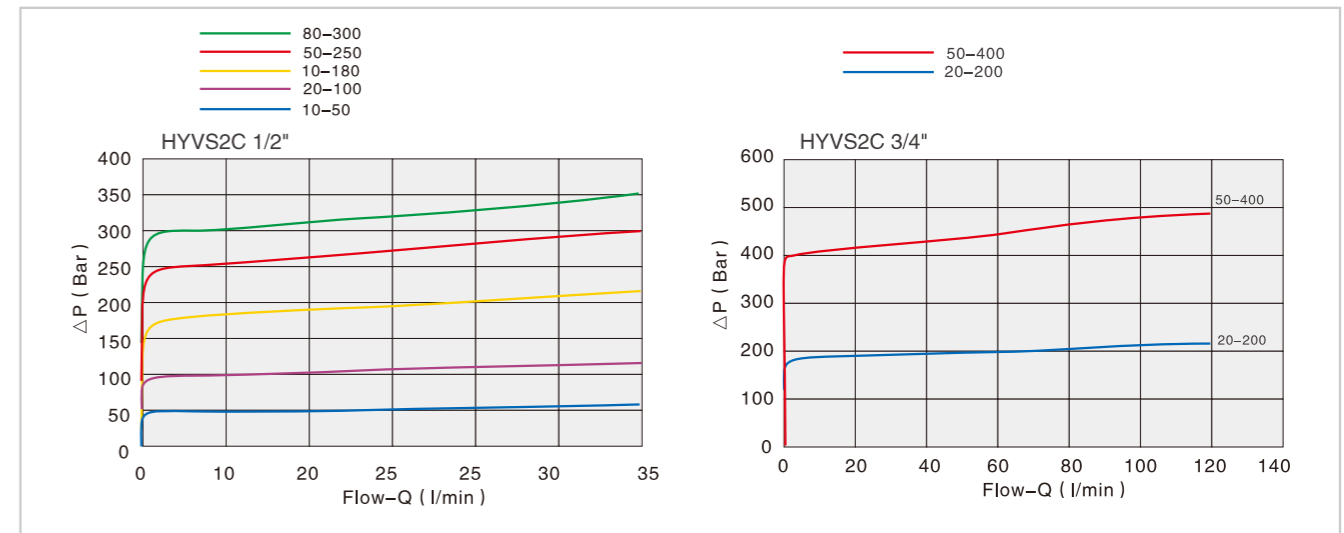


## Pressure drops curve

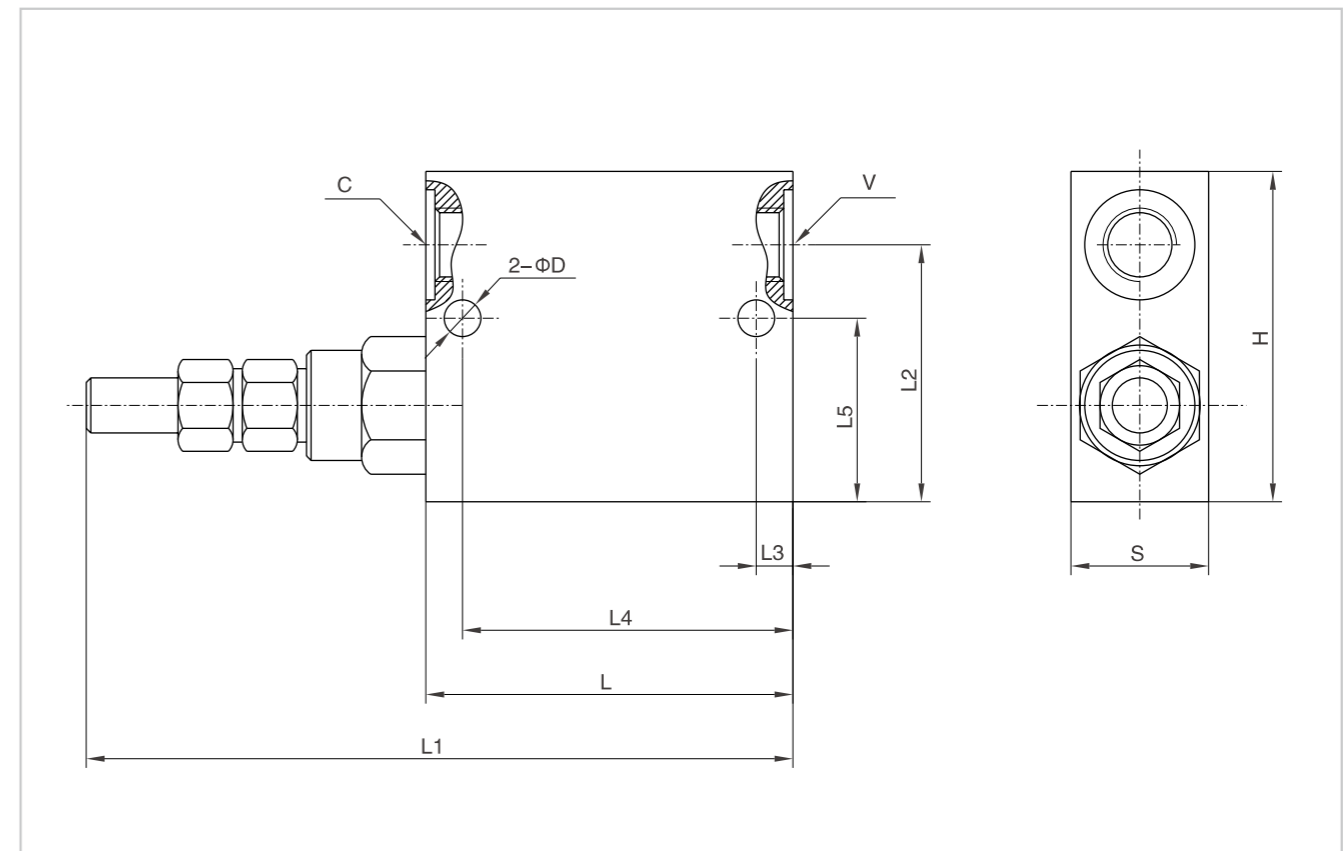


# Direct Acting Sequence Valves

## Pressure drops curve



## External dimensions



Type	V/C	L	L1	L2	L3	L4	L5	D	H	S
HYVS2C 3/8"	G 3/8"	74	146	56	8	63	39	8.5	70	30
HYVS2C 1/2"	G 1/2"	80	152	55	8	63	37	8.5	70	30
HYVS2C 3/4"	G 3/4"	100	164	80	10	90	50	8.5	100	40

# Sequence Valves

## Technical specification



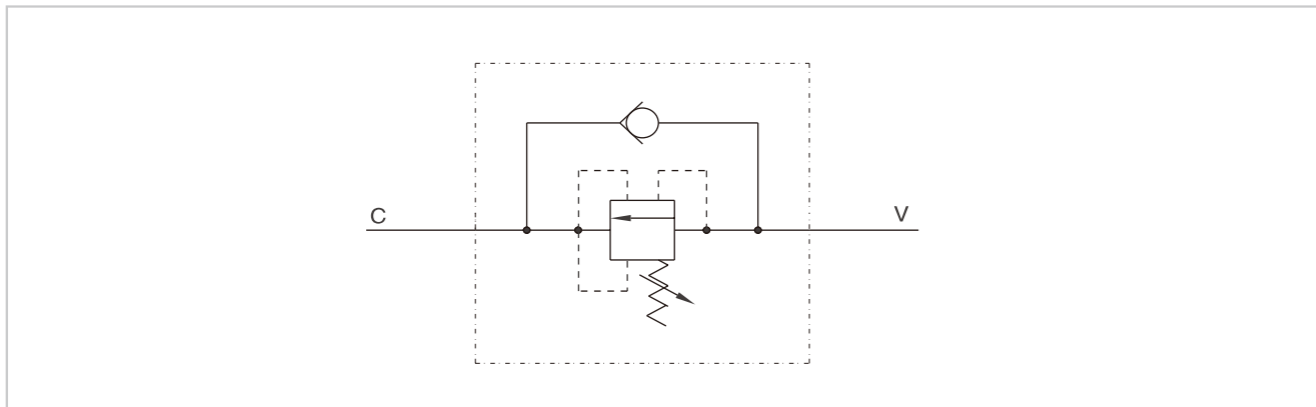
Specification	3/8"	3/8"
Max.flow ( L/min )	35	35

SPRINGS	Setting range(Bar)	10-50	20-100	10-180 Standard	50-250	80-300
	Pressure increase (Bar/turn)Q=4L/min	7	12	30	45	50
	Standard setting(Bar)	30	75	90	130	150

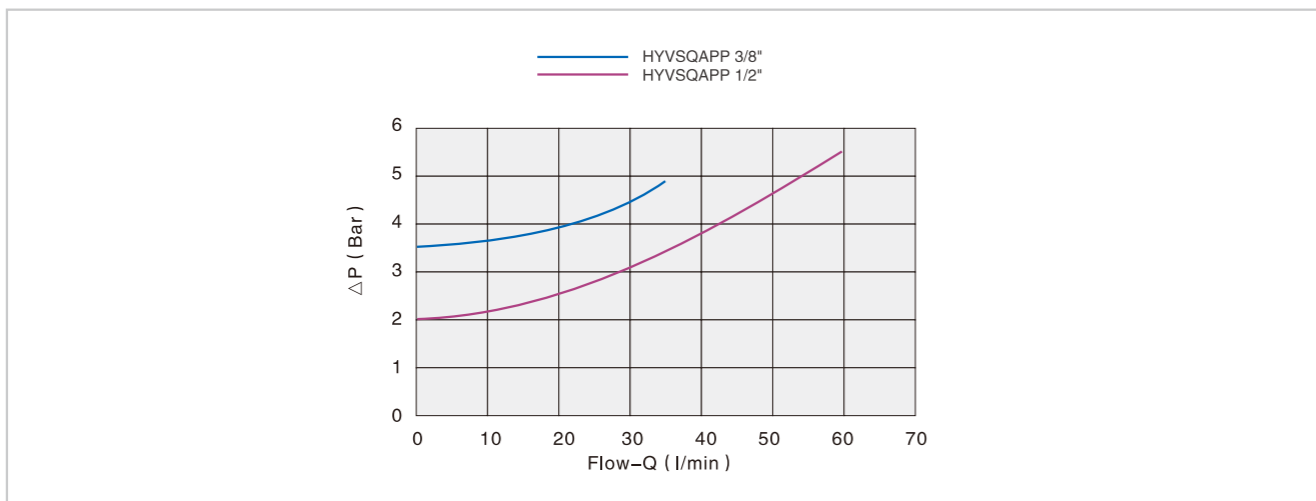
**Use and operation:**  
Sequence valve is used to feed 2 cylinders in sequence: it provides flow to the secondary circuit when a primary circuit function has been completed reaching the pressure setting. Return flow is free. Being insensitive to back pressures, it allows to use the circuit pressure to control both the actuators.

**Applications:**  
For use with 2 actuators, follow the mounting instructions indicated in the scheme.  
For different uses, mount the valve keeping into consideration that, when the valve reaches the setting pressure, the flow goes from V towards C, whilst flow is free from C to V.

## Code symbol

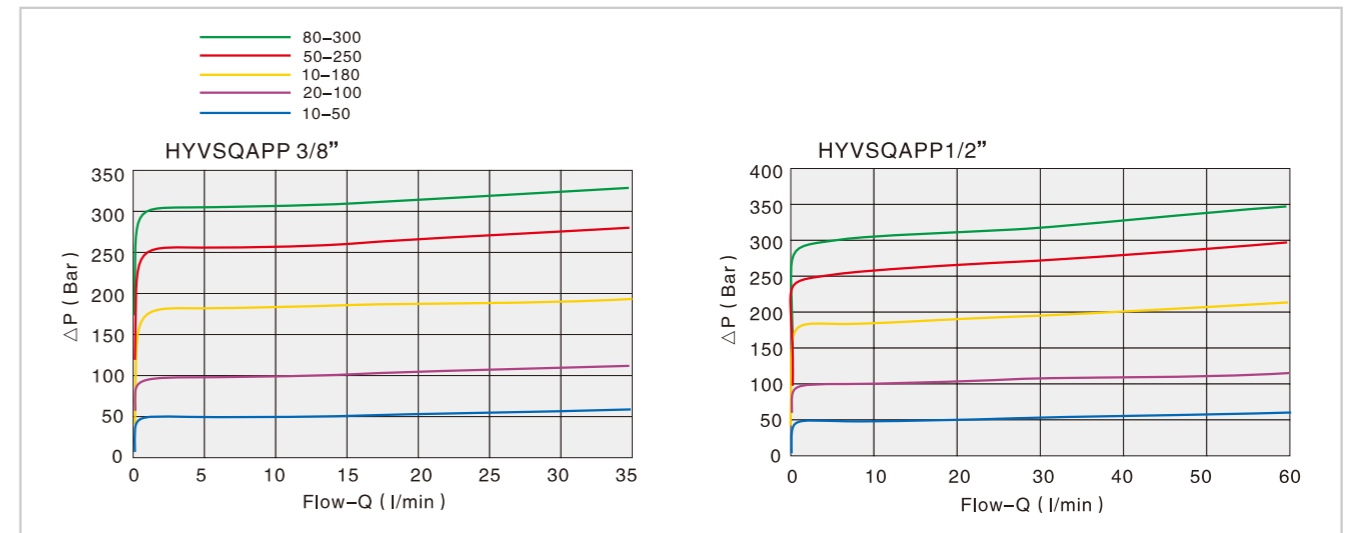


## Pressure drops curve

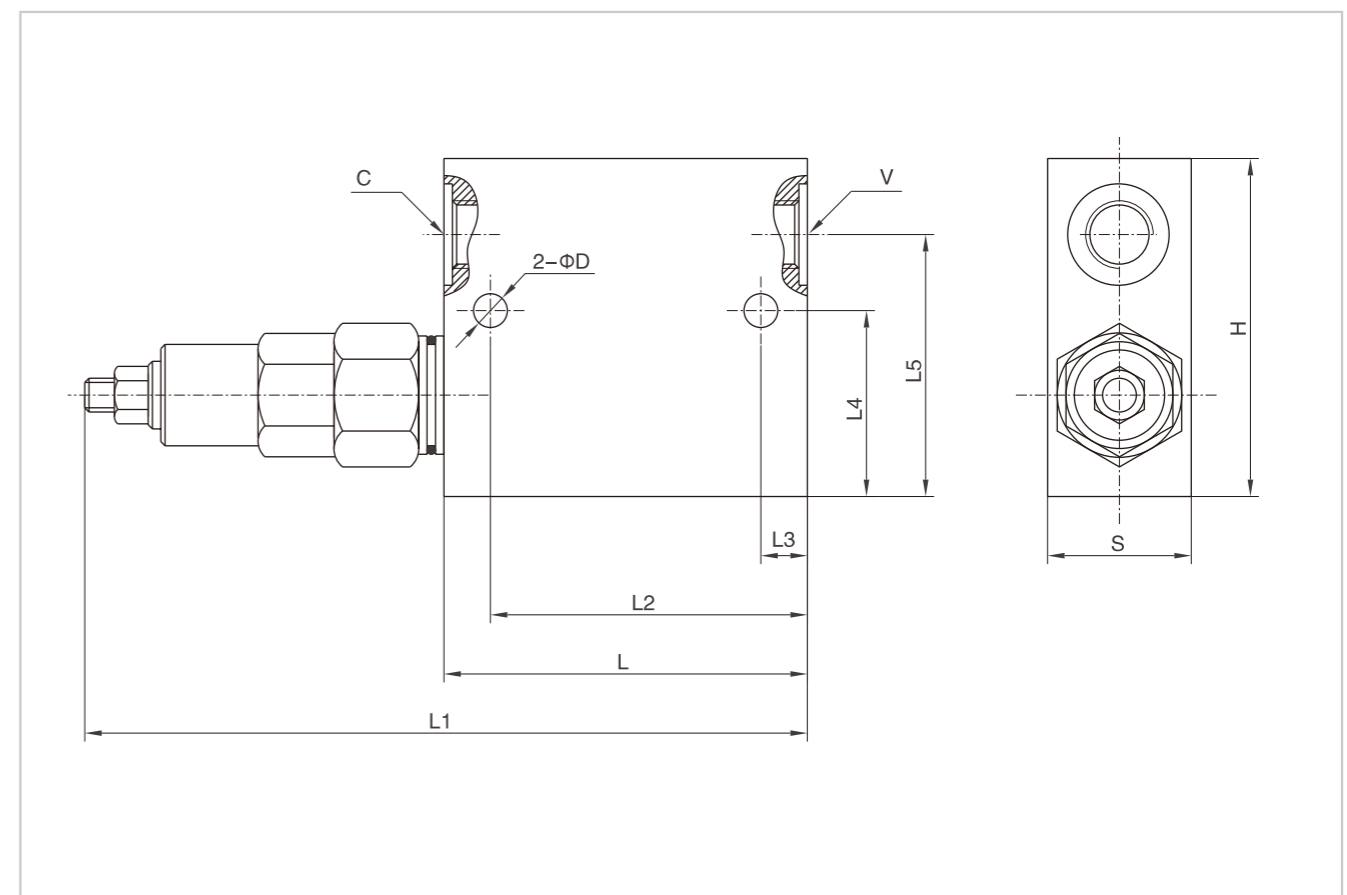


# Sequence Valves

## Pressure drops curve



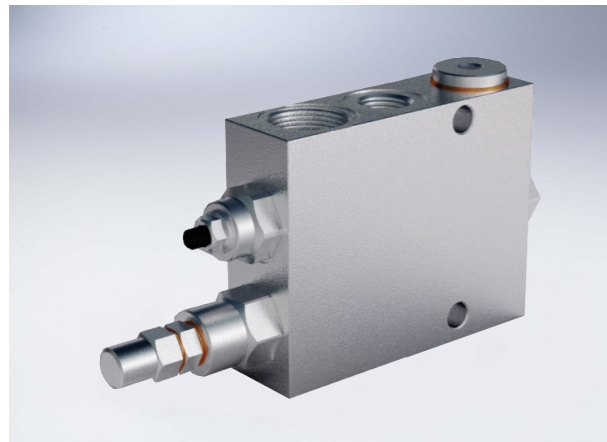
## External dimensions



Type	V/C	L	L1	L2	L3	L4	L5	D	H	S
HYVSQAPP 3/8"	G 3/8"	74	149	55	12	39	56	8.5	70	30
HYVSQAPP 1/2"	G 1/2"	80	155	55	18	37	55	8.5	70	30

# Two Pump "Hi-low" Unloading Valves

## Technical specification

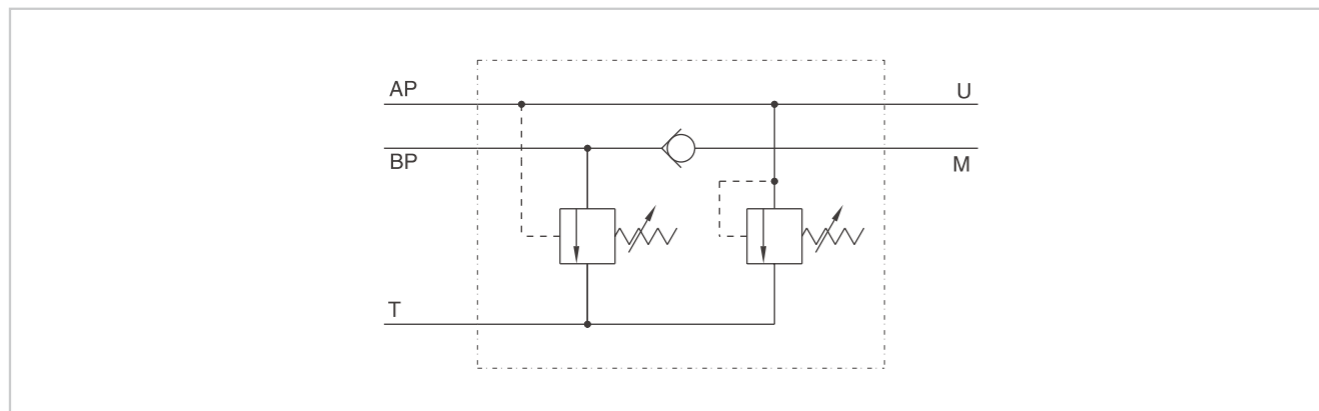


Specification		3/8"	1/2"	3/4"
Max flow ( L/min )	AP	15	25	30
	BP	30	45	80
	T	40	65	100
Max pressure (Bar)		350		
Standard	AP	20-80		
Springs	BP	50-350		

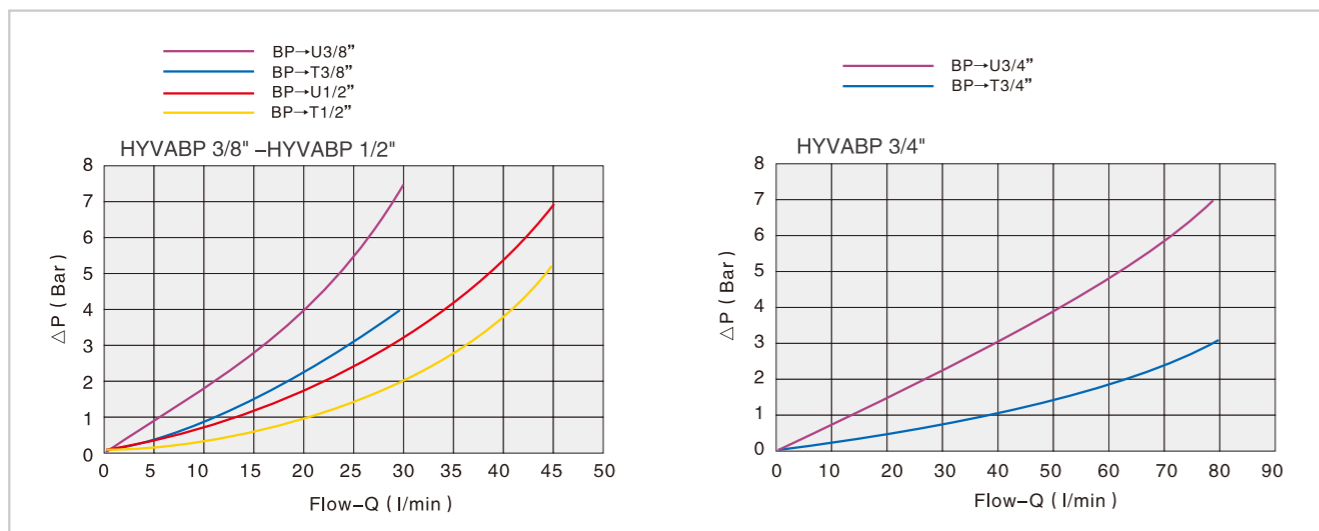
**Use and operation:**  
 This valve is used in a 2 parallel-working pumps circuit in order to release the excess of the higher flow pump to the tank when this gets the required pressure setting. Since this moment and on the actuator works with the lower flow pumps at higher pressure, consuming less energy.

**Applications:**  
 Connect BP to the higher flow pump, AP to the lower flow pump, T to the tank, M to the eventual manometer and U as for necessity.

## Code symbol

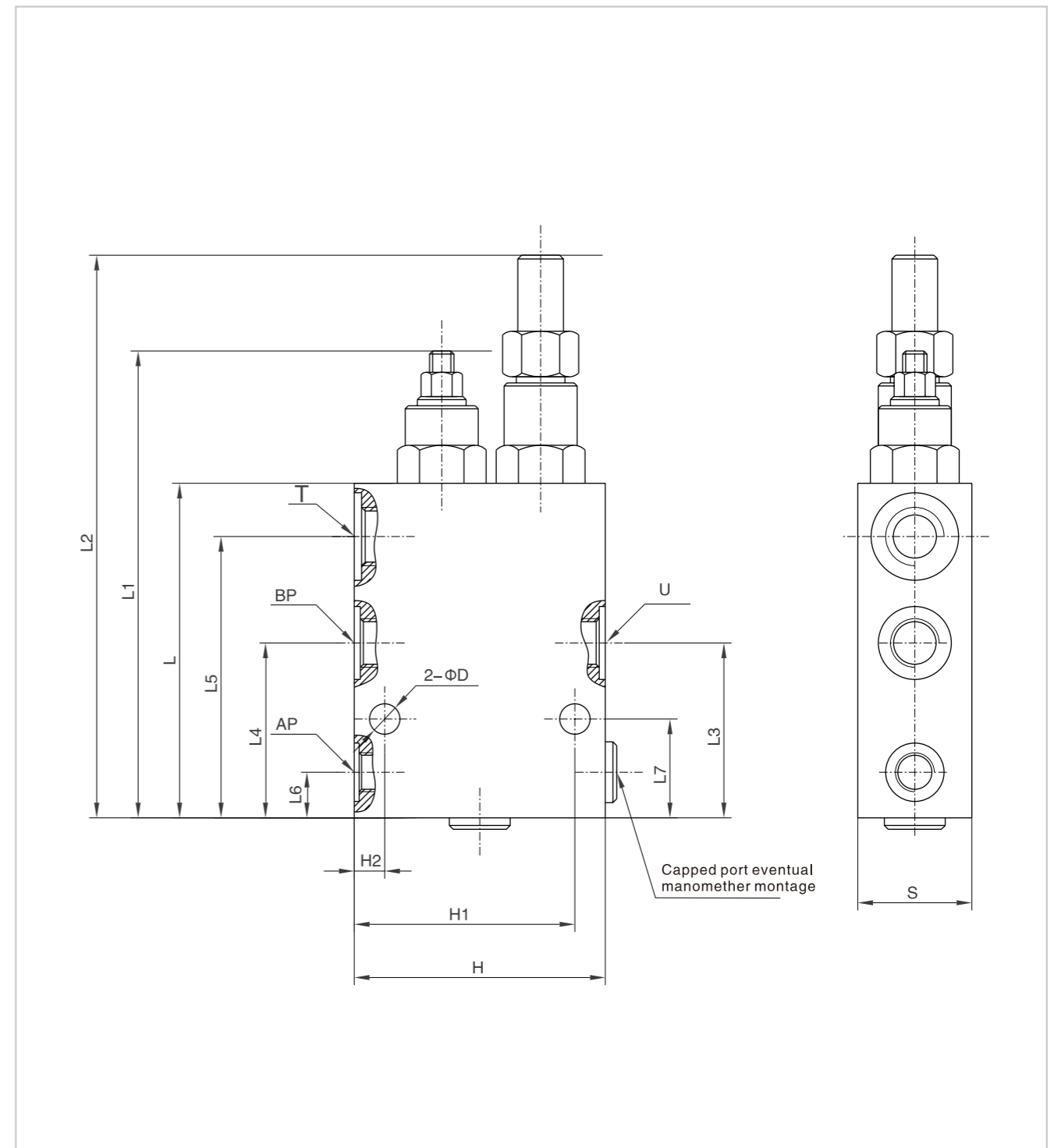


## Pressure drops curve



# Two Pump "Hi-low" Unloading Valves

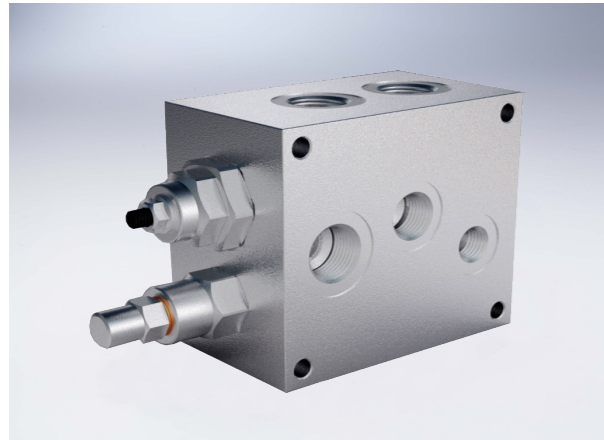
## External dimensions



Type	AP	BP	U	T	L	L1	L2	L3	L4	L5	L6	L7	D	H	H1	H2	S
HYVABP 3/8"	G 1/4"	G 3/8"	G 3/8"	G 1/2"	100	142	155	50	30	20	13	31	8.5	80	73.5	8.5	30
HYVABP 1/2"	G 3/8"	G 1/2"	G 1/2"	G 3/4"	105	147	160	51	51	87	15	32.5	8.5	90	82	17	35
HYVABP 3/4"	G 1/2"	G 3/4"	G 3/4"	G 1"	140	187	212	87.5	42.5	20	20	5	8.5	100	92	27	40

# Two Pump "Hi-low" Unloading Valves Flangeable (Base Ng6–Ng10 and Ng16)

## Technical specification

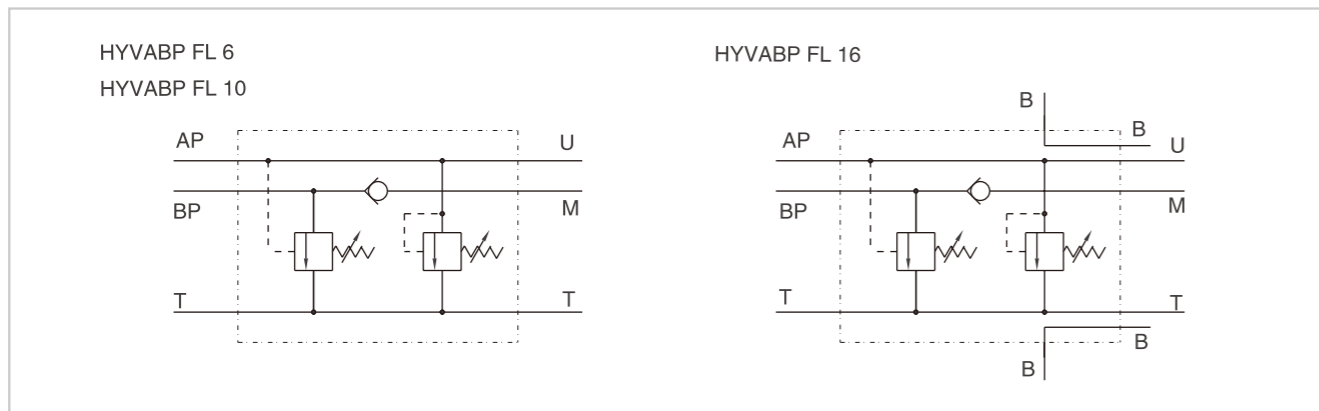


Specification		FL 6	FL 10	FL 16
Max flow ( L/min )	AP	15	25	35
	BP	30	45	80
	T	40	65	100
Max pressure (Bar)		350		
Standard	AP	20–80		
Springs	BP	50–350		

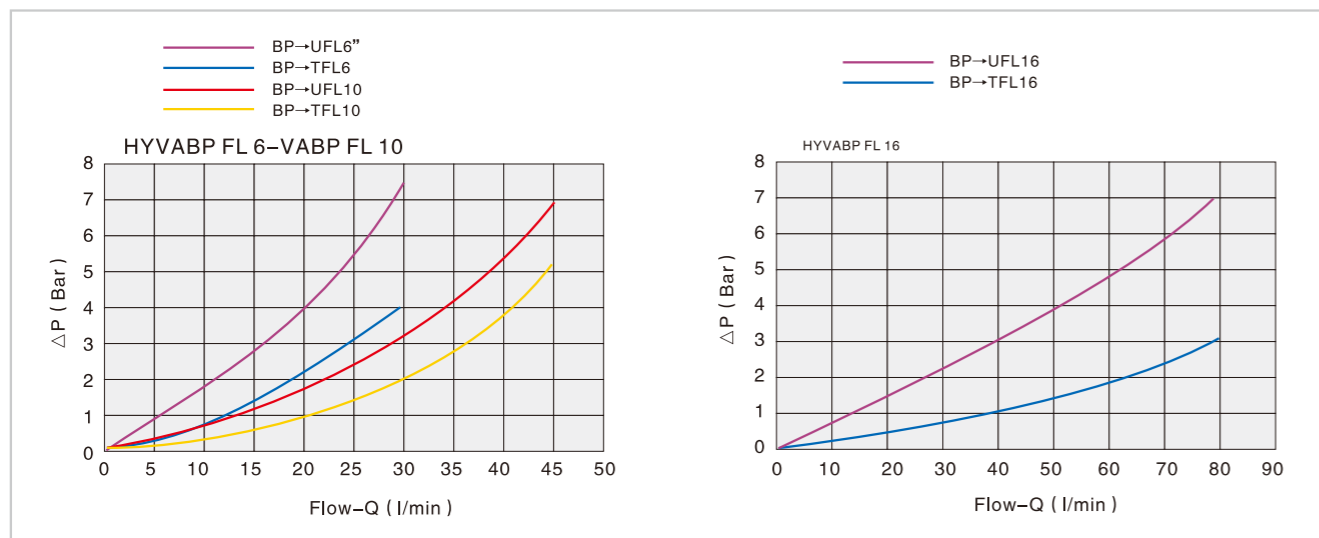
**Use and operation:**  
This valve is used in a 2 parallel-working pumps circuit in order to release the excess of the higher flow pump to the tank when this gets the required pressure setting. Since this moment and on the actuator works with the lower flow pumps at higher pressure, consuming less energy. It's ideal for direct flange mounting on solenoid valves.

**Applications:**  
Fix the valve to the pressure flow by connecting BP to the higher flow pump, AP to the lower flow pump, T to the tank and M to the eventual manometer. Flange the solenoid valve to the VABP and connect ports A and B to the actuator.

## Code symbol

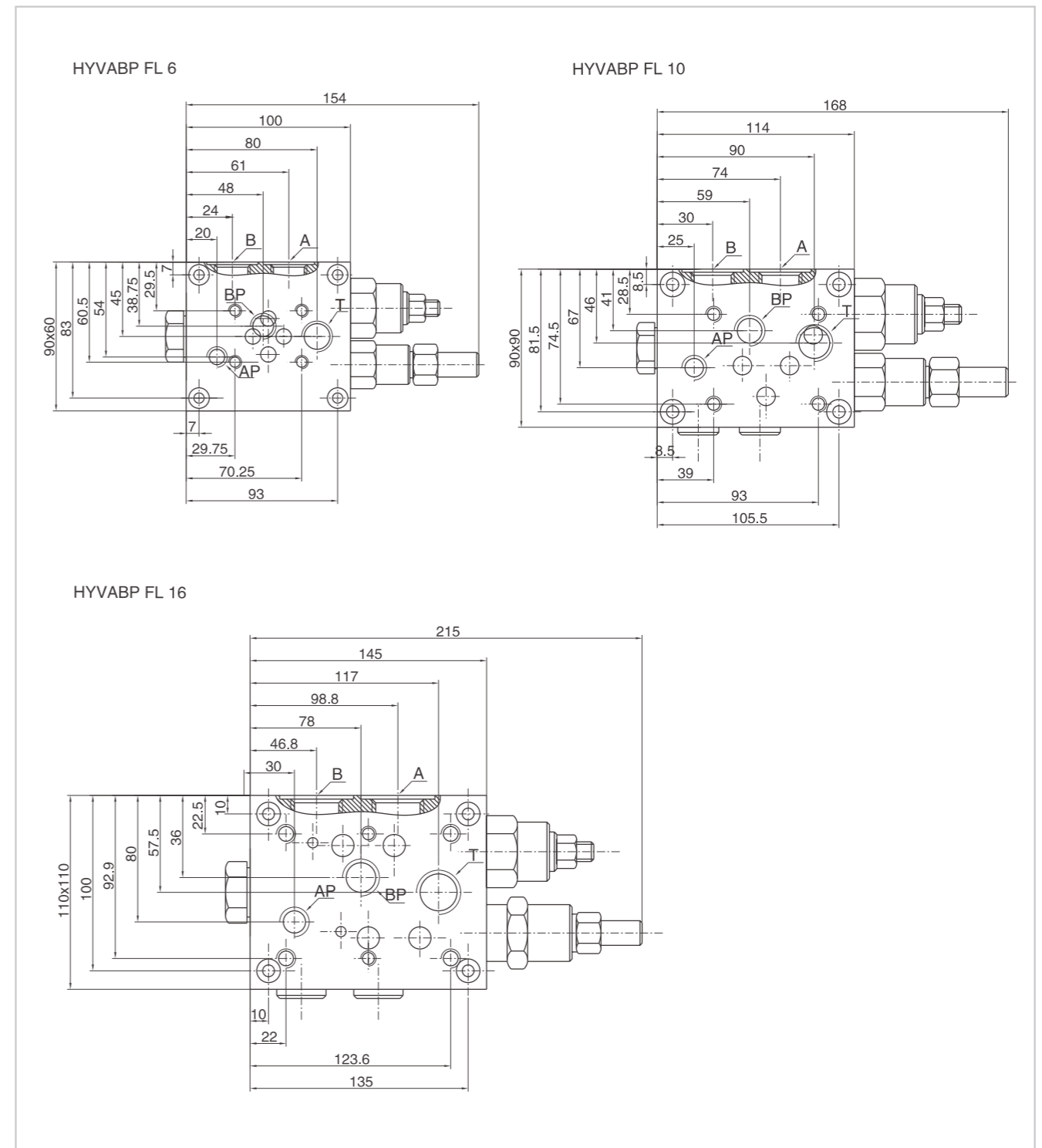


## Pressure drops curve



# Two Pump "Hi-low" Unloading Valves Flangeable (Base Ng6–Ng10 and Ng16)

## External dimensions



Type	A	B	T	AP	BP
HYVABP FL 6	G 1/2"	G 1/2"	G 1/2"	G 1/4"	G 3/8"
HYVABP FL 10	G 3/4"	G 3/4"	G 3/4"	G 3/8"	G 1/2"
HYVABP FL 16	G 1"	G 1"	G 1"	G 1/2"	G 3/4"

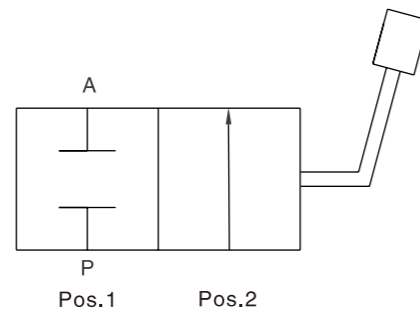
## Ball Valves 2 Ways



**Use and operation:**  
These valves are used to open or close oil flow in a circuit even with maximum pressure

**Applications:**  
Connect indifferently A or P to the ports where flow has to be blocked. Flow is blocked with lever at 90° (position 1) and free with lever in line (position 2).

### Code symbol

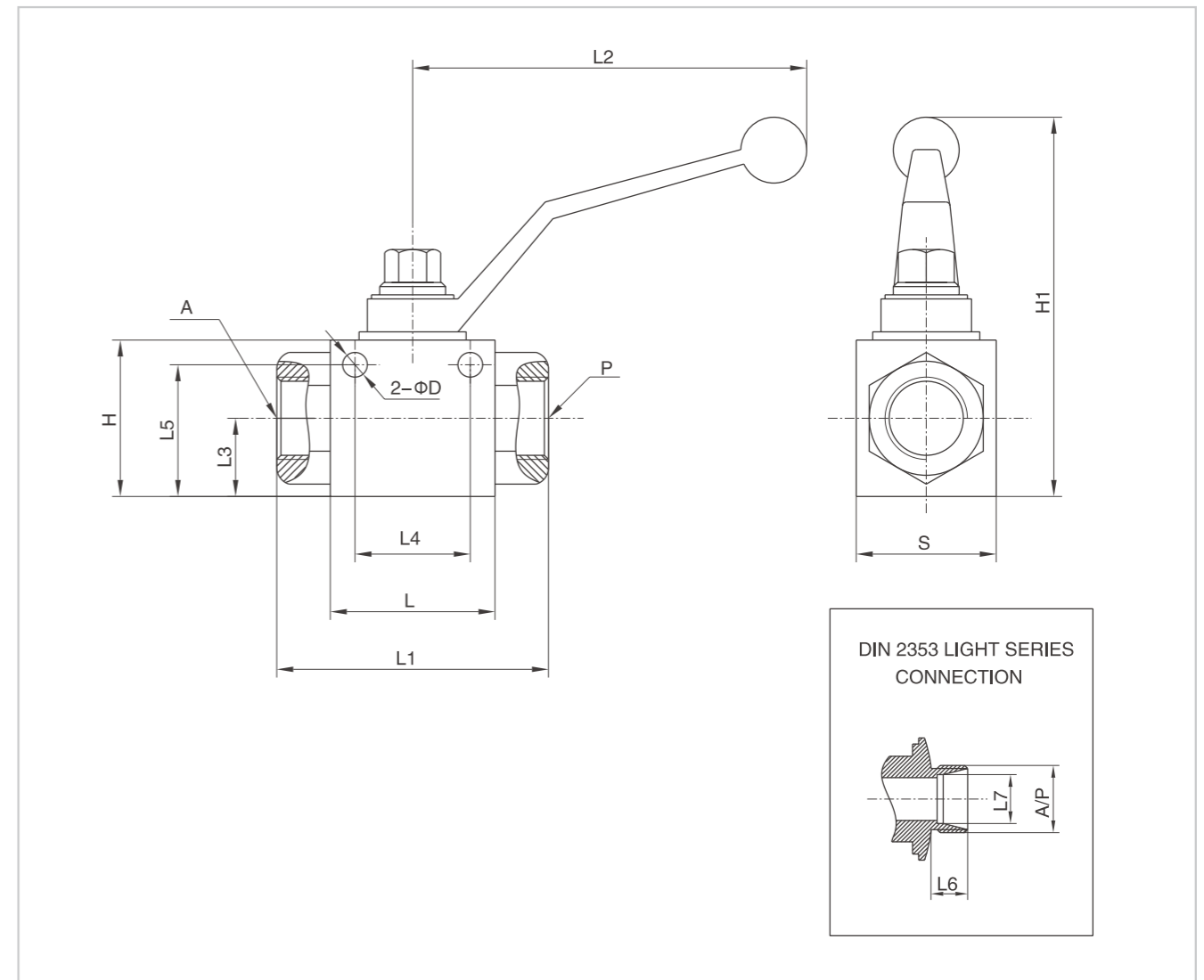


### Din/iso 228 bsp female connection

Type	MAX FLOW(L/min)	PN	DN	A/P	L	L1	L2	L3	L4	L5	D	H	H1	S
HYRS 2 VIE 1/4"	25	500	6	G1/4"	42	71	110	14	25	30	5.5	35	92	30
HYRS 2 VIE 3/8"	35	500	10	G3/8"	44	73	110	17	31	35	5.5	40	97	35
HYRS 2 VIE 1/2"	60	500	13	G1/2"	48	83	110	18	34	37	6.5	43	100	37
HYRS 2 VIE 3/4"	100	400	20	G3/4"	63	95	180	23	46	49	8.5	55	110	45
HYRS 2 VIE 1"	180	350	25	G1"	67	112	180	29	49	59	8.5	65	120	55
HYRS 2 VIE 1"1/4	180	350	25	G1"1/4	67	120	180	29	49	59	8.5	65	120	55
HYRS 2 VIE 1"1/2	180	350	25	G1"1/2	67	124	180	29	49	59	8.5	65	120	55

## Ball Valves 2 Ways

### External dimensions



### Din 2353 light series connection

Type	MAX FLOW(L/min)	PN	DN	A/P	L	L1	L2	L3	L4	L5	L6	L7	D	H	H1	S
HYRS 2 VIE M12x1.5	25	500	6	M12x1.5	42	76	110	14	25	30	10	6	5.5	35	92	30
HYRS 2 VIE M14x1.5	25	500	6	M14x1.5	42	76	110	14	25	30	10	8	5.5	35	92	30
HYRS 2 VIE M16x1.5	25	500	6	M16x1.5	42	76	110	14	25	30	11	10	5.5	35	92	30
HYRS 2 VIE M16x1.5	35	500	10	M16x1.5	44	76	110	17	31	35	11	10	5.5	40	97	35
HYRS 2 VIE M18x1.5	35	500	10	M18x1.5	44	79	110	17	31	35	11	12	5.5	40	97	35
HYRS 2 VIE M22x1.5	60	500	13	M22x1.5	48	87	110	18	34	37	12	15	6.5	43	100	37
HYRS 2 VIE M26x1.5	60	500	13	M26x1.5	48	87	110	18	34	37	12	18	6.5	43	100	37
HYRS 2 VIE M30x2	100	400	20	M36x2	63	110	180	23	46	49	14	22	8.5	55	110	45
HYRS 2 VIE M36x2	180	350	25	M45x2	67	115	180	29	49	59	14	28	8.5	65	120	55
HYRS 2 VIE M45x2	180	350	25	M45x2	67	119	180	29	49	59	16	35	8.5	65	120	55
HYRS 2 VIE M52x2	180	350	25	M52x2	67	120	180	29	49	59	16	42	8.5	65	120	55

# Ball Valves 3 Ways

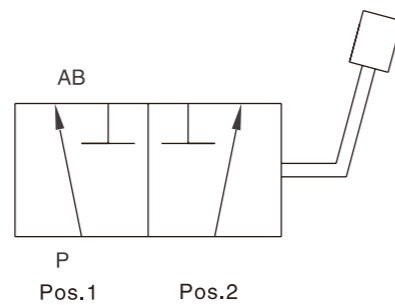
N.9.2.1



**Use and operation:**  
 These valves are used to divert the inlet flow towards 2 alternate ports (L scheme).

**Applications:**  
 Connect P to the pressure flow, A and B to the circuit ports where the flow has to be diverted. With lever at 90° flow is connected in port A (position 1), with lever in line flow is connected in port B (position 2).

## Code symbol



## Din/iso 228 bsp female connection

Type	MAX FLOW(L/min)	PN	DN	A/P	L	L1	L2	L3	L4	L5	D	H	H1	S	S1
HYRS 3 VIE 1/4"	25	400	6	G1/4"	42	71	110	14	25	30	5.5	35	90	30	48.5
HYRS 3 VIE 3/8"	35	400	10	G3/8"	44	73	110	17	31	35	5.5	40	95	35	54
HYRS 3 VIE 1/2"	60	350	13	G1/2"	48	83	110	18	34	37	6.5	43	98	37	58
HYRS 3 VIE 3/4"	100	350	20	G3/4"	63	95	180	23	46	49	8.5	55	105	45	75
HYRS 3 VIE 1"	180	350	25	G1"	67	112	180	29	49	59	8.5	65	115	55	87
HYRS 3 VIE 1 1/4"	180	350	25	G1 1/4"	67	120	180	29	49	59	8.5	65	115	55	89
HYRS 3 VIE 1 1/2"	180	350	25	G1 1/2"	67	124	180	29	49	59	8.5	65	115	55	89

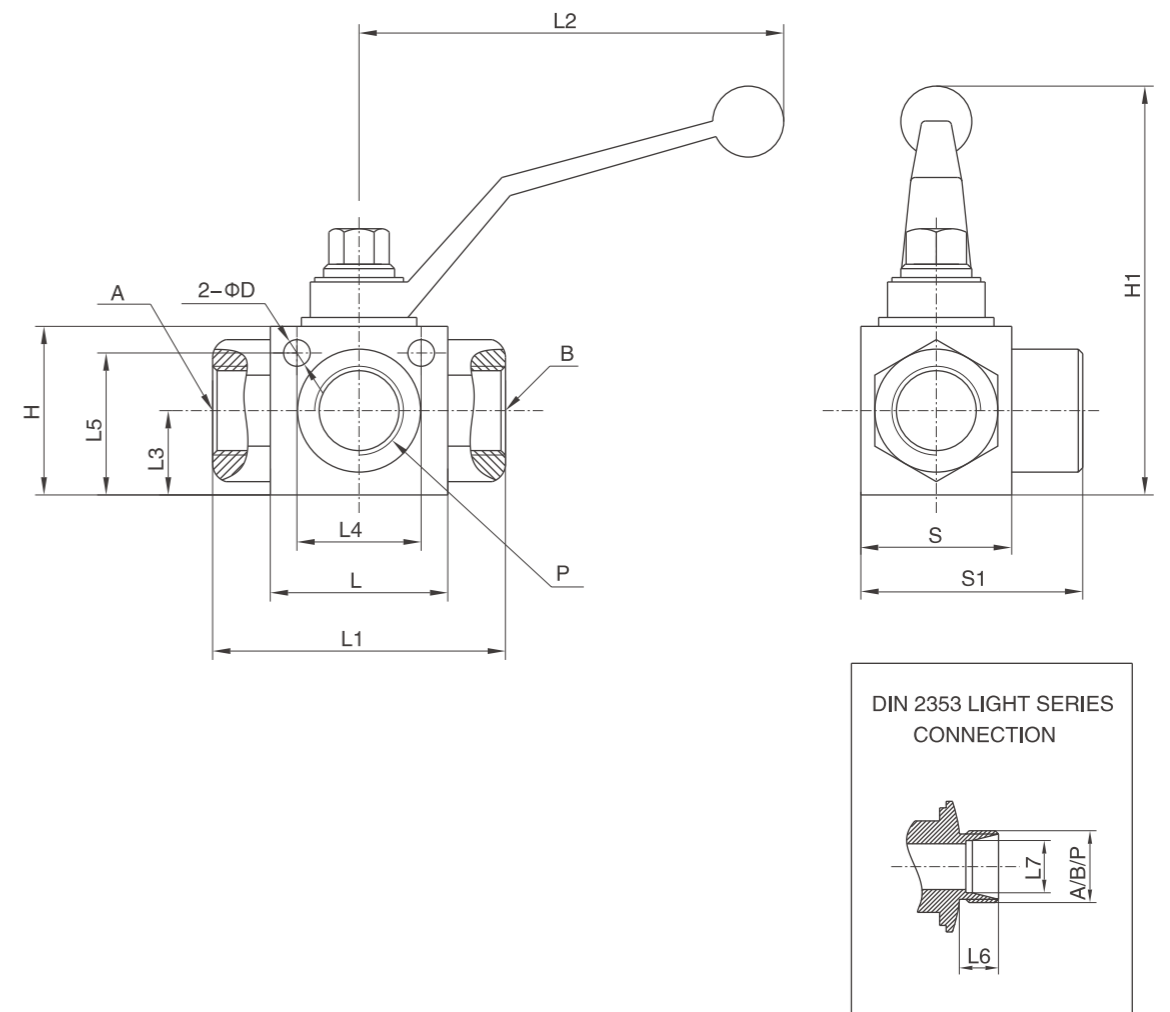
N.9.2.1



# Ball Valves 3 Ways

N.9.2.2

## External dimensions



## Din 2353 light series connection

Type	MAX FLOW(L/min)	PN	DN	A/P	L	L1	L2	L3	L4	L5	L6	L7	D	H	H1	S	S1
HYRS 3 VIE M12x1.5	25	400	6	M12x1.5	42	76	110	14	25	30	10	6	5.5	35	92	30	48.5
HYRS 3 VIE M14x1.5	25	400	6	M14x1.5	42	76	110	14	25	30	10	8	5.5	35	92	30	54
HYRS 3 VIE M16x1.5	25	400	6	M16x1.5	42	76	110	14	25	30	11	10	5.5	35	92	30	53.5
HYRS 3 VIE M16x1.5	35	400	10	M16x1.5	44	76	110	17	31	35	11	10	5.5	40	97	35	58.5
HYRS 3 VIE M18x1.5	35	400	10	M18x1.5	44	76	110	17	31	35	11	12	5.5	40	97	35	58.5
HYRS 3 VIE M22x1.5	60	350	13	M22x1.5	48	79	110	18	34	37	12	15	6.5	43	100	37	62.5
HYRS 3 VIE M26x1.5	60	350	13	M26x1.5	48	87	110	18	34	37	12	18	6.5	43	100	37	62.5
HYRS 3 VIE M30x2	100	350	20	M36x2	62	110	180	23	46	49	14	22	8.5	55	110	45	79.5
HYRS 3 VIE M36x2	180	350	25	M45x2	67	115	180	29	49	59	14	28	8.5	65	120	55	91.5
HYRS 3 VIE M45x2	180	350	25	M45x2	67	119	180	29	49	59	16	35	8.5	65	120	55	93.5
HYRS 3 VIE M52x2	180	350	25	M52x2	67	120	180	29	49	59	16	42	8.5	65	120	55	96.5

N.9.2.2

## 3-ways Diverter Valves

### Technical specification

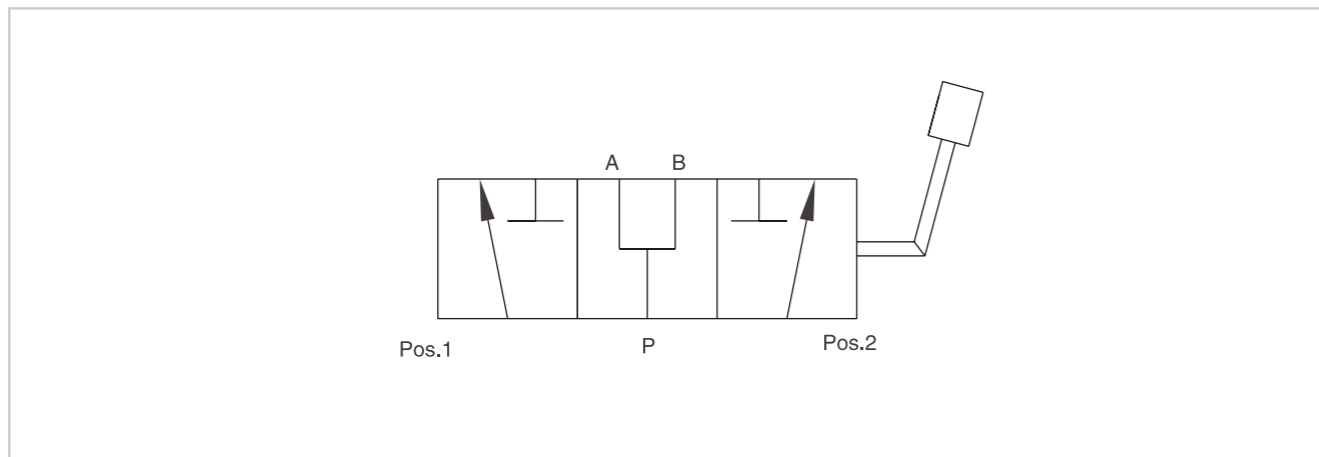


Specification	3/8"	1/2"	3/4"	1"
Max.flow ( L/min )	35	60	100	180
Max pressure (Bar)	250			

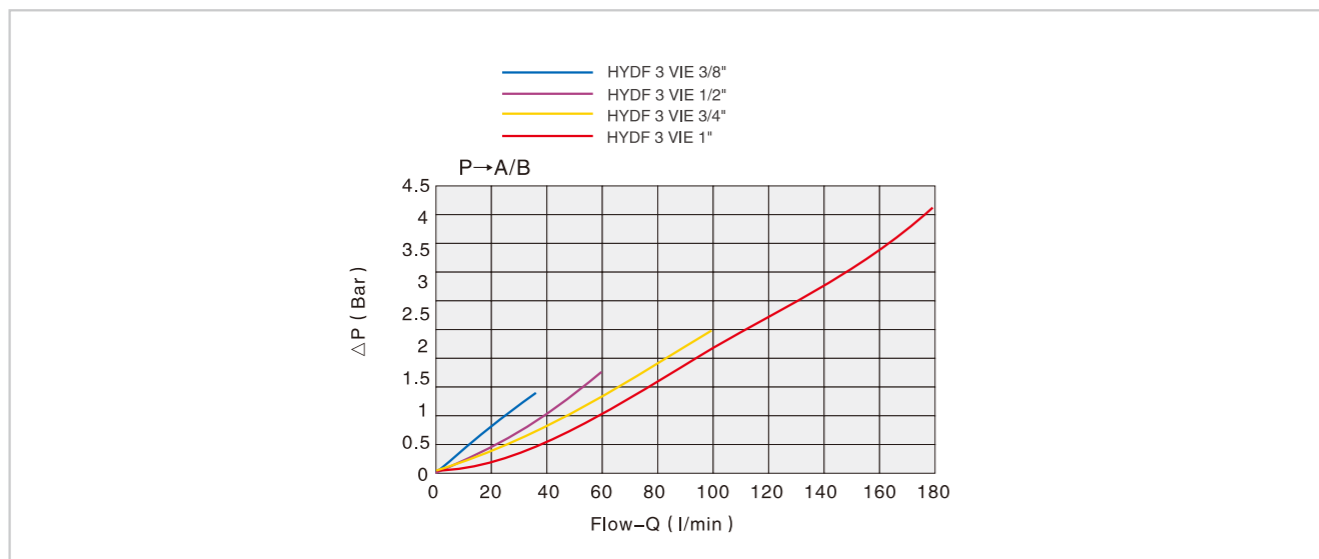
**Use and operation:**  
3 ways diverter valves is used to divert the flow towards 2 different outlets.

**Applications:**  
Connect P to the pressure flow, A and P to the ports of the hyd raulic circuit where flow has to be diverted. With lever in position 1 the flow is connected towards port A; with lever in position 2, the flow is connected towards port B. With lever in central position ports P, A and B are all connected (open centre).

### Code symbol

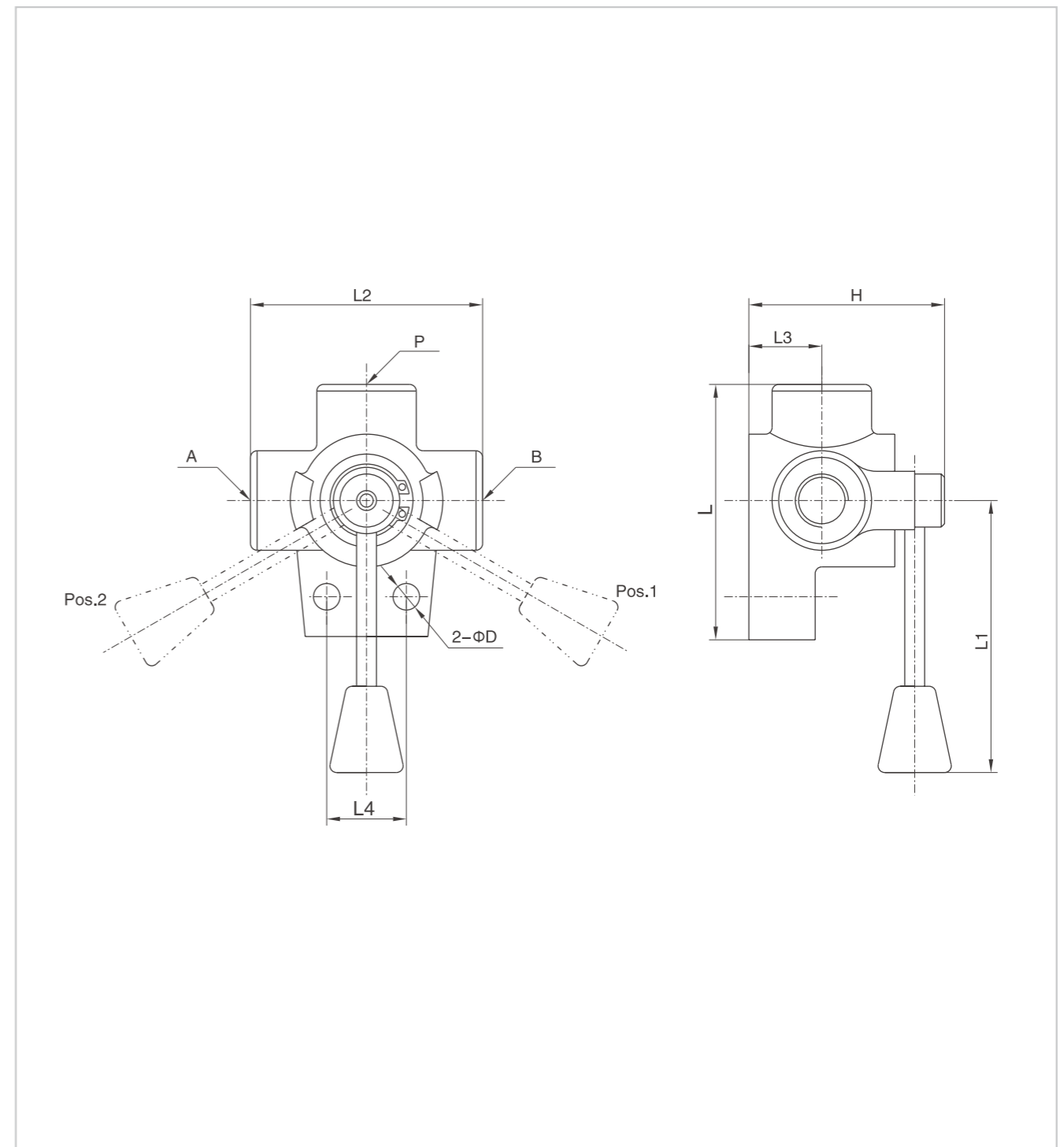


### Pressure drops curve



## 3-ways Diverter Valves

### External dimensions



Type	A/B/P	L	L1	L2	L3	L4	D	H
HYDF 3 VIE 3/8"	G 3/8"	76	140	68	25	26	8.5	67
HYDF 3 VIE 1/2"	G 1/2"	87	145	80	28	32	8.5	70
HYDF 3 VIE 3/4"	G 3/4"	103	150	94	30	32	11	78
HYDF 3 VIE 1"	G 1"	105	152	98	30	32	11	82



## 4-ways Diverter Valves

### Technical specification



Specification	3/8"	1/2"	3/4"
Max.flow ( L/min )	35	60	100
Max pressure (Bar)	250		

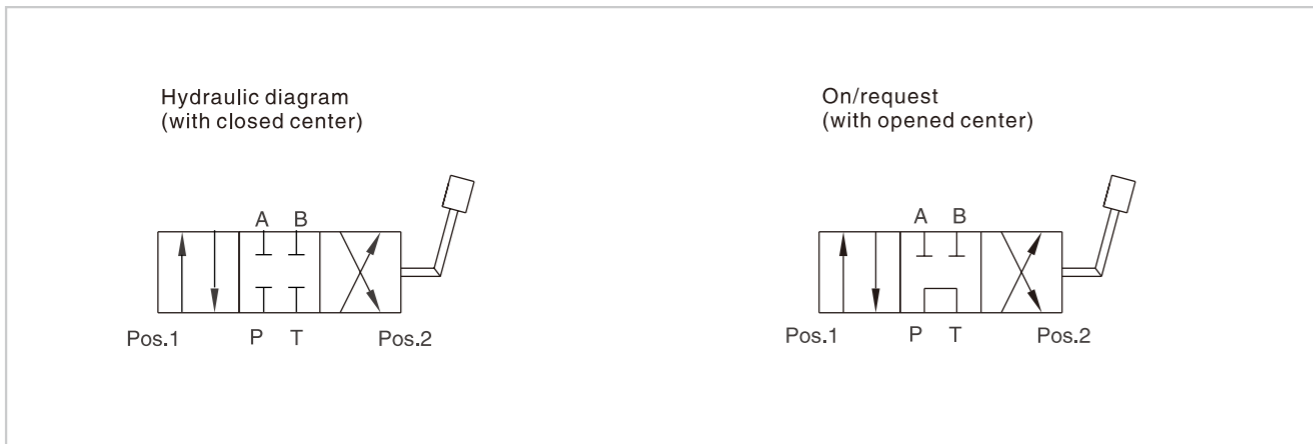
#### Use and operation:

This valve is used to reverse oil flow from 2 ways in towards two ways out. It could be used to control a double acting actuators or to reverse the rotation of an hydraulic motor.

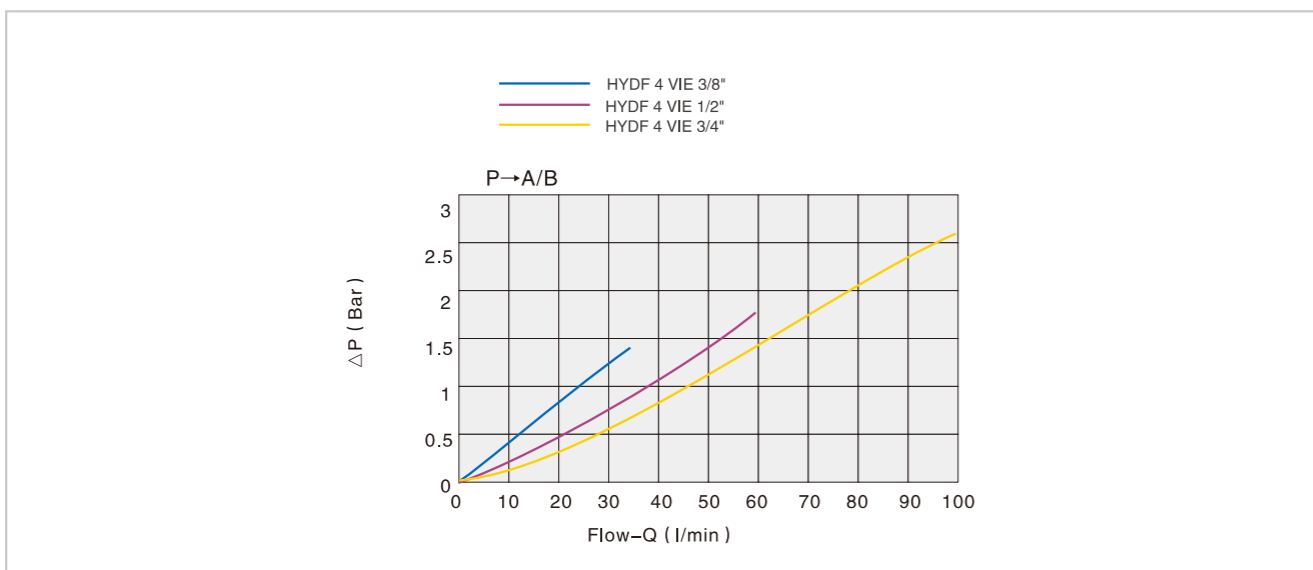
#### Applications:

Connect P to the pressure flow, T to the tank and ports A and B to the actuators or motor. With lever in position 1, P is connected to A and at the same time B drains into the tank T; with lever in position 2, P is connected to B and at the same time A drains into tank T. With lever in central position all ports are closed (closed centre).

### Code symbol

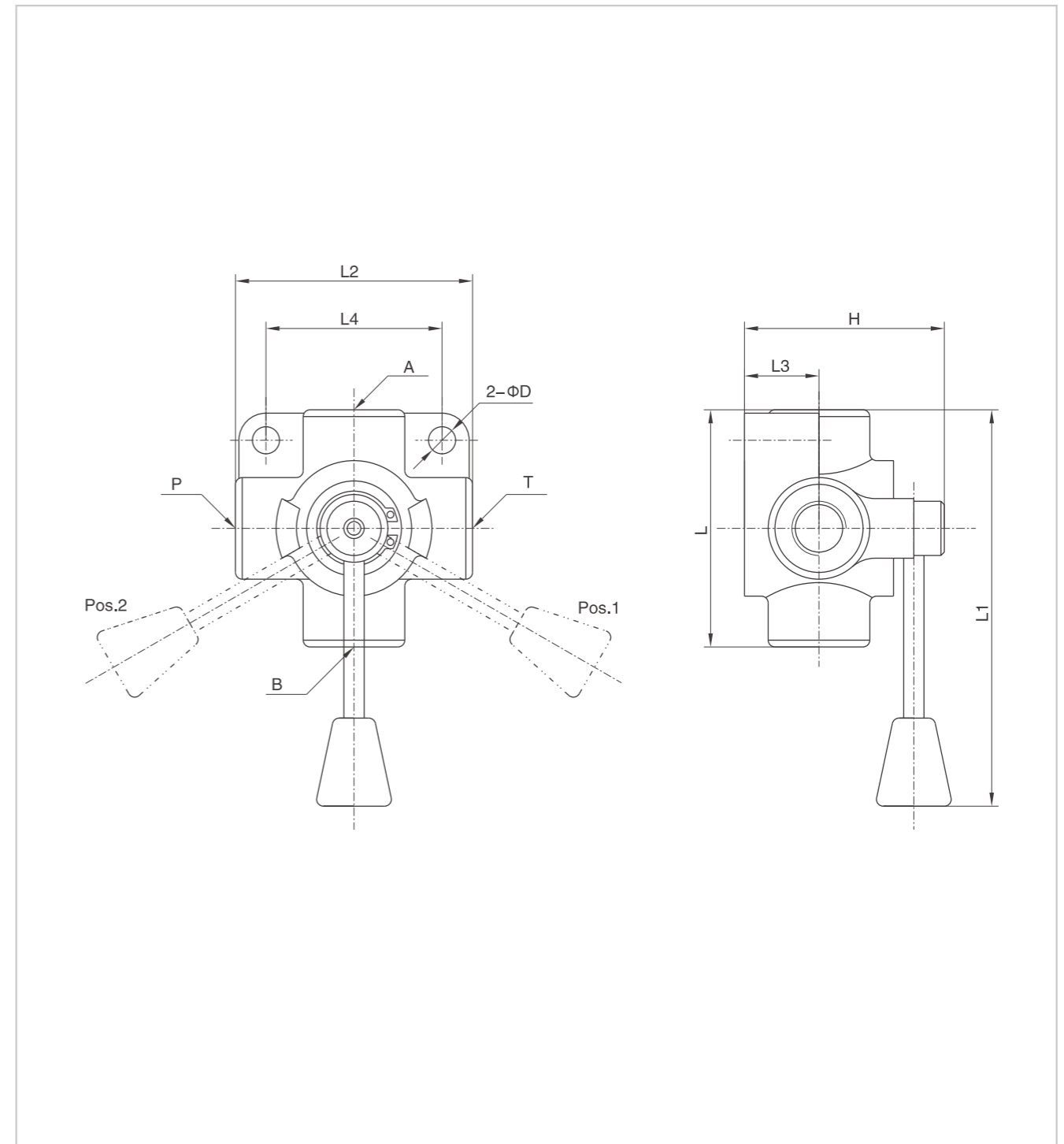


### Pressure drops curve



## 4-ways Diverter Valves

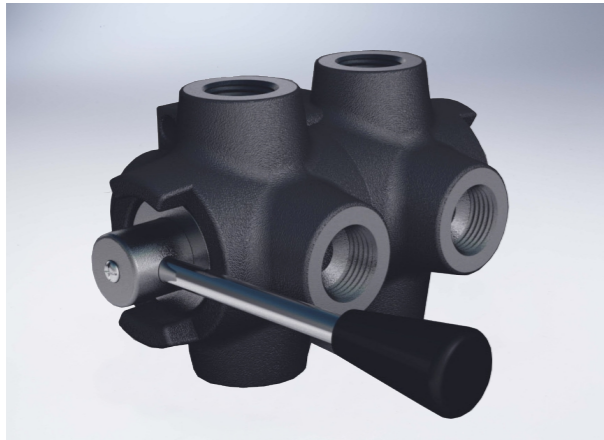
### External dimensions



Type	A/B/P	L	L1	L2	L3	L4	D	H
HYDF 4 VIE 3/8"	G 3/8"	76	140	76	26	54	8.5	72
HYDF 4 VIE 1/2"	G 1/2"	88	145	88	30	65	8.5	82
HYDF 4 VIE 3/4"	G 3/4"	95	180	95	32	74	8.5	90

# 6-ways Diverter Valves

## Technical specification



Specification	3/8"	1/2"	3/4"	1"
Max.flow ( L/min )	35	60	100	180
Max pressure (Bar)	250			

### Use and operation:

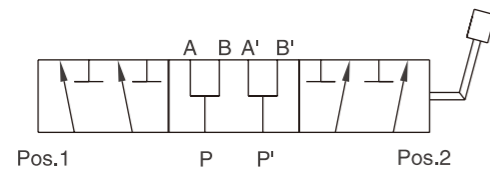
This valve is made up by two 3-ways diverters coupled: each of the 2 parts is used to divert the inlet flow towards two ports. The single lever controls both the parts at the same time. It's ideal to control 2 actuators.

### Applications:

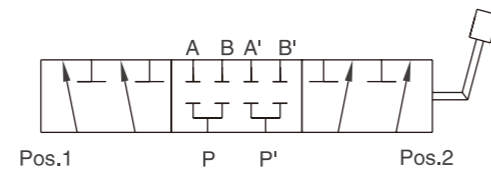
Connect P and P' to the 2 pressure flows, ports A and B to the first actuator and ports A' and B' to the second actuator. With lever in position 1, P is connected to A and P' to A'; with lever in position 2, P is connected to B and P' to B'. With lever in central position all ports are connected among each other (opened centre).

## Code symbol

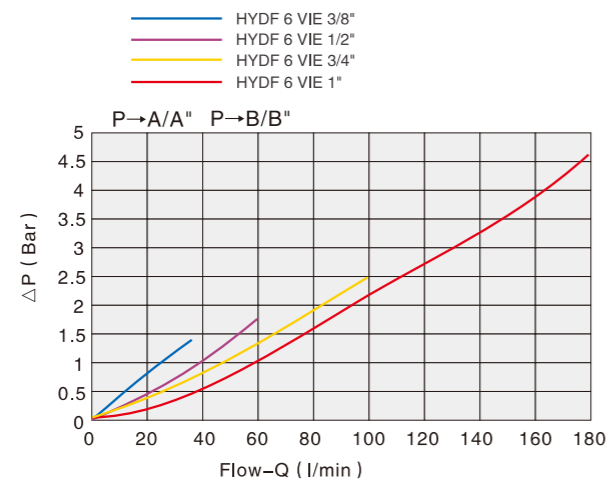
Hydraulic diagram (with closed center)



On/request (with opened center)

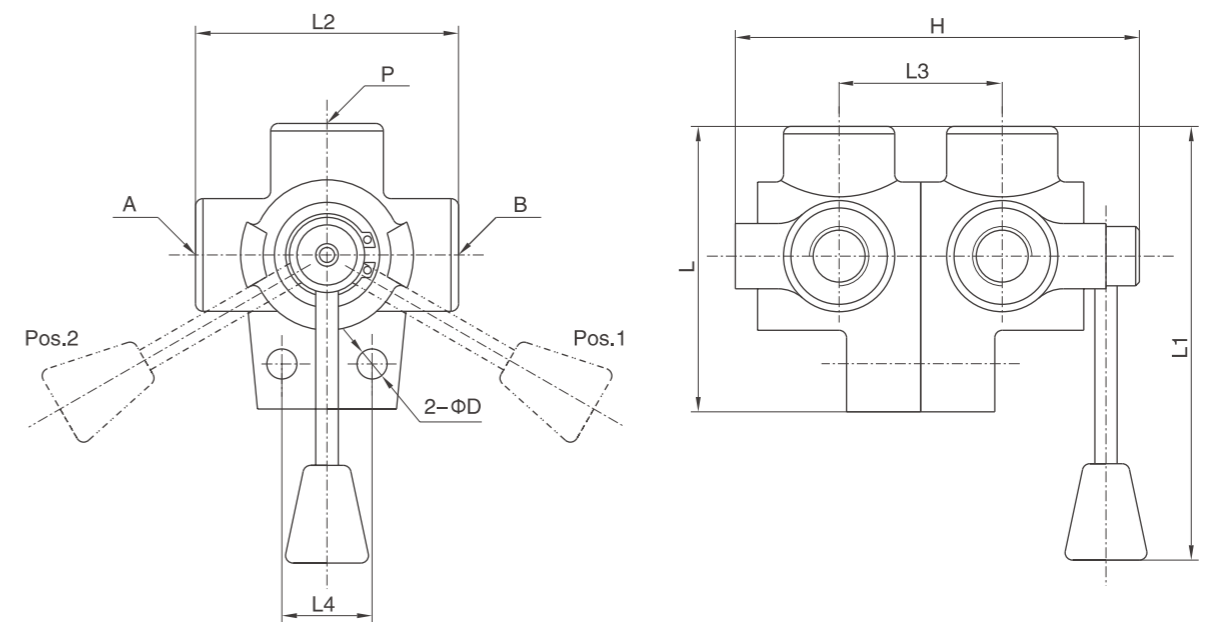


## Pressure drops curve



# 6-ways Diverter Valves

## External dimensions



Type	A/B/P	L	L1	L2	L3	L4	D	H
HYDF 6 VIE 3/8"	G 3/8"	76	140	68	45	26	8.5	117
HYDF 6 VIE 1/2"	G 1/2"	87	145	80	51	32	8.5	125
HYDF 6 VIE 3/4"	G 3/4"	103	150	94	55	32	11	140
HYDF 6 VIE 1"	G 1"	105	152	98	60	32	11	155

## 6-ways Diverter Valves, Steel Body

### Technical specification

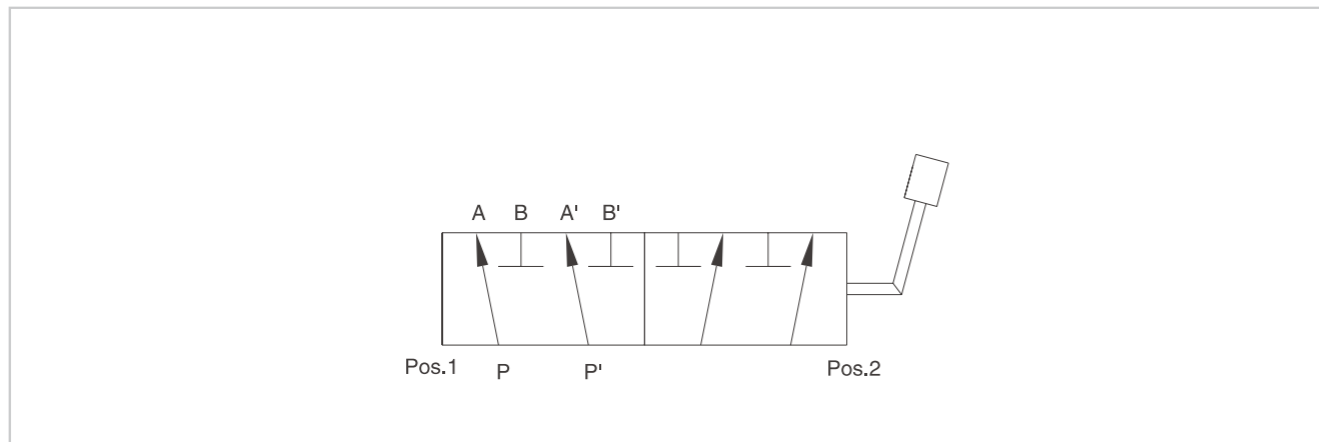


Specification	3/8"	1/2"
Max.flow ( L/min )	35	60
Max pressure (Bar)	300	

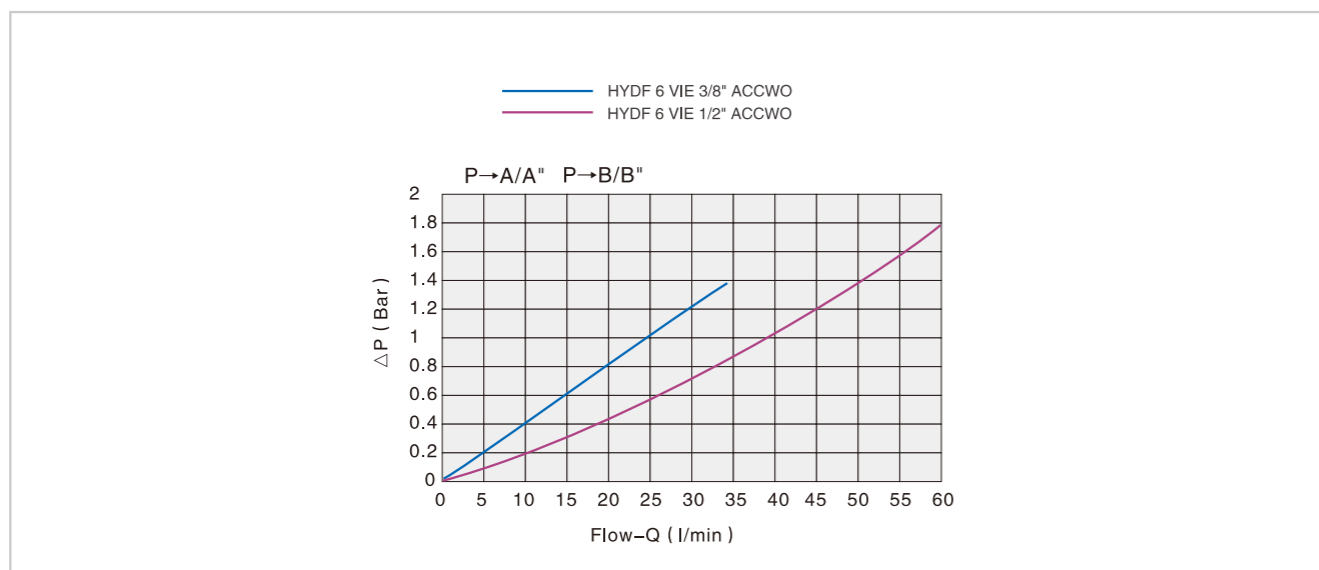
**Use and operation:**  
This valve is used to divert the flow from 2 ways in towards 4 ports (two at a time alternatively). It's ideal to control 2 actuators.

**Applications:**  
Connect P and P' to the 2 pressure flows, ports A and B to the first actuator and ports A' and B' to the second actuator. With lever in position 1, P is connected to A and P' to A'; with lever in position 2, P is connected to B and P' to B'. Use with lever in central position is not recommended.

### Code symbol

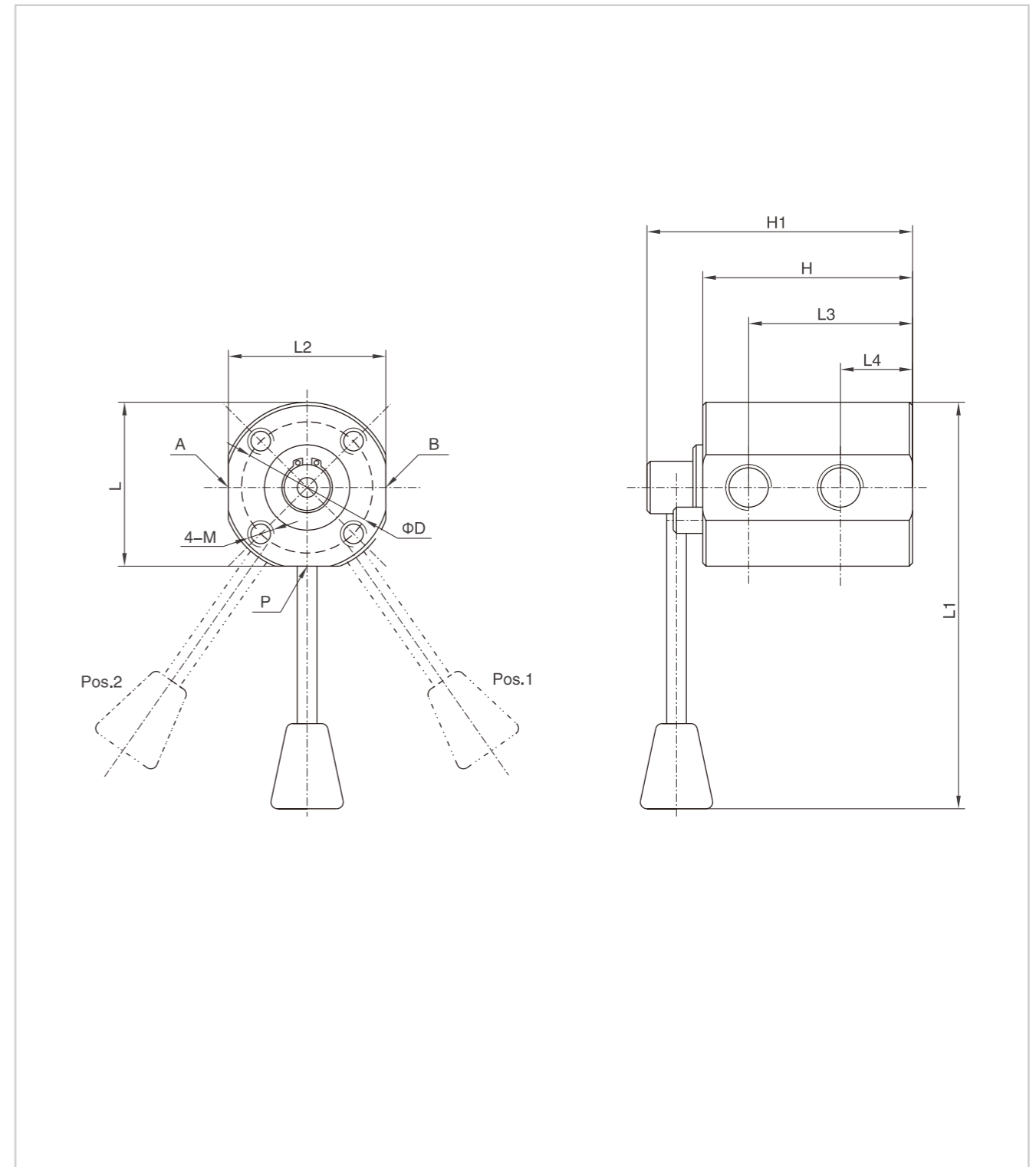


### Pressure drops curve



## 6-ways Diverter Valves, Steel Body

### External dimensions



Type	A/B/P	L	L1	L2	L3	L4	M	D	H	H1
HYDF 6 VIE 3/8" ACCWO	G 3/8"	60	140	58	57	25	M8	47	74	96
HYDF 6 VIE 1/2" ACCWO	G 1/2"	69	145	66	64	27	M8	47	83	105

# End Stroke Valves, Normally Opened

## Technical specification



Specification	60	80	120
Max.flow ( L/min )	60	80	120
Max pressure (Bar)	350		

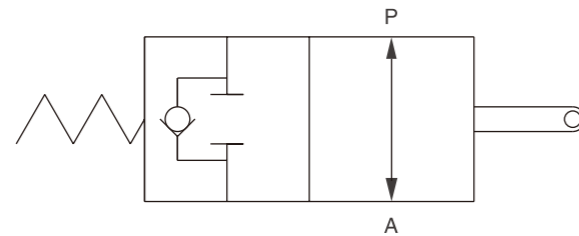
### Use and operation:

This valve is used to stop oil inlet in a hydraulic circuit or to stop actuator's stroke (normally opened valve). The valve closing, obtained by pulling or pushing the slider, allows an immediate and total stop of the oil flow.

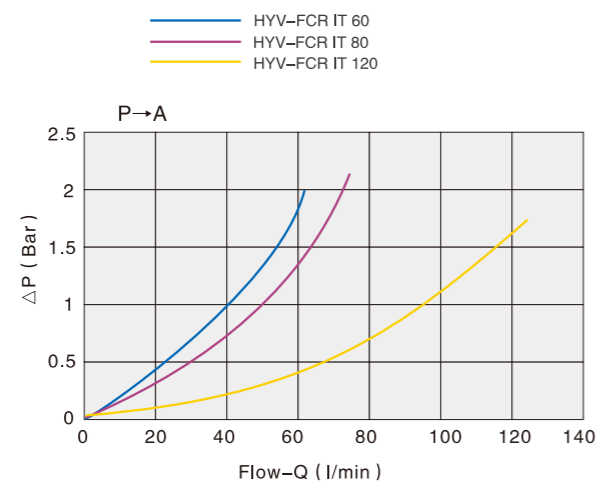
### Applications:

Connect P to the distributor and A to the circuit or to the actuator. When slider is operating, flow is blocked from P towards A, whilst the check valve enables free oil flow in the reverse direction (from A towards P).

## Code symbol



## Pressure drops curve

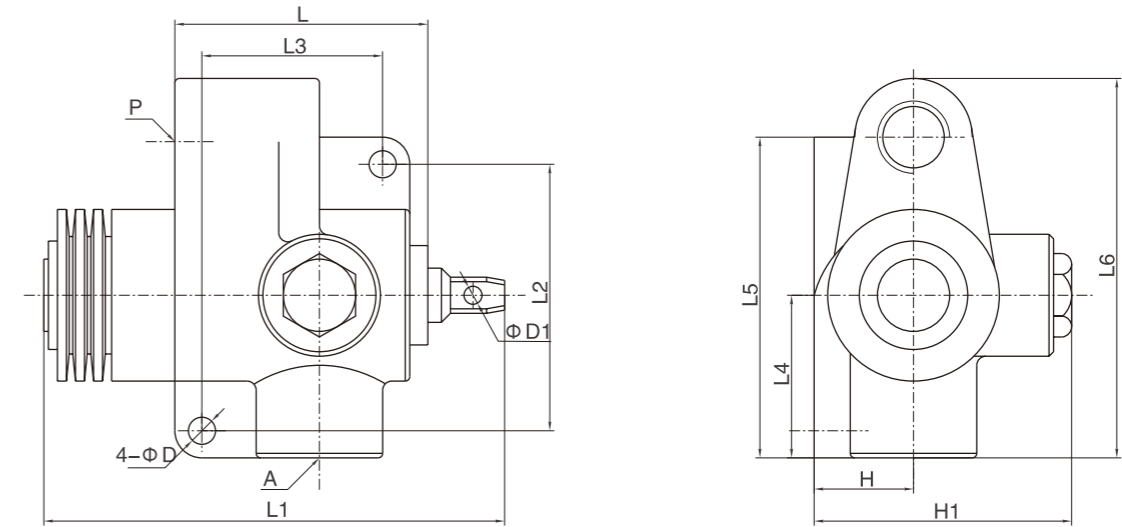


# End Stroke Valves, Normally Opened

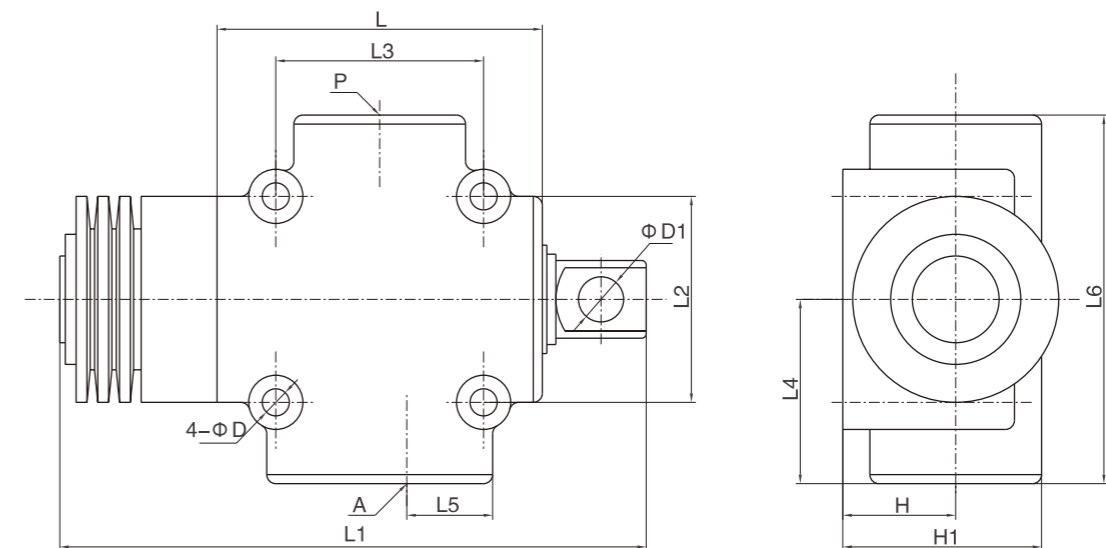
## External dimensions

HYV-FCR IT 60

HYV-FCR IT 80



HYV-FCR IT 120



Type	A/P	L	L1	L2	L3	L4	L5	L6	D	D1	H	H1
HYV-FCR IT 60	G 3/8"	69	130	66	45	45	86	103	8.5	6.5	26	68
HYV-FCR IT 80	G 1/2"	69	130	66	45	45	86	103	8.5	6.5	26	68
HYV-FCR IT 120	G 3/4"	88	173	50	56	46	23.5	92	8.5	13	27.5	50

# Stroke Valve

## Technical specification



Model	HYHDI-02 X
Rated pressure (Mpa)	350
Rated flow (L/min)	40
Installation site	Any
Working fluid	Mineral oil, phosphate hydraulic oil
Storage temp (°C)	-20~80
Working temp (°C)	-10~60

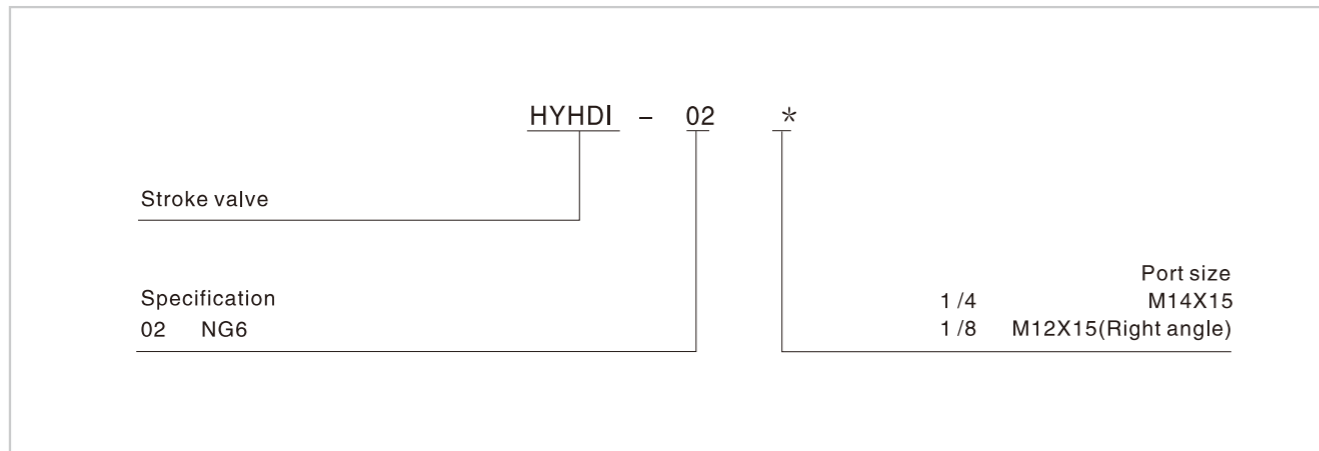
( Please consult with us if your working condition is out of the technical parameter given above.

### Usage:

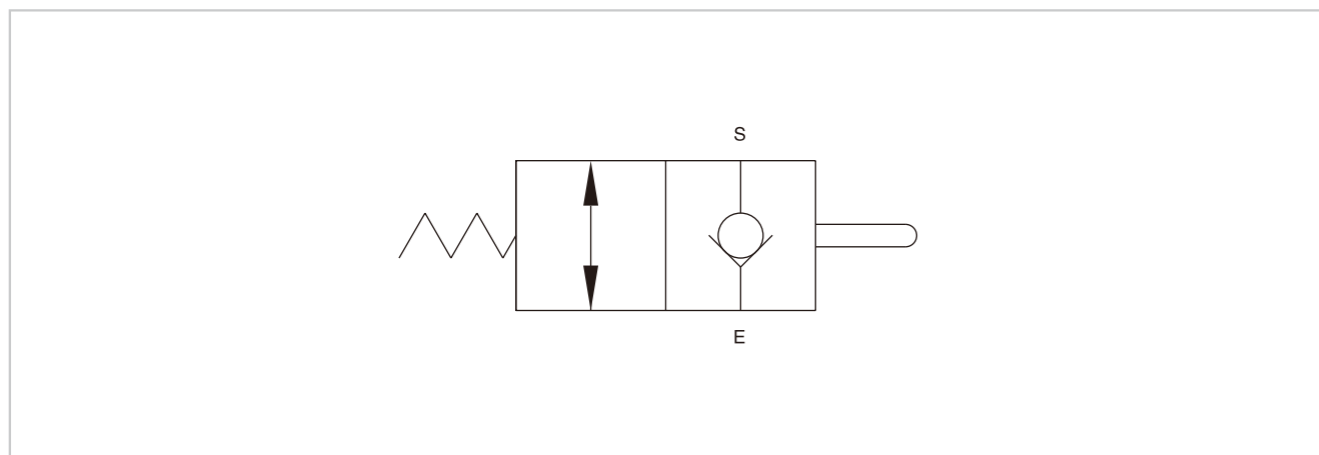
It's used to set the movement sequence of the two cylinders, also can work as on/off valve.

When pressing the pin, E to S, When connecting with the tank directly, connect E to tank, S to circuit needed.

## Ordering details

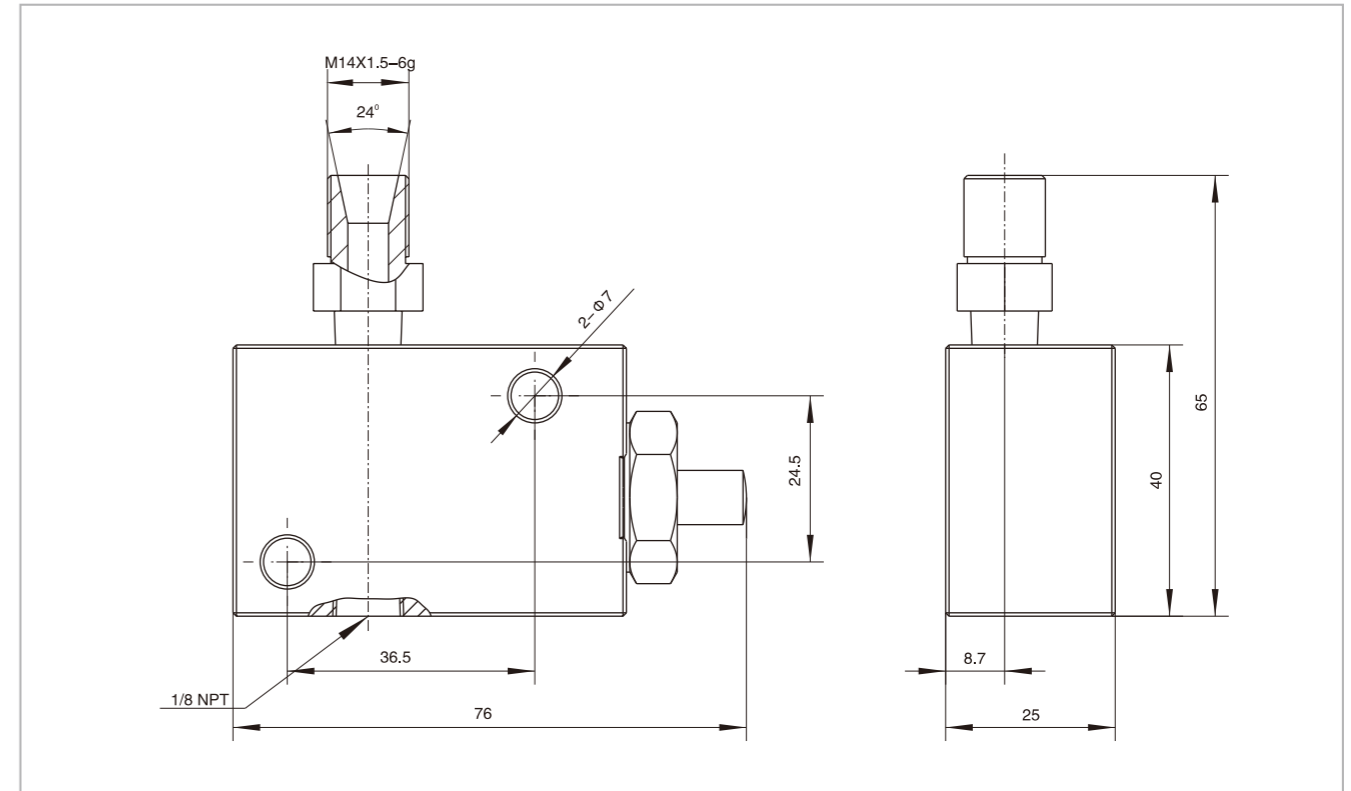


## Code symbol

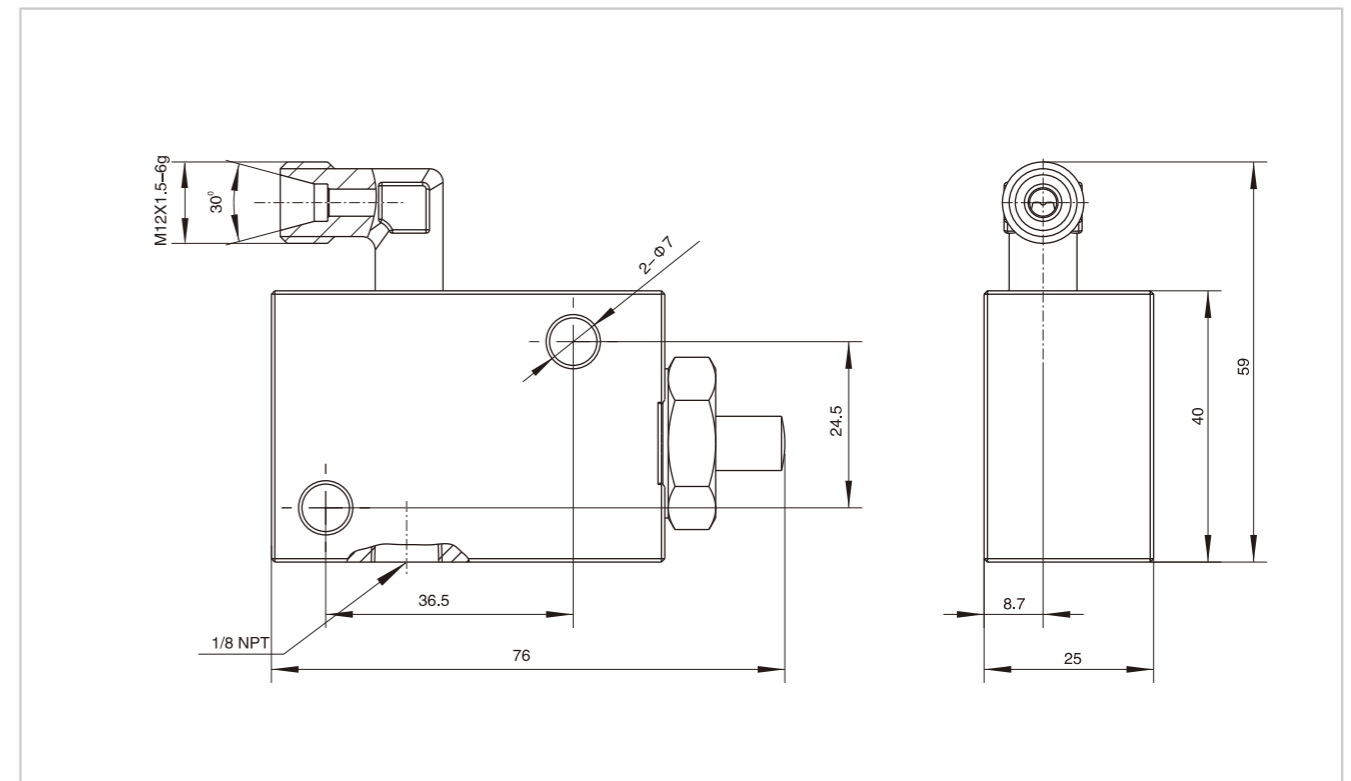


# Stroke Valve

## HYHDI-02 1/4 External dimensions

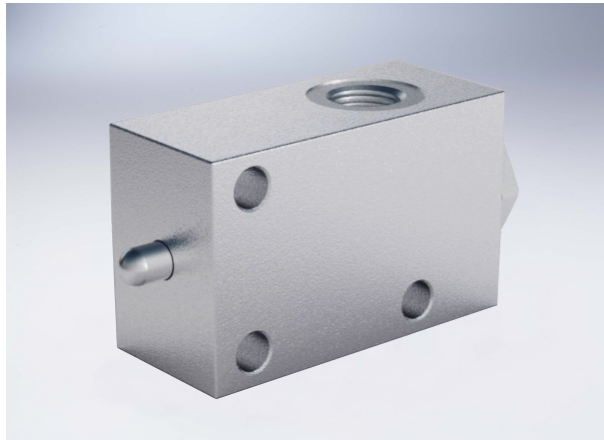


## HYHDI-02 1/8 External dimensions



## Pushbutton End Stroke Valves, Normally Closed

### Technical specification



Specification	3/8"	1/2"	3/4"
Max.flow ( L/min )	40	40	100
Max pressure (Bar)	350		

#### Use and operation:

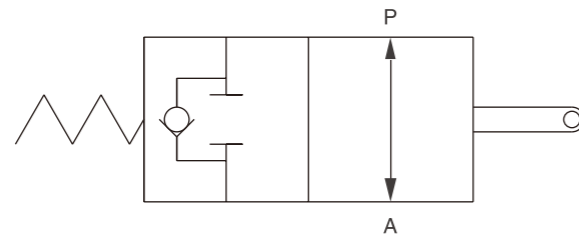
This valve allows oil passage in a hydraulic circuit (normally closed valve). Once the slider is set into action, oil flow is free from P to A. It can be used:

- a) to set the sequence of 2 actuators;
- b) as end strokes valve, where flow is directly connected to the tank.

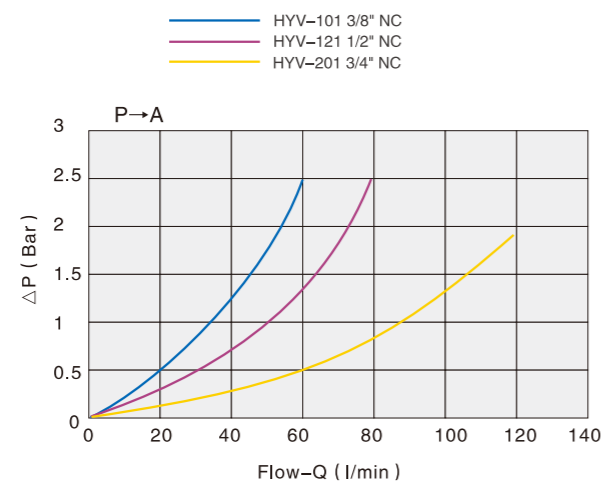
#### Applications:

Connect A directly to the tank and P as for necessity. Mounting scheme can vary according to the use.

### Code symbol

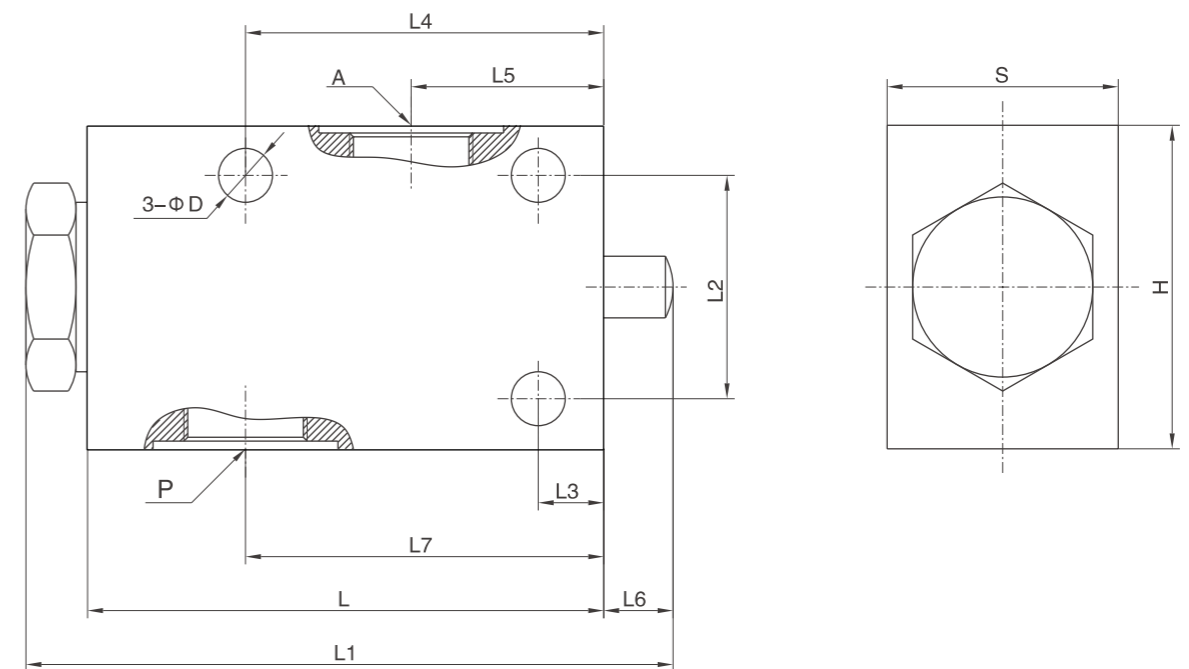


### Pressure drops curve



## Pushbutton End Stroke Valves, Normally Closed

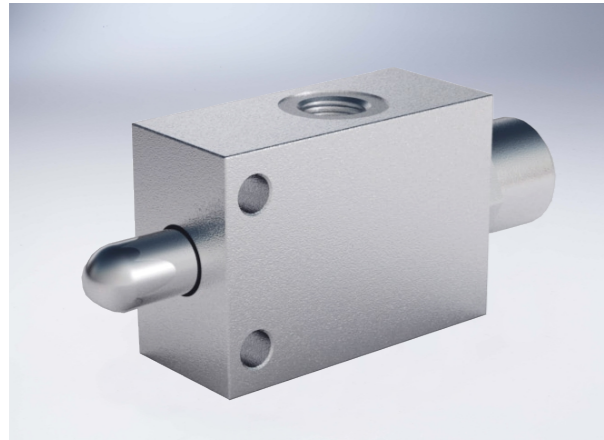
### External dimensions



Type	A/P	L	L1	L2	L3	L4	L5	L6	L7	D	H	S
HYV-101 3/8" NC	G 3/8"	80	95	35	10	55	30	9	55	8,5	50	35
HYV-101 1/2" NC	G 1/2"	80	95	35	10	55	30	9	55	8,5	50	35
HYV-201 3/4" NC	G 3/4"	80	115	50	20	68	23	14	61	8,5	70	45

## Pushbutton End Stroke Valves, Normally Opened

### Technical specification

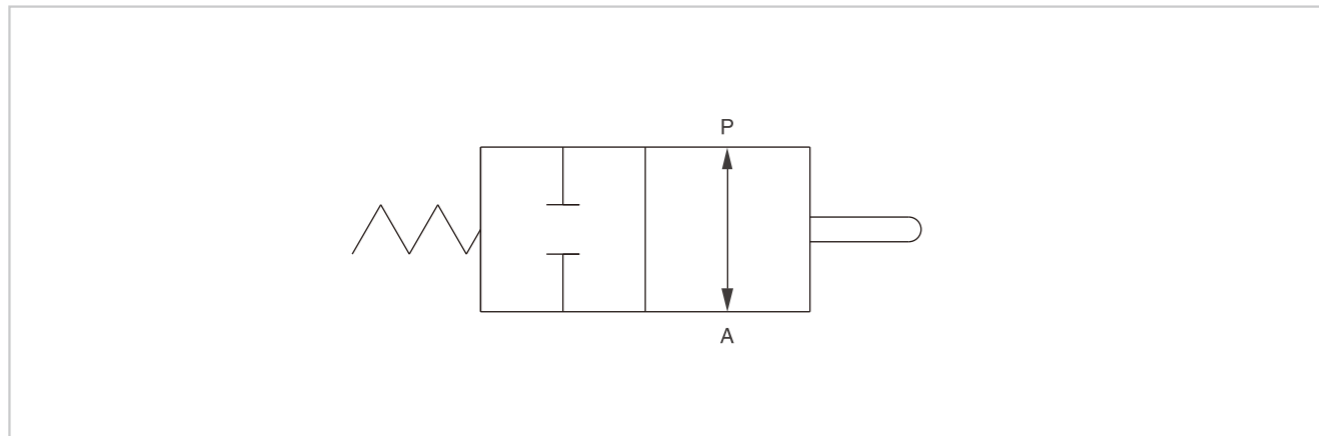


Specification	3/8"NA	1/2"NA
Max.flow ( L/min )	35	50
Max pressure (Bar)	350	

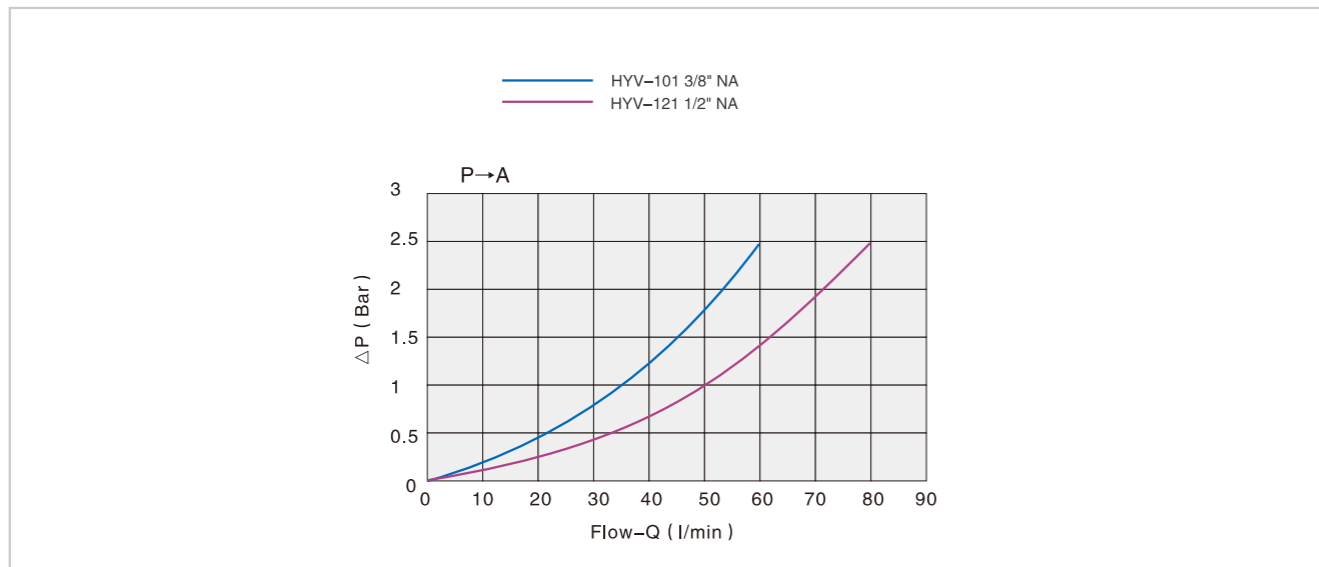
**Use and operation:**  
This valve is used to block oil passage in a hydraulic circuit (normally opened valve). The valve closes by pushing mechanically the slider.

**Applications:**  
Connect independently A or P to the distributor and to the circuit. When slider is operating flow is blocked in both direction, vice versa it is free.

### Code symbol

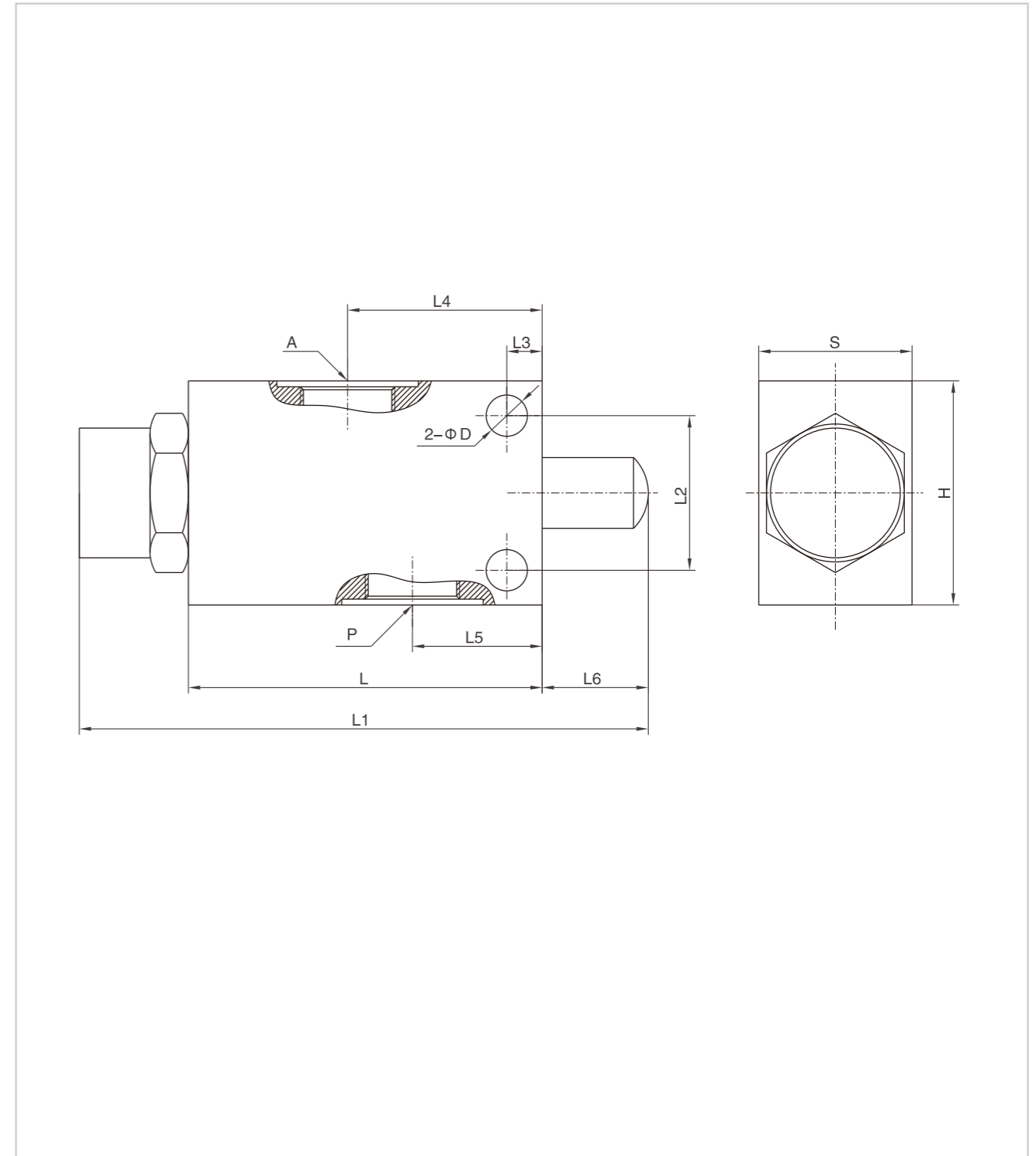


### Pressure drops curve



## Pushbutton End Stroke Valves, Normally Opened

### External dimensions



Type	A/P	L	L1	L2	L3	L4	L5	L6	D	H	S
HYV-101 3/8" NA	G 3/8"	80	129	35	8	45	30	24	8.5	56	35
HYV-121 1/2" NA	G 1/2"	80	129	35	8	45	30	24	8.5	62	35

# Press-type Stroke Valve (Normal Open)

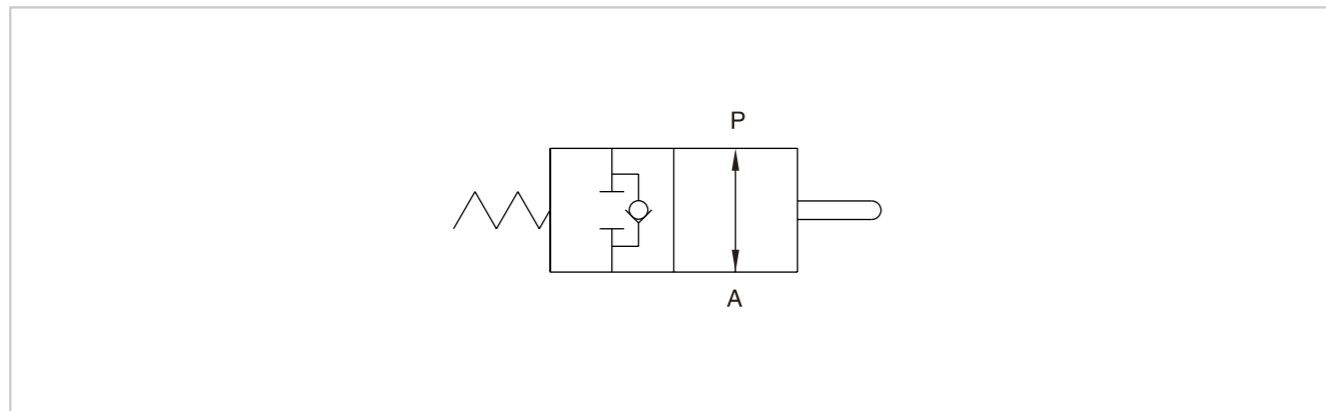
## Technical specification



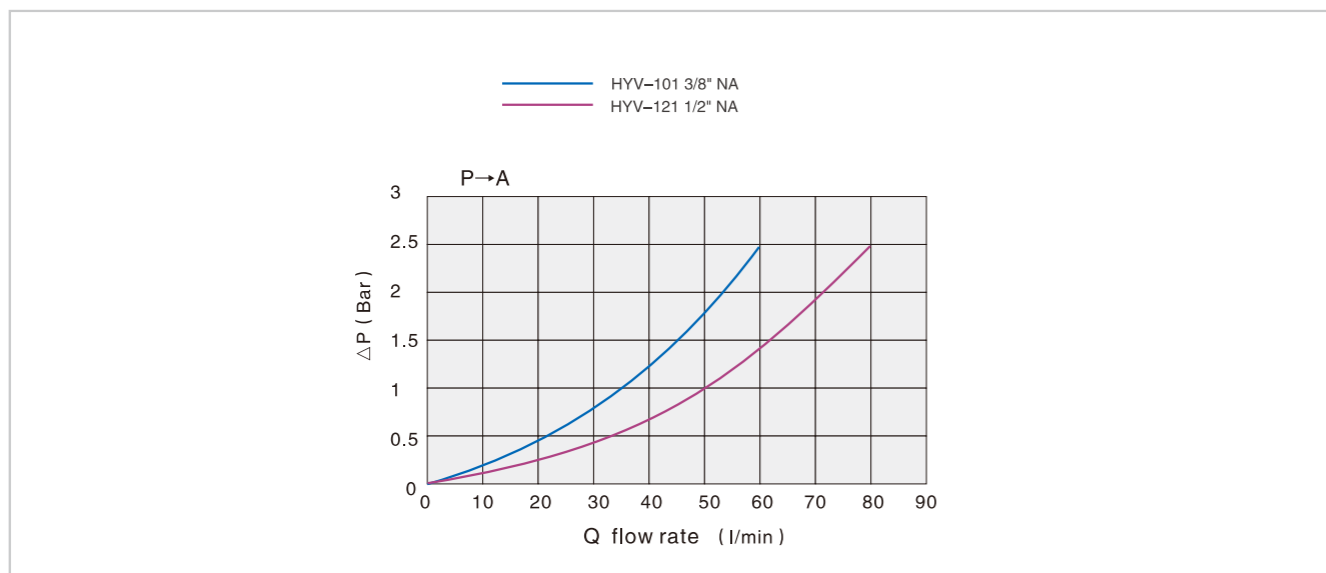
Specification	3/8"NAVU	1/2"NAVU
Max Pressure (MPa)	350	350
Max flow rate (L/min)	35	50

It is used to block the flow in the circuit (normal open). When pressing the button, the valve closed, the flow is blocked. Whereas the fluid flows free. Connect port A to working port, and port P to pressure port.

## Code symbol

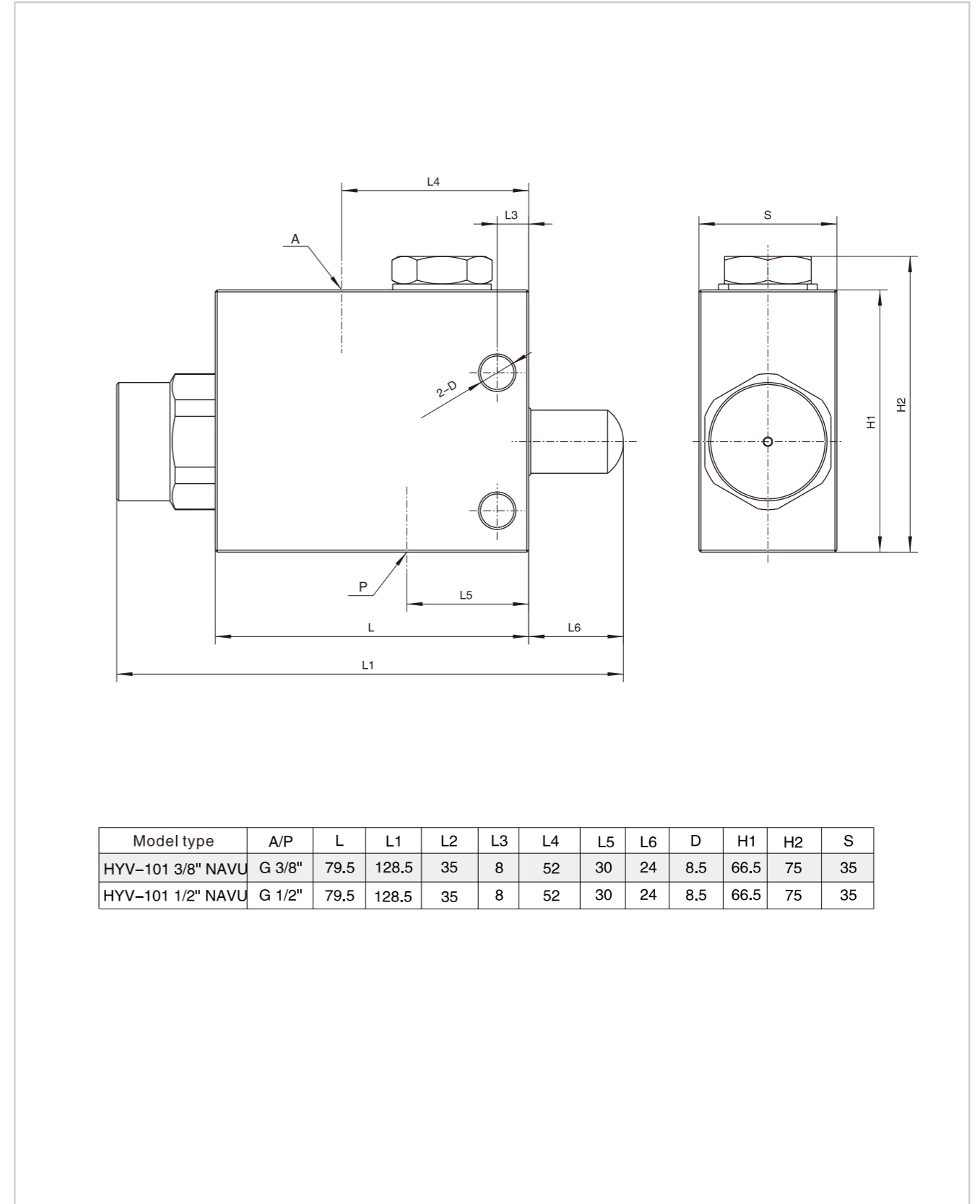


## Pressure Drop curve



# Press-type Stroke Valve (Normal Open)

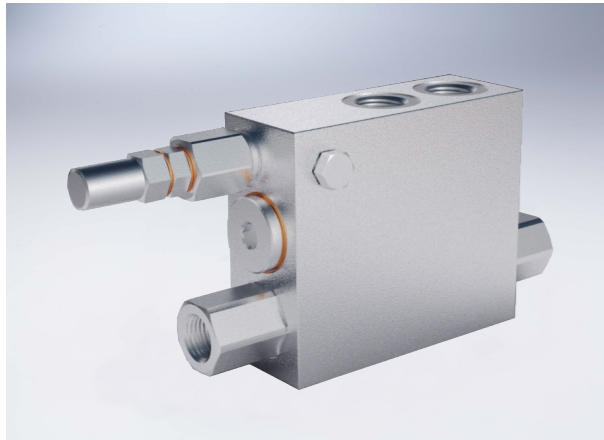
## Dimension





# Single Acting Plough Overturning Valves

## Technical specification

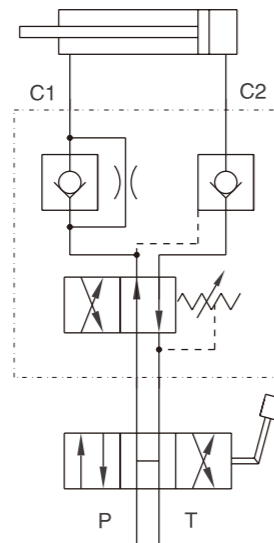


Specification	40/50 SE	60/80 SE
Max adjustable pressure ( Bar )		200
Max pressure (Bar)		400

**Use and operation:**  
 This valve has been realised for use on cylinders for reversible plough to obtain the automatic oil backflow and therefore the reversal of the motion of the hydraulic cylinder that makes the plough rotating. It is provided with a single pilot check valve which guarantees safety just on the block side, whilst on the stem side it must be leaned on the plough mechanical locks. Assembly on balanced and light plough with internal diameters 40/50 millimetres and 60/80 millimetres is recommended.

**Applications:**  
 Connect C1 to the cylinder's stem, C2 to the block, P and T to the machine inlet. Thanks to its shape, it can be in-line assembled on a hydraulic cylinder or directly fixed on the plough through the threaded hole made on the body.

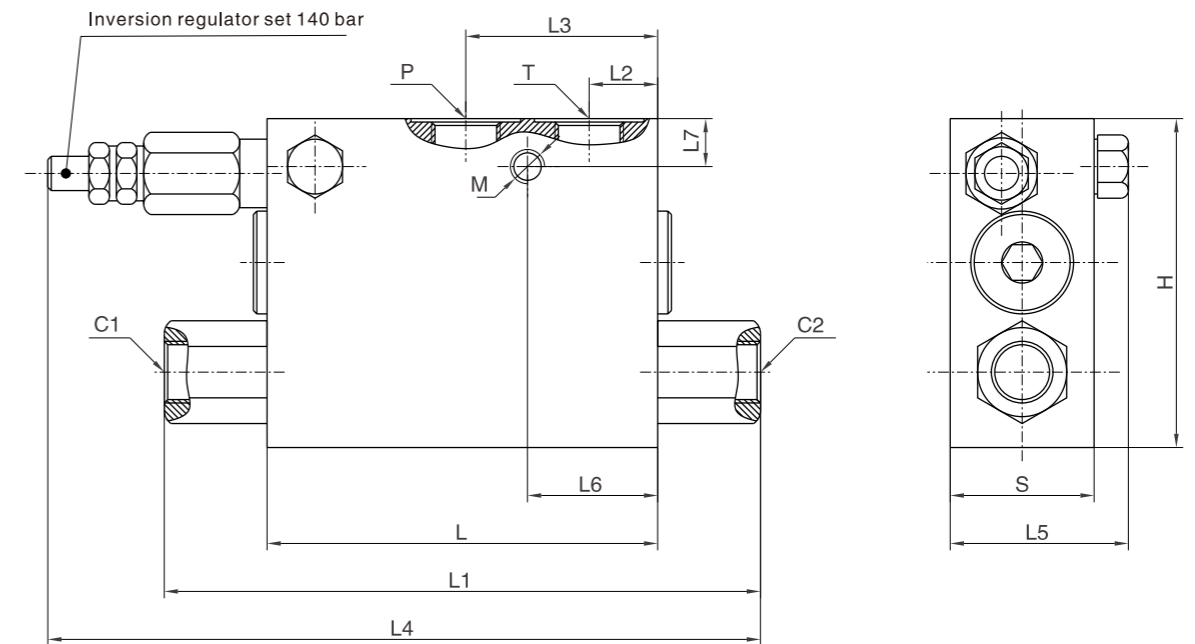
## Code symbol



# Single Acting Plough Overturning Valves



## External dimensions



Type	C1/C2/P/T	L	L1	L2	L3	L4	L5	L6	L7	M	H	S
HYVRA 40/50 SE	G 3/8"	94	142	16.5	46.5	177	42	31.5	12.5	M8	80	35
HYVRA 60/80 SE	G 1/2"	94	142	16.5	46.5	177	42	31.5	12.5	M8	80	35

# Double Acting Plough Overturning Valves

## Technical specification



Specification	40/50 DE	60/80 DE	80/100 DE	100/110 DE	110/130 DE
Max adjustable pressure (Bar)	250				
Max pressure (Bar)	400				

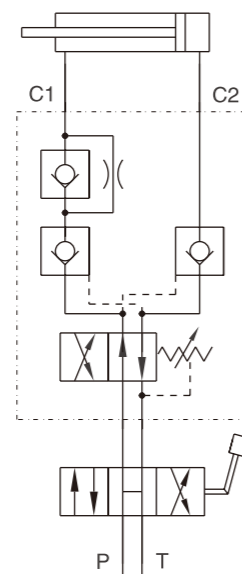
### Use and operation:

This valve has been realised for use on cylinders for reversible plough to obtain the automatic oil backflow and therefore the motion reversal of the hydraulic cylinder that makes the plough rotating. It is provided with a double pilot check valve which guarantees high safety and enables to put and block the cylinder in any position. The motion reversal of the piston is made through a differential type relief valve exactly in the dead point of the plough, generating more power and speed. It can be assembled on heavy and unbalanced plough with the following internal diameters: 40/50, 60/80, 80/100, 100/110, 110/130 mm.

### Applications:

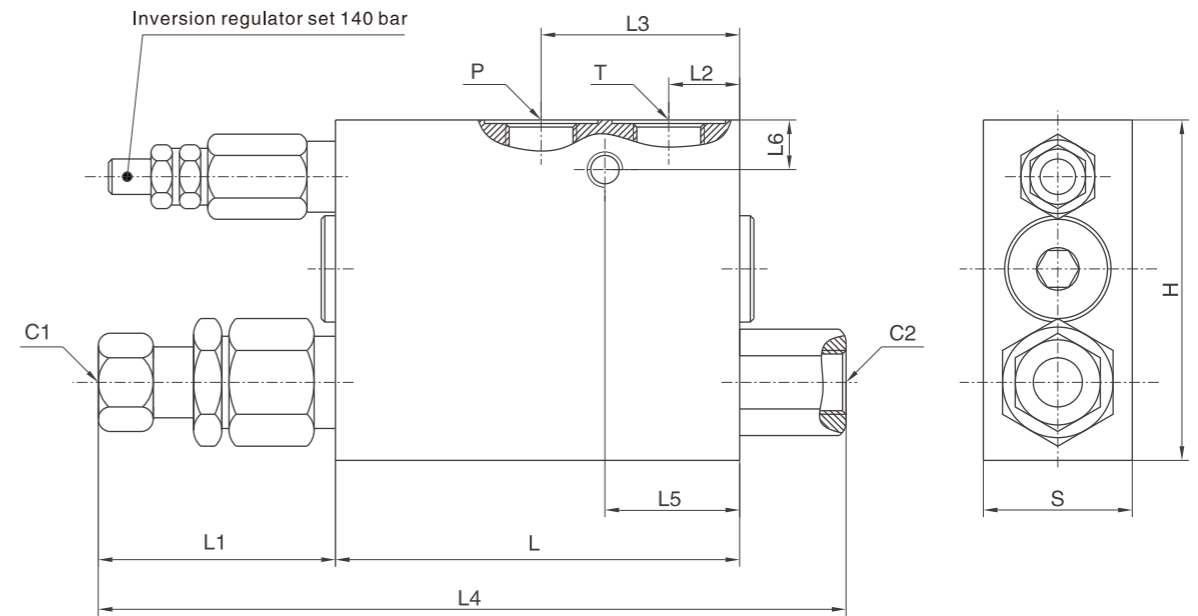
Connect C1 to the cylinder's stem, C2 to the block, P and T to the machine inlet. Thanks to its shape, it can be in-line assembled on a hydraulic cylinder or directly fixed on the plough through the threaded hole made on the body.

## Code symbol



# Double Acting Plough Overturning Valves

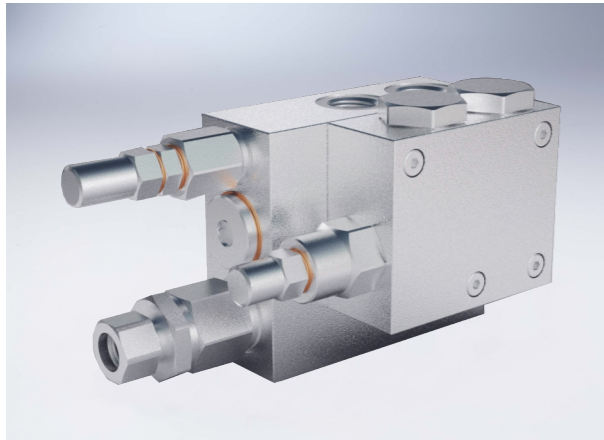
## External dimensions



Type	C2/P/T	C1	L	L1	L2	L3	L4	L5	L6	H	S
HYVRA 40/50 DE	G 3/8"	Φ12	95	57	16.5	46.5	176	31.5	12.5	80	35
HYVRA 60/80 DE	G 3/8"	Φ12	94	58	16.5	46.5	176	31.5	12.5	80	35
HYVRA 80/100 DE	G 3/8"	Φ12	94	58	16.5	46.5	176	31.5	12.5	80	35
HYVRA 100/110 DE	G 3/8"	Φ12	94	58	16.5	46.5	176	31.5	12.5	80	35
HYVRA 110/130 DE	G 3/8"	Φ12	94	58	16.5	46.5	176	31.5	12.5	80	35

# Double Acting Plough Overturning Valves With Relief Valve

## Technical specification

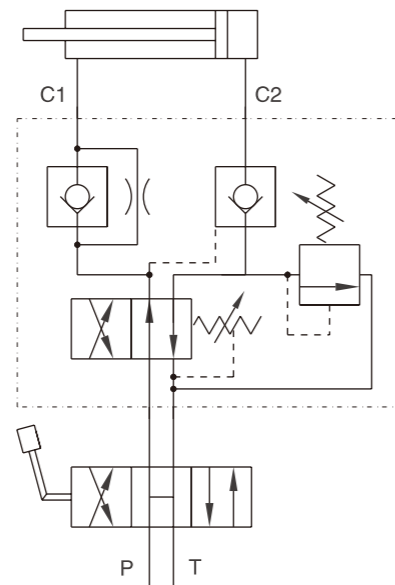


Specification	60/80 DE+VMP	80/100 DE+VMP	110/110 DE+VMP	110/130 DE+VMP
Max adjustable pressure (Bar)	250			
Max pressure (Bar)	400			

**Use and operation:**  
 This valve has been realised for use on cylinders for reversible plough to obtain the automatic oil backflow and therefore the motion reversal of the hydraulic cylinder that makes the plough rotating. It is provided with a double pilot check valve and with a relief valve that enables to reduce the thrust pressure (block side) in order not to damage the mechanical locks and the plough's head. The motion reversal of the piston is made through a differential type relief valve exactly in the dead point of the plough, generating more power and speed. It's ideal for assembly on heavy and unbalanced plough with the following internal diameters: 40/50, 60/80, 80/100, 100/110, 110/130 mm.

**Applications:**  
 Connect C1 to the cylinder's stem, C2 to the block, P and T to the machine inlet. Thanks to its shape, it can be in-line assembled on a hydraulic cylinder or directly fixed on the plough through the threaded hole made on the body.

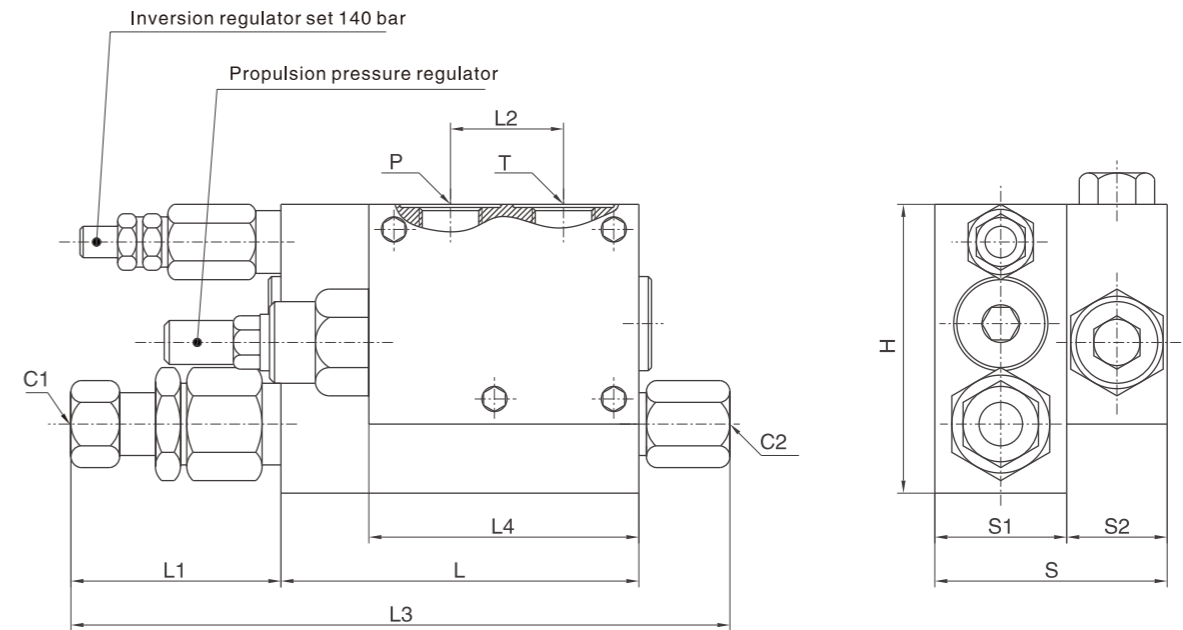
## Code symbol



# Double Acting Plough Overturning Valves With Relief Valve



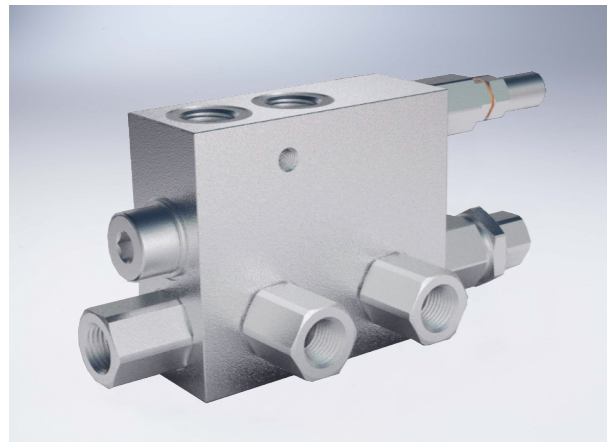
## External dimensions



Type	C2/P/T	C1	L	L1	L2	L3	L4	H	S	S1	S2
HYVRAP 60/80 DE+VMP	G 3/8"	Φ12	94	58	30	176	72	80	65	35	30
HYVRA 80/100 DE+VMP	G 3/8"	Φ12	94	58	30	176	72	80	65	35	30
HYVRAP 100/110 DE+VMP	G 3/8"	Φ12	94	58	30	176	72	80	65	35	30
HYVRA 110/130 DE+VMP	G 3/8"	Φ12	94	58	30	176	72	80	65	35	30

# Double Acting Plough Overturning Valve By down Mouldboard Load Shifting

## Technical specification

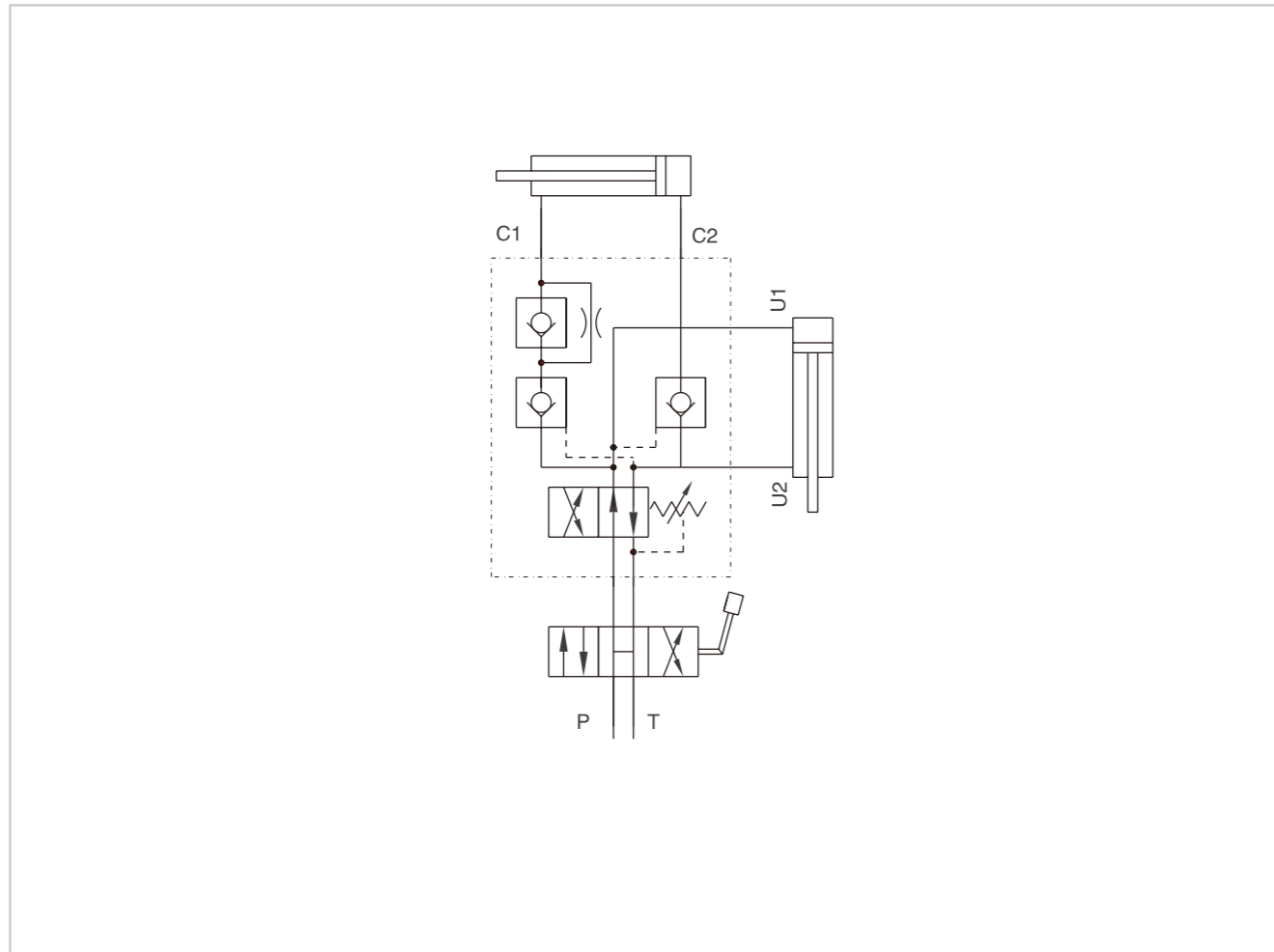


Specification	80/100 SS
Max adjustable pressure (Bar)	250
Max pressure (Bar)	400

**Use and operation:**  
This valve has been realised for use on cylinders for reversible plough to obtain the automatic oil backflow and therefore the motion reversal of the hydraulic cylinder that makes the plough rotating. It has been studied to set in action 2 cylinders with disadvantageous rotation load (see scheme).

**Applications:**  
Connect C1 to the stem, C2 to the cylinder's block A, U1 to the block and U2 to the stem of the lining up cylinder's B; P and T to the machine inlet. Thanks to its shape, it can be in-line assembled on a hydraulic cylinder or directly fixed on the plough through the threaded hole made on the body.

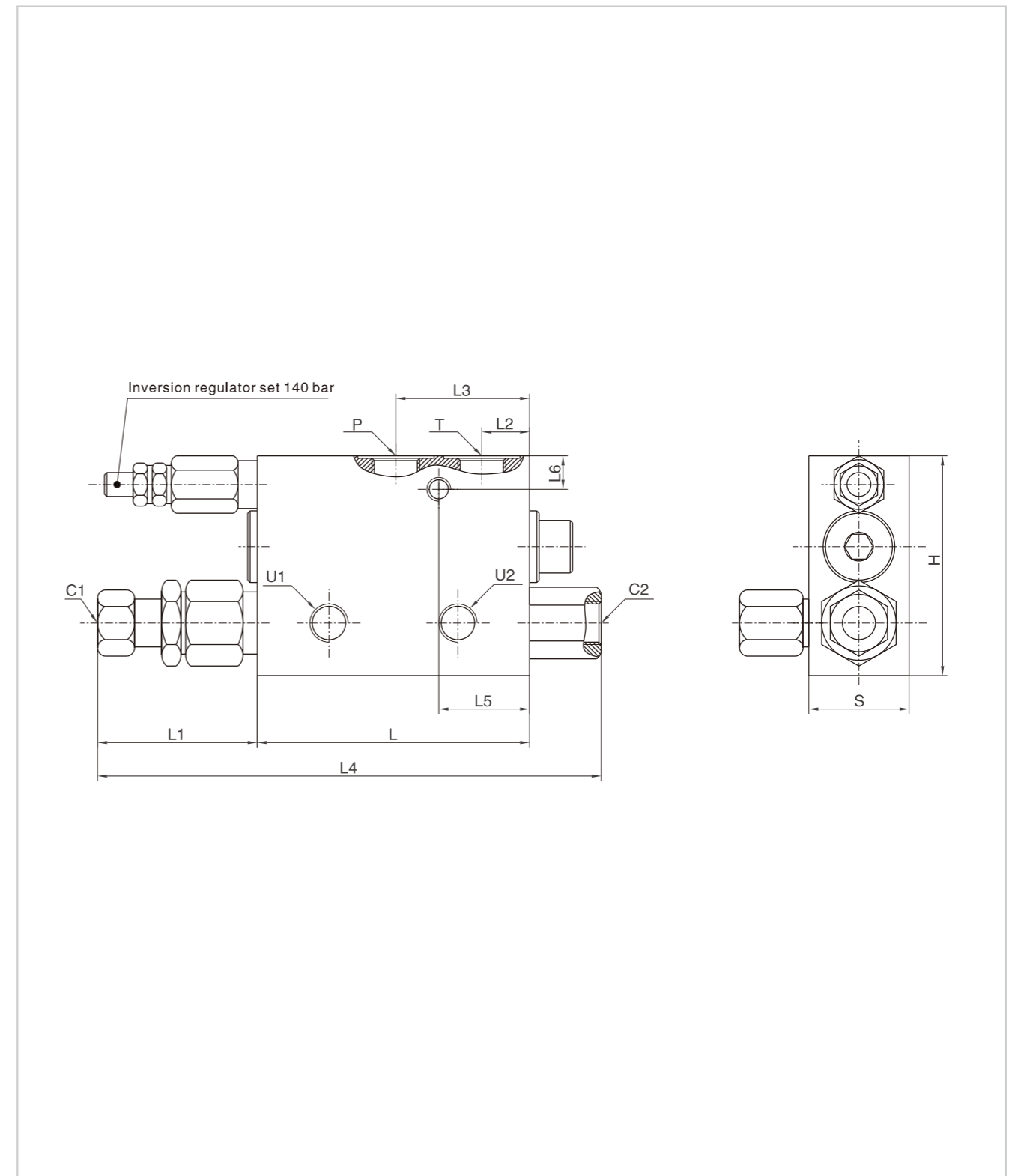
## Code symbol



# Double Acting Plough Overturning Valve By down Mouldboard Load Shifting



## External dimensions

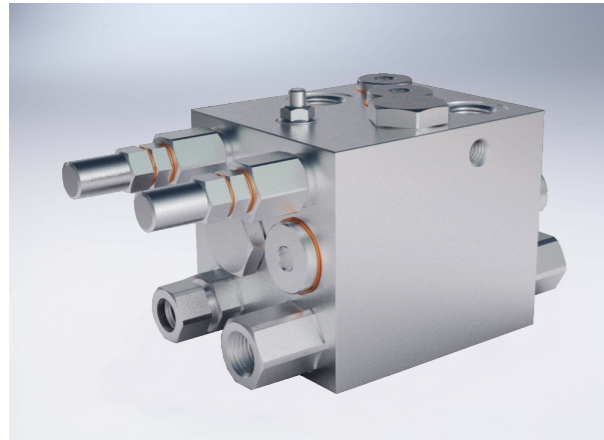


Type	C2/P/T	C1	L	L1	L2	L3	L4	L5	L6	H	S
HYVRAP 80/100 SS	G 3/8"	Φ12	94	58	16.5	46.5	176	31.5	12.5	80	35

# Double Acting Plough Overturning Valve By Up Mouldboard Load Shifting



## Technical specification

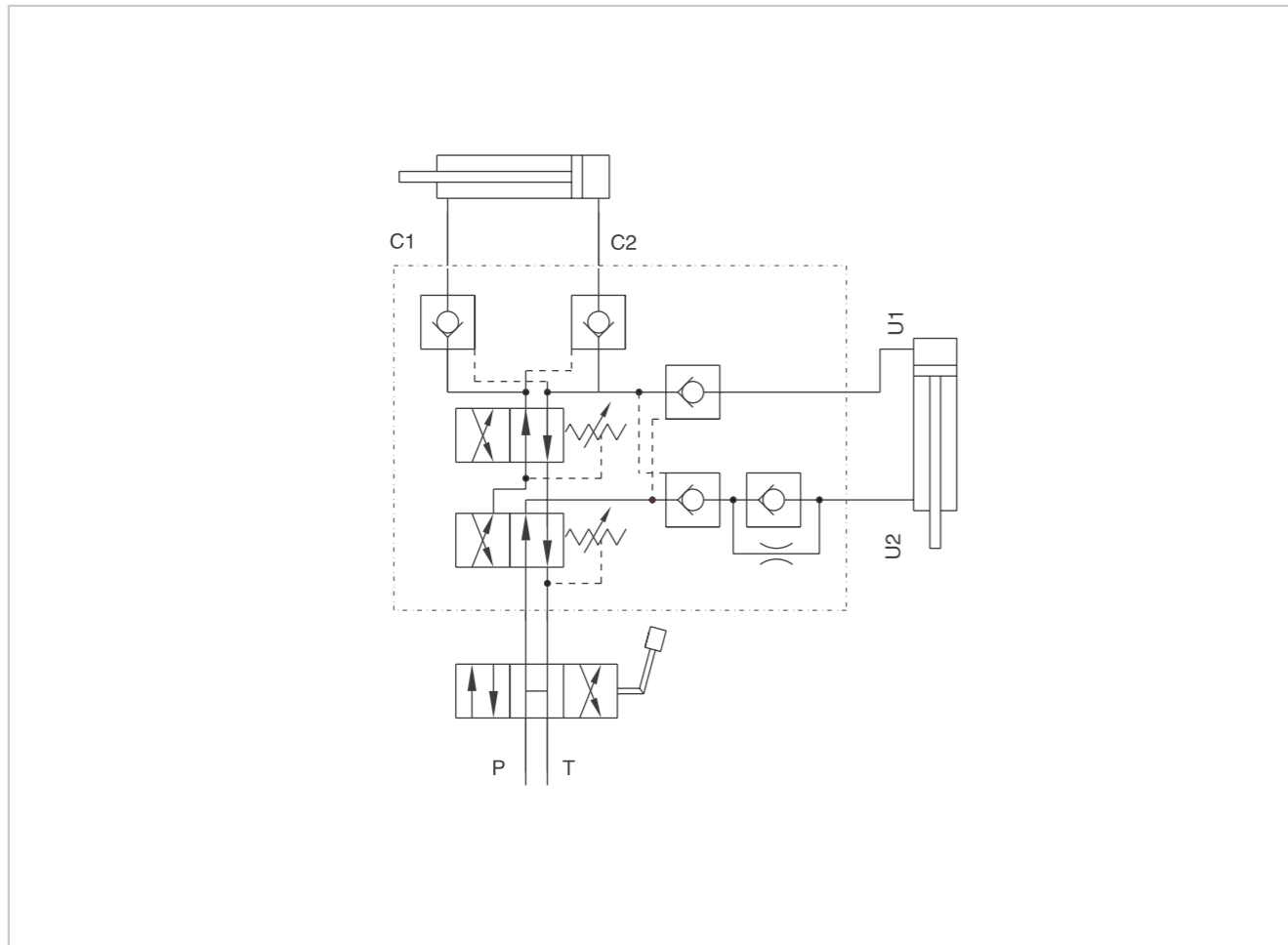


Specification	80/100 SV TN
Max adjustable pressure (Bar)	250
Max pressure (Bar)	400

**Use and operation:**  
This valve has been realised for use on cylinders for reversible plough to obtain the automatic oil backflow and therefore the motion reversal of the hydraulic cylinder that makes the plough rotating. It has been studied to set in action 2 cylinders with advantageous rotation load( see scheme).

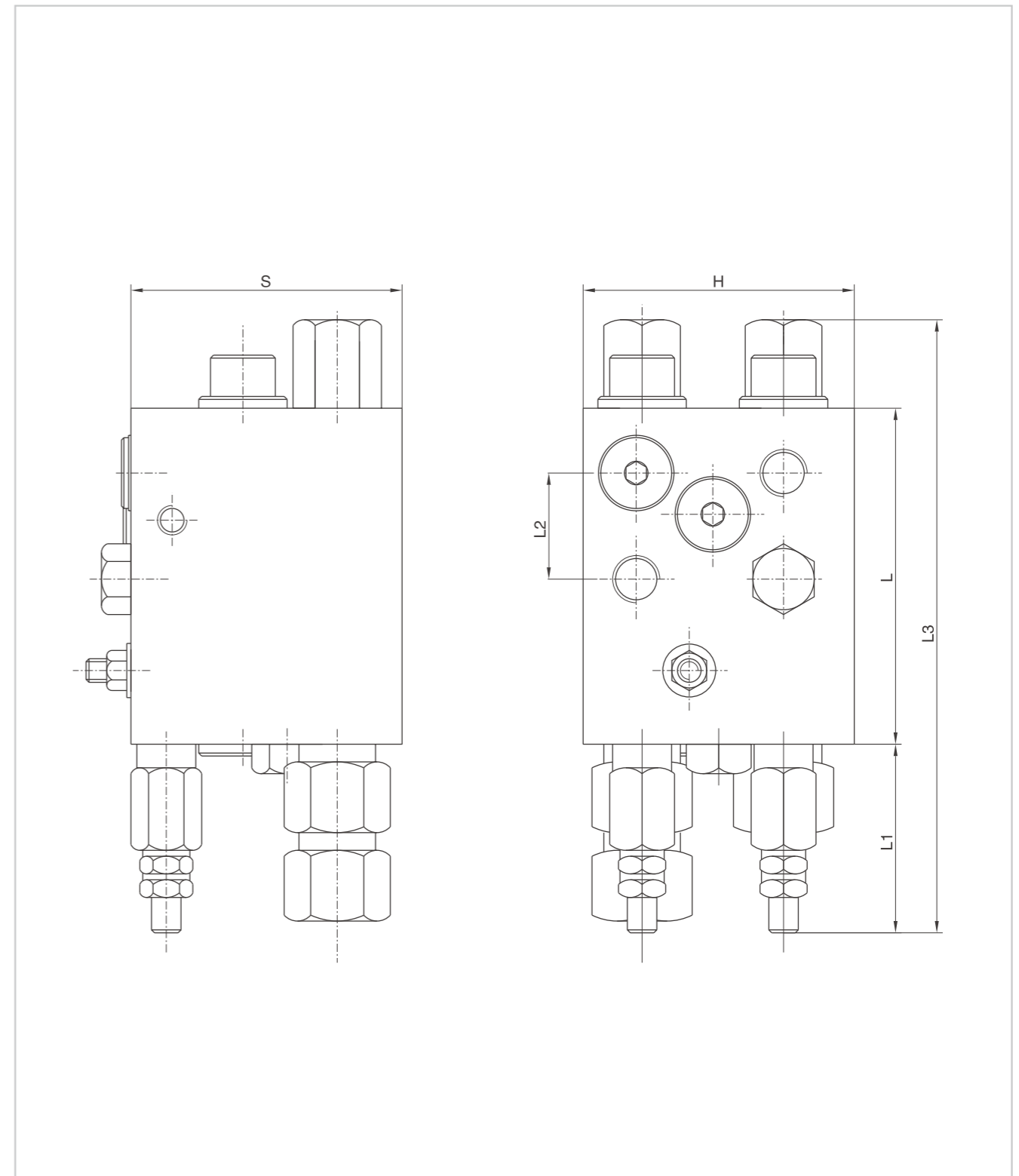
**Applications:**  
Connect C1 to the stem, C2 to the cylinder's block A, U1 to the block and U2 to the stem of the lining up cylinder's B; P and T to the machine inlet. Thanks to its shape, it can be in-line assembled on a hydraulic cylinder or directly fixed on the plough through the threaded hole made on the body.

## Code symbol



# Double Acting Plough Overturning Valve By Up Mouldboard Load Shifting

## External dimensions



Type	C1C2/P/T	L	L1	L2	L3	H	S
HYVRAP 80/100 SV TN	G 3/8"	95	57	16.5	176	80	80

# Double Acting Plough Outside Drills Overturning Valves For Cylinder With Memory And Without Memory

## Technical specification

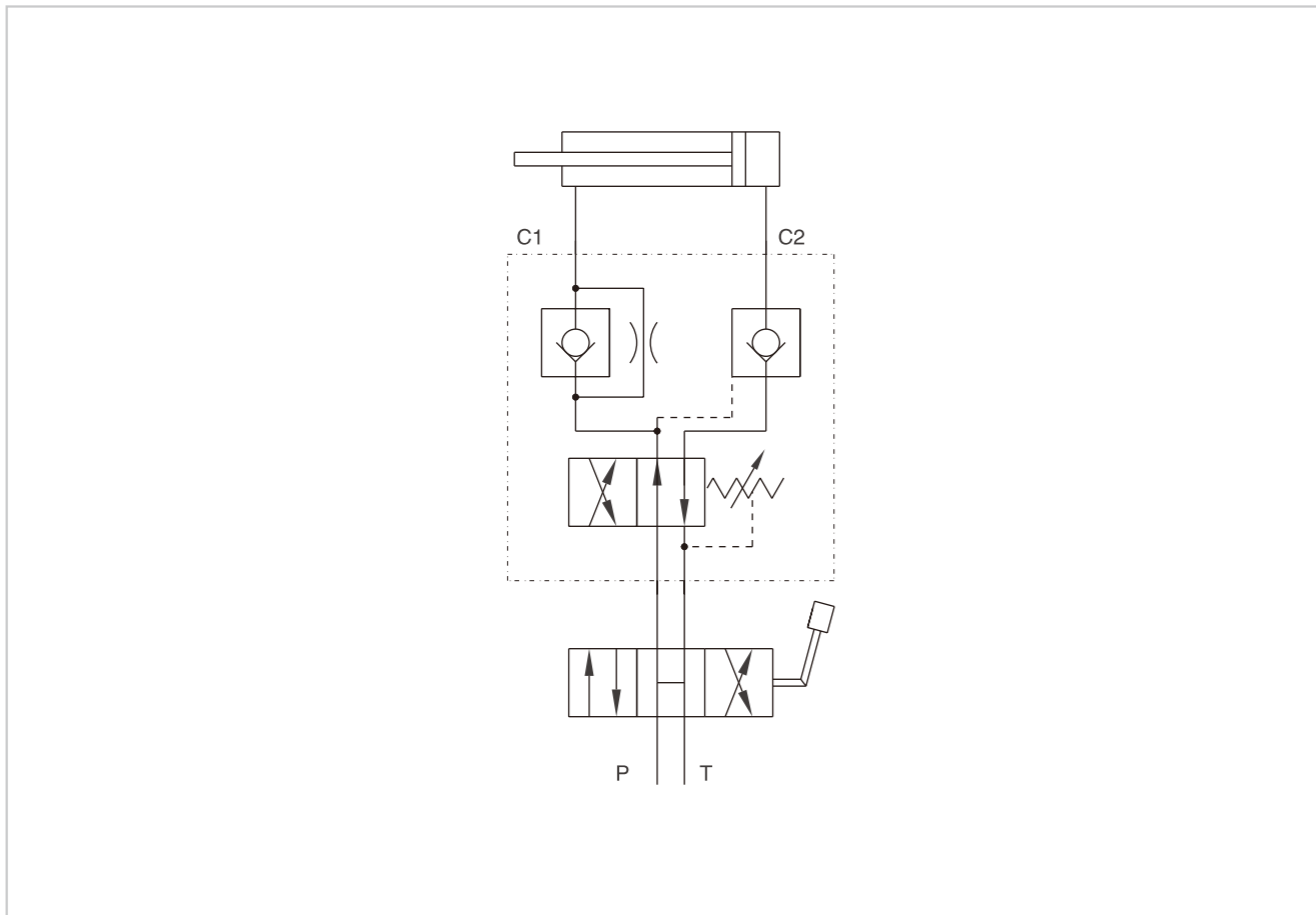


Specification	110/130 FSCM	110/130 FSSM
Max adjustable pressure (Bar)	250	
Max pressure (Bar)	400	

**Use and operation:**  
 Valves for actuators with memory (V0325): realized for use on cylinders with memory for outside drills reversible ploughs, it's provided with a dual cross relief valve which provides protection against tear's shocks when the plough exceeds the dead point.  
 Valves for actuators without memory (V0326): realised for use on cylinders without memory for outside drills reversible ploughs, it is provided with a dual cross relief valve and with a relief valve: this enables to reduce the thrust pressure (block side) in order not to damage the mechanical locks and the plough's head. Both systems are provided with a fixed compensated flow control valve which allows to keep a constant speed whether the plough works inside the drills or outside.

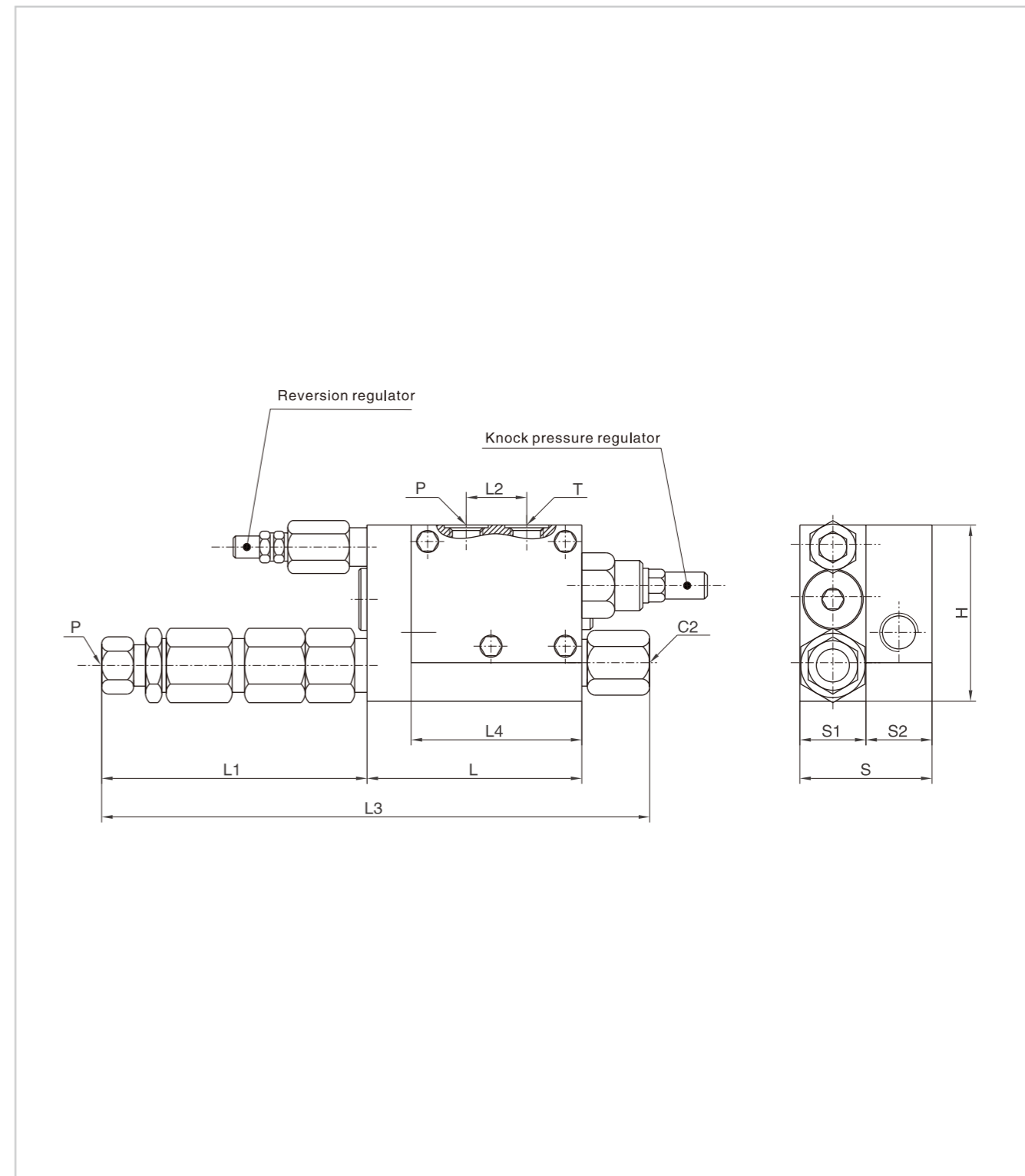
**Applications:**  
 Connect C1 and the dual cross relief valve to the cylinder from the stem side through the double holed screw ( supplied with the valves) and double banjos, connect C2 to the cylinder from the block's side, P and T to the machine inlet

## Code symbol



# Double Acting Plough Outside Drills Overturning Valves For Cylinder With Memory And Without Memory **HOYEA**

## External dimensions



Type	C2/P/T	C1	L	L1	L2	L3	H	S	S1
HYVRAP 110/130 FSCM	G 3/8"	Φ12	94	123	30	241	80	65	35
HYVRAP 110/130 FSSM	G 3/8"	Φ12	94	123	30	241	80	65	35

# 1 Way Special Block For No-stop Plough And Sub-soilers Tillers

## Technical specification



Specification	1 VIA 3/8"	1 VIA 1/2"
Max pressure (Bar)	350	

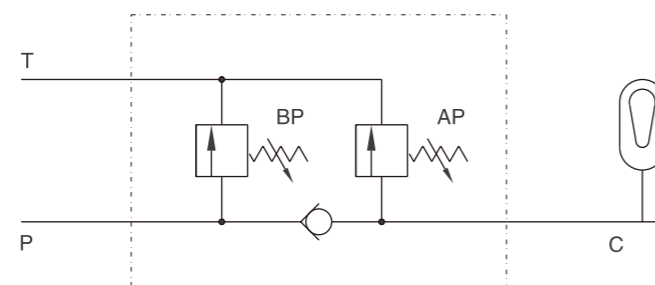
### Use and operation:

This valve is made up by 2 relief valves and 1 check valve. It is used to supply pressure to tanked systems on non-stop plough and sub-soilers tillers in order to provide protection against shocks.

### Applications:

Connect P to the machine inlet, T to the draining or to the tank for the eventual oil reutilization and IC to the system.  
 \* BP adjusts the charge pressure of system and is set at 80 Bar.  
 \* AP adjusts the eventual security drainage opening and is set at 250 Bar.

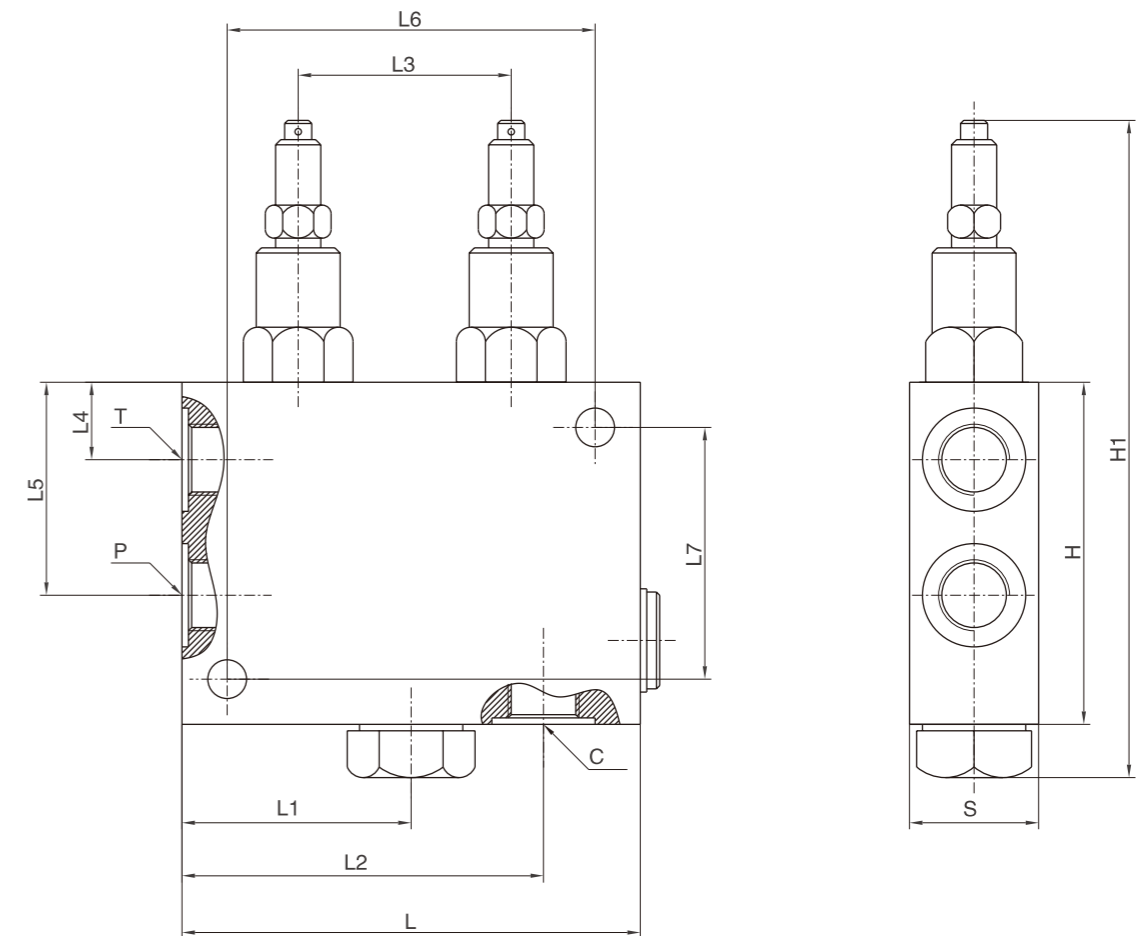
## Code symbol



# 1 Way Special Block For No-stop Plough And Sub-soilers Tillers



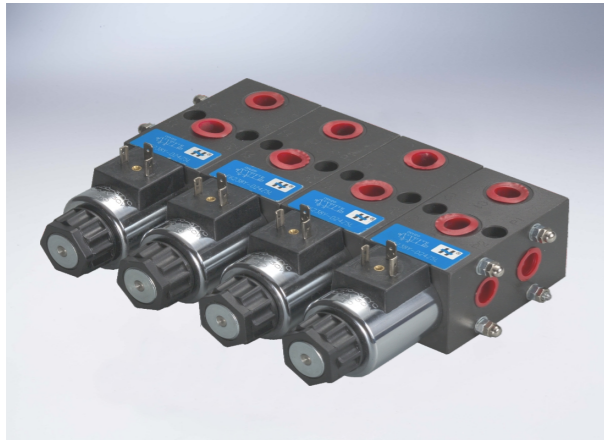
## External dimensions



Type	P/T	C	L	L1	L2	L3	L4	L5	L6	L7	H	H1	S
HYMASSELLO 1 VIA 3/8"	G 3/8"	G 3/8"	107	52	33	50	18	49	87	60	80	145	30
HYMASSELLO 1 VIA 1/2"	G 1/2"	G 3/8"	114	52	40	50	18	49	94	60	80	145	30

# Selector Valve

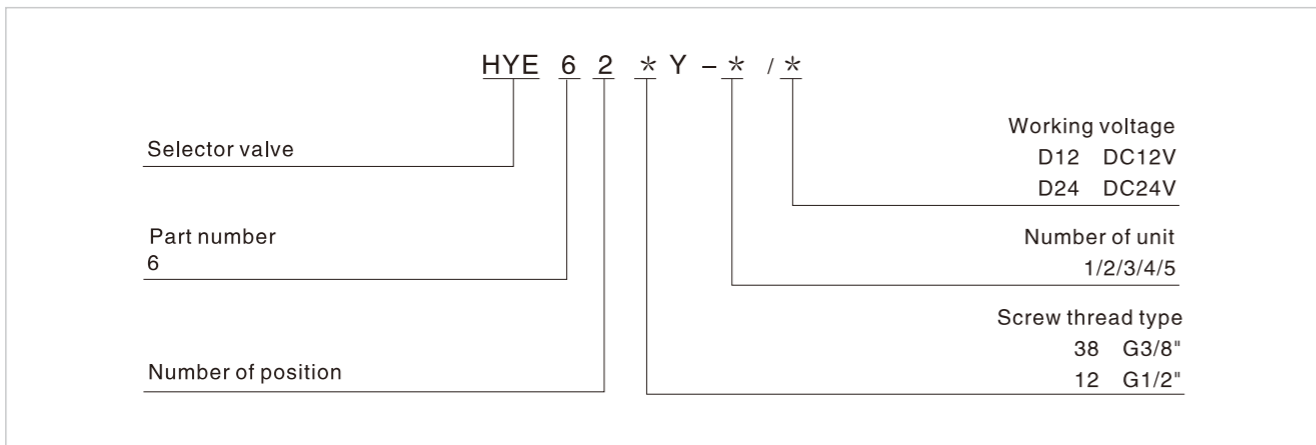
## Technical specification



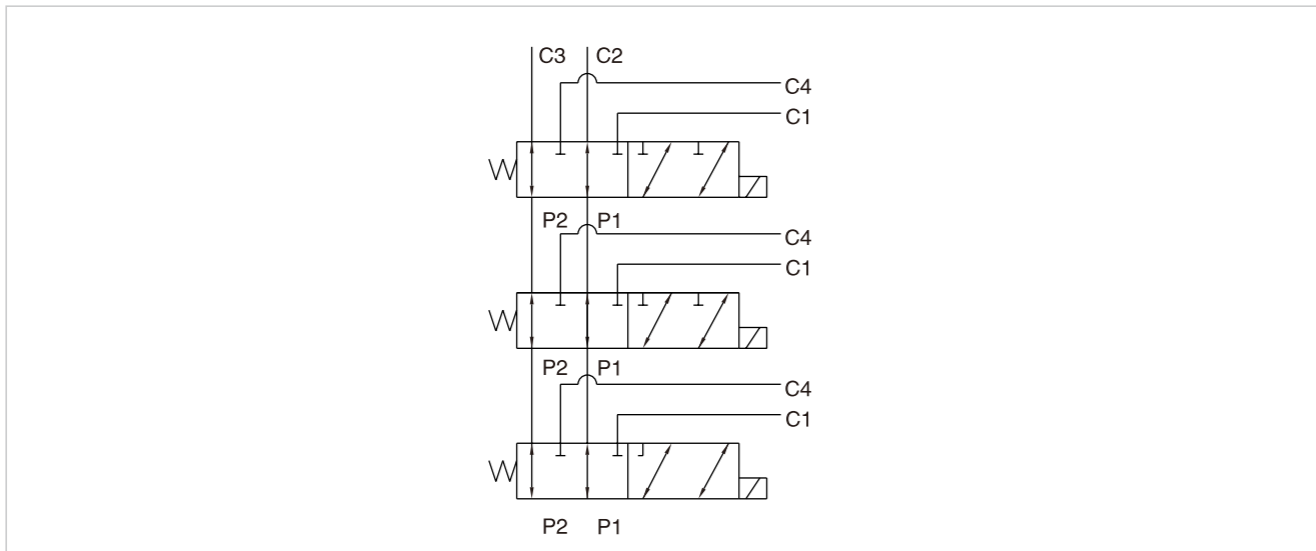
Specification	E6238Y	E6212Y
Working pressure (MPa)	21	
Max.flow (L/min)	40	60
Working fluid	Mineral oil;phosphate-ester	
Fluid temp (°C)	-20~+80	
Viscosity (mm <sup>2</sup> /s)	-2.8~+500	
Weight (kg)	4	5

**Features:**  
E62 uses solenoid to push the spool and change the direction of fluid flow, it can control the switch of oil circuit in the hydraulic system

## Model description

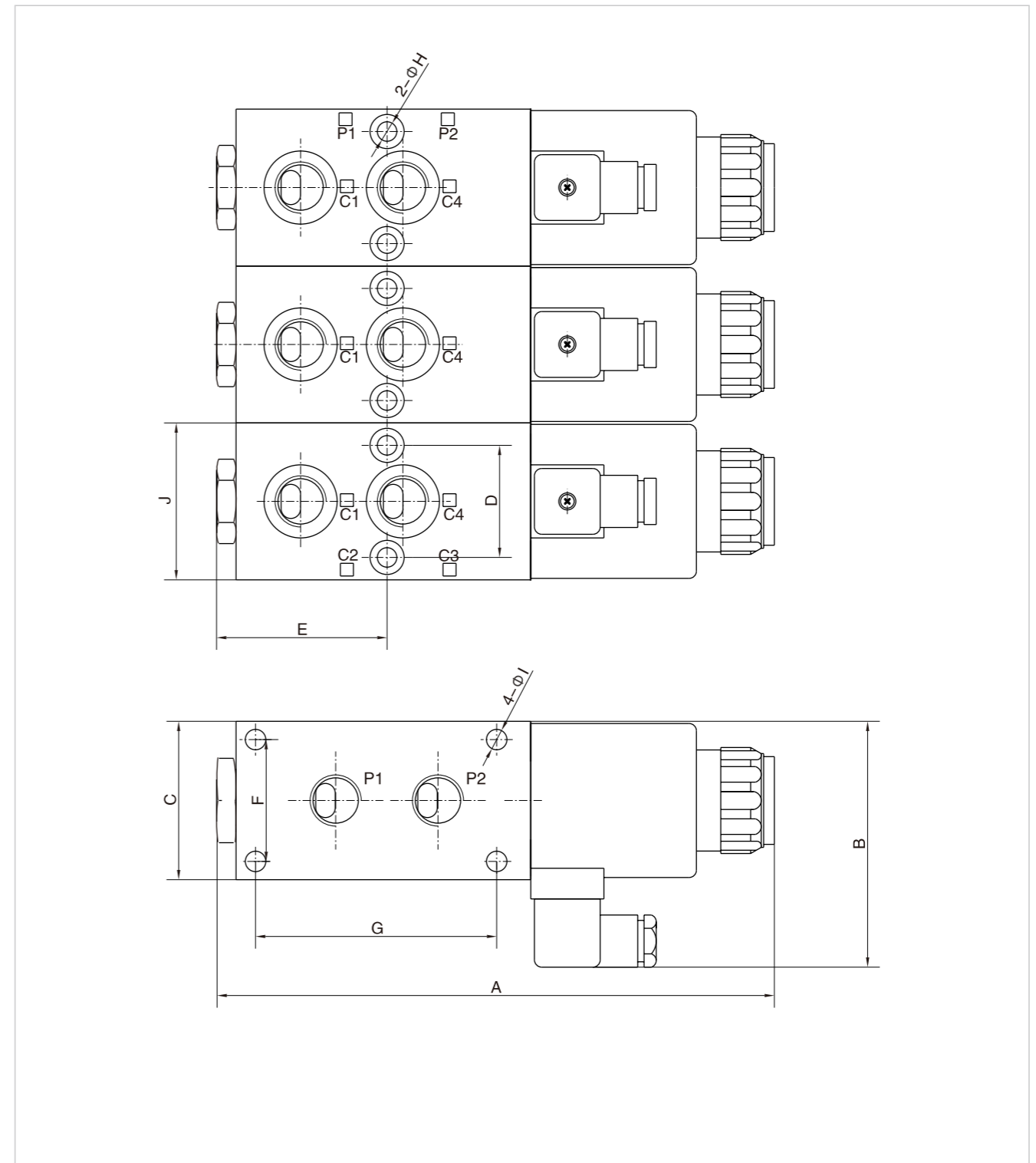


## Code symbol



# Selector Valve

## External dimensions



Type	A	B	C	D	E	F	G	H	I	J
HYE6238Y	175.2	84	52	36	57.5	38	42	6.4	6	52
HYE6212Y	229	100.6	65	46	70	50	99	8	8.4	65



# Selector Valve

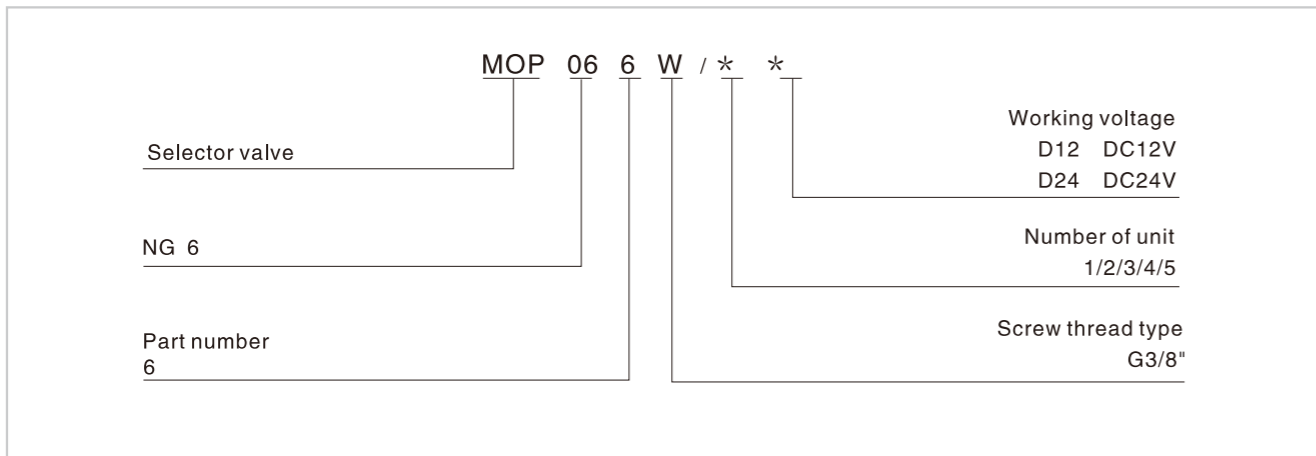
## Technical specification



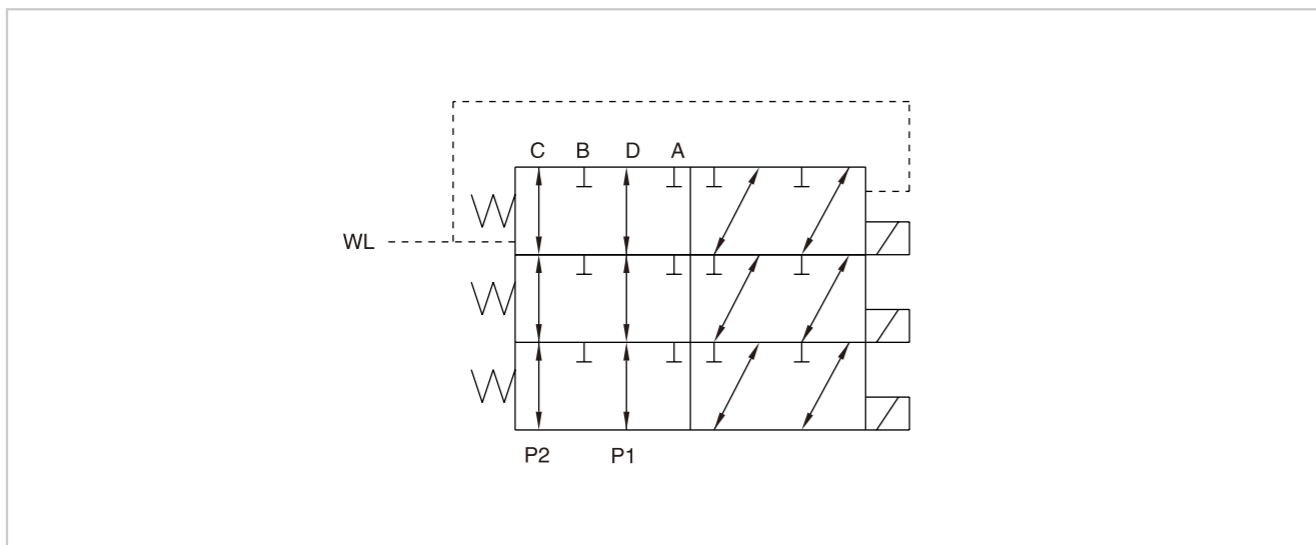
Specification		MOP06/D24
Working pressure (MPa)	Oil ports P1,P2,A,B,C,D	21
	Oil ports T	10
Max.flow (L/min)		50
Working fluid		Mineral oil;phosphate-ester
Fluid temp (°C)		-20~+80
Viscosity (mm <sup>2</sup> /s)		-2.8~+500
Weight (kg)		3.1

**Features:**  
E62 uses solenoid to push the spool and change the direction of fluid flow,it can control the switch of oil circuit in the hydraulic system

## Model description

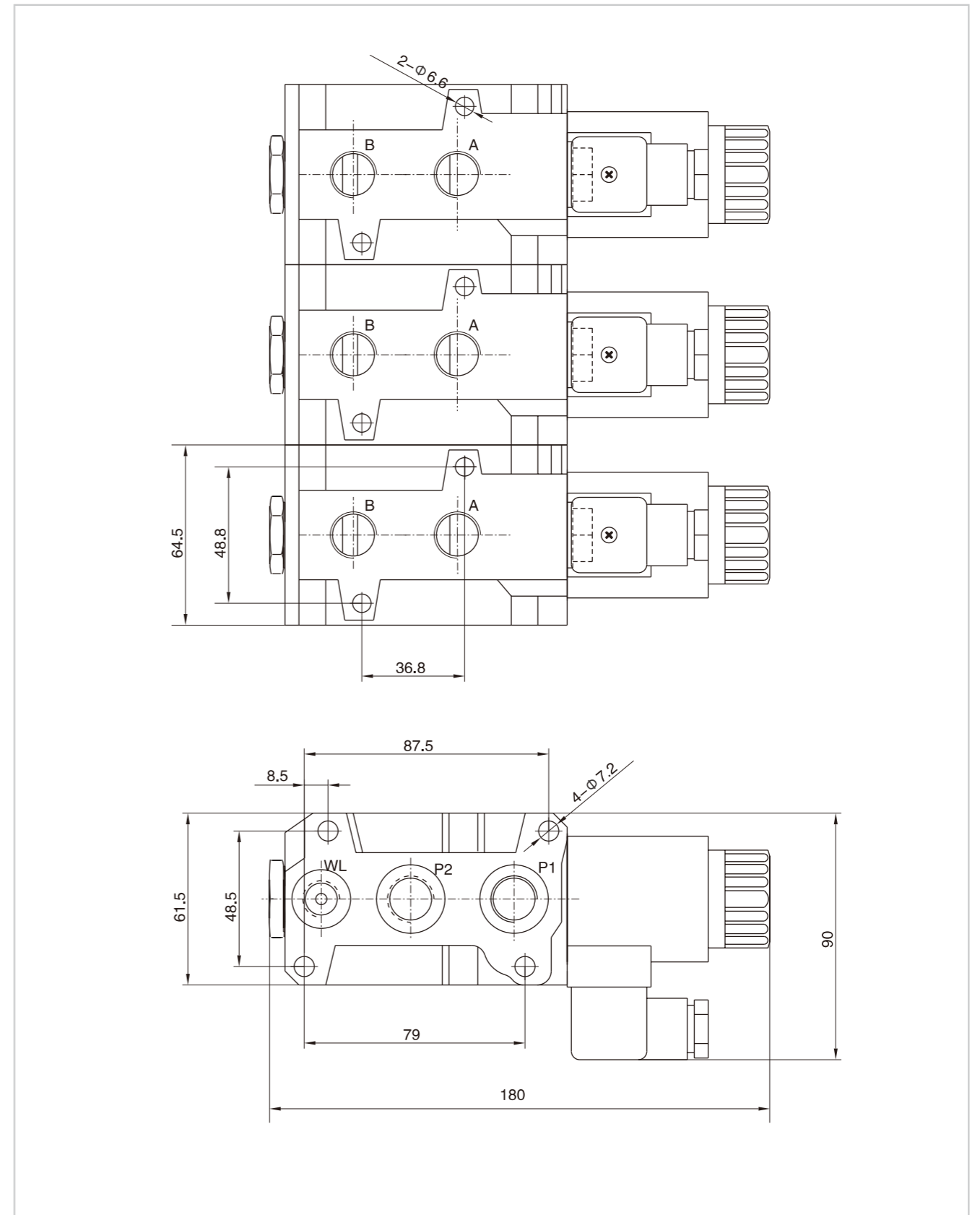


## Code symbol



# Selector Valve

## External dimensions



# Hyvbpde Dual Pilot-check Valve

## Technical specification



Model	HYVBPDE-G1/4KCP
Max Pressure (Mpa)	31.5
Max Flow (L/min)	40
Working fluid	Mineral oil, phosphate hydraulic oil
Fluid viscosity (Mm <sup>2</sup> /s)	2.8~380
Storage temp (°C)	-20~80
Working temp (°C)	-10~60
Cleanliness	The max allowed cleanliness of the oil shall be as per Standard NAS1638, grade IX, recommendable filtering precision Min β <sub>10</sub> ≥75.

( Please consult with us if your working condition is out of the technical parameter given above. )

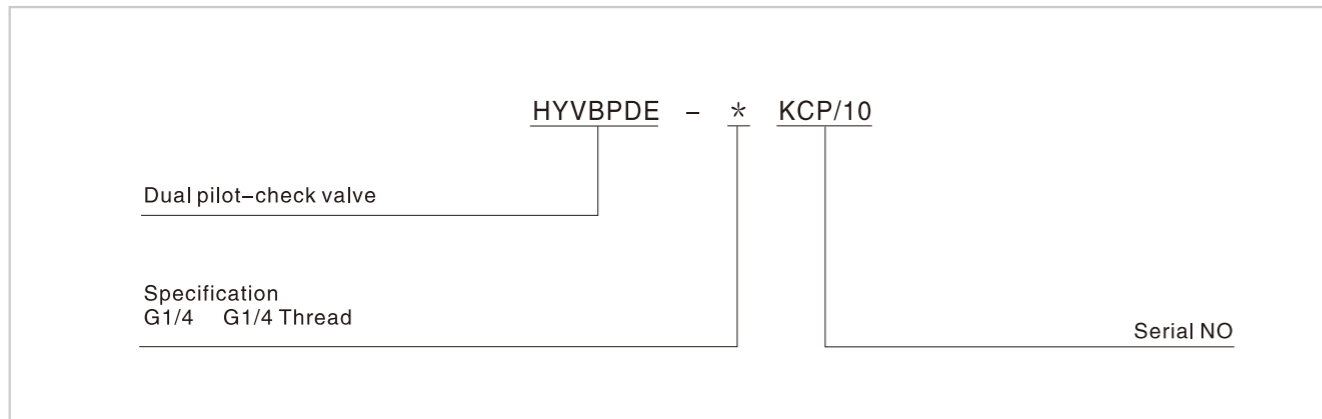
### Usage:

It's used for blocking the actuators, allow the fluid to flow in one direction and block the flow in reverse, til the control oil works, the flow flows free, can be used to control the cylinder.

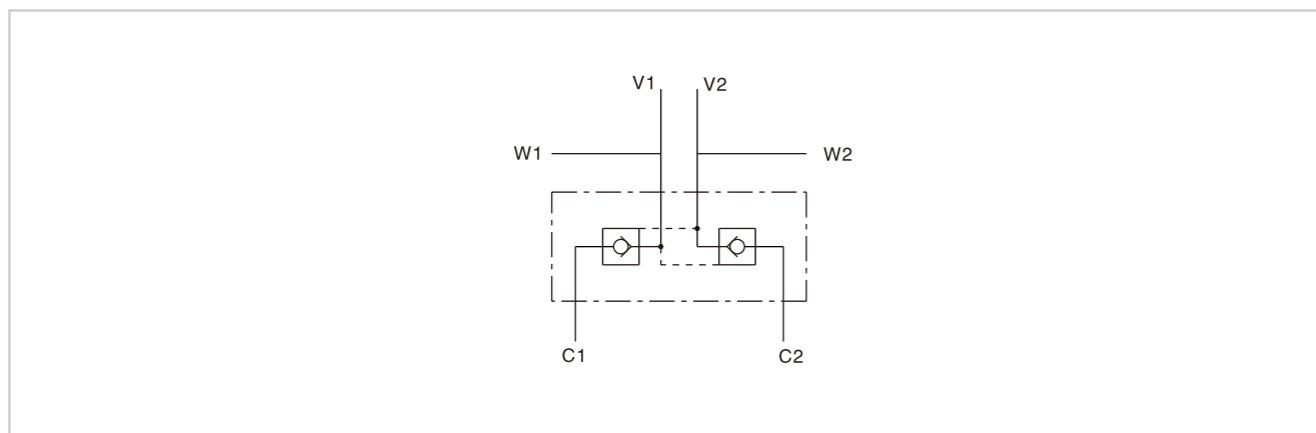
### Connection:

connect V1 V2 to pressure circuits, C1 C2 to the pipeline of the actuators, W1, W2 can connect with the gauge, or can be plugged.

## Model description

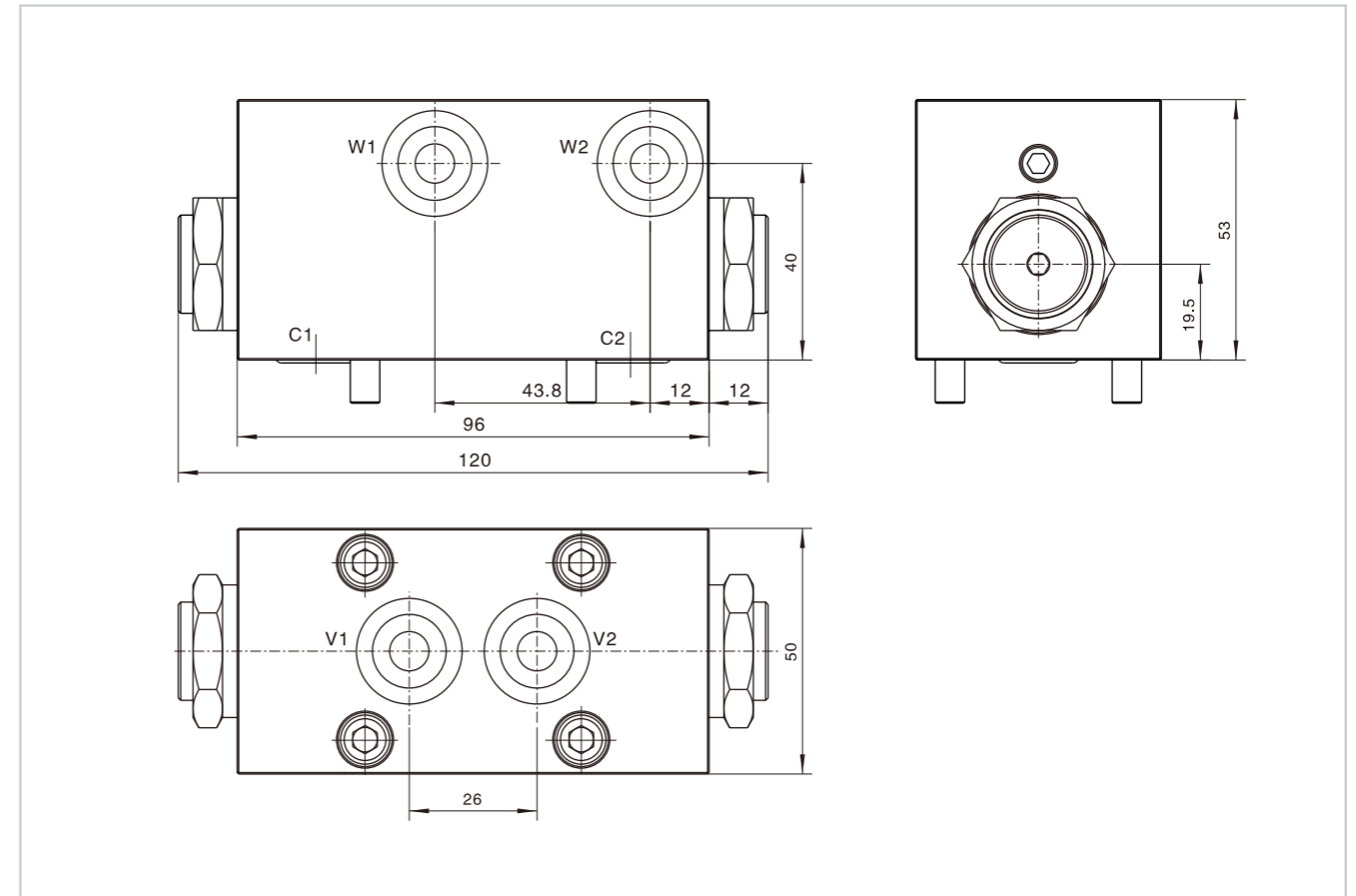


## Code symbol

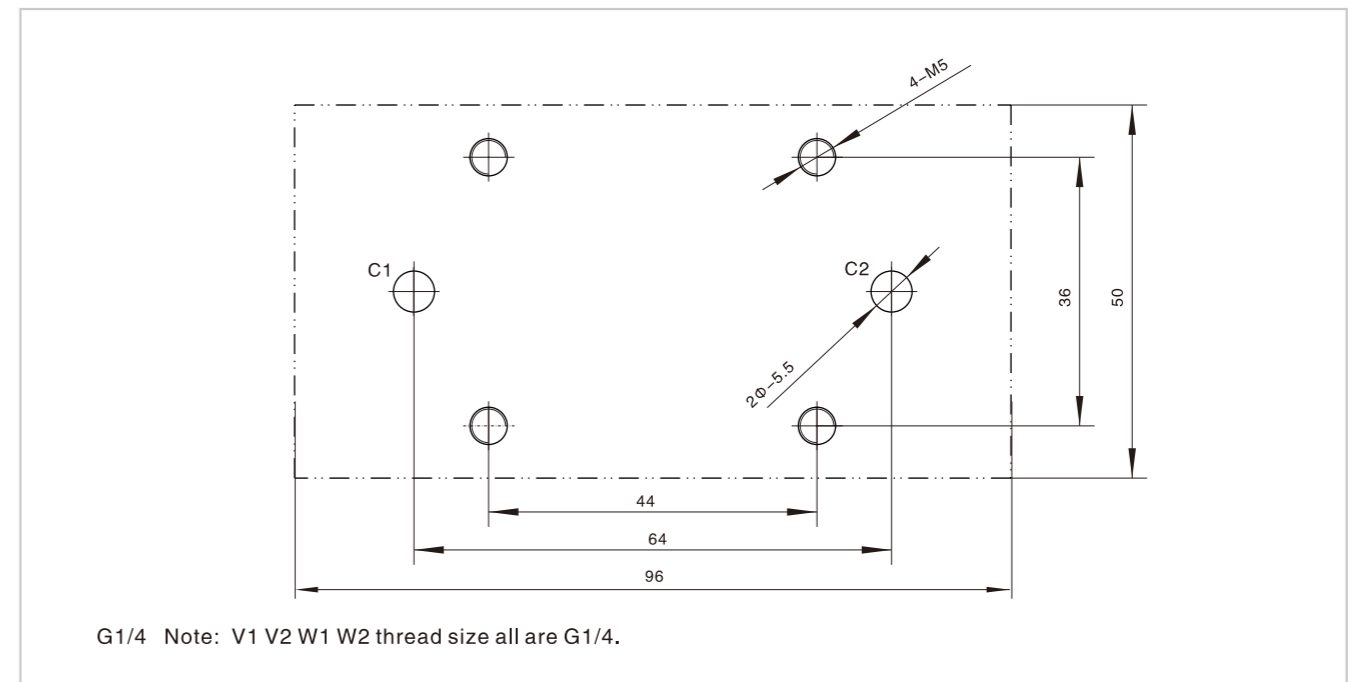


# Hyvbpde Dual Pilot-check Valve

## External dimensions

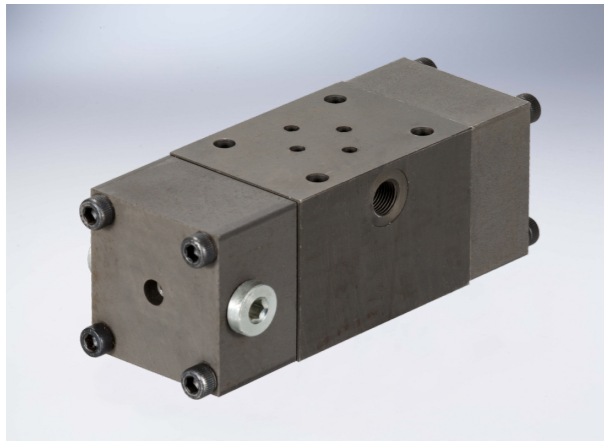


## Subplate size



# Hyyf Hydro-operated Directional Valve

## Technical specification

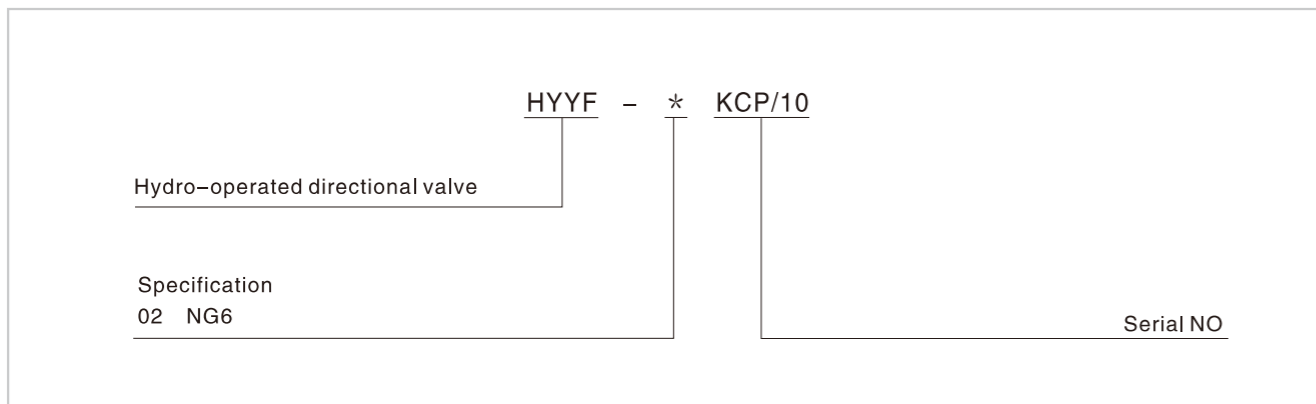


Model	HYYF-02-KCP
Max Pressure (MPa)	31.5
Max Flow (L/min)	40
Working fluid	Mineral oil, phosphate hydraulic oil
Fluid viscosity (mm <sup>2</sup> /s)	2.8~380
Storage temp (°C)	-20~80
Working temp (°C)	-10~60
Cleanliness	The max allowed cleanliness of the oil shall be as per Standard NAS1638, grade IX, recommendable filtering precision Min β <sub>10</sub> ≥75.

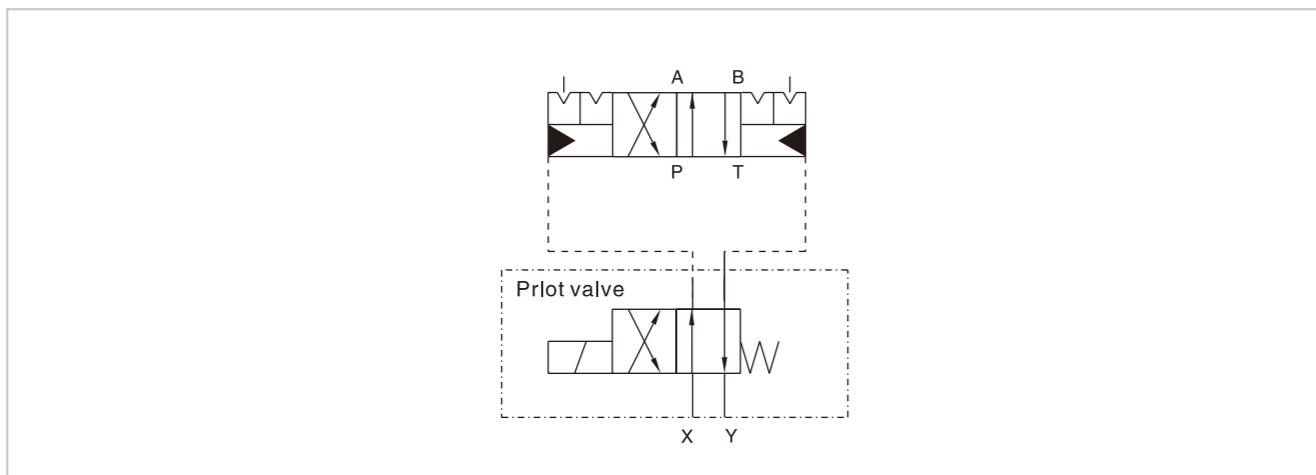
( Please consult with us if your working condition is out of the technical parameter given above. )

Usage:  
t's a modular hydro-operated directional valve, combine with solenoid valve (Hoyea FW series) to control the cylinder, and with positioning function. Connect X to pressure circuit, Y to tank.

## Model description

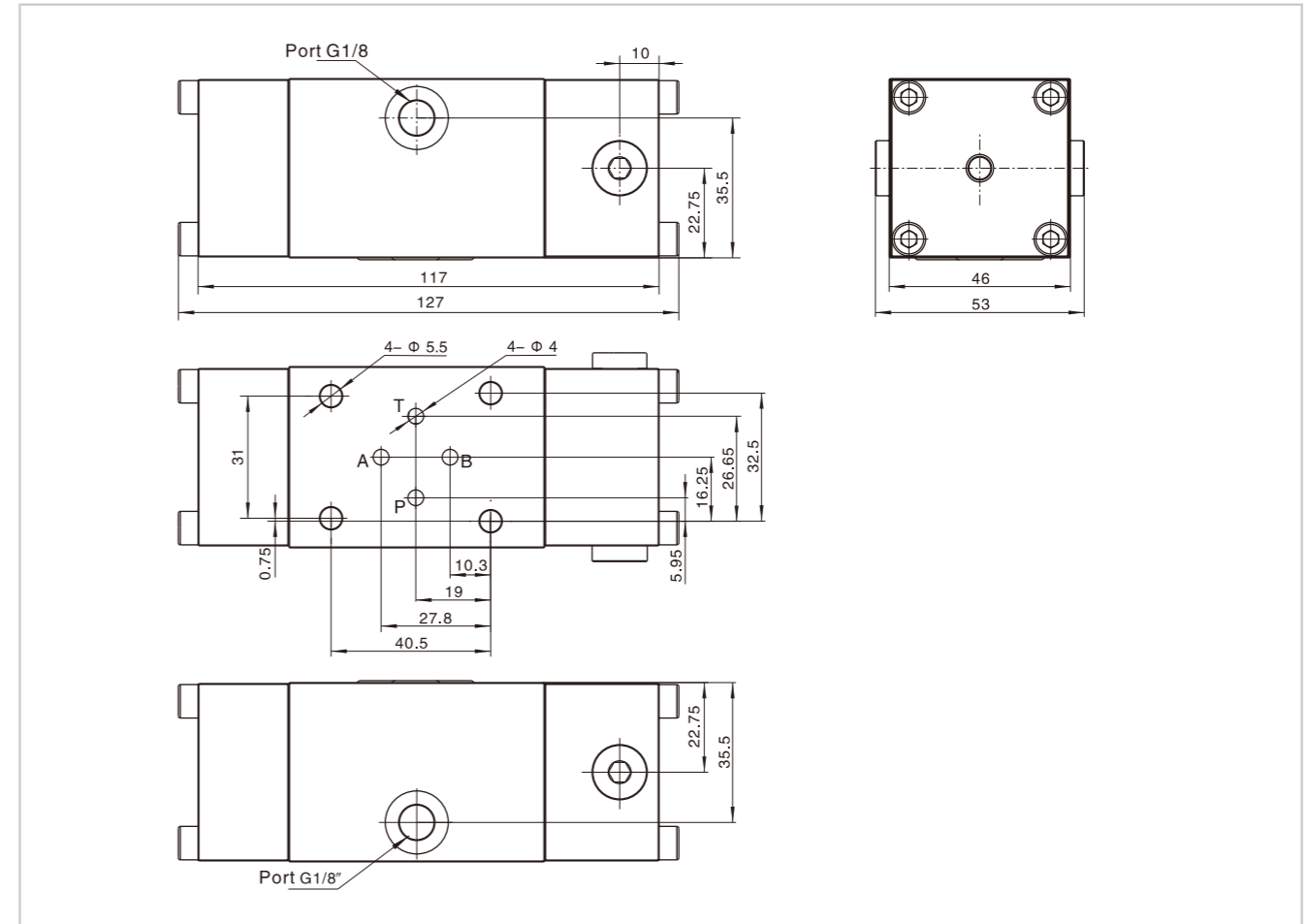


## Code symbol

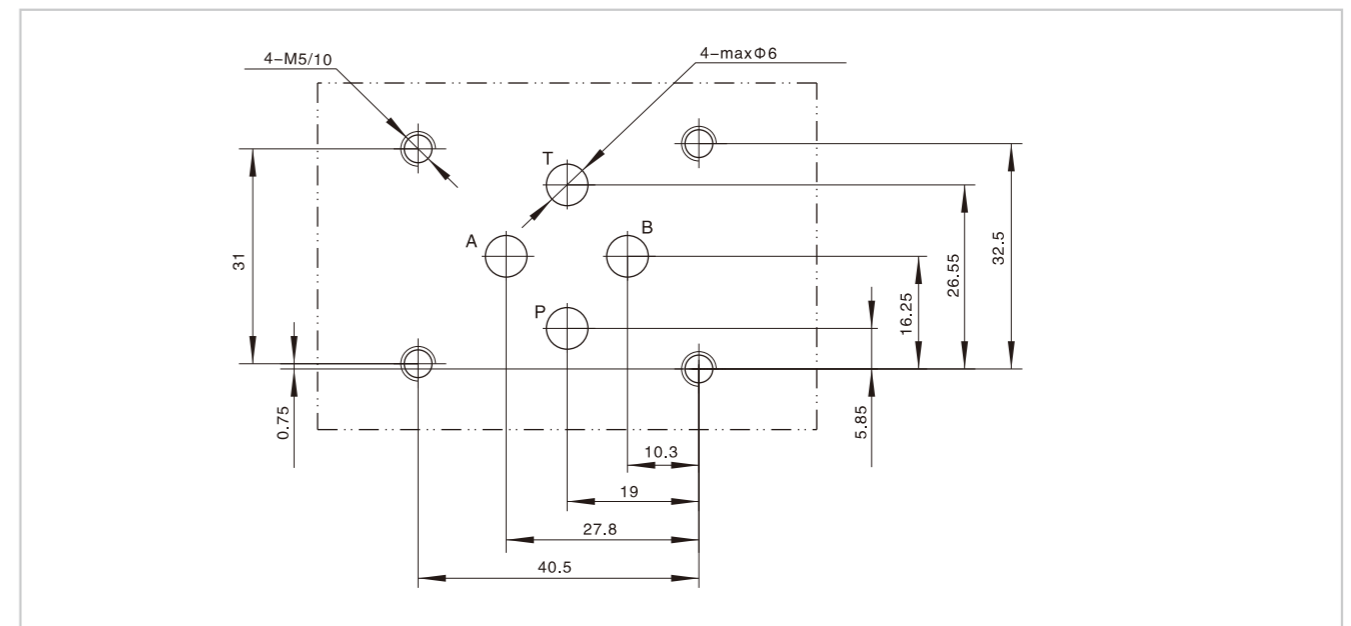


# Hyyf Hydro-operated Directional Valve

## External dimensions



## Subplate size



# Hyvyzf Hydro-operated Directional Valve

## Technical specification

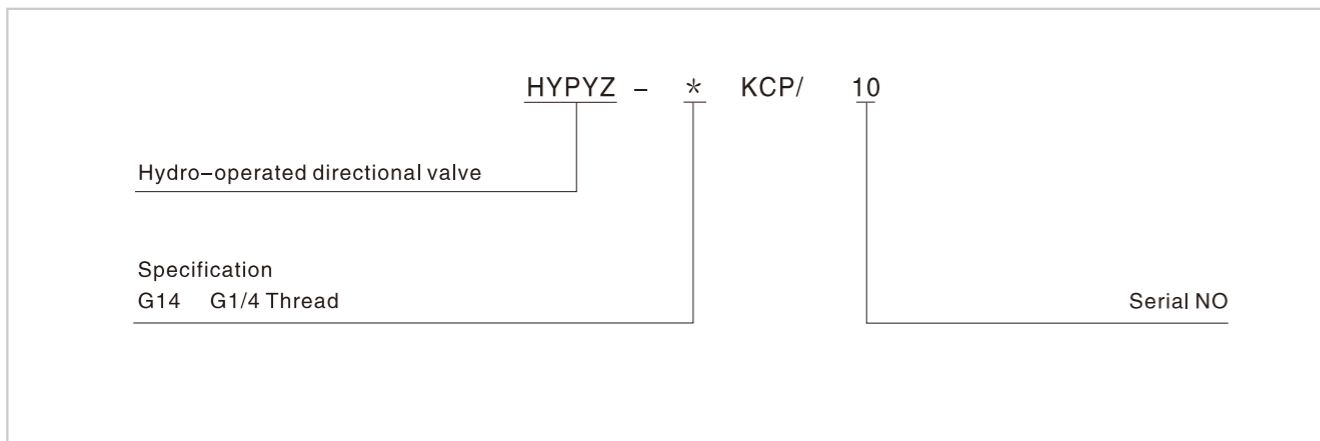


Model	HYVYF-G14KCP
Max Pressure (Mpa)	315
Max Flow (L/min)	20
Working fluid	Mineral oil, phosphate hydraulic oil
Fluid viscosity mm <sup>2</sup> /s	20~380
Storage temp (°C)	-20~80
Working temp (°C)	-10~60
Cleanliness	The max allowed cleanliness of the oil shall be as per Standard NAS1638, grade IX, recommendable filtering precision Min β <sub>10</sub> ≥75.

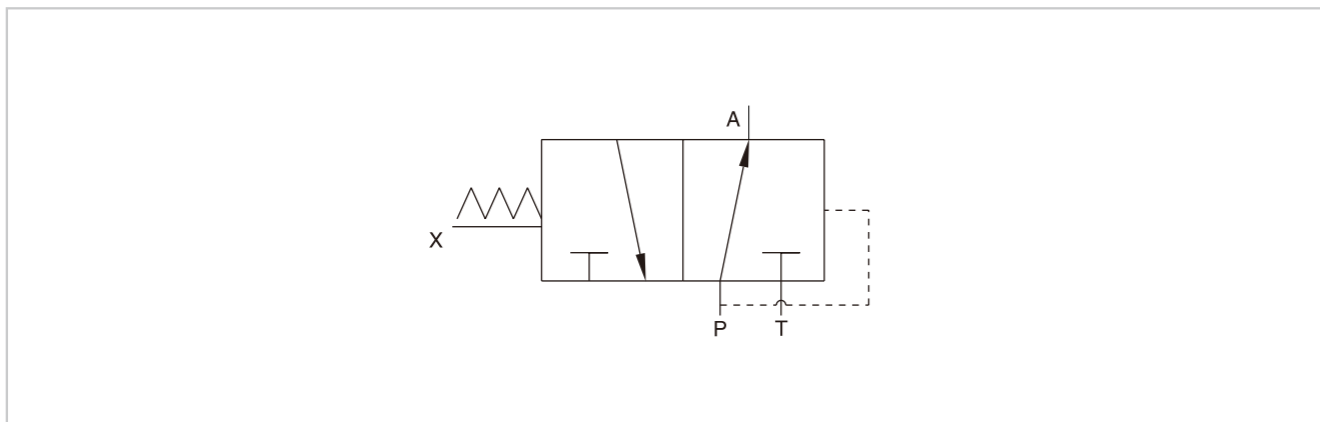
( Please consult with us if your working condition is out of the technical parameter given above. )

Usage: it's used for pressure unloading.  
Connect X to oil-return circuit, increase the system pressure, P to A. Connect X to pressure circuit, A to T.

## Model description



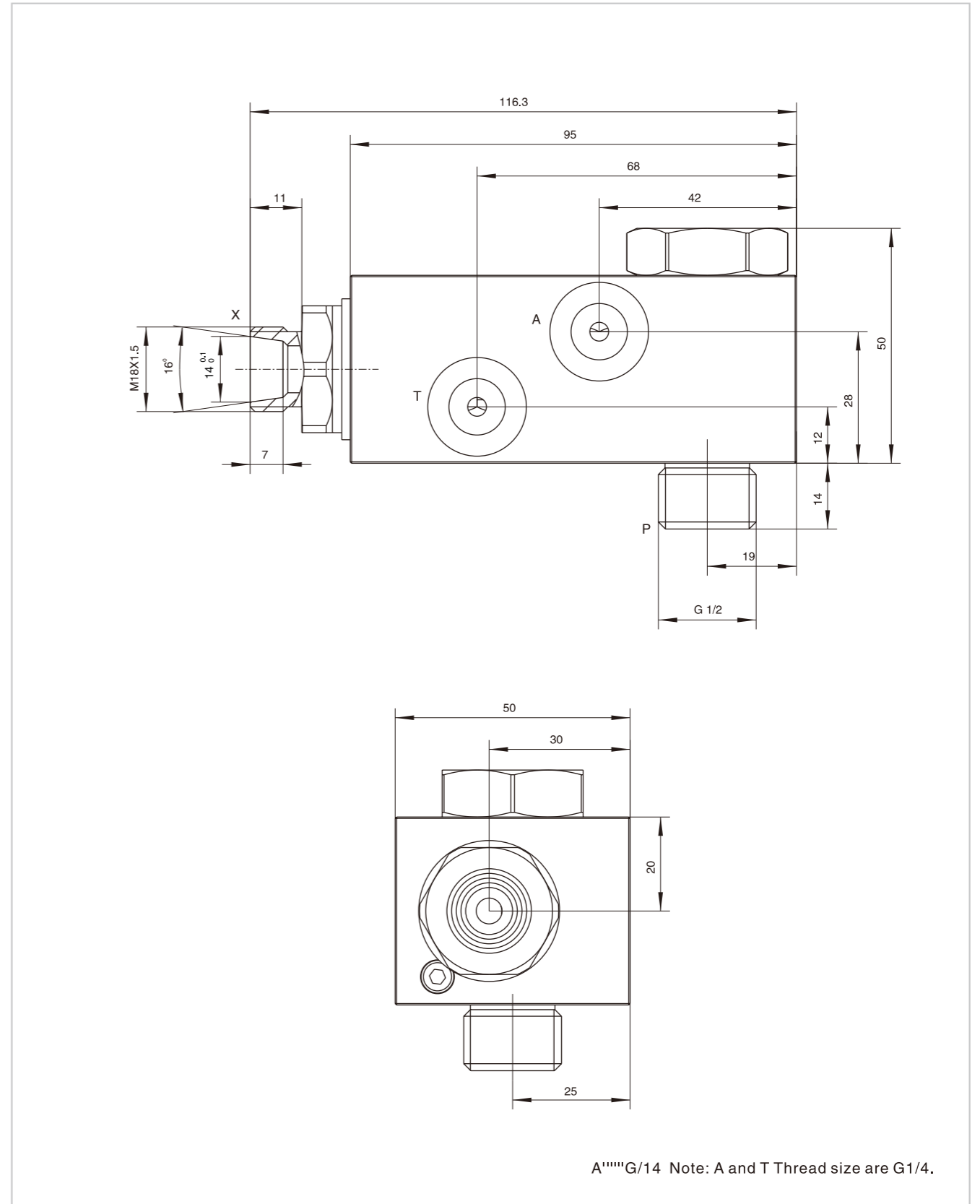
## Code symbol



# Hyvyzf Hydro-operated Directional Valve



## External dimensions



A''''G/14 Note: A and T Thread size are G1/4.

# Manual Operated Directional Control Valve

## Technical specification



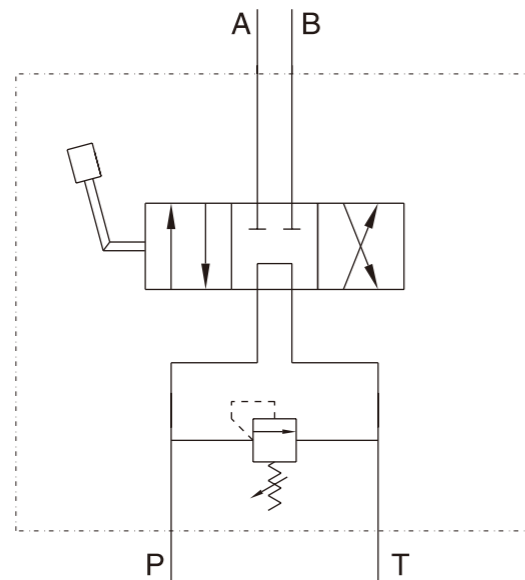
Specification	G3/8	SAE8	M18
Max.flow ( L/min )	250		
Max pressure (Bar)	25		

Return types*	Spring return
	With detent

( Please specify when ordering ) \*

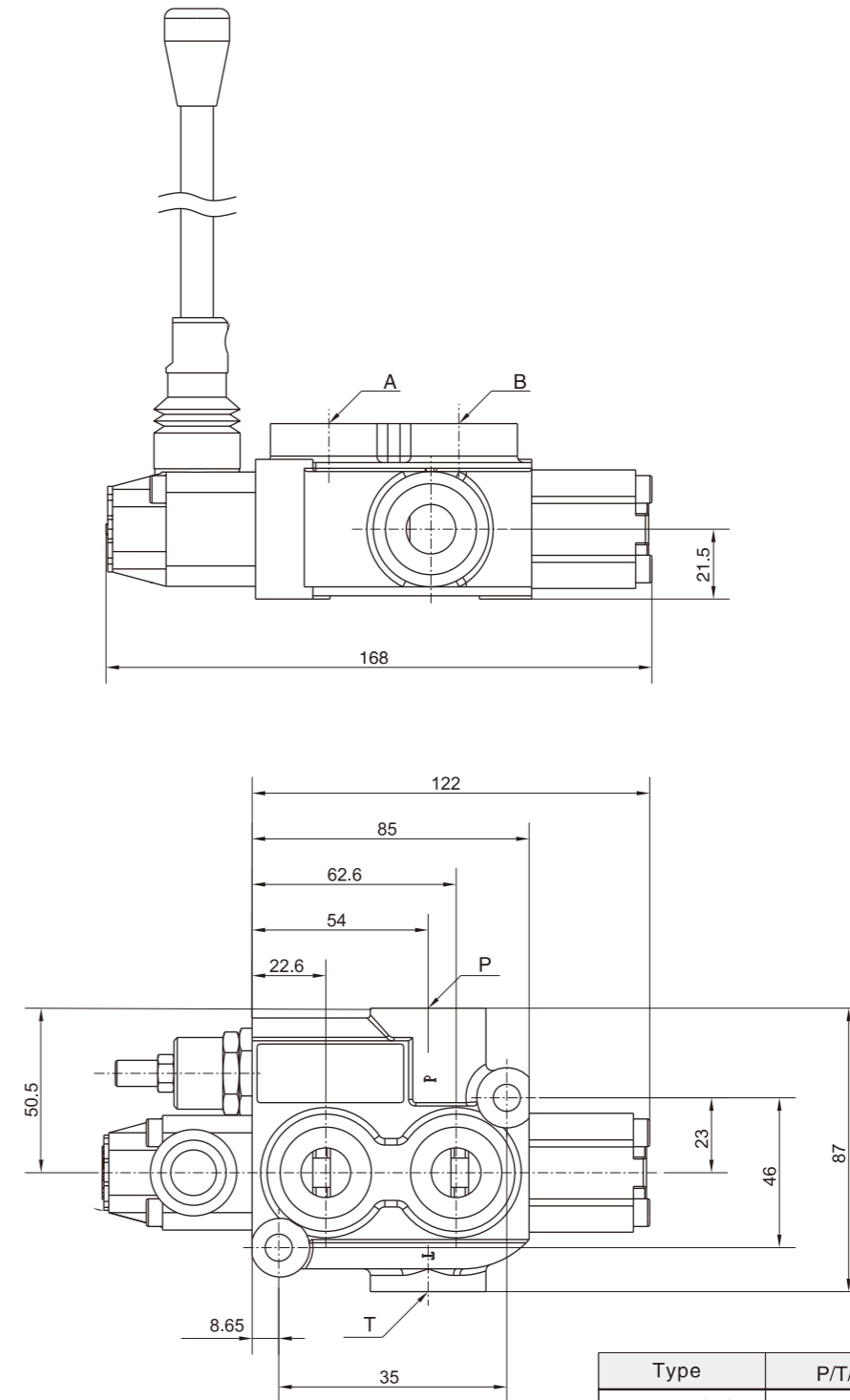
Manual operated directional control valve is a directional control valve,by operating the handle,the spool moves in the axial direction to achieve oil loop switching  
Manual operated directional control valve and electrical operated directional control valve are played the same role in the hydraulic system. Easy operation, reliable work,and without the need for electricity

## Code symbol



# Manual Operated Directional Control Valve

## External dimensions



Type	P/T/A/B
HYMB2 G3/8	G 3/8"
HYMB2 SAE8	SAE 8
HYMB2 M18	M18x1.5

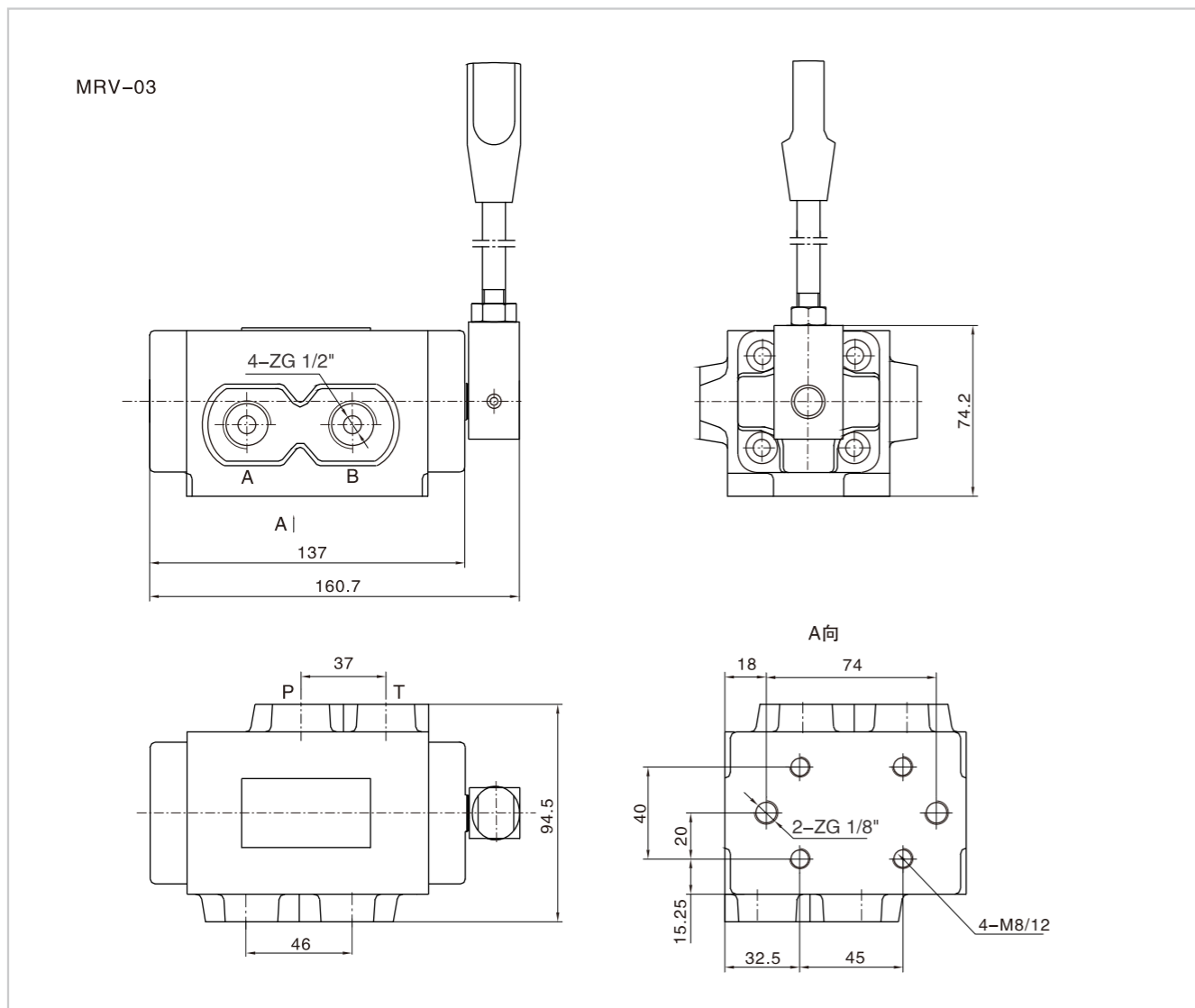
# Manual Operated Directional Valve

## Technical specification



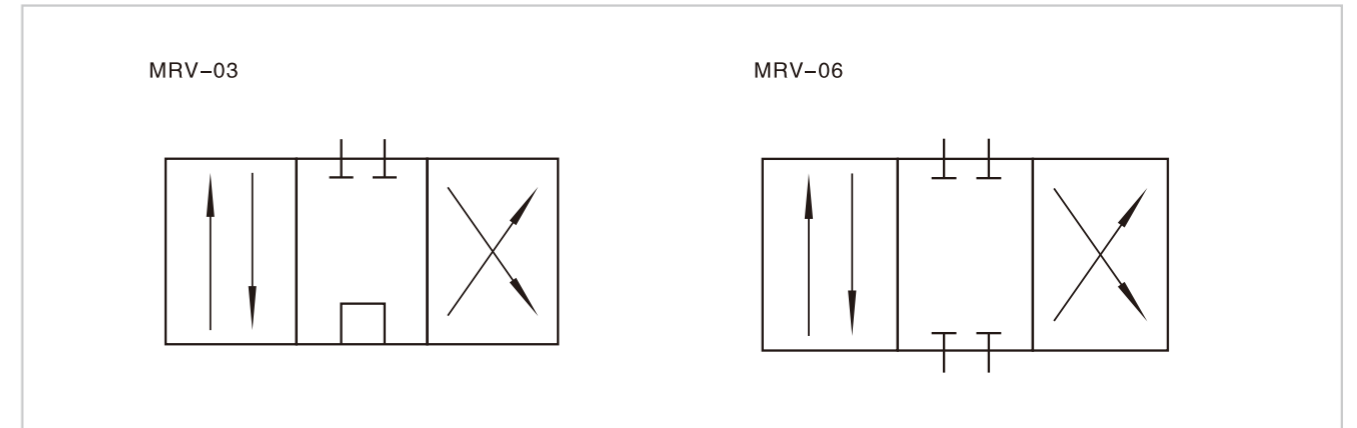
Specification	03	06
Max.flow ( L/min )	40	60
Max pressure (Bar)	21	21
Screw type	PT, NPT BSP, 1/2	PT, NPT BSP, 3/4

## External dimensions

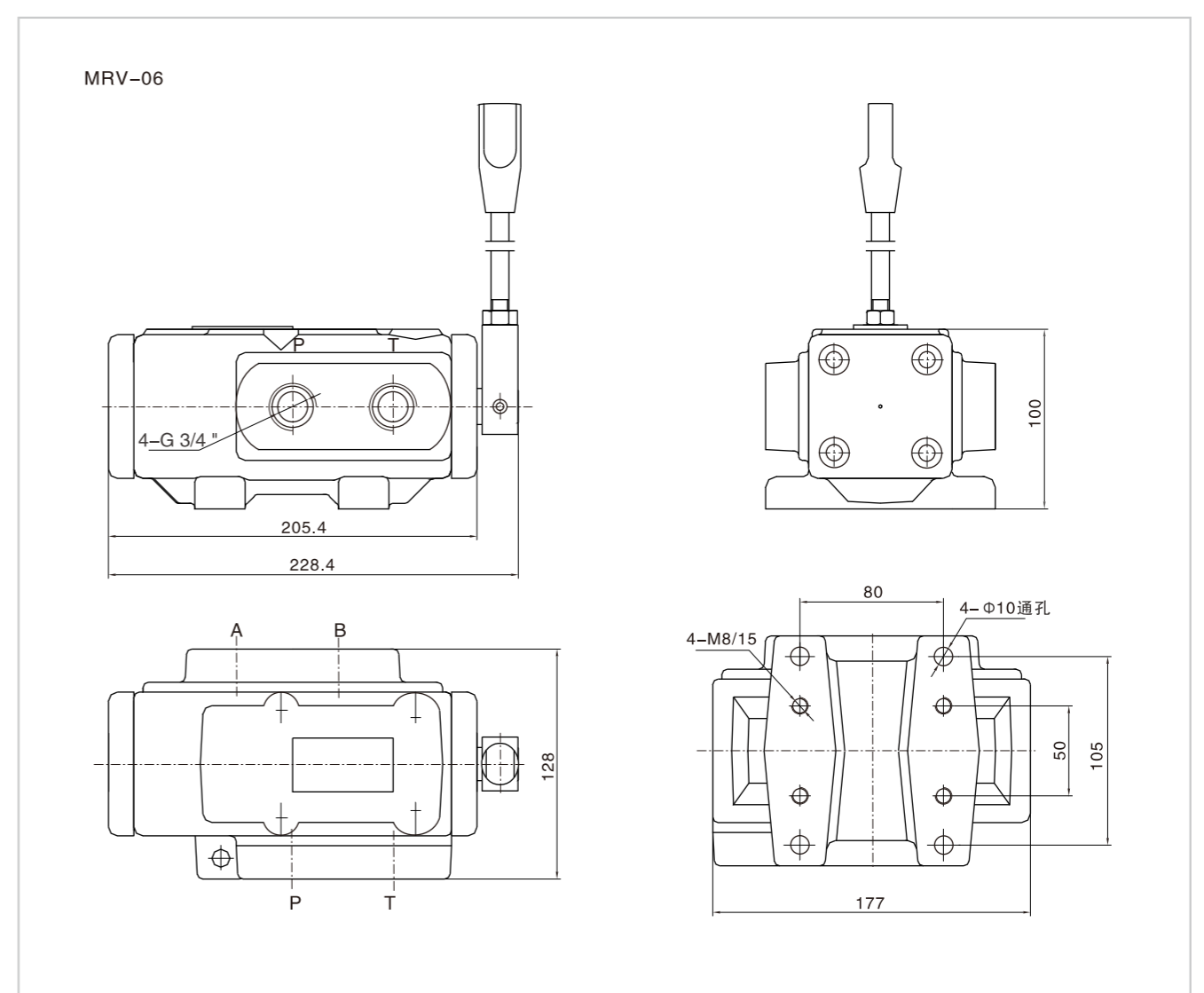


# Manual Operated Directional Valve

## Code symbol



## External dimensions



# Manual Operated Directional Valve(pc)



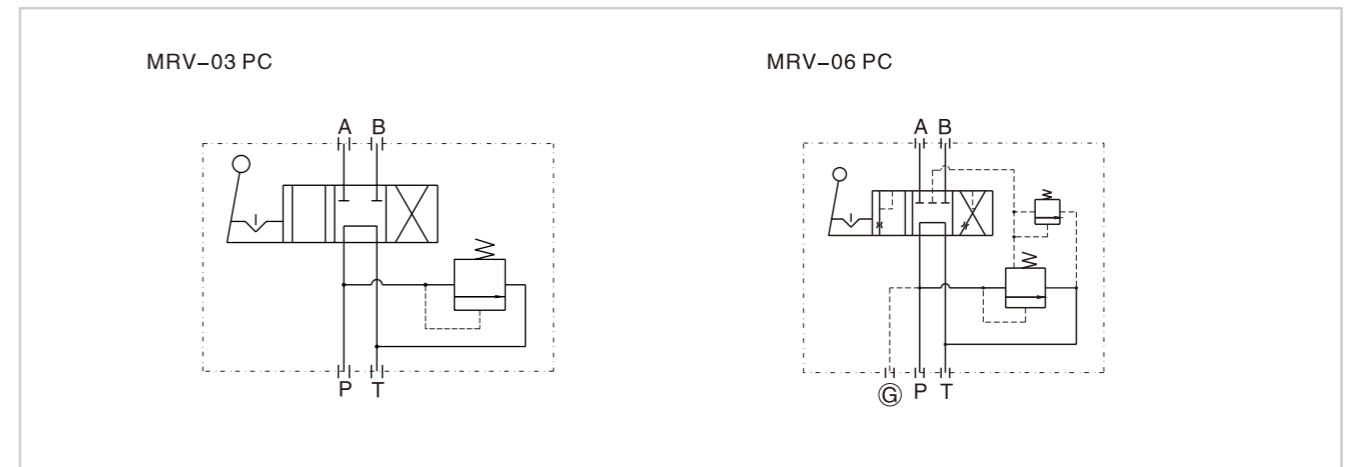
## Technical specification



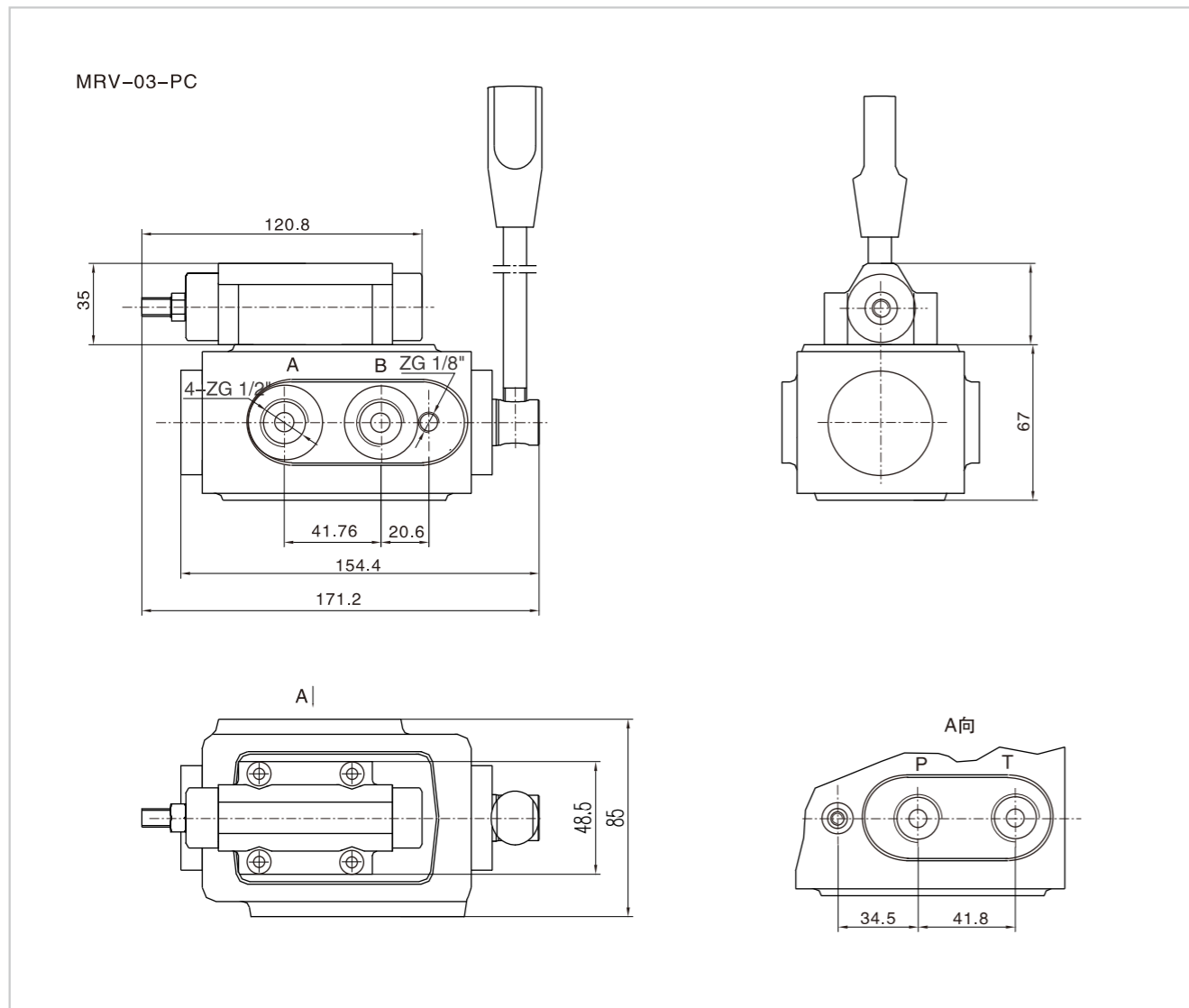
Specification	03-PC	06-PC
Max.flow ( L/min )	70	100
Max pressure (Bar)	21	21
Screw type	PT, NPT BSP, 1/2	PT, NPT BSP, 3/4 Flang is also vailadle

# Manual Operated Directional Valve(pc)

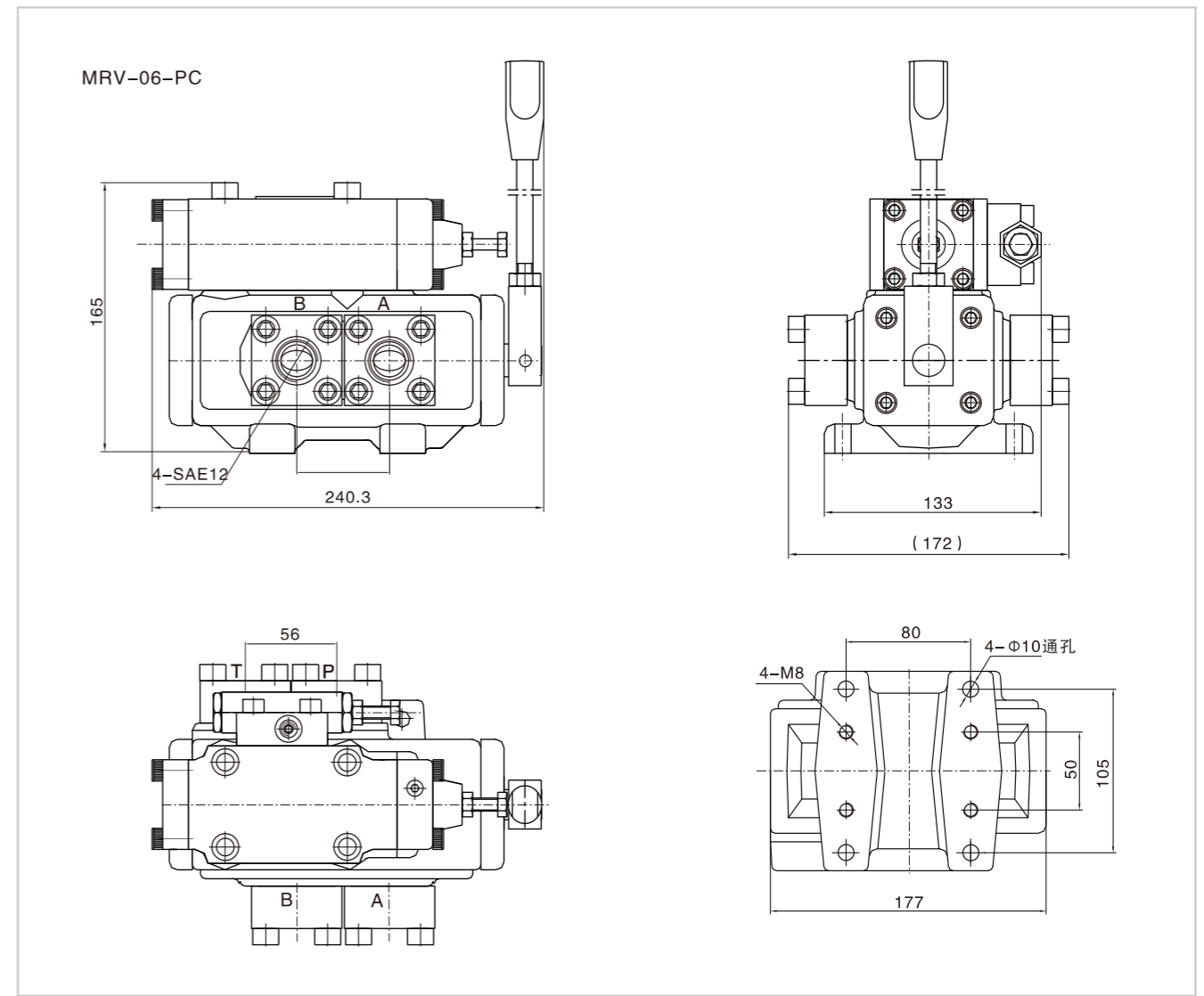
## Code symbol



## External dimensions



## External dimensions



## Full range Pressure Compensating Variable Flow Control Valve (fc)

N.13.9.1



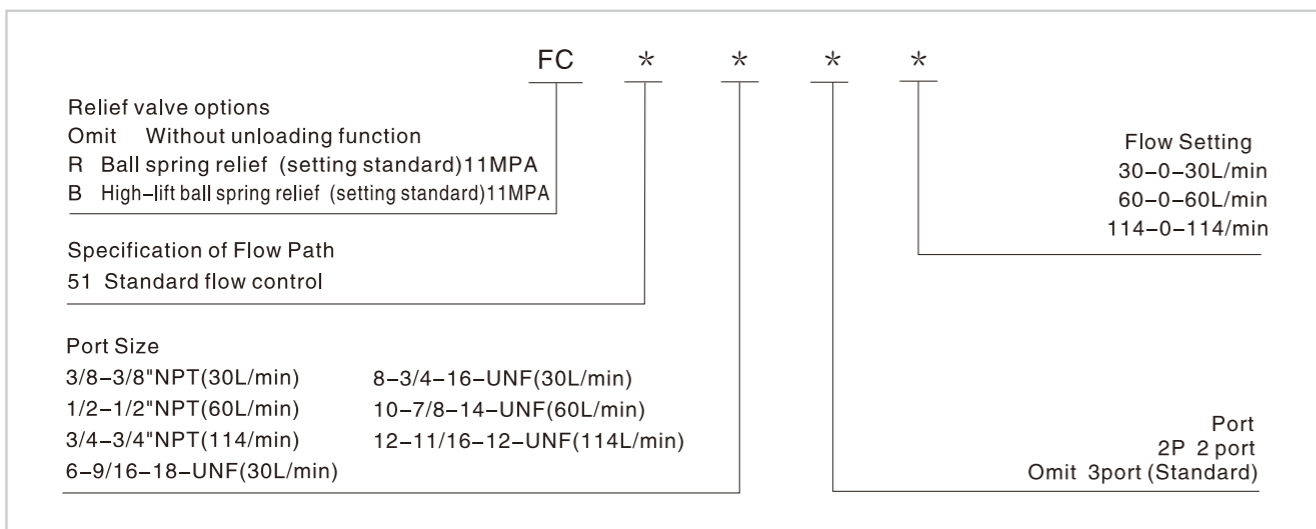
### Function instruction

In order to vary the flow of fluid, the full range pressure compensating variable flow control valve is designed so that the orifice area varies as the lever is rotated. It has compensator spool inside the valve body. No matter how the pressure varies, that is, no matter the orifice area varies from closed to open, the outlet flows will be constant and stable.

### Instruction:

1) The adjustable ball spring relief valve (R) allow the customer pressure compensated flow up to the pressure setting on the relief. Once the pressure on the CF port increases above the relief setting, the relief valve opens and diverts flow to the EX port while maintaining the pressure on the CF port. The EX port must be plumbed back to tank. The relief option is preset to 11Mpa ( 110 bar ), standard, and field adjustable from 0.5Mpa (5 bar) to 20Mpa (200 bar).

### Model description

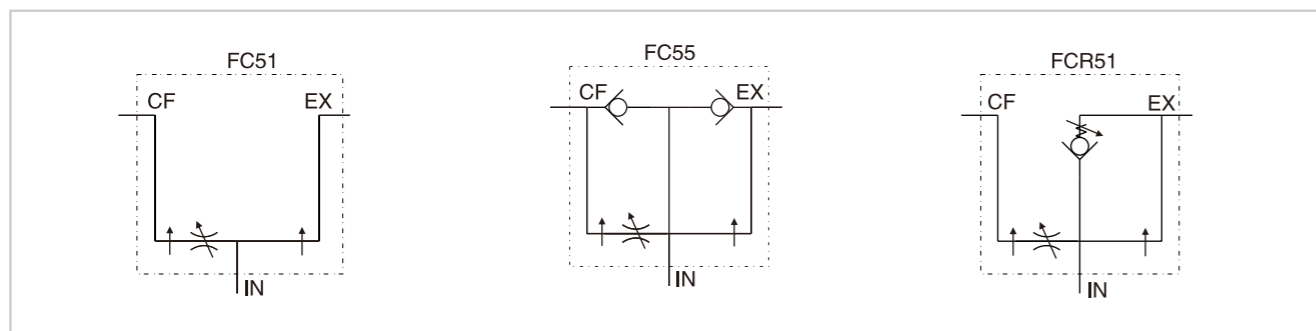


### Features:

Diamond honed spool bore provides consistent spool fit with low leakage.  
Every FC is tested for shutoff, max. flow, and pressure compensation;  
Standard 3-port allows for pressure compensated flow

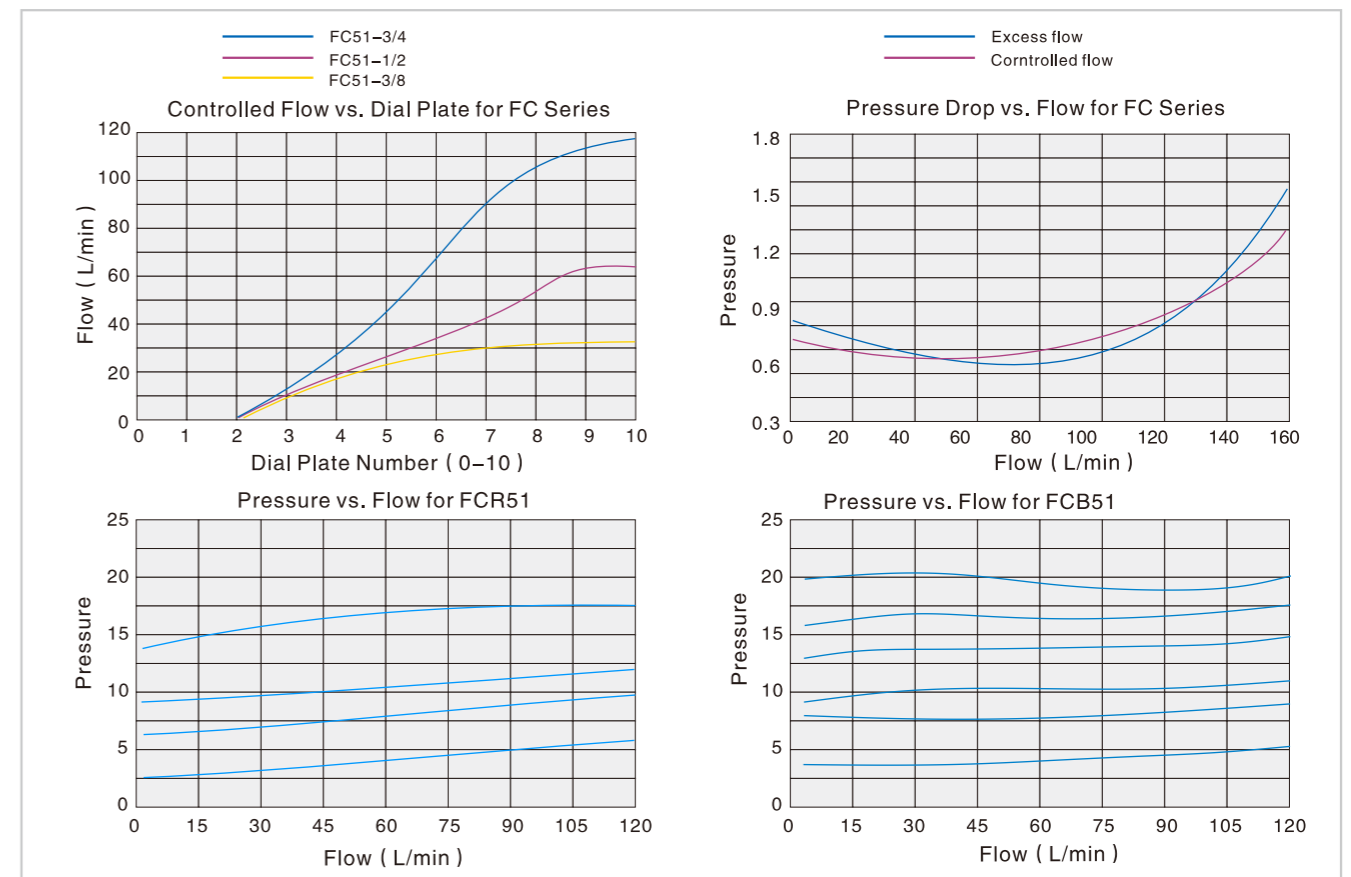
out of two ports;  
Standard thread compensator plugs to eliminate external leakage from the compensator bore;  
External seals on rotary spool prevents contamination from locking up spool.

### Code symbol



## Full range Pressure Compensating Variable Flow Control Valve (fc)

### Performance curve



N.13.9.2

### Dimensional data

