



PILOT OPERATED CHECK VALVE CL

ENGINEERING

1

Ref. No. P06060

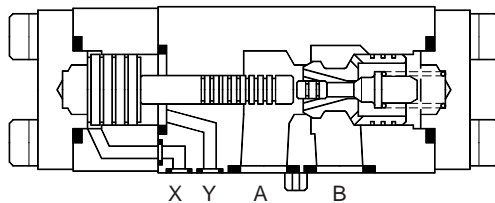
Release 03/2002

Description

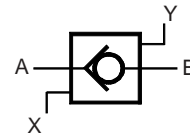
Seat type pilot operated check valve with external drain.
Interface conforming to ISO 5781.
Three sizes in subplate mounting construction.
Six sizes in threaded body construction.



Section



Hydraulic Symbol



Unit Dimensions

Threaded port body.

Dimensions in mm.

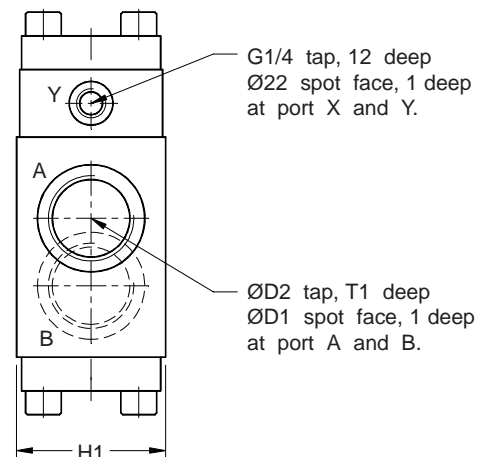
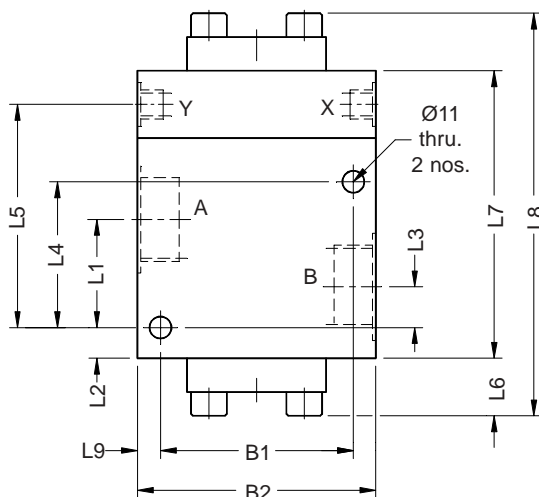
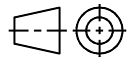


Table No. 1

| Size | Mass kg. | B1 | B2 | D1 | D2 | H1 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | T1 |
|------|----------|------|-----|----|--------|----|------|------|------|------|-------|----|-----|-----|------|----|
| 10 | 3.1 | 66.5 | 85 | 30 | G1/2 | 47 | 27.5 | 18.5 | 10.5 | 33.5 | 64.5 | 18 | 95 | 131 | 9.25 | 14 |
| 20 | 5.5 | 79.5 | 100 | 44 | G1 | 58 | 36.7 | 17.3 | 13.3 | 50.5 | 83.7 | 20 | 114 | 154 | 10.3 | 18 |
| 30 | 10.4 | 97 | 120 | 60 | G1 1/2 | 75 | 54.5 | 15.5 | 20.5 | 73.5 | 112.5 | 29 | 145 | 203 | 11.3 | 22 |

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Ref. No. P06060

Subplate mounting body

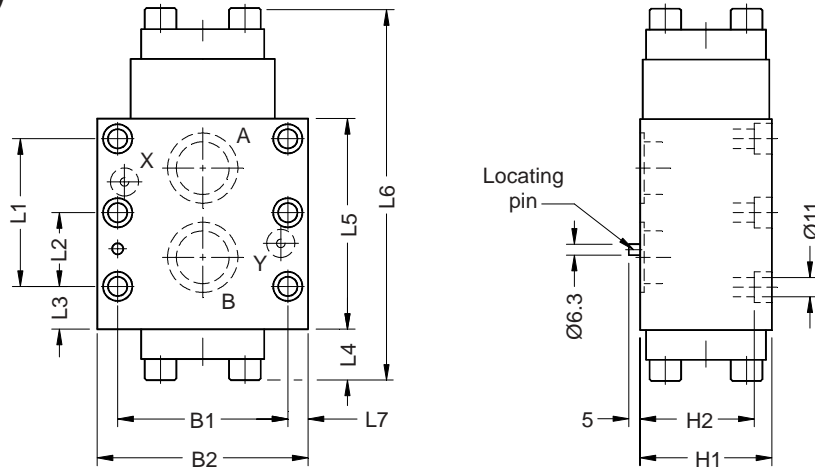


Table No. 2

| Size | Mass kg. | B1 | B2 | H1 | H2 | L1 | L2 | L3 | L4 | L5 | L6 | L7 |
|------|----------|------|-----|----|----|------|------|------|----|-----|-----|------|
| 10 | 3.1 | 66.7 | 85 | 47 | 47 | 42.9 | -- | 18.5 | 18 | 71 | 131 | 9.15 |
| 20 | 5.5 | 79.4 | 100 | 58 | 45 | 60.3 | -- | 17.2 | 20 | 88 | 154 | 10.3 |
| 30 | 10.5 | 96.8 | 120 | 75 | 65 | 84.1 | 42.1 | 15.4 | 29 | 111 | 203 | 11.6 |

Subplate

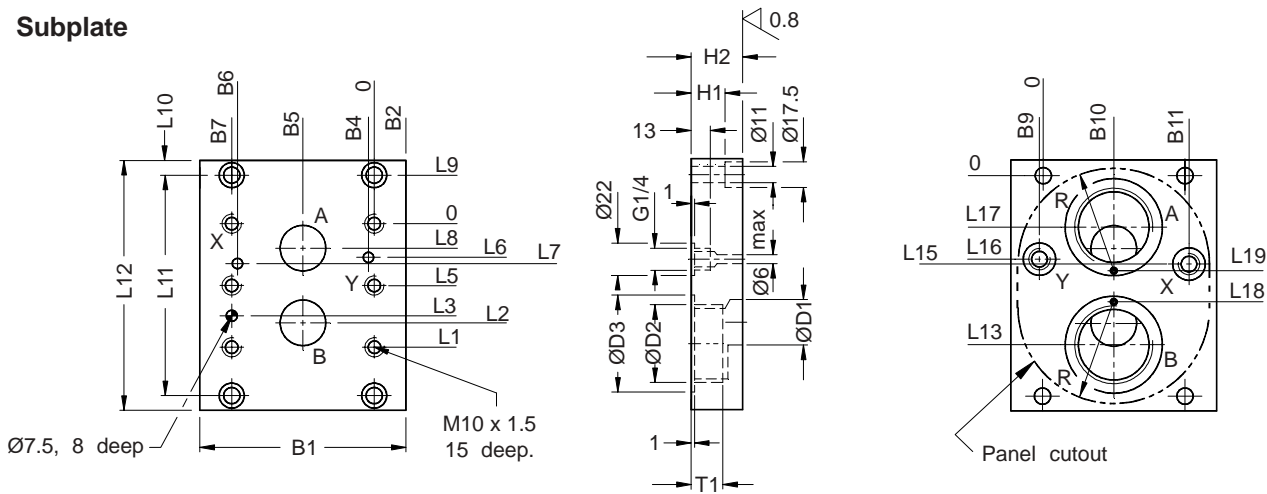


Table No. 3

| Size | Model | Mass kg | B1 | B2 | B4 | B5 | B6 | B7 | -- | B9 | B10 | B11 | ØD1 | ØD2 | ØD3 | H1 | H2 | L1 | L2 | L3 | L5 |
|------|----------|---------|-----|------|-----|------|------|------|----|------|------|------|-----|---------|-----|----|----|------|------|------|------|
| 10 | 1SP06G02 | 2.4 | 86 | 9.7 | 7.9 | 33.3 | 58.7 | 66.7 | -- | -7.9 | 33.3 | 58.7 | 13 | G 1/4 | 22 | 15 | 29 | 42.9 | 35.7 | 31.8 | -- |
| | G 3/8 | | | | | | | | | | | | | 25 | | | | | | | |
| | G 1/2 | | | | | | | | | | | | | 30 | | | | | | | |
| 20 | 1SP08G06 | 5.2 | 112 | 16.3 | 6.4 | 39.7 | 73 | 79.4 | -- | 3 | 39.7 | 75 | 22 | G 3/4 | 36 | 25 | 45 | 60.3 | 49.2 | 44.5 | -- |
| | G 1 | | | | | | | | | | | | | 44 | | | | | | | |
| 30 | 1SP09G10 | 8.5 | 140 | 21.6 | 4 | 48.4 | 92.9 | 96.8 | -- | 1.6 | 48.4 | 98.5 | 31 | G 1 1/4 | 54 | 35 | 47 | 84.1 | 67.5 | 62.7 | 42.1 |
| | G 1 1/2 | | | | | | | | | | | | | 60 | | | | | | | |

| Size | Model | L6 | L7 | L8 | L9 | L10 | L11 | L12 | L13 | L15 | L16 | L17 | L18 | L19 | R | T1 | Valve fixing screws (S.H.C.S.) | Tightenin torque |
|------|----------|------|------|------|------|-----|-----|-----|-----|------|------|-----|-----|-----|----|----|--------------------------------|------------------|
| 10 | 1SP06G02 | 21.4 | 21.4 | 7.1 | 45.9 | 10 | 121 | 141 | 85 | 67.3 | 67.3 | 49 | 82 | 53 | 40 | 12 | M10 x 60 L, 4 nos. | 70 Nm |
| | 87 | | | | | | | | 47 | | | | | | | | | |
| | 89 | | | | | | | | 45 | | | | | | | | | |
| 20 | 1SP08G06 | 39.7 | 20.8 | 11.1 | 22 | 16 | 104 | 136 | 77 | 42.6 | 64 | 27 | 57 | 47 | 52 | 16 | M10 x 60 L, 4 nos. | 70 Nm |
| | 82 | | | | | | | | 22 | | | | | | | | | |
| 30 | 1SP09G10 | 59.6 | 24.6 | 16.7 | 33 | 10 | 150 | 170 | 111 | 60 | 99.1 | 39 | 90 | 60 | 65 | 20 | M10 x 60 L, 4 nos. | 70 Nm |
| | 115 | | | | | | | | 35 | | | | | | | | | |



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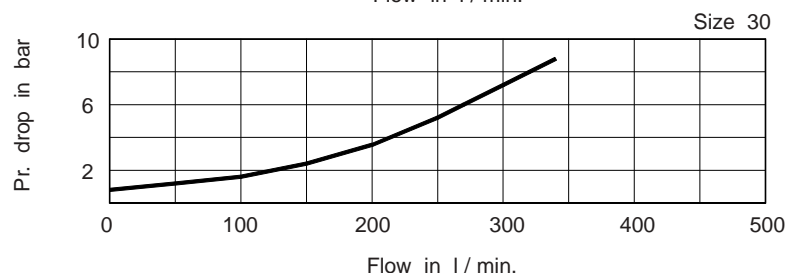
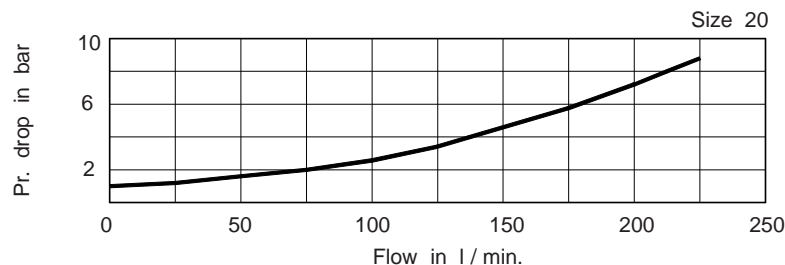
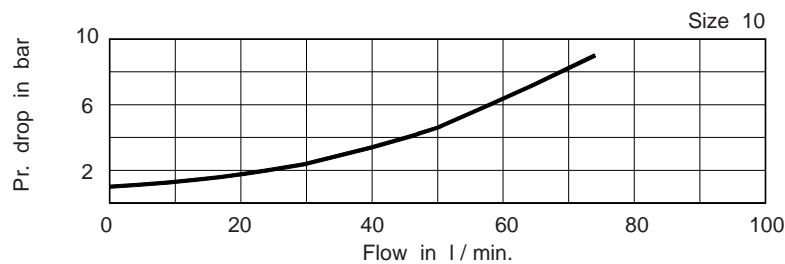
Ref. No. P06060

Technical Specifications

| | |
|-------------------------------------|--|
| Construction | Seat type valve with decompression feature externally drained. |
| Mounting type | Threaded ports or subplate mounting. Interface conforming to ISO 5781. |
| Mounting position | Optional. |
| Direction of flow | Free flow from port A to port B. Piloted flow from port B to port A. |
| Operating pressure | 315 bar for all ports. |
| Control pressure | 5 to 315 bar. |
| Cracking pressure | 1 bar. |
| Area ratios | Pilot piston : Decom poppet = 16 : 1 Pilot piston : Main poppet = 2 : 1 Pilot piston : Pusher pin = 6.25 : 1 |
| Hydraulic medium | Mineral oil. |
| Viscosity range | 10 cSt to 380 cSt. |
| Fluid temperature range | -10 °C to +80 °C. |
| Fluid cleanliness requirement | As per ISO 16/13. |
| Flow handling capacity | Refer graph below. |
| Mass | Refer individual table. |

Performance Curve

Oil used : ISO VG 68, Viscosity : 68 cSt @ 40 °C, Temp @ test : 50 °C.





PILOT OPERATED CHECK VALVE
CL

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4

Ref. No. P06060

Ordering Code

CL 10 S 10

Pilot operated check valve
with external drain

Design code subject to
change. Installation
dimensions remain same.
for design code 10 thru 19.

| Port Size | | |
|---------------|-------------------|------|
| Threaded body | Subplate mounting | Size |
| G1/2 | Ø13 max. | 10 |
| G1 | Ø22 max. | 20 |
| G1 1/2 | Ø31 max. | 30 |

| | |
|---|-------------------|
| S | Subplate mounting |
| T | Threaded body |

Note : Subplate to be ordered separately.