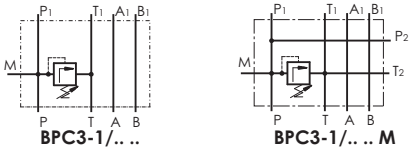
Hidro
Pnevmo
Tehnika
3, Eng. Felix Vozhely St.,
6100 Kazanlak, Bulgaria
Tel.:+359 431 62 228
+359 431 68 440
e-mail: info@hpt-bg.com
www.hpt-bg.com

# VALVE BLOCKS

Page 6.1

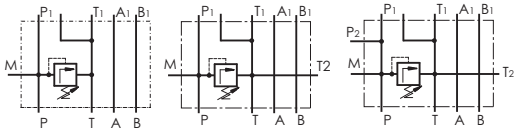
## BPC3-1/.. .. .




BPC3-1/.. ..  BPC3-1/.. .. M

Page 6.2

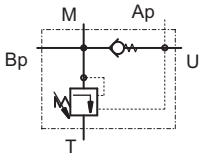
## BPC5/.. ..

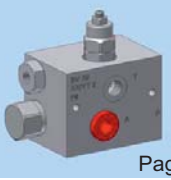



BPC5/.. ..  BPC5/.. .. T  BPC5/.. .. PT

Page 6.3

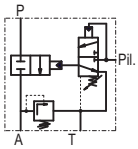
## BVU 12.



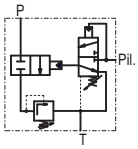
Page 6.5

## BV39



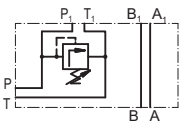
Page 6.6

## BV39A



Page 6.7

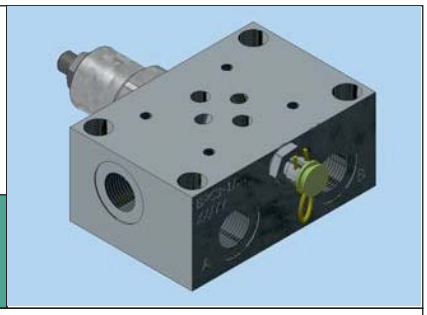
## BV 99/ .. (To be connected only to Rs06...)



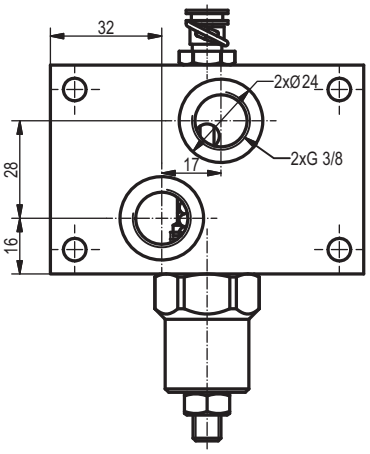
Hidro Pnevmo Tehnika
3, Eng. Felix Vozhely St.,
6100 Kazanlak, Bulgaria
Tel.:+359 431 62 228
+359 431 68 440
e-mail: info@hpt-bg.com
www.hpt-bg.com

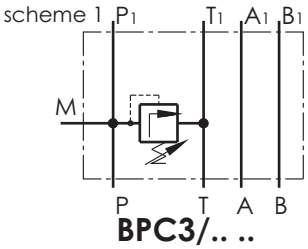
# VALVE BLOCKS

## BPC3-1/ .. .. .

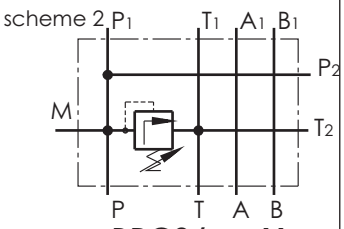


All performances and calibration are carried out by using hydraulic oil with viscosity approx. 32 cSt at 50°C
Temperature range: -20 °C...+80°C.
Filtration absolute: 25 µm



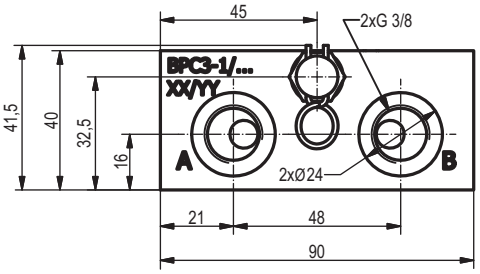



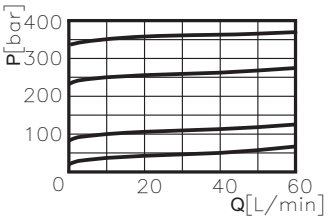

**BPC3/.. ..**

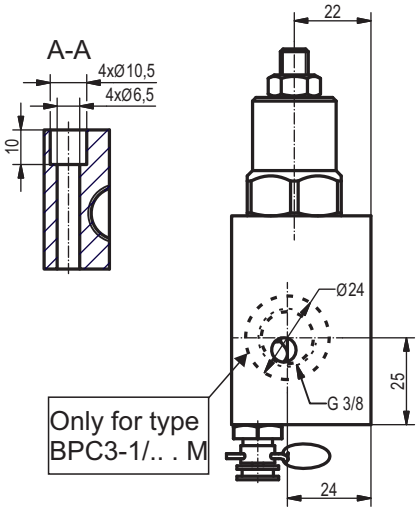


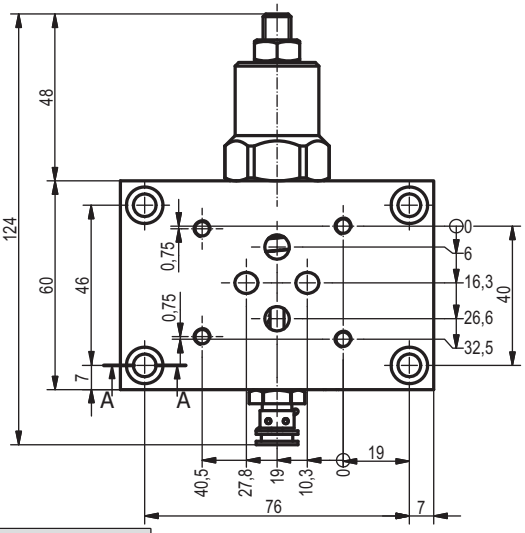

**BPC3/.. .. M**

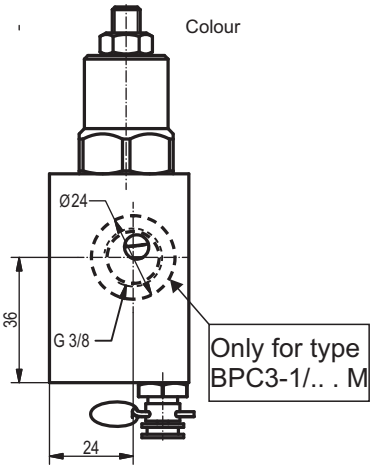
| Code | Adjustment |
|---|---|
| A | Leakproof hex. socket screw |
| B | Handknob and locknut |
| C | Sealing cap |




| Pressure range | | | |
|---|---|---|---|
| Code | Adj. pressure range | Standard setting (Q=5 L/min) | Colour |
| | bar | bar | |
| 10 | 10...100 | 80 | White |
| 25 | 30...250 | 180 | Yellow |
| 35 | 70...350 | 250 | Black |

| Type | $P_{max.}$ | $Q_{max.}$ |
|---|---|---|
| | bar | L/min |
| BPC3-1/.. . . | 350 | 60 |

## ORDERING CODE

**BPC3-1 / 25 A M**

| Type | Pressure range code: **10,25,35** | Adjustment code: **A,B,C** | Scheme - code:<br>scheme 1 - **Omit**<br>scheme 2 - **M** |
|---|---|---|---|

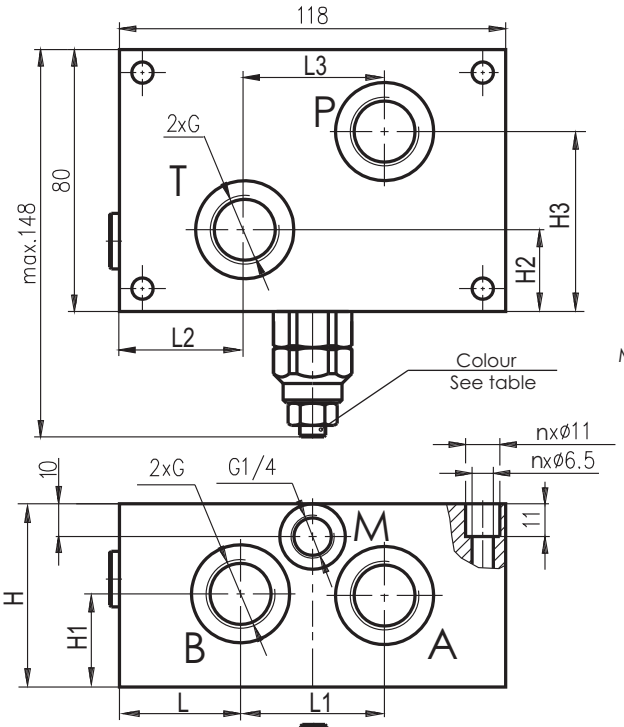
Hidro Pnevmo Tehnika
3, Eng. Felix Vozhely St.,
6100 Kazanlak, Bulgaria
Tel.:+359 431 62 228
+359 431 68 440
e-mail: info@hpt-bg.com
www.hpt-bg.com

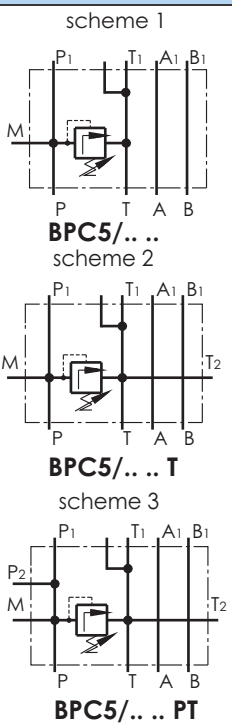
# VALVE BLOCKS

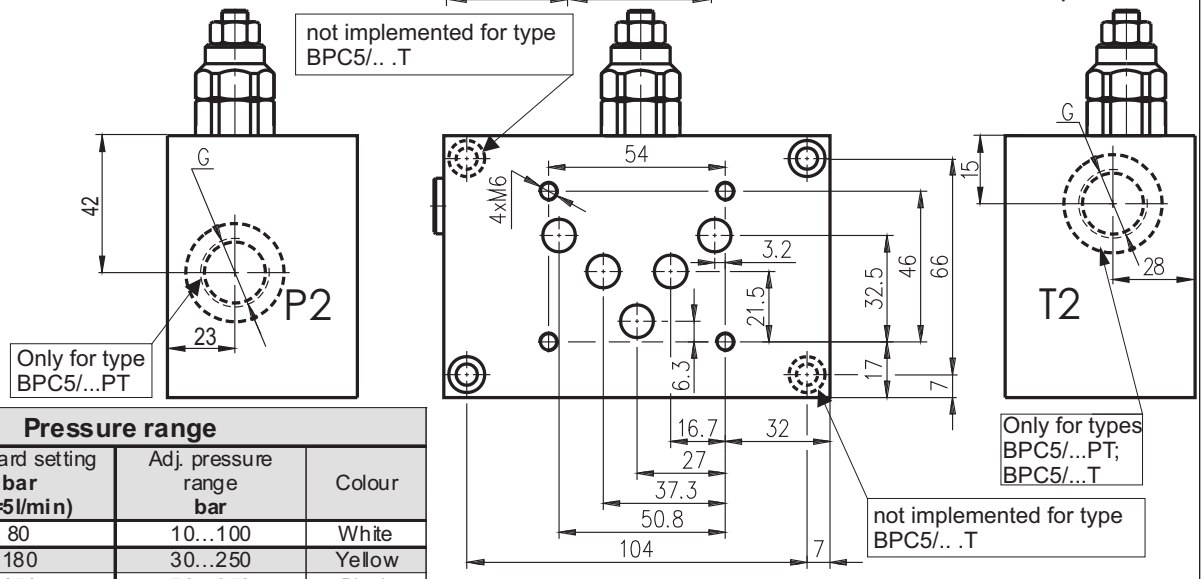
## BPC5/ .. . .

All performances and calibration are carried out by using hydraulic oil with viscosity approx. 32 cSt at 50 °C
Temperature range: -20 °C...+80 °C.
Filtration absolute: 20 µm

| Code | Adjustment |
|---|---|
| A | Leakproof hex. socket screw |
| B | Handknob and locknut |
| C | Sealing cap |




| Pressure range | | | |
|---|---|---|---|
| Code | Standard setting **bar** (Q=5l/min) | Adj. pressure range **bar** | Colour |
| **10** | 80 | 10...100 | White |
| **25** | 180 | 30...250 | Yellow |
| **35** | 250 | 70...350 | Black |

| Type | $P_{max.}$ | $Q_{max.}$ | H | H1 | H2 | H3 | L | L1 | L2 | L3 | G | n |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | bar | L/min | mm | mm | mm | mm | mm | mm | mm | mm | - | pcs |
| **BPC5/.. .** | 350 | 80 | 58 | 30,5 | 25 | 55 | 37 | 44 | 37 | 44 | G1/2" | 4 |
| **BPC5/.. . T** | 350 | 80 | 58 | 30,5 | 25 | 55 | 37 | 44 | 37 | 44 | G1/2" | 2 |
| **BPC5/.. . PT** | 350 | 80 | 68 | 36 | 27 | 56 | 34 | 50 | 37 | 41 | G3/4" | 4 |

## ORDERING CODE

**BPC5 / 25 A T**

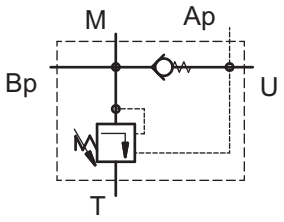
| Type | Pressure range code: **10, 25, 35** | Adjustment code: **A, B, C** | Scheme - code:<br>Scheme 1 - **Omit**<br>Scheme 2 - **T**<br>Scheme 3 - **PT** |
|---|---|---|---|

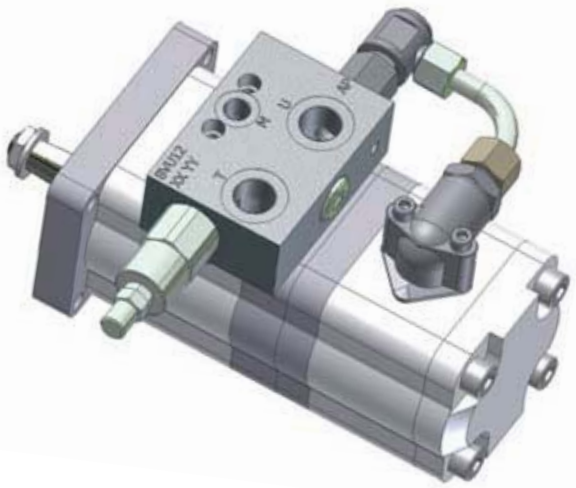
Hidro
Pnevmo
Tehnika
3, Eng. Felix Vozhely St.,
6100 Kazanlak, Bulgaria
Tel.:+359 431 62 228
+359 431 68 440
e-mail: info@hpt-bg.com
www.hpt-bg.com

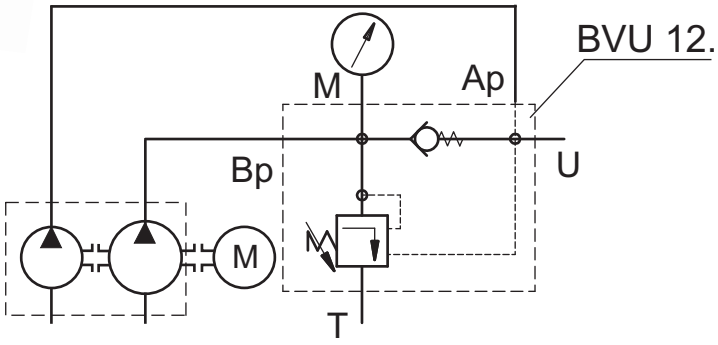
# TANDEM PUMP HI-LOW UNLOADING VALVES

## BVU 12.

Many systems require a high volume at low pressure for rapid traverse of a vise or tool, and then low volume, high pressure for clamping or feeding. This can be accomplished by a hi-low circuit using two pumps. During rapid traverse, both pumps supply the system. When pressure rises during clamping or feed, the large-volume main pump unloads, and the small pump maintains pressure.
Output flow of the small pump is low enough to prevent heating of the oil.






Block BVU12 is designed to be used in hydraulic systems with tandem gear pumps series 20. It is mounted directly on one of the pumps by two bolts. The function of the block is to unload the pump on which it is mounted, by connecting its inlet with the port **T** . This happens when the adjusted pressure of the cartridge unloading valve is reached. The second pump remain s connected to the system to maintain pressure. In case of pressure reduction below the adjusted r ate, the unloaded pump reconnects to the system.

| TECHNICAL DATA | | | |
|---|---|---|---|
| | | at port Ap | at port Bp |
| Max working pressure | *bar* | 210 | 80 |
| Maximum flow rate | *L/min* | 15 | 45 |
| Adj. pressure range | *bar* | | 20...80 |

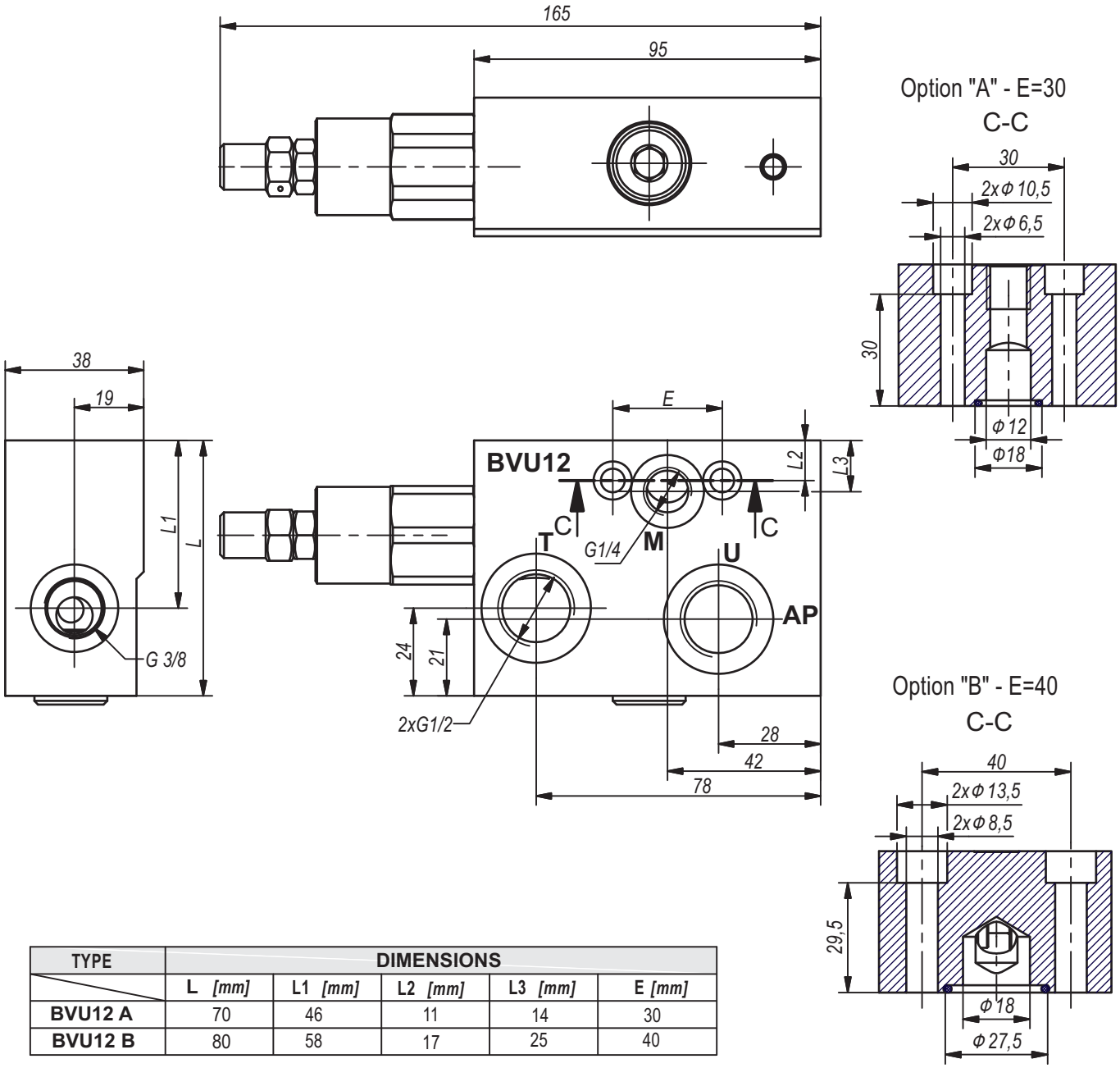
**Note:**

1. All performances and calibration are carried out by using hydraulic oil with viscosity approx 46 cSt at 50°C
2. Temperature range: -20...+80°C
3. Filtration absolute: 25 $\mu$m

Hidro
Pnevmo
Tehnika
3, Eng. Felix Vozhely St.,
6100 Kazanlak, Bulgaria
Tel.:+359 431 62 228
+359 431 68 440
e-mail: info@hpt-bg.com
www.hpt-bg.com

# TANDEM PUMP HI-LOW UNLOADING VALVES

## BVU 12.




| TYPE | DIMENSIONS | | | | |
|---|---|---|---|---|---|
| | L [mm] | L1 [mm] | L2 [mm] | L3 [mm] | E [mm] |
| BVU12 A | 70 | 46 | 11 | 14 | 30 |
| BVU12 B | 80 | 58 | 17 | 25 | 40 |

## ORDERING CODE

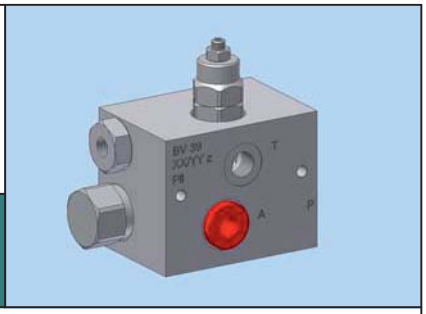
**BVU12 A**

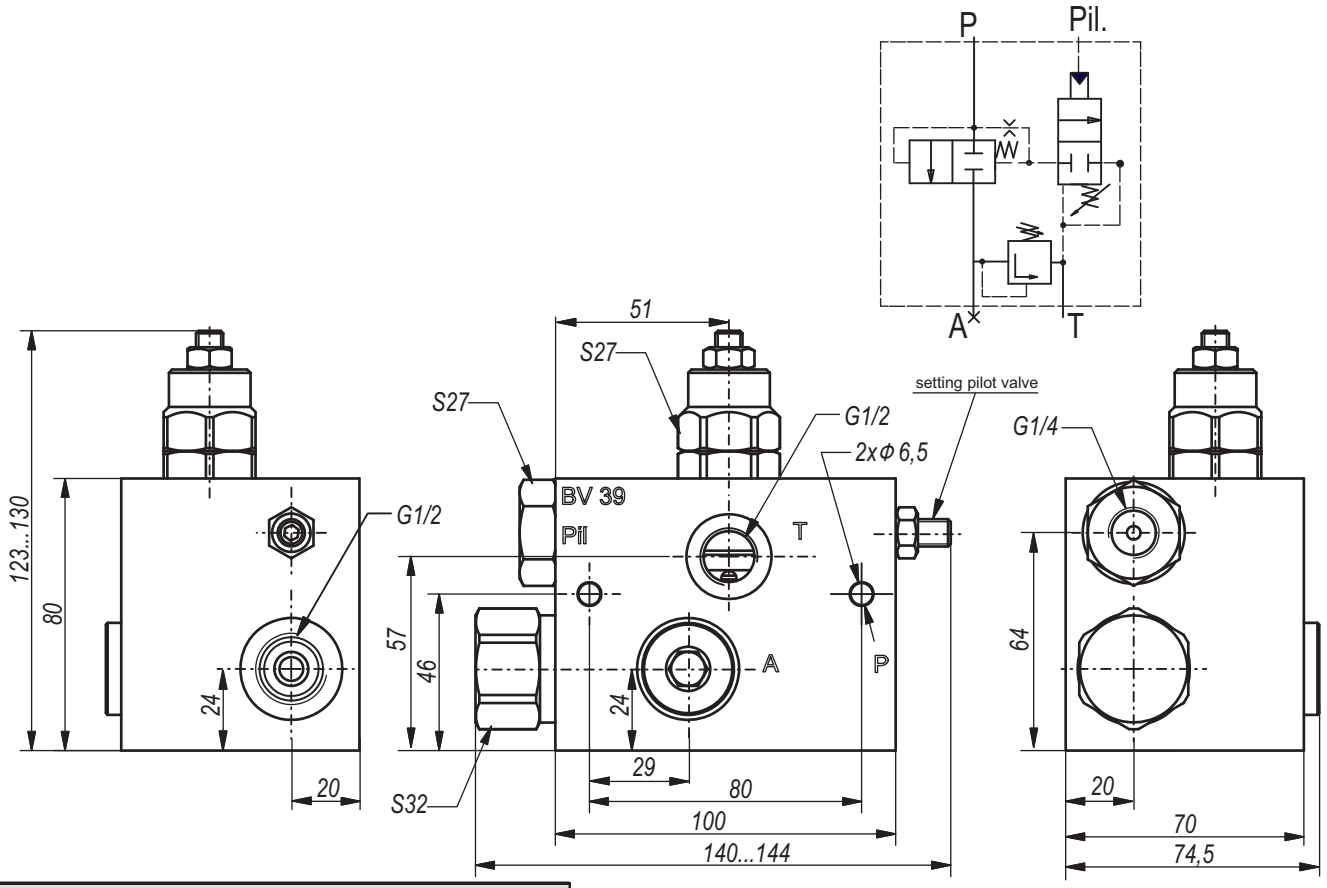
- Type
- Option - code:
  E=30 - **A**
  E=40 - **B**
  (see above)

Hidro
Pnevmo
Tehnika
3, Eng. Felix Vozhely St.,
6100 Kazanlak, Bulgaria
Tel.:+359 431 62 228
+359 431 68 440
e-mail: info@hpt-bg.com
www.hpt-bg.com

# VALVE BLOCKS

## BV39






| TECHNICAL DATA | | |
|---|---|---|
| | Measurement unit | Value |
| Adj. pressure range relief valve | bar | 30...250 |
| Standard setting relief valve | bar | 160 |
| Setting pilot valve | bar | 40 |
| Max. flow through main valve | L/min | 160 |
| Max. flow through relief valve | L/min | 80 |

**Designation and function:**

This hydraulic block is designed to be used in systems, in which a consecutive work of two executive devices (cylinders) is needed. When the pressure, supplied at port Pil., reaches the level at which the valve is adjusted, the main valve opens and the flow goes to port **A**. This continues until the pressure at port **Pil**. is higher than the level at which the valve is adjusted. The pressure at port A can beadjusted at a lower level than the one in the basic system. Another implementation of the block is to regulate the pressure in a system at two levels of adjustment. The first level is determined by the adjustment of the basic safety valve in the system and the second level (the lower one) is adjusted by the safety valve on port A of the block **BV39**. It becomes active when the adjusted level of pressure in port **Pil**. is reached. To achieve that purpose the port **P** is connected to the system and the port **A** is plugged.

All performances and calibration are carried out by using hydraulic oil with viscosity approx 46 cSt at 50°C

Temperature range: -20...+80°C

Filtration absolute: 25 $\mu$m

## ORDERING CODE

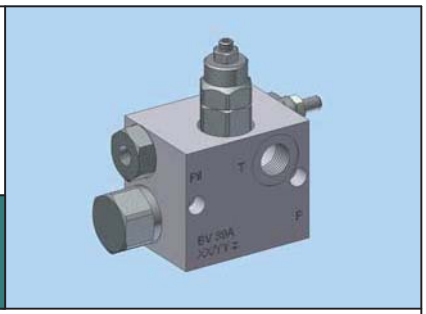
**BV39**

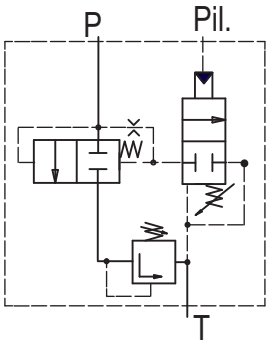
Type

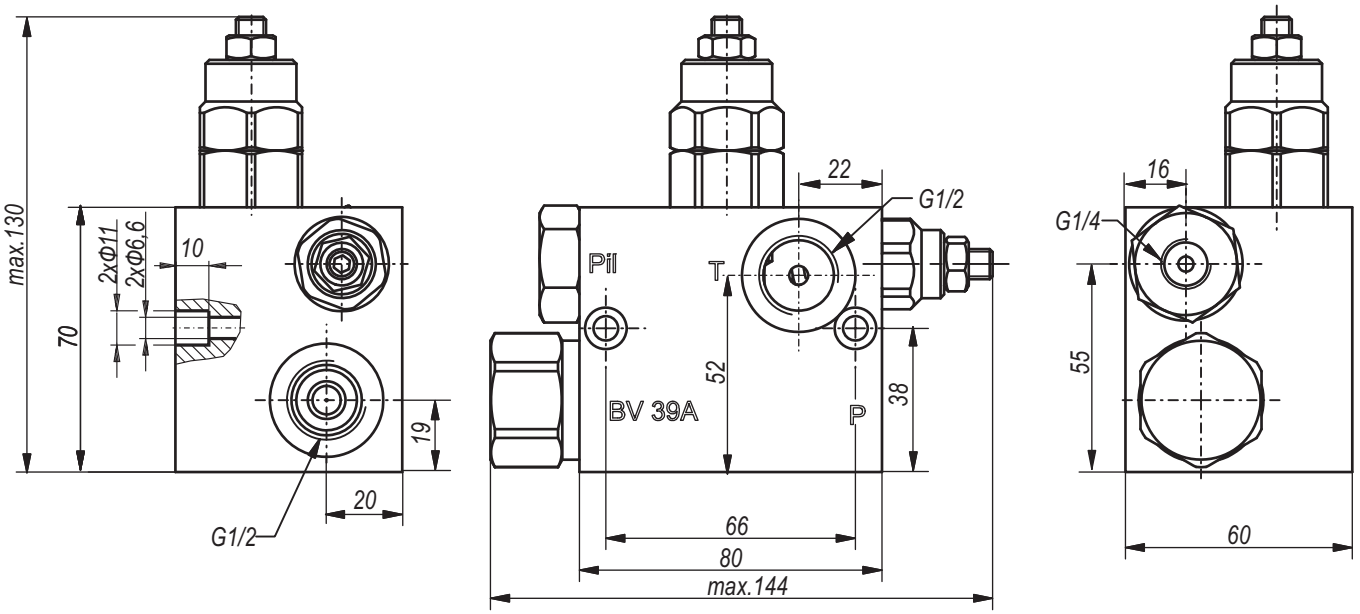
Hidro
Pnevmo
Tehnika
3, Eng. Felix Vozhely St.,
6100 Kazanlak, Bulgaria
Tel.:+359 431 62 228
+359 431 68 440
e-mail: info@hpt-bg.com
www.hpt-bg.com

# VALVE BLOCKS

## BV39A






| TECHNICAL DATA | | |
|---|---|---|
| | Measurement unit | Value |
| Adj. pressure range relief valve | bar | 30...250 |
| Standard setting relief valve | bar | 160 |
| Setting pilot valve | bar | 40 |
| Max. flow through main valve | L/min | 160 |
| Max. flow through relief valve | L/min | 80 |

All performances and calibration are carried out by using hydraulic oil with viscosity approx. 46 cSt at 50°C
Temperature range: -20...+80°C
Filtration absolute: 25 $\mu$m

## ORDERING CODE

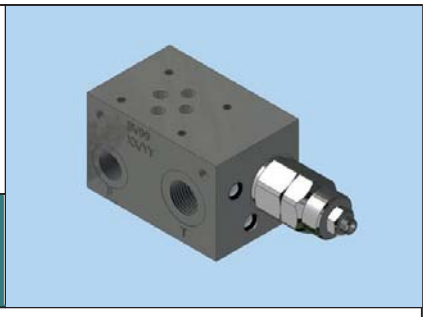
**BV39A**

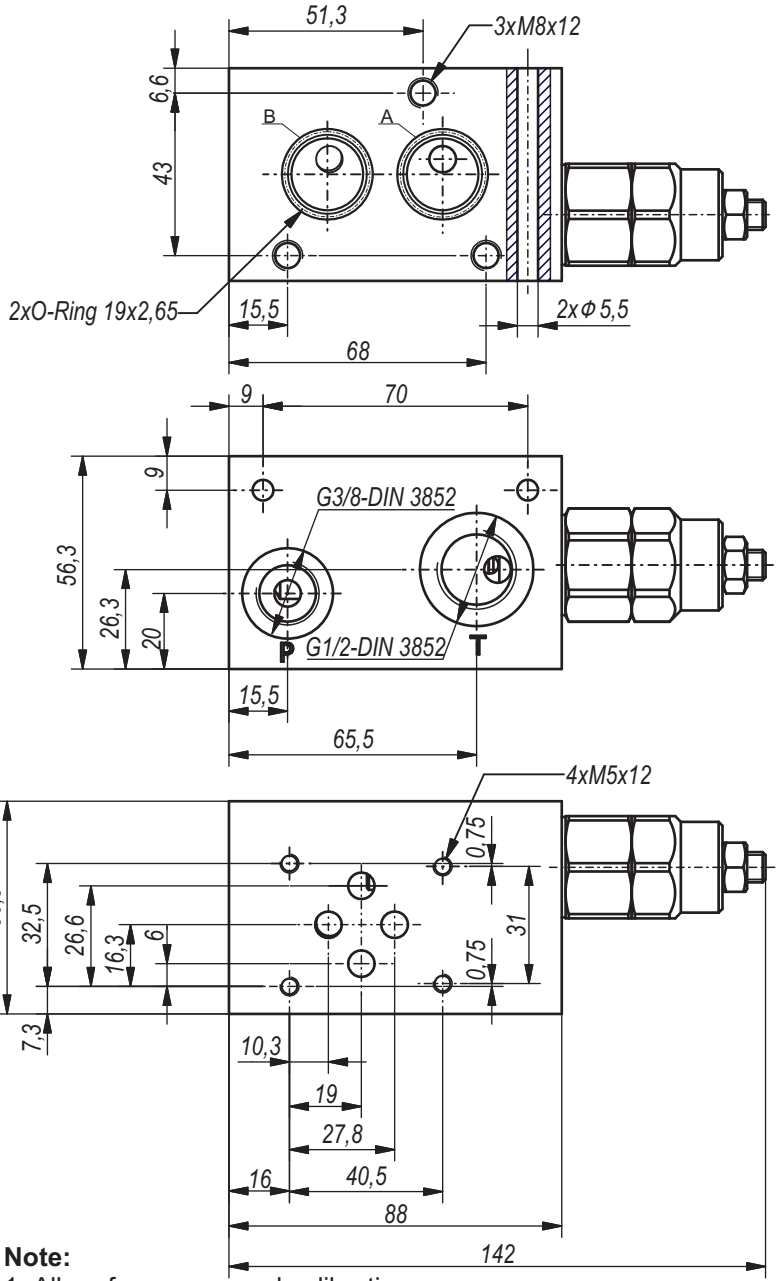
Type

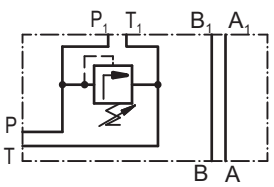
Hidro Pnevmo Tehnika
3, Eng. Felix Vozhely St.,
6100 Kazanlak, Bulgaria
Tel.:+359 431 62 228
+359 431 68 440
e-mail: info@hpt-bg.com
www.hpt-bg.com

# VALVE BLOCKS

## BV 99 / ..
**(To be connected only to RS06...)**






| TECHNICAL DATA | | |
|---|---|---|
| General | | |
| Ambient temperature | °C | -20…+50 |
| Hydraulic | | |
| Pressure range | | See tab.1 |
| Maximal flow rate | *L/min* | 40 |
| Working fluid– mineral oil | | |
| - viscosity | $mm^2/s$ | 10…100 |
| - filtration level | $\mu m$ | 25 or better |
| - temperature | °C | -20…80 |

Tab. 1

| PRESSURE RANGE | | |
|---|---|---|
| Code | Standard setting (Q=5l/min) [bar] | Pressure range [bar] |
| 10 | 80 | 10…100 |
| 25 | 180 | 30…250 |
| 35 | 250 | 70…350 |

**Note:**
1. All performances and calibration are carried out by using hydraulic oil with viscosity approx 46 cSt at 50 °C.
2. Mounting plate:
- acc. to ISO 4401-AB-03-4A (CETOP3)
3. Tightening torque of the connecting screws on the mounting plate - 8,5 N.m.

This block is used only for a joint work with directional control valves of the RS06… type.

## ORDERING CODE

**BV 99 / 10**

- BV 99 — Type
- 10 — Pressure range code: **see tab. 1**