

## Type: P120

### HYDRAULIC DIRECTIONAL CONTROL VALVES



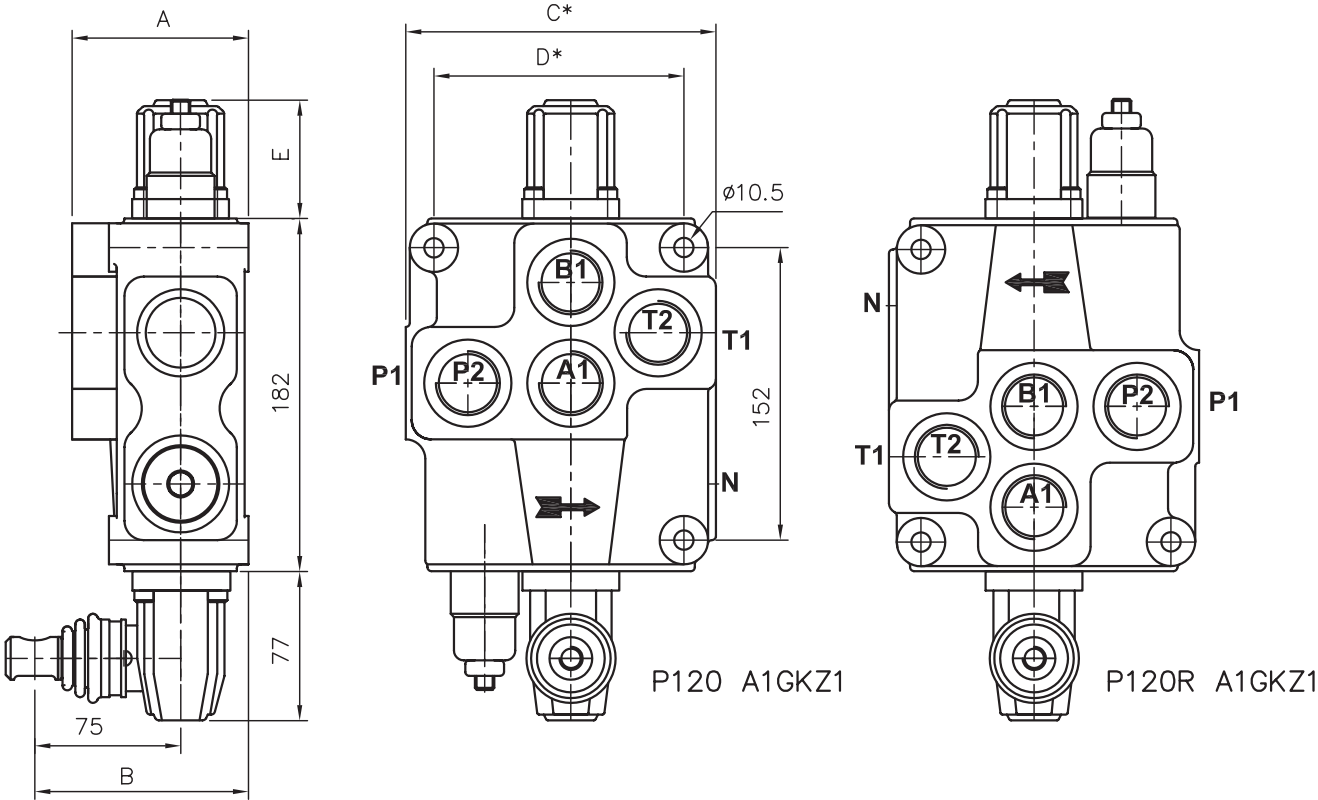
#### Description

For starting, controlling and stopping the working fluid between the generator of pressured flow, the consumers and the Tank.

#### Specifications

|                            |  |
|----------------------------|--|
| 1. Valve monoblock         |  |
| 2. Mounting                | 3 bolts M10  |
| 3. Pressure connections    | internal thread  |
| 4. Ambient temperature     | -40C...+60C  |
| 5. Pressure medium         | mineral oil based hydraulic oil  |
| 6. Viskosity               | 12...800 mm <sup>2</sup> /s permissible range<br>20...100 mm <sup>2</sup> /s recommended range |
| 7. Fluid temperature       | - 15C...+80C   |
| 8. Filtration              | Oil contamination 10 to NAS1638  |
| 9. Max. operating pressure | P = 250 bar<br>T = 50 bar<br>A, B = 300 bar  |
| 10. Leakage (A, B – T)     | 30 cm <sup>3</sup> /min at 120 bar   |
| 11. Nominal flow           | 120 l/min (see “operating” diagram)  |
| 12. Spool stroke           | ± 10 mm, L12 = ± 10 mm +6 mm   |
| 13. Actuating force        | < 300 N in spool axis direction  |

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\* for each next spool + 53 mm

Table 1

|      | A  | B   | C   | D   | P1 | P2 | T1 | T2 |
|------|----|-----|-----|-----|----|----|----|----|
| P120 | 92 | 110 | 160 | 129 | +  | +  | +  | +  |
|      |    |     |     |     |    |    |    |    |
|      |    |     |     |     |    |    |    |    |
|      |    |     |     |     |    |    |    |    |
|      |    |     |     |     |    |    |    |    |
|      |    |     |     |     |    |    |    |    |

Table 2

| spool control<br>фиксации золотника | E  |
|-------------------------------------|----|
| 1; 2, 3, 4; 5; 6; 7; 8; 9; 10; 11;  | 64 |
| 12                                  | 74 |
|                                     |    |

|                  |  |                                  |                         |                         |                                     |                                |                         |                         |                              |                                |                            |                                  |
|------------------|--|----------------------------------|-------------------------|-------------------------|-------------------------------------|--------------------------------|-------------------------|-------------------------|------------------------------|--------------------------------|----------------------------|----------------------------------|
| 02               | P120                                     | 1                                | A                       | 1                       | L                                   | 12                             | G                       | KZ1                     | H                            | E                              | C2                         | -11                              |
| number of spools | hydraulic directional control valve P120 | parallel distribution (parallel) | spool type—distribution | spool control (table 2) | second spool distribution (table 1) | second spool control (table 2) | ports threads (table 5) | lever options (table 6) | operation features (table 4) | electric microswitch (table 3) | cary over center (table 7) | conection ports in use (table 8) |

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Table 3

| code  | Number of spools |
|-------|------------------|
| P     | 1                |
| 02, 2 | 2                |
| 03, 3 | 3                |

ets.

parallel

Table 4

| code | way of distribution     |
|------|-------------------------|
| 1    | parallel                |
| (2)  | tandem(series parallel) |

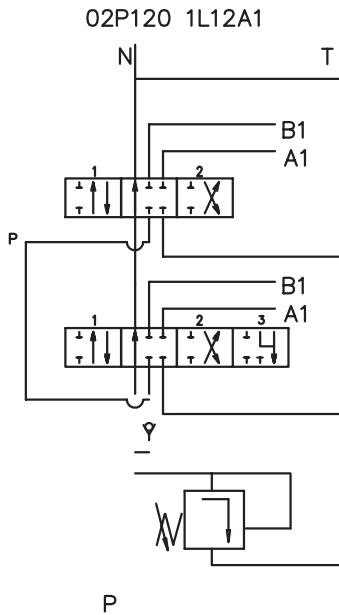


Table 5

| code | spool type |
|------|------------|
| A    |            |
| B    |            |
| C    |            |
| D    |            |
| E    |            |
| F    |            |
| G    |            |
| H    |            |
| M    |            |
| N    |            |
| O    |            |
| P    |            |
| Q    |            |
| R    |            |
| S    |            |
| T    |            |
| L    |            |

Table 6

| code | spool control |
|------|---------------|
| 1    |               |
| 2    |               |
| 3    |               |
| 4    |               |
| 5    |               |
| 6    |               |
| 7    |               |
| 8    |               |
| 9    |               |
| 10   |               |
| 11   |               |
| 12   |               |
| 13   |               |

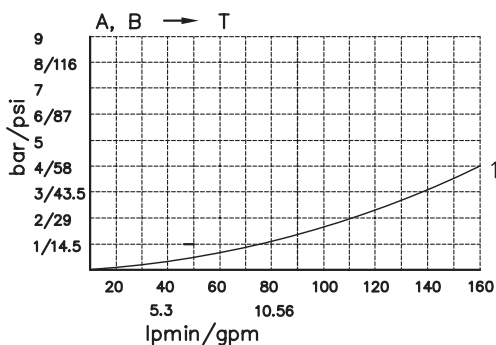
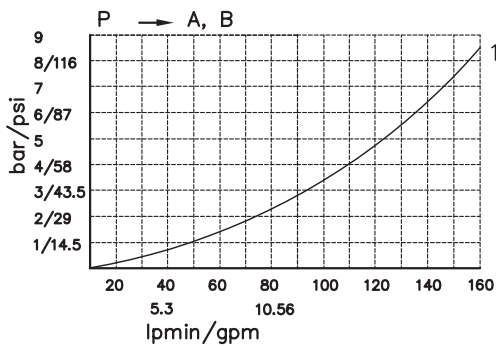
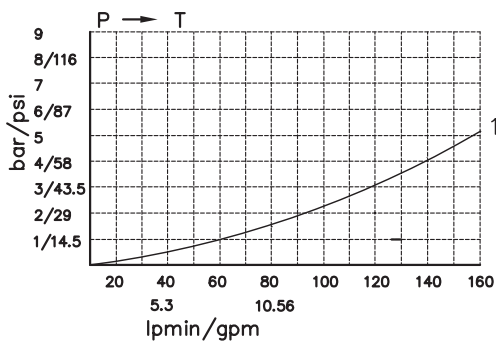


Table 7

| code | incorporated microswitch     |
|------|------------------------------|
| E    | <br>type<br>Omron-V 165 I C5 |

Table 8

| code | operation feature   |
|------|---|
| P    | <br>on-off pneumatic control; 5-10 bar ; ports G1/4         |
| H    | <br>on-off hydraulic control ; pn = 5 - 20 bar ; ports G1/4 |

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treads for conection

parallel

Table 9

| outlets/ports/ | metric  | BSP  | SAE    | NPT      |
|----------------|---------|------|--------|----------|
| P, A, B, T     | M33x2   | G 1" | SAE 16 | 1 – 11.5 |
| N              | M36x1.5 | —    | —      | —        |

Table 10

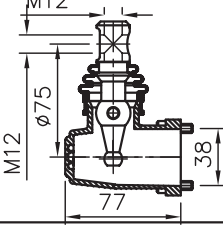
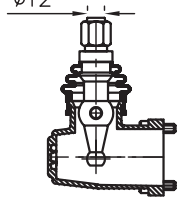
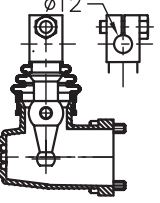
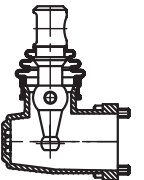
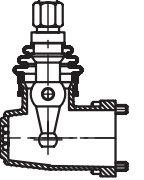
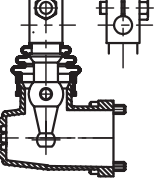
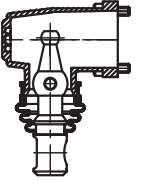
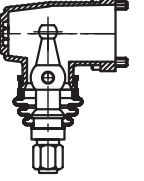
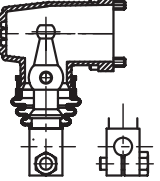
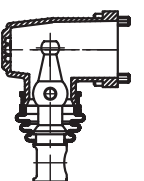
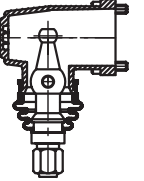
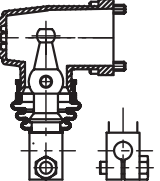
| code | with thread M12   | code | with cange $\phi 12$   | code | with cange $\phi 12$  |
|------|---|------|--|------|---|
| KZ   |    | KY   |    | KI   |    |
| KZ1  |    | KY1  |    | KI1  |    |
| KZ0  |  | KY0  |  | KI0  |  |
| KZ01 |  | KY01 |  | KI01 |  |

Table 11

| code | metric                             |
|------|------------------------------------|
| X    | without N                          |
| —    | with N, but closed                 |
| C    | with N, closed center              |
| C1   | with N —carry over for ermeto      |
| C2   | with N—carry over, internal thread |

Table 12

| code | ports for connection in uze |
|------|-----------------------------|
| 11   | P1 ; T1                     |
| 12   | P1 ; T2                     |
| 21   | P2 ; T1                     |
| 21   | P2 ; T1                     |

