

**Characteristics**

Pilot operated proportional pressure relief valves series R4V (DIN 24340 Form D) and R6V (DIN 24340 Form E) consist of a proportionally adjusted pilot stage and a seated type main stage.

The optimum performance can be achieved in combination with the digital amplifier module PCD00A-400.

**Features**

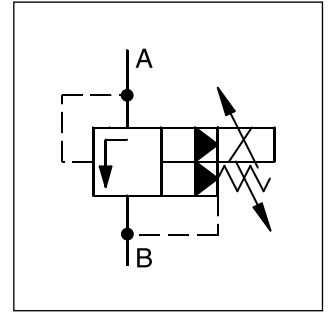
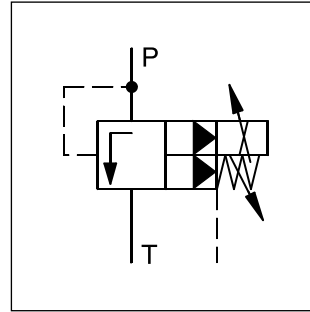
- Pilot operated with proportional solenoid
- 2 interfaces:
  - R4V subplate ISO 6264 (DIN 24340 Form D)
  - R6V subplate ISO 6264 (DIN 24340 Form E)
- 3 pressure stages
- Mechanical maximum pressure adjustment (optional for R6V)



R6V06

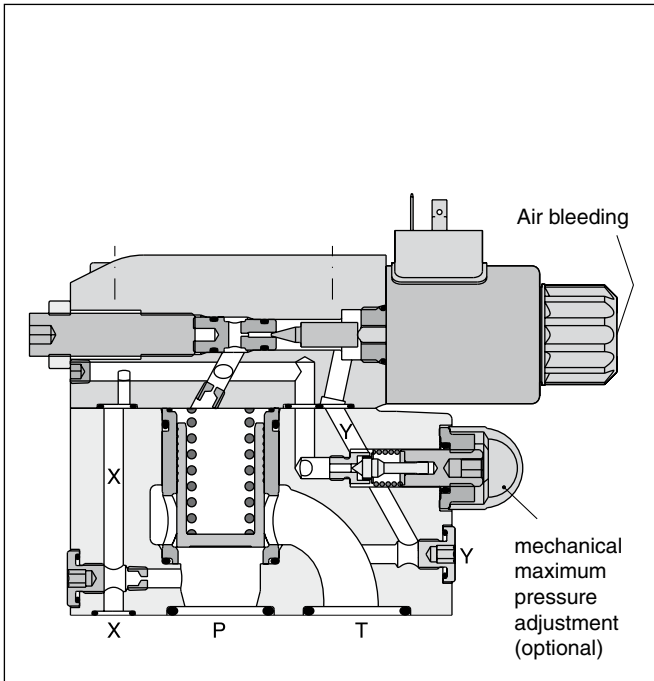


R4V06

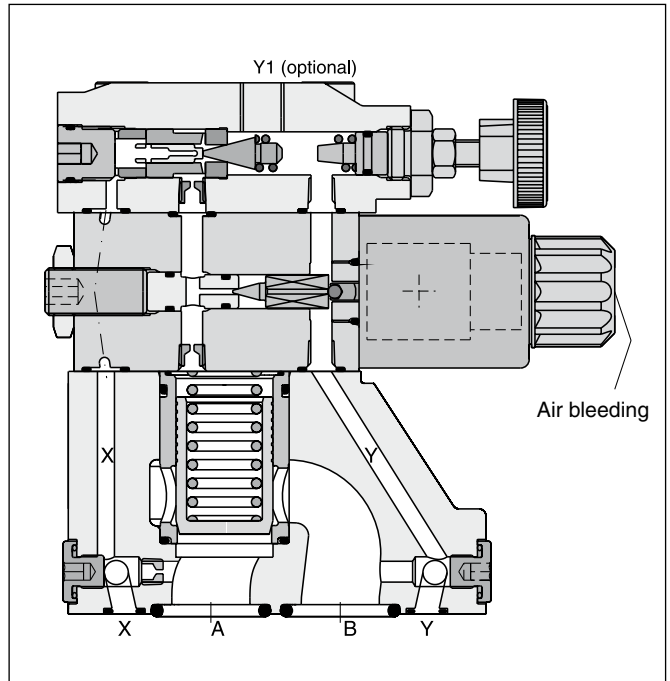


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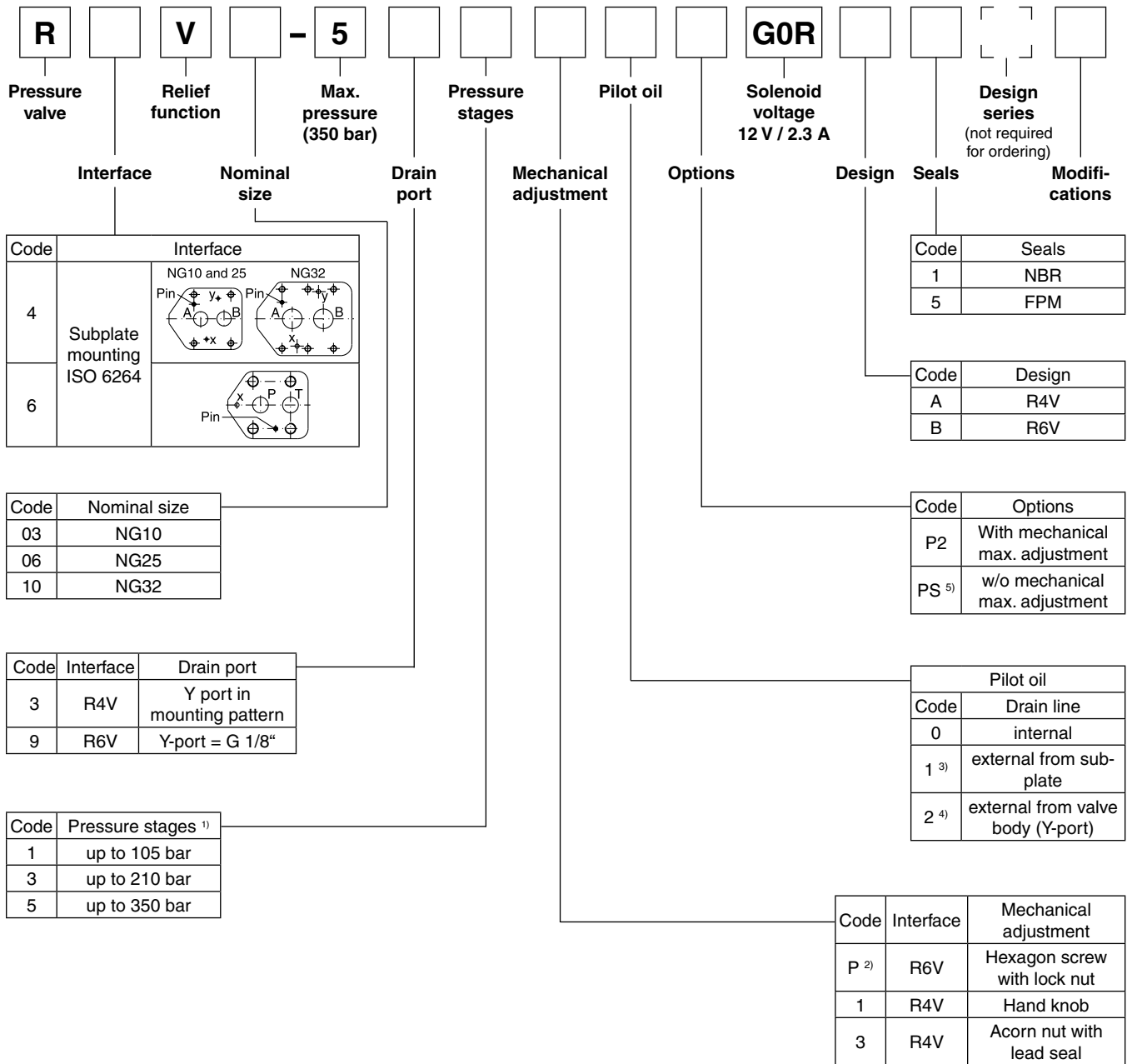
**R6V06**



**R4V06**



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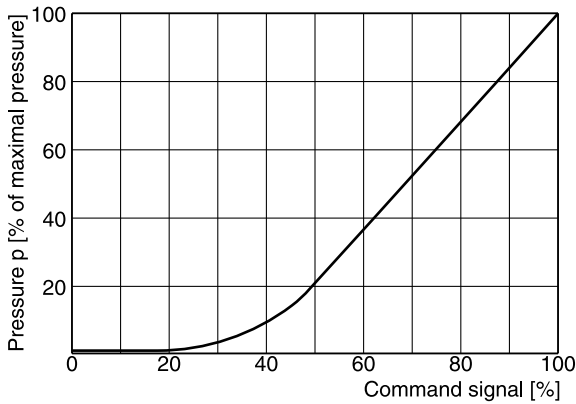
<sup>1)</sup> Other pressure stages on request.  
<sup>2)</sup> Use code P also for valve w/o mechanical adjustment.  
<sup>3)</sup> R4V only.  
<sup>4)</sup> R6V only.  
<sup>5)</sup> Not for R4V.

**Technical Data**

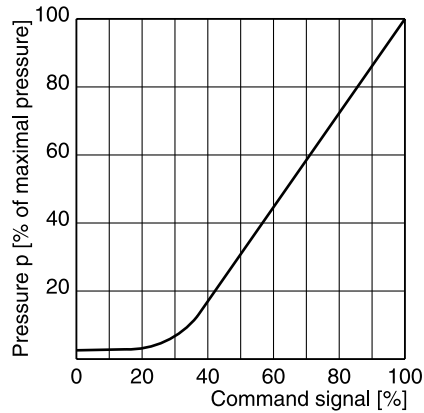
| <b>General</b>                     |   |   |           |           |     |
|------------------------------------|---|---|-----------|-----------|-----|
| Nominal size                       |   | <b>10</b>   | <b>25</b> | <b>32</b> |     |
| Interface                          | Subplate mounting acc. ISO 6264   |   |           |           |     |
| Mounting position                  | Unrestricted, horizontal mounting preferred                                 |   |           |           |     |
| Ambient temperature                | [°C]  | -20...+60   |           |           |     |
| MTTF <sub>D</sub> value            | [years]   | 75  |           |           |     |
| Weight                             | Series R6V  | [kg]  | 5.2       | 6.4       | 8.3 |
|                                    | Series R4V  | [kg]  | 4.5       | 6.3       | 7.8 |
| <b>Hydraulic</b>                   |   |   |           |           |     |
| Max. operating pressure            | [bar]   | Ports P (or A) and X up to 350, port T (or B) and Y 30  |           |           |     |
| Pressure stages                    | [bar]   | 105, 210, 350   |           |           |     |
| Nominal flow                       | [l/min]   | 250   | 500       | 650       |     |
| Fluid                              | Hydraulic oil according to DIN 51524  |   |           |           |     |
| Viscosity, permitted               | [cSt] / [mm <sup>2</sup> /s]  | 20 ... 400  |           |           |     |
|                                    | recommended   | [cSt] / [mm <sup>2</sup> /s]                            | 30 ... 80 |           |     |
| Fluid temperature                  | [°C]  | -20...+70 (NBR: -25...+70)                              |           |           |     |
| Filtration                         | ISO 4406 (1999); 18/16/13   |   |           |           |     |
| <b>Electrical (prop. solenoid)</b> |   |   |           |           |     |
| Duty ratio                         | [%]   | 100 ED; CAUTION: coil temperature up to 150 °C possible |           |           |     |
| Protection class                   | IP65 in accordance with EN 60529 (with correctly mounted plug-in connector) |   |           |           |     |
| Supply voltage                     | [V]   | 12 V =  |           |           |     |
| Max. current                       | [A]   | 2.1   |           |           |     |
| Coil resistance at 20 °C           | [Ohm]   | 4.28  |           |           |     |
| Solenoid connection                | Connector as per EN 175301-803  |   |           |           |     |
| Power amplifier, recommended       | PCD00A-400  |   |           |           |     |

**4**

**R4V Signal/pressure curve**

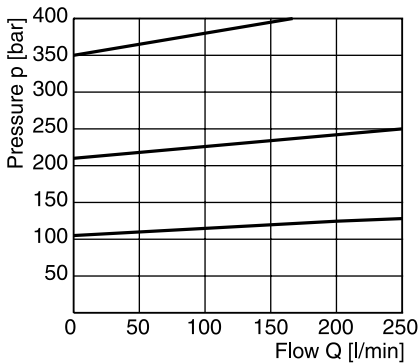


**R6V Signal/pressure curve**

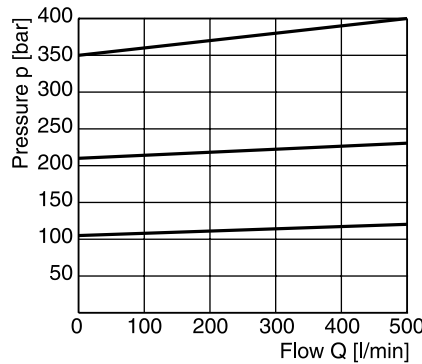


**p/Q performance curves <sup>1)</sup>**

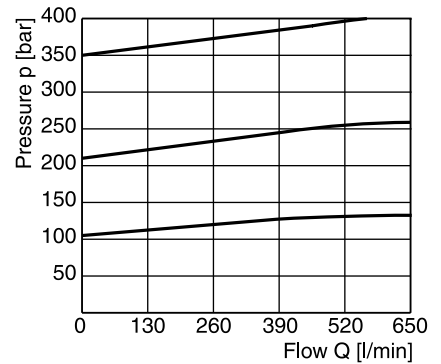
**R4V / R6V03**



**R4V / R6V06**

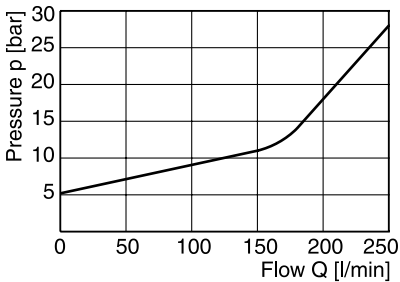


**R4V / R6V10**

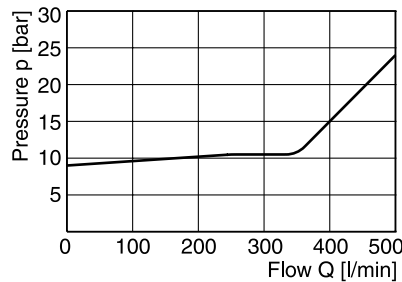


**Minimum pressure curves <sup>1)</sup>**

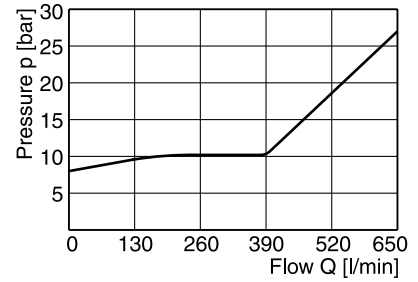
**R4V / R6V03**



**R4V / R6V06**



**R4V / R6V10**

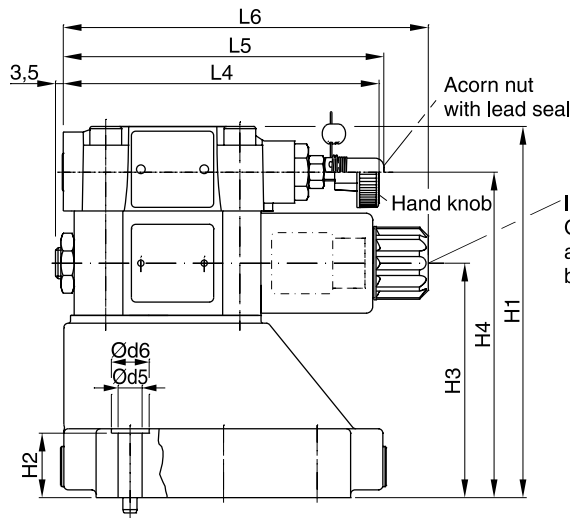
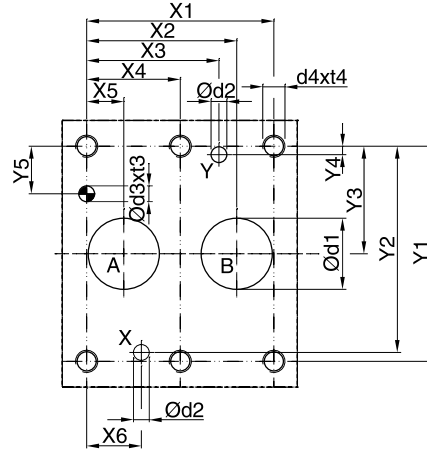
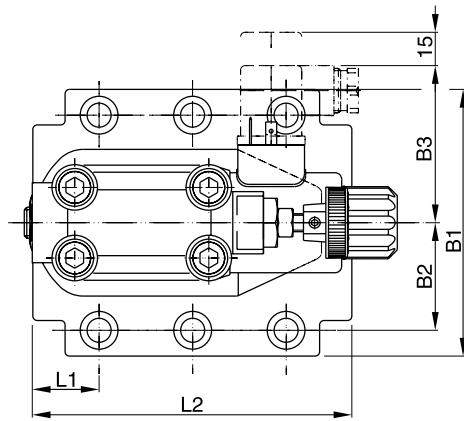


All characteristic curves measured with HLP46 at 50 °C.

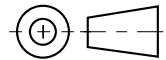
<sup>1)</sup> The performance curves are measured with external drain.  
 For internal drain the tank pressure has to be added to curve.

4

**R4V**



Important:  
 On initial start up  
 and after long shut down periods  
 bleed air from this plug.

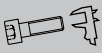

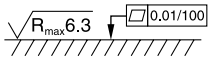


| NG | ISO-code        | x1   | x2   | x3   | x4   | x5   | x6   | x7 | y1   | y2   | y3   | y4  | y5   | y6 |
|----|-----------------|------|------|------|------|------|------|----|------|------|------|-----|------|----|
| 10 | 6264-06-07-*.97 | 42.9 | 35.8 | 21.5 | -    | 7.2  | 21.5 | 0  | 66.7 | 58.8 | 33.4 | 7.9 | 14.3 | -  |
| 25 | 6264-08-11-*.97 | 60.3 | 49.2 | 39.7 | -    | 11.1 | 20.6 | 0  | 79.4 | 73   | 39.7 | 6.4 | 15.9 | -  |
| 32 | 6264-10-15-*.97 | 84.2 | 67.5 | 59.5 | 42.1 | 16.7 | 24.6 | 0  | 96.8 | 92.8 | 48.4 | 3.8 | 21.4 | -  |

Tolerance at X and Y pin holes and screw holes ±0.1, at port holes ±0.2.

| NG | ISO-code        | B1   | B2    | B3 | H1    | H2 | H3    | H4    | H6 | L1   | L2    | L3 | L4  | L5    | L6    |
|----|-----------------|------|-------|----|-------|----|-------|-------|----|------|-------|----|-----|-------|-------|
| 10 | 6264-06-07-*.97 | 87.3 | 33.35 | 71 | 130   | 21 | 68.5  | 109.5 | -  | 25   | 90.8  | -  | 143 | 144.8 | 164.8 |
| 25 | 6264-08-11-*.97 | 105  | 39.7  | 71 | 154.5 | 29 | 93    | 134   | -  | 30.9 | 123   | -  | 143 | 144.8 | 164.8 |
| 32 | 6264-10-15-*.97 | 120  | 48.4  | 71 | 167   | 30 | 105.5 | 146.5 | -  | 29.8 | 143.5 | -  | 143 | 144.8 | 164.8 |

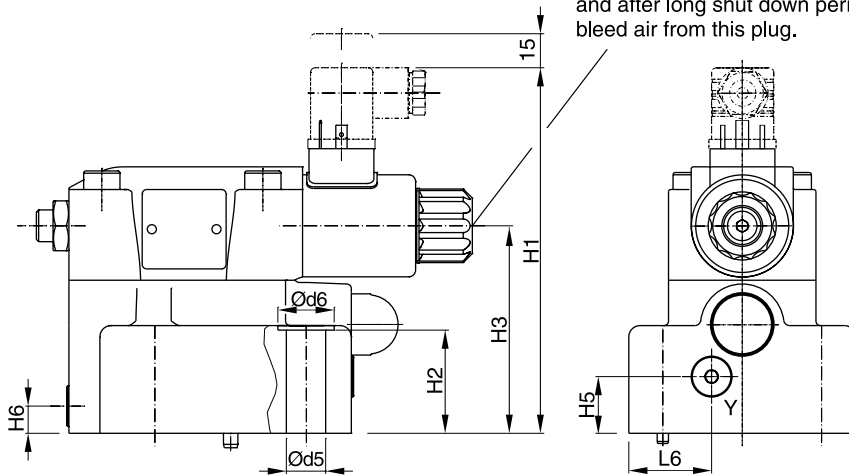
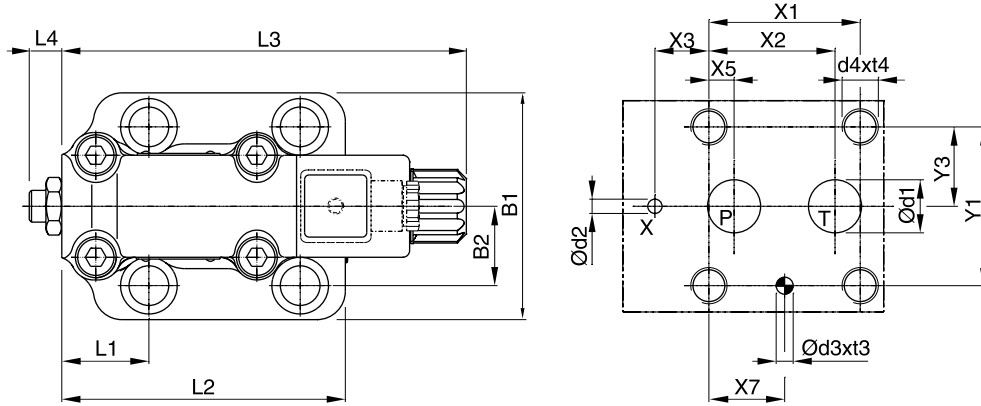
| NG | ISO-code        | d1max | d2max | d3  | t3 | d4  | t4 | d5   | d6 | Subplate <sup>1)</sup> |
|----|-----------------|-------|-------|-----|----|-----|----|------|----|------------------------|
| 10 | 6264-06-07-*.97 | 15    | 7     | 7.1 | 8  | M10 | 16 | 10.8 | 17 | SPP 3M6B 910           |
| 25 | 6264-08-11-*.97 | 23.4  | 7.1   | 7.1 | 8  | M10 | 18 | 10.8 | 17 | SPP 6M8B 910           |
| 32 | 6264-10-15-*.97 | 32    | 7.1   | 7.1 | 8  | M10 | 20 | 10.8 | 17 | SPP 10M12B 910         |

| NG               | Bolt kit |  |  | Kit                       |                           | Surface finish  |
|------------------|----------|---|---|---------------------------|---------------------------|---|
|                  |          |   |   | NBR                       | FPM                       |   |
| 10               | BK505    | 4x M10x35 ISO 4762-12.9   | 63 Nm ±15 %   | S26-58507-0 <sup>2)</sup> | S26-58507-5 <sup>2)</sup> |  |
| 25               | BK485    | 4x M10x45 ISO 4762-12.9   | 63 Nm ±15 %   | S26-58475-0 <sup>2)</sup> | S26-58475-5 <sup>2)</sup> |   |
| 32               | BK506    | 4x M10x45 ISO 4762-12.9   | 63 Nm ±15 %   | S26-58508-0 <sup>2)</sup> | S26-58508-5 <sup>2)</sup> |   |
| Prop. section P2 |          |   |   | S26-58473-0               | S26-58473-5               |   |

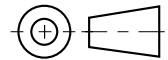
<sup>1)</sup> Details see chapter 12, series SPP.

<sup>2)</sup> Please combine seal kit of one size with seal kit of prop. section P2 for complete seal kit.

**R6V**



Y: external drain port G 1/8"



| NG | ISO-code        | x1   | x2   | x3   | x4 | x5   | x6 | x7   | y1   | y2 | y3   | y4 | y5 | y6 |
|----|-----------------|------|------|------|----|------|----|------|------|----|------|----|----|----|
| 10 | 6264-06-09-*-97 | 53.8 | 47.5 | 0    | -  | 22.1 | -  | 22.1 | 53.8 | -  | 26.9 | -  | -  | -  |
| 25 | 6264-08-13-*-97 | 66.7 | 55.6 | 23.8 | -  | 11.1 | -  | 33.4 | 70   | -  | 35   | -  | -  | -  |
| 32 | 6264-10-17-*-97 | 88.9 | 76.2 | 31.8 | -  | 12.7 | -  | 44.5 | 82.6 | -  | 41.3 | -  | -  | -  |

Tolerance at X and Y pin holes and screw holes ±0.1, at port holes ±0.2.

| NG | ISO-code        | B1  | B2   | H1    | H2   | H3   | H4 | H5   | H6   | L1   | L2    | L3    | L4   | L5 | L6   |
|----|-----------------|-----|------|-------|------|------|----|------|------|------|-------|-------|------|----|------|
| 10 | 6264-06-09-*-97 | 80  | 26.9 | 158.7 | 27   | 88   | -  | 20.5 | 25   | 52   | 117   | 182.3 | 14.4 | -  | 29.5 |
| 25 | 6264-08-13-*-97 | 100 | 35   | 161.2 | 46.5 | 91.5 | -  | 25   | 12   | 37.9 | 124.5 | 182.3 | 14.4 | -  | 36.5 |
| 32 | 6264-10-17-*-97 | 120 | 41.3 | 166.7 | 51.3 | 98.5 | -  | 26.5 | 13.5 | 44.3 | 153   | 182.3 | 14.4 | -  | 46.5 |

| NG | ISO-code        | d1max | d2max | d3  | t3 | d4  | t4 | d5   | d6 | Subplate <sup>1)</sup> |
|----|-----------------|-------|-------|-----|----|-----|----|------|----|------------------------|
| 10 | 6264-06-09-*-97 | 14.7  | 4.8   | 7.5 | 10 | M12 | 20 | 13.5 | 20 | SPP 3R6B 910           |
| 25 | 6264-08-13-*-97 | 23.4  | 6.3   | 7.5 | 10 | M16 | 27 | 17.5 | 25 | SPP 6R10B 910          |
| 32 | 6264-10-17-*-97 | 32    | 6.3   | 7.5 | 10 | M18 | 28 | 20   | 30 | SPP 10R12B 910         |

| NG | Bolt kit |                         |              | Kit         |             | Surface finish |
|----|----------|-------------------------|--------------|-------------|-------------|----------------|
|    |          |                         |              | NBR         | FPM         |                |
| 10 | BK494    | 4x M12x45 ISO 4762-12.9 | 108 Nm ±15 % | S26-98589-0 | S26-98589-5 |                |
| 25 | BK366    | 4x M16x70 ISO 4762-12.9 | 264 Nm ±15 % | S26-96396-0 | S26-96396-5 |                |
| 32 | BK507    | 4x M18x75 ISO 4762-12.9 | 398 Nm ±15 % | S26-96392-0 | S26-96392-5 |                |

<sup>1)</sup> Details see chapter 12, series SPP.