



R1 42 01 05 Technical Directive

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

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Information on

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<p>5.1. Directional control valves spool type DN 6 up to 32; 4/2 and 4/3</p>	<p>R1 42 01 05</p> <p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>
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Directional valves will be used for distribution of fluid to actuators, or parts of a hydraulic
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system. Due to interchangeability, pressures and flows in the tables are possibly deviating

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from those mentioned in the manufacturer's catalogues.

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5.1.1. Electrically operated

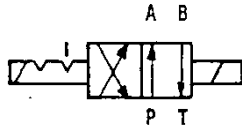
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Symbols according to NEN 3348 (ISO 1219)

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Hydraulic symbol for a 3/2-way directional control valve with a spring return. The symbol shows a rectangular box with a diagonal line from the bottom-left to the top-right. On the left, a spring symbol (a zigzag line) is connected to the valve. On the top, two ports are labeled 'A' and 'B'. On the bottom, two ports are labeled 'P' and 'T'.

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 s and users
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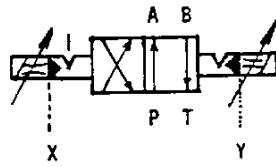
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Figure 5.2

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s and users
es / pressure valves

Figure 5.3

Figure 5.4

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Figure 5.5



Hydraulics-
Figure 5.6 companies, managers and users
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Figure 5.7



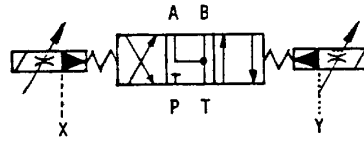
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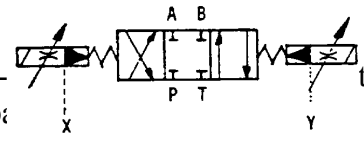
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Figure 5.8



Hydraulics-
compa
Figure 5.9
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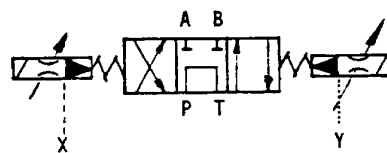


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Figure 5.10



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Application

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Valves DN 6 (size 03) are to be applied **only** for:

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– pilot operated directional control valves

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– cartridge valves (remote control)

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– pressure valves (remote control)

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Valves DN 10, 25 and 32 (sizes 05, 08, 10) are commonly applied for the control of
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cylinders and hydro engines. **DN 16 is not applied.**

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Technical data

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– Connection according to ISO 4401, size 03,05, 08 and 10. R1 42 01 05

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– Pressure, volume flow, solenoid capacity, see Scheme 5.1

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Scheme 5.1

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		5.1, 5.2	5.5, 5.6,	R1 42 01 05	
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	DN 6	DN 10	DN 10	DN 25	DN 32	
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	size 03	size 05	size 05	size 08	size 10	
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R1420105

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Max. pressure P	350	315	315	280	210	bar
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T	100	120		120	250	210	bar
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A	350	315	315	280	210	bar
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X	-	-	-	210	210	bar
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Max. flow	max. 30*)	40	40	250	500	l/min.
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Stationair power	50	105		105	55	55	VA
			<div data-bbox="1090 141 1246 174">R1 42 01 05</div> <div data-bbox="855 174 1484 286"> Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves </div>				
			<div data-bbox="700 2063 812 2145">  corus </div>				

Switching power	220	700	700	170	170	VA
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*) Pressure dependent

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- Valves DN 6 must be equipped with emergency manual control

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– Pilot valve DN 25 en 32 shifting time adjustment between the pilot valve and the main
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valve by means of a meter out throttle.

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– Solenoids:

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– are of the wet type

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– Plug according ISO 4400 with indicator light

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– Voltage: 110 V AC + and - 5%

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– Suitable for 100% continuous operation

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- Pilot pressure: in general 30 bar, to be generated at each manifold from the supply

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pressure.

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5.1.1.art.a. Manufacturer and type number

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Scheme 5.2


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		DN 6 Size 03 R1 42 01 05
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Symbol	Manufacturer	Type
		R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves
		

Rexroth

4WE6D60/OFEW110-N9K4

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5.1	Vickers	DG4V-3S-2N-M-U5-A5-60*) R1 42 01 05
		<p data-bbox="853 174 1484 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> <div data-bbox="699 2056 813 2145"> corus</div>

Rexroth

4WE6D60/EW110-N9K4

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5.2	Vickers	DG4V-3S-2A-M-U5-A5-60*) R1 42 01 05
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Rexroth

4WE6J60/EW110-N9K4

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5.5	Vickers	DG4V-3S-6C-M-U5-A5-60*) R1 42 01 05
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*) This valve is equipped with a locating pin, which can be removed.

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Scheme 5.3

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Symbol	Manufacturer	Type RT42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves
		

Rexroth

4WE10D30/OFCW110-N9K4

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5.1

Vickers

DG4V-5-2N-M-U5-A6-20

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Rexroth

4WE10D30/CW110-N9K4

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5.2

Vickers

DG4V-5-2A-M-U5-A6-20

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Rexroth

4WE10J30/CW110-N9K4

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.5

Vickers

DG4V-5-6C-M-U5-A6-20

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WE10E30/CW110-N9K4

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.6

Vickers

DG4V-5-2C-M-U5-A6-20

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Rexroth

4WE10G30/OFCW110-N9K4

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.4

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol

Manufacturer

Type

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WEH22HD70/OF6E W110-N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.3

Vickers

DG5V-H8-2N-2E-M-U5-A5-30
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WEH22HD70/OF6E W110-N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.4

Vickers

DG5V-H8-2A-2E-M-U5-A5-30
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WEH22J70/6E W110-N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.8

Vickers

DG5V-H8-6C-2E-M-U5-A5-30
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WEH22E70/6E W110-N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.9

Vickers

DG5V-H8-2C-2E-M-U5-A5-30
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WEH22HD70/6E W110-N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.10

Vickers

DG5V-H8-8C-2E-M-U5-A5-30

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.5


R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

	DN 32 Size 10	R1 42 01 05
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol	Manufacturer	Type R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves
		

Rexroth

4WEH32HD60/OF6E W110-N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Rexroth

4WEH32HD60/6E W110-N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.4

Vickers

DG5S4-102A-2E-M-U5-A7-90

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Rexroth

4WEH32J60/6E W110- N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.8

Vickers

DG5S4-106C-2E-M-U5-A7-90

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Rexroth

4WEH32E60/6E W110- N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.9

Vickers

DG5S4-102C-2E-M-U5-A7-90

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Rexroth

4WEH32G60/6E W110- N9S2K4
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.10	Vickers	DG5S4-108C-2E-M-U5-B-A7-90 R1 42 01 05
		Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.1.2. Manually operated

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

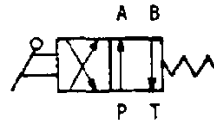
Part 5: Selection control valves / pressure valves

Symbols according to NEN 3348 (ISO 1219)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.11



Hydraulics-
Figure 5.12 companies, manufacturers and users
 Part 5: Selection control valves / pressure valves

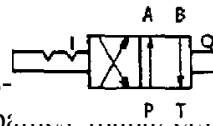


Figure 5.13



Hydraulics-
Figure 5.14
 Part 5: Selection control valves / pressure valves

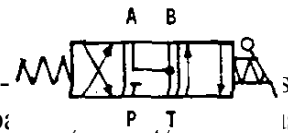


Figure 5.15



Hydraulics-
Figure 5.16 companies, managers and users
 Part 5: Selection control valves / pressure valves

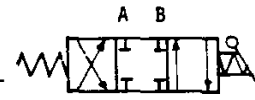
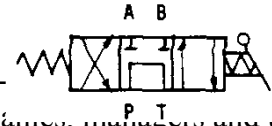


Figure 5.17



Hydraulics-
Figure 5.18 s, erection
 companies, managers and users
 Part 5: Selection control valves / pressure valves



R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Control of cylinders and hydraulic motors.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Technical data

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

– Connection according to ISO 4401, size 03,05, 08 and 10. See Technical Directive
RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 02, paragraph 2.7.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

– Pressure, flow, electrical power

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

- Valves with positive overlap in intermediate position.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.6

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

	DN 10	DN 25	R1 42 01 05
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Pressure in P

210

315

bar

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

T	70	210	bar
		RT 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	

A	210	315	bar
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RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

B	210	315	bar
		RT 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	

Q	40	250	L/min.
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RT 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.7

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol	Manufacturer		Types R1 42 01 05
	Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves		

Rexroth

4WMM10D30/F
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.12

Herion

S10.H.OOG.019.013MO

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WMM10D30
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.11

Herion

S10.H.OOG.020.013MO

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WMM10J30/F
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.13

Herion

S10.H.OOG.129.013MO

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WMM10J30/F
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.14

Herion

S10.H.OOG.009.013MO

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WMM10E30/F
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.15

Herion

S10.H.OOG.141.013MO

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WMM10E30
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.16

Herion

S10.H.OOG.008.013MO

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WMM10G30/F
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.17

Herion

S10.H.OOG.108.013MO
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

4WMM10G30
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Also allowed Vickers DG17V4 series with the same symbol.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.8

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol	Manufacturer		Types
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RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

H-4WMM22D/70
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.12

Vickers

DG17V-H8-2A10
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

H-4WMM22J-70/F
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.13

Vickers

DG17V-H8-6N-10

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

H-4WMM22J-70
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.14

Vickers

DG17V-H8-6C-10
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

H-4WMM22E-70/F
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.15

Vickers

DG17V-H8-2N-10

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

H-4WMM22E-70
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.16

Vickers

DG17V-H8-2C-10
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

H-4WMM22G-70/F
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.17

Vickers

DG17V-H8-8N-10

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth

H-4WMM22G-70
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.18

Vickers

DG17V-H8-8C-10

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

<p>5.2. Poppet type directional control valves, seat type DN 6 size 03; 3/2</p>	<p>R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p>
--	--

Poppet types valves (seat valves) will be used for pilot functions and safety functions only.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

See Technical Directive R1 42 01 02, paragraph 2.7.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.2.1. Electrically operated

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbols according to NEN 3348 (ISO 1219)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.19

Figure 5.20

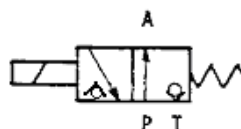
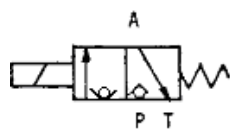
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Only for control of:

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

– pilot valve

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

– cartridge valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

– pressure control valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Technical data

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Connection according to ISO 4401.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Medium: mineral oil

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Pressure: maximum 315 bar to the ports A, B en P maximum 100 bar to port T.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Note: To assure the valve is working the pressure in P must be $P > A \cdot T$ en $A > T$.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Q allowed: in all ports max. 25 l/min.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Valve equipped with emergency manual override.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Solenoid switching in air.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Plug according ISO 4400 and equipped with indicator light.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Solenoid voltage 96 V AC! Rectifier in plug from 110 VAC to 96 VDC. **Wiring on the**
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

print and not to the pins!

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Solenoid suitable for 100% continuous operating.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Solenoid power: maximum 46 VA.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Maximum 170 VA switch.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Model

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.9

R1 42 01 05


Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol	Manufacturer	Type
--------	--------------	------

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.20.	Rexroth	M-3-SEW6-U-3x/420 - MG96-N9K4 R1 42 01 05
		<p data-bbox="769 174 1425 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> <div data-bbox="625 2063 737 2145"> corus</div>

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Valve types without plug.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type number Rexroth 0313933 suitable for 12-240V with built-in rectifier.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

<p>5.3. Directional control valves, proportional,</p>	<p>DN10 to 32 size 05 to 10 R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p>
--	--

Proportional valves will be used when precise velocities and moreover ramp times are an

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

advantage.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.3.1. General specifications

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

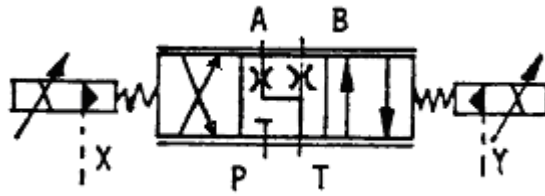
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.21

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



01 05
 or suppliers, erection
 igers and users
 valves / pressure valves

Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Control of cylinders and hydraulic motors.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Electrical control

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

These valves should be controlled by dedicated amplifier cards:

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

– Type number: VT –VSPA2-50-1X/T5

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

– Manufacturer: Rexroth.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

For all sizes the same card will be suitable. Adjustment with five potentiometers for
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

ramptimes of 0 - 5 sec.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

The cards will be mounted in a proportional valve cabinet as described with Corus
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

drawings A85.117 (1 card) and A85.118 (2 or 3 cards), together with a voltage supply and
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

separate press buttons for testing and commissioning. This concept must be used; only in
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

very special circumstances deviation is possible.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Technical specifications

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manifold mounting for DN 10 according ISO 4401, with external connection X and Y.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.10

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Max. pressure on port (bar) R1 42 01 05

Max.

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

flow *)

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DN	P	T	A	B	X R142 01	05 Y	l/min
----	---	---	---	---	--------------	------	-------

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

10	315	315	315	315	30-100	30	150
				R1 42 01 05			
				Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves			

16	350	250	350	350	30-100	30	300
----	-----	-----	-----	-----	--------	----	-----

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

25	350	250	350	350	30-100	30	700
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

32	350	150	350	350	30-100	30	1400
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

*) This maximum flow is valid for the largest spool at a pressure drop from P to A and
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

from B to T of 50 bar respectively.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Pilot valve with manual override.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Pilot pressure and return are **externally**.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Solenoid switch in oil and are suitable for	100% continuous operating. R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves
---	--

Solenoid voltage: 0 - 24 VDC.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Electrical connection with one plug per solenoid.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

The plug according ISO 4400, without indicator light.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Main spools of all valves is secured against spinning. Full bore side of the cylinder to be R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

connected with A-port. For a load independent control, a pressure compensator (sandwich
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

valve) may be used:

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Q (A) : Q (B) = 1:1 see Scheme 5.11. or

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Q (A) : Q (B) = 2:1 see Scheme 5.12.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.11

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Q (A) : Q (B) = 1:1

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol	DN	Manufacturer	Type
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.21	10	Rexroth	4WRZ10W6-25-70 / 6EG24N9K4/M
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.21	10	Rexroth	4WRZ10W6-85-70 / 6EG24N9K4/M
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.21	16	Rexroth	4WRZ10W6-100-70 / 6EG24N9K4/M R1 42 01 05
			<p data-bbox="855 174 1490 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> <div data-bbox="700 2063 813 2145"> corus</div>

5.21	16	Rexroth	4WRZ10W6-150-70 / 6EG24N9K4/M R1 42 01 05
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.21	25	Rexroth	4WRZ10W6-220-70 / 6EG24N9K4/M R1 42 01 05
			<p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p>

5.21	25	Rexroth	4WRZ10W6-325-70 / 6EG24N9K4/M
------	----	---------	-------------------------------

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.21	32	Rexroth	4WRZ10W6-360-70 / 6EG24N9K4/M R1 42 01 05
			<p data-bbox="855 174 1490 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> <div data-bbox="700 2063 813 2145"> corus</div>

5.21	32	Rexroth	4WRZ10W6-520-70 / 6EG24N9K4/M
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.12

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Q (A) : Q (B) = 2:1

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol	DN	Manufacturer	Types
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.21	10	Rexroth	4WRZ 10 W8 85-70 / 6EG24N9K4/M R1 42 01 05
			<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>

5.21	16	Rexroth	4WRZ 16 W8 150-70 / 6EG24N9K4/M R1 42 01 05
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.21	25	Rexroth	<div> <div>4WRZ 25 W8 325-70 / 6EG24N9K4/M</div> <div>R1 42 01 05</div> </div> <div> <div>Hydraulics-directive for suppliers, erection</div> <div>companies, managers and users</div> <div>Part 5: Selection control valves / pressure valves</div> </div>
			<div>  </div>

5.21	32	Rexroth	4WRZ 32 W8 520-70 / 6EG24N9K4/M R1 42 01 05
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Valve types are without plugs.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type Rexroth plug 00074683 (grey) or 00074684 (black).

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.4. Pressure reducing valves, DN 10 to 32

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.4.1. Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Two way pressure reducing valves are for general application, for example as a source for
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

pilot pressure on manifoldblocks.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Three way pressure reducing valves are for maintaining a pressure in a part of the system,
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

by means of either reducing from P to A, or limiting from A to T. The total hysteresis is in
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

general smaller than can be achieved by separated reducing and pressure relief valves.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Due to interchangeability, the pressure and flow values are possibly different from the
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

manufacturer's catalogue data.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.4.2. Two way pressure reducing valve, manifold mounting

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

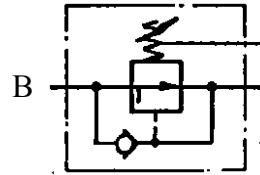
Figure 5.22

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05



as-directive for suppliers, erection
panies, managers and users
ction control valves / pressure valves

Technical specifications

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type of mounting: according ISO 4401

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Medium: mineral oil.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture and type numbers

R1 42 01 05


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.13

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	DN	Pressure (bar)	Manufac	PN bar	Flow in
				R1420105	
<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>					
					

		van	tot	turer	R1 42 01 05	l/min
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DR-10-5-50/100Y

10

100

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DR-10-5-50/315Y

10

315

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

XCG2V-6BW-10	10	5	70	Vickers	350	50
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

XCG2V-6FW-10		5	210			
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

XCG2V-6GW-10

5

330

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DR-20-5-50/100Y	25	10	100	Rexroth	315	200
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DR-20-5-50/315Y

10

315

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

XCG2V-8FW-10	25	5	210	Vickers	350	200
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

XCG2V-8GW-10

5

330

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DR-30-2-3x/100Y	32	10	100	Rexroth	315	300
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DR-30-2-3x/315Y

10

315

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

XCG-10-3F-21-UG	32	16	210	Vickers	210	280
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Note: in case of pilot operation, connection via Y port in manifold only.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.4.3. *Two way pressure reducing valve, sandwich type*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

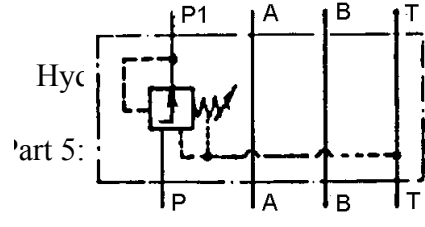
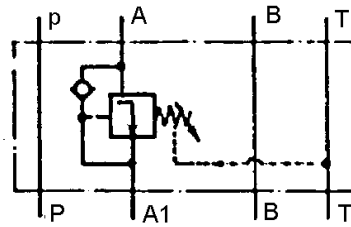
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.23

Figure 5.24
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



Hyc
part 5:

rs, erection
users
ressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacturer and type numbers

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.14

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol	Type	DN	Pressure range	Manufact	PN bar	Flow in
				RI 42 01 05 SR 14 20 05		Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves

ZDR-10VA-5-30/100Y

10

5 –1 00

R1 42 01 05
Rexroth

315

40

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.23.

DGMX2-5-PA-BW-B-30

10

8 - 100

Vickers

315

40

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

	DGMX2-5-PA-GW-B-30		8 - 315	R1 42 01 05		
	<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>					

5.24.	DGMX2-5-PP-BW-B-30	10	8 - 100	Vickers	315	40
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

	DGMX2-5-PP-GW-B-30		8 - 315	R1 42 01 05		
	<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>					

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.4.4. Three way pressure reducing valve, manifold mounting

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

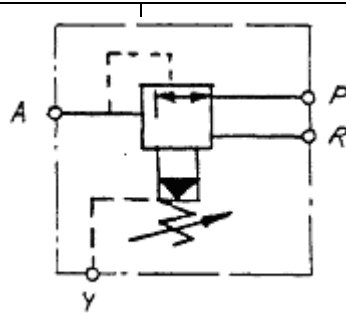
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.25

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05

active for suppliers, erection
s, managers and users
ontrol valves / pressure valves

Technical specifications

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type of mounting: according ISO 4401, see Technical Directive R1 42 01 02,
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

paragraph 2.7.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Medium: mineral oil

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.15

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	DN	Pressure range	Manufac	PN bar	Flow max.
<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>					
<p>R142 01 05</p>					

			bar	turer R1 42 01 05	l/min
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

3DR-10P5-60/210Y 00 M

0 - 210

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

3DR-16P5-50/100Y 00 M	16	0 - 100	Rexroth	315	150
		<div data-bbox="1086 141 1246 170" data-label="Text"> <p>R1 42 01 05</p> </div> <div data-bbox="855 174 1485 286" data-label="Text"> <p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> </div>			
		<div data-bbox="700 2063 813 2143" data-label="Page-Footer">  <p>corus</p> </div>			

3DR-16P5-50/210Y 00 M

0 - 210

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.5. Pressure reducing valves, proportional, three way

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.5.1. Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Proportional pressure reducing valves will be used for reducing of systems pressure from P
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

to A and limiting of the pressure from A to R. The valve is commonly used for pressure
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

control (force control).

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

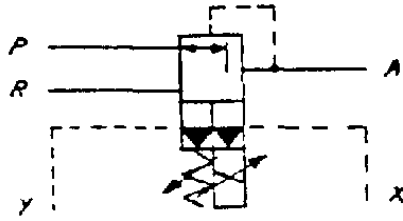
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.26

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



42 01 05
 ve for suppliers, erection
 nanagers and users
 rol valves / pressure valves

5.5.2. *Electrical connection*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

With a plug (ISO 4400) on the solenoid. Control with an amplifier card VT-3006-S30-R5.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Manufacturer Rexroth, built in according	Corus drawing 684.594 or 684.595. Deviation R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves
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only in exceptional cases.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.5.3. *Technical specifications*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Type of mounting according ISO 4401, with separate bores for X and Y.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Solenoid switches in oil.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Continuation operating 100%.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Voltage 0-24V=.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.5.4. *Manufacture and type number*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.16


R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacturer Rexroth	DN	Max. pressure bar
	R142 01 05	

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

3 DRE M 10P60/100 XY G24K4V	10	100
		<p data-bbox="1086 141 1249 170">R1 42 01 05</p> <p data-bbox="855 176 1481 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> <div data-bbox="700 2063 813 2143"> corus</div>


3 DRE M 10P60/200 XY G24K4V

10

200

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

3 DRE M 16P60/100 XY G24K4V	16	100
	<div data-bbox="1088 141 1248 174" data-label="Text"> R1 42 01 05 </div> <div data-bbox="855 174 1484 286" data-label="Text"> <p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> </div>	
	<div data-bbox="700 2058 813 2145" data-label="Page-Footer">  corus </div>	

3 DRE M 16P60/200 XY G24K4V

16

R1 42 01 05

200

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.6. Flow control valves (pressure compensated)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.6.1. Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Flow control valves will be used for keeping adjusted flow constant, independent of the
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

pressure involved.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.6.2. Flow control valves, manually operated, manifold mounting

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

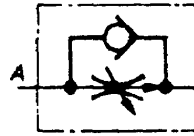
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.27

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05

cs-directive for suppliers, erection
panies, managers and users

Part 5: Selection control valves / pressure valves

Technical specifications

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.17

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacturer	Type	DN	P max.(bar)	Adjustable to (l/min)
			R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	

2FRM-5-30/3QB

5

210

R1 42 01 05

3

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

<div data-bbox="316 118 416 156" data-label="Text"> Rexroth </div>	<div data-bbox="620 118 847 152" data-label="Text"> 2FRM-10- 30/16LB </div>		<div data-bbox="930 118 967 152" data-label="Text"> 10 </div>	<div data-bbox="1074 118 1123 152" data-label="Text"> 315 </div> <div data-bbox="1074 138 1251 174" data-label="Text"> R1 42 01 05 </div>	<div data-bbox="1332 118 1377 152" data-label="Text"> 16 </div> <div data-bbox="855 174 1484 288" data-label="Text"> <p> Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves </p> </div>
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2FRM-10- 30/50LB

10

315

50

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

2FRM-16- 30/160LB

16

315

160

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Vickers	FCG-02-2300-50	10	250	35
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.7. Throttle/non-return valves and needle valves (not pressure compensated)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.7.1. Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Throttle valves are used for restriction of a flow. While no pressure compensation is

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

available, the speed trim is only globally possible. Only valves with a check valve will be
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

used.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.7.2. Throttle/non-return valves, internally threaded

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Manufacturer: Rexroth

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.28

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05

s-directive for suppliers, erection
panies, managers and users

Part 5: Selection control valves / pressure valves

Technical specifications

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.18

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Type	NW	Connection R"	P _{max} bar	Flow Max. l/min
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RT 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

MK-8G1.2/V	8	3/8"	315	20
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

MK-15G1.2/V	15		3/4"	315	60
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

MK-25G1.2/V	25	1 1/4"	315	125
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

MK-30G1.2/V	30	1 1/2"	315	200
<div>R1 42 01 05</div> <div>Hydraulics-directive for suppliers, erection companies, managers and users</div> <div>Part 5: Selection control valves / pressure valves</div>				
<div>  </div>				

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.7.3. *Throttle/non-return valves, manifold mounting*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.29

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05

-directive for suppliers, erection
panies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Parker Hannifin, PN 350/210

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.19

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

FS-200-S-10

6


350

10

20

RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

FS-400-S-10	8	350	20	40
<div> <div>RT 42 01 05</div> <div> Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves </div> </div>				
<div>  </div>				

FS-600-S-10

10

350

40

60

RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

FS-800-S-10	12	350	50	100
			<div data-bbox="1090 143 1246 174">R1 42 01 05</div> <div data-bbox="855 174 1487 286"> <p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p> </div>	

FS-1200-S-10

16

210

100

130

RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

FS-2000-S-10

25

210

250

400

RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Hydac, PN 350

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

These valves are interchangeable with valves of equal DN of Parker Hannifin.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.20

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DRV-6-1.0/0-P

6


350

10

20

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DRVP-8-1.0/0-P	8	350	20	40
<div>R1 42 01 05</div> <div>Hydraulics-directive for suppliers, erection companies, managers and users</div> <div>Part 5: Selection control valves / pressure valves</div>				
<div></div>				

DRV-10-1.0/0-P	10	350	40	60
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DRV-16-1.0/0-P	16	350	100	130
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DRV-25-1.0/0-P	25	350	250	400
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.7.4. Throttle/non-return valves, sandwich type

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbols according NEN 3348 (ISO 1219)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

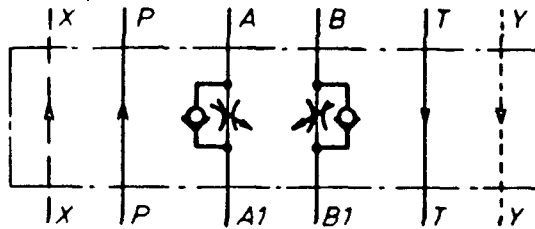
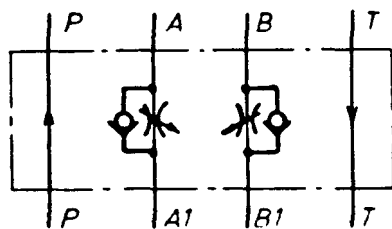
Figure 5.30

Figure 5.31

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



rs, erection
users
essure valves

Meter-in restriction

Meter-in restriction

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

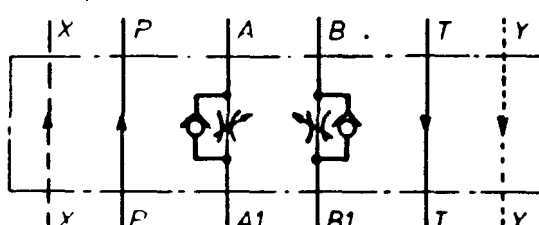
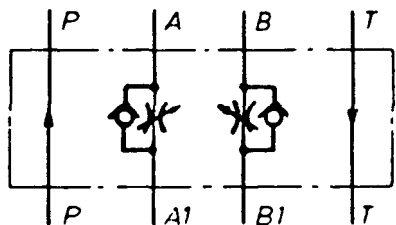
Figure 5.32

Figure 5.33

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



s, erection
isers
essure valves

Meter-out restriction

Meter-out restriction

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Technical specifications

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users


Part 5: Selection control valves / pressure valves

Scheme 5.21

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufac	Symbol	Type	DN	P _{max} (bar)	Adjustable to
			R1-42 01-05		
Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves					
					

turer

R1 42 01 05

(l/min)


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Rexroth	5.30 + 5.32	Z2FS-6-5-40/V		6	R1 42 01 05	25	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Vickers	5.30	DGMFN-3-X-A2W-B2W-40	6	250 R1 42 01 05	25
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

	5.32	DGMFN-3-Y-A2W-B2W-40	6	250	25
		R1 42 01 05			
		Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves			
					

	5.30	DGMFN-5-X-A3	W-B2W-30	10	315	50
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

	5.33	DGFN-06-50		25	210	250	
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.7.5. *Single needle valves*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

The use of single needle valves is not recommended. A fixed orifice is the better solution.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

If needle valves can not be avoided, a selection should be made from the catalogues of
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Parker Hannifin or Flutec (Hydac).

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.8. Counter balance valves for acceleration and deceleration

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.8.1. Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Valves of these types will be used for accelerating and decelerating movements considered
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

they can be used as a variable restriction.

The model with built-in check valve is also to be
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

used for keeping a cylinder position, or in combination with a proportional valve when
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

negative loads exist. This application is restricted. Consultation of the hydraulic engineer
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

involved is necessary.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.8.2. *Counter balance valves, manifold mounting*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Type of mounting: Sauer 4.4.06-S/

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

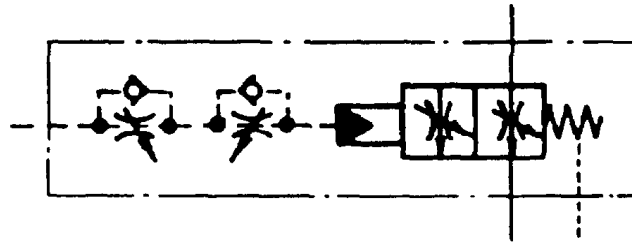
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.34

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



15
 applicers, erection
 s and users
 es / pressure valves

Manufacture: Sauer, PN 350

R1 42 01 05


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.22

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Opening	Manufacturer	PN bar	Flow max.
			R1 4201 05		
Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves					
					

		pressure ca. bar	R1 42 01 05	l/min
--	--	------------------	-------------	-------


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

BOY-20-P 1 F-10-DOB	10	Sauer	350	200
		<div data-bbox="1090 141 1246 172" data-label="Text"> <p>R1 42 01 05</p> </div> <div data-bbox="855 174 1485 286" data-label="Text"> <p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> </div>		

BOY-20-P 1 F-30-DOB	20	30		Sauer	350	200
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

BOY-30-P 1 F-10-DOB	10	Sauer	350	400
		<div data-bbox="1090 141 1246 170" data-label="Text"> <p>R1 42 01 05</p> </div> <div data-bbox="855 174 1484 286" data-label="Text"> <p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> </div> <div data-bbox="700 2063 813 2143" data-label="Page-Footer">  <p>corus</p> </div>		

BOY-30-P 1 F-30-DOB	30	30		Sauer	350	400
---------------------	----	----	--	-------	-----	-----

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.8.3. *Counter balance valves combined with check valve, manifold mounting*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Type of mounting: ISO 5781.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

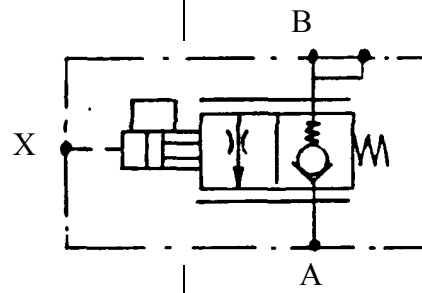
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.35

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



1 42 01 05
 tive for suppliers, erection
 managers and users
 ntrol valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Rexroth

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.23

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Pilot	Opening	Manufacturer	PN bar	Flow - max
------	----	-------	---------	--------------	--------	------------

<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>



		pressure	relation	R1 42 01 05	$\Delta p = 40 \text{ bar}$
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

		min. bar		R142.01.05	l/min.
--	--	----------	--	------------	--------

R1 42 01 05

1/min.

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



FD12PA-20/BOO

12

20 - 50

1:20

R1 42 01 05

80

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

FD25PA-20/BOO

25

20 - 50

1:20

R1 42 01 05

320

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Notes:

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

– These valves are in store without orifice.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

– Pilot pressure is influenced by pressure at port A!

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

- Take special care and attention when used in combination with proportional valves.

RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.9. Pressure control valves hydraulically operated

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.9.1. Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Pressure control valves, not being safety valves, will be used for various functions, such as
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

sequencing, counter balancing, unloading and back pressurizing. These pressure valves
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

have a different mounting face than pressure relief valves; Safety valves are described in R1-42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Corus Standard S1 42 01 01.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

External piloted valves can be used for all applications. External pilot means also external
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

drain connections. Internal piloted valves are only to be used as back pressure valve.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type of mounting according ISO 5781

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Medium: mineral oil.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.9.2. *Hydraulically operated pressure control valve with check valve , internal Y and X*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

connection

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

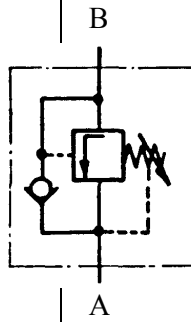
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.36

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05

ics-directive for suppliers, erection
companies, managers and users
rection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture and type numbers

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.24


R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Pressure range	Manufacturer	PN bar	Flow max.
------	----	----------------	--------------	--------	-----------

Hydraulics-directive for suppliers, erection companies, managers and users
Part 5: Selection control valves / pressure valves

<div data-bbox="312 114 681 165"></div> <div data-bbox="745 114 844 152">ca. bar</div> <div data-bbox="699 2056 815 2145"> corus</div>	<div data-bbox="1090 114 1246 174">R1 42 01 05</div> <div data-bbox="1353 114 1422 152">l/min</div> <div data-bbox="855 174 1482 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</div>
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DZ-20-2-5X/100

25

4 - 100

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

| DZ-20-2-5X/315

| 25

4 - 315

| Rexroth

| 315
R1 42 01 05

| 350

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-06-B1-23-UG

9 - 35

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

| RCG-06-D1-23-UG | 25 | 17,5 - 70

| Vickers | 210 | 115 |
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DZ-30-2-5X/100

4 - 100

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DZ-30-2-5X/100

32

4 - 315

Rexroth

315
R1 42 01 05

550

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-10-B1-22-UG

9 - 35

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-10-D1-22-UG

32

17,5 - 70

Vickers

210
R1 42 01 05

285

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-10-F1-22-UG	35 - 140	R1 42 01 05
	<p data-bbox="855 174 1481 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p>	

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.9.3. *Hydraulically operated pressure control valve with check valve , external Y and X*

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

connection

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

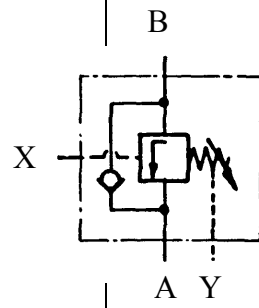
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.37

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05
 -directive for suppliers, erection
 anies, managers and users
 ion control valves / pressure valves

Manufacture and type numbers

R1 42 01 05


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.25

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves


Type	NW	Pressure range	Manufacturer	PN bar	Flow max.
				R1420105	
Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves					
					

ca. bar


R1 42 01 05

l/min

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DZ-20-2-5X/100 - XY	25	4 - 100	R1 42 01 05	Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves
				

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-06-X3-23-UG	0,7	2	R1 42 01 05
Hydraulics-directive for suppliers, erection companies, managers and users			
Part 5: Selection control valves / pressure valves			
			

RCG-06-B3-23-UG

25

9 - 35

Vickers

210

115

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-06-D3-23-UG

17,5 - 70

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DZ-30-2-5X/100 - XY

4 - 100

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-10-X3-22-UG

0,7 - 2

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-10-B3-22-UG

32

9 - 35

Vickers

210

285

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RCG-10-D3-22-UG

17,5 - 70

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.10. Check valves (non-return valves)

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.10.1. Application

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Check valves are used to force the flow in one direction. Valves for manifold mounting can
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

be used for all applications. The use of in line mounted valves only if manifold mounting is
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

not practical. Some valves are for low pressures only. The simple 24° taper valves (RHD)
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

too.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

The sandwich plate with wheatstone rectifier is usually combined with a flow control valve
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

to equalise flows in both directions.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Pilot operated check valves will be used for keeping an actuator (cylinder or hydraulic
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

motor) in a fixed position when the valve is not activated. Safety function. Sandwich type
RI 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

pilot operated check valves are not fit for use in combination with proportional valves. A
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

specified type based on cartridge technology available. Consult the hydraulic engineer.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.10.2. Check valves internally threaded

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

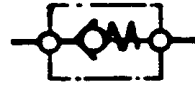
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.38

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05

ics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Rexroth

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.26

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Connection R"	Opening press. bar	P _{max.} in bar	Flow max.
			Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves		
			R142 01 05		

					R1 42 01 05	l/min
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-6A2.0	6	1/4"	1.5	315	10
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~~R1 42 01 05~~

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-8A1.0	8	3/8"		0.5	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-8A3.0	8	3/8"		3.0	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-10A0.0	10	1/2"		no spring	B1-12-01-05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



S-10A1.0	10	1/2"		0.5	³¹⁵ R1 42 01 05	40
----------	----	------	--	-----	--	----

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-10A2.0	10	1/2"		1.5	R1 42 01 05	
				<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>		

S-10A3.0	10	1/2"		3.0	R1 42 01 05	
----------	----	------	--	-----	-------------	--

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-15A1.0	15	3/4"		0.5	R1 42 01 05	
				<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>		

S-15A2.0	15	3/4"		1.5	315	70
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-20A1.0	20	1	"	0.5	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves


S-20A2.0	20	1	"		1.5	315 R1 42 01 05	100
					Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves		

S-20A3.0	20	1	"	3.0	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-25A2.0	25	1 1/4"		1.5	R1 42 01 05 315	150
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-25A3.0	25	1 1/4"		3.0	R1 42 01 05	
				<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>		
				 corus		

S-30A1.0	30	1 1/2"		0.5	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-30A2.0	30	1 1/2"	1.5	315 B1 42.01.05	200
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



S-30A3.0	30	1 1/2"		3.0	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Vickers

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.27


R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

			bar	bar	l/min
			R142 01 05		

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-800-UB	6	1/4"	0.35	R1 42 01 05
			Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	
				

C2-800-S3-UB	6	1/4"	3.5	210	10
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-805-UB	10	3/8"	0.35	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-805-S3-UB	10	3/8"	3.5	210	20
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R1420105

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



C2-805-S8-UB	10	3/8"	5.3	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-815-S3-UB	15	3/4"	3.5	210	40
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-820-UB	20	1	"	0.35	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-820-S8-UB	20	1	"	5.3	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-825-S3-UB	25	1 1/4"	3.5	210	100
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-830-UB	30	1 1/2"	0.35	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C2-830-S3-UB	30	1 1/2"	3.5	210	150
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~~R142 01 05~~

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



C2-830-S8-UB	30	1 1/2"	5.3	R1 42 01 05	
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.10.3. Check valves with flanges

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

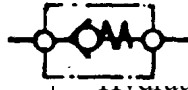
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.39

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type of mounting: flanges according Technical Directive R1 42 01 08, paragraph 8.14.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Manufacture: Rexroth

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.28

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

		pipe ext. ø mm	pressure bar	R1 42 01 05	l/min
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-62F1-10	62	76,1	0,5	R1 42 01 05 ³¹⁵	900
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Vickers

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves


Scheme 5.29

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Flange connection	Opening R1	P _{max.} in	Flow max.
<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>					

		pipe ext. ø mm	pressure bar	bar	l/min
			R1 42 01 05		
Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves					
					

DF-10P1-16-5-20	50	60,3	<div data-bbox="922 114 1321 159"> <div data-bbox="1002 114 1054 159">0,35</div> <div data-bbox="1082 114 1252 159">R1 42 01 05</div> <div data-bbox="1204 114 1252 159">210</div> <div data-bbox="1385 114 1437 159">500</div> </div> <div data-bbox="853 159 1485 293"> <div data-bbox="890 159 1449 248"> Hydraulics-directive for suppliers, erection companies, managers and users </div> <div data-bbox="853 248 1485 293"> Part 5: Selection control valves / pressure valves </div> </div>
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| DF-10P1-16-65-20 | 50 | 60,3

| 4,6 | 210 | 500

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DF-10P1-24-5-20	80	88,9	<div data-bbox="922 114 1503 152"> <div>0,35</div> <div>210</div> <div>1200</div> </div> <div data-bbox="1090 136 1249 174">R1 42 01 05</div> <div data-bbox="855 174 1484 286"> Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves </div>
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DF-10P1-24-65-20	80	88,9	4,6	210	1200
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Ubel/Gestra Disco, PN 25

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Only for low pressure pipes.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Fixing in such a way that if other components must be changed the check valve will be	R1 42 01 05
	Hydraulics-directive for suppliers, erection companies, managers and users
	Part 5: Selection control valves / pressure valves

kept closed.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.30

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Flange connection pipe	Opening pressure	Material
			R142 01 05	Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves


		ext. ø mm	bar	R142 01 05
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RK 46	50	60,3	0,18	C- x 10 CR13
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R1 42 01 05


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RK 46	65	76,1	0,18	C- x 10 CR13
			R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	
				

RK 56	80	88,9	0,18	GS. C - 25
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~~R1 42 01 05~~


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RK 56	100	114,8	0,18	GS. C - 25
			R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	
				

RK 56	150	168,3	0,18	GS. C - 25
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~~R1 42 01 05~~

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RK 56	200	219,1	0,18	GS. C - 25
			R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	
				

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacturer: Rexroth PN16.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.31

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

		ø ext	mm.	pressure	L/min
				RI 42 01 05	

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

				in bar	R1 42 01 05
			<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>		

RS320/40-3.0	40	48,3	3	150
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RS320/40-3.0	65	76,1	3	400
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RS320/40-3.0	100	114,8	³ R1 42 01 05	700
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.10.4. Check valves with 24° taper

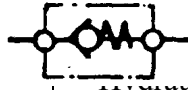
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.40

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

This type check valves is only meant for T- and drain-pipes. The pressure fall varies
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

strongly with the volume flow.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: E.O.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 32

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Type	For pipe external ø mm	PN 42 01 03	Opening pressure bar
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Hydraulics-directive for suppliers, erection companies, managers and users
Part 5: Selection control valves / pressure valves

RHD 12 PS

12

400

1,0

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RHD 20 PS

20

400

1,0

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

RHD 30 PS

30

250

1,0

~~R1 42 01 05~~

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.10.5. Check valves, manifold mounting

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

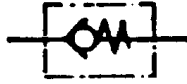
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.41

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05

lics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Rexroth

R1 42 01 05


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.33

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Opening pressure bar	P max. in bar	Flow max. l/min
			R1420105	
			Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	
				

S-10P0.1

10

no spring

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-10P1.1	10	0,5	<div> <div>315</div> <div>R1 42 01 05</div> </div> <div>50</div> <div> Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves </div>
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S-10P2.1

10

3,0

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-20P1.1	20	0,5	315	120
<div> <div>R1 42 01 05</div> <div> Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves </div> </div>				
<div>  </div>				

S-20P3.1	20	3,0		315	120
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

S-30P3.1	30	3,0		315	250
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Vickers

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.34

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Type	NW	Opening pressure bar	P max. in bar	Flow max. l/min
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RI 42 01 05

Hydraulics-directive for suppliers, erection companies, managers and users
Part 5: Selection control valves / pressure valves

C5GV-815	20	0,35	<div>R1 42 01 05</div> <div> Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves </div>
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C5GV-815-S3

20

3,5

350

R1 42 01 05

120

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C5GV-815-S8	20	5,3	<div>R1 42 01 05</div> <div>Hydraulics-directive for suppliers, erection companies, managers and users</div> <div>Part 5: Selection control valves / pressure valves</div>
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C5GV-825	32	0,35		
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

C5GV-825-S8	32	5,3		R1 42 01 05
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.10.6. Check valves, wheatstone rectifier, manifold mounting

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

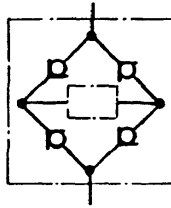
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.42

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05
cs-directive for suppliers, erection
panies, managers and users
ction control valves / pressure valves

Manufacture: Rexroth, PN 315

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.35

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	P max. bar R1 42 01 05	Flow max. l/min.
		Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	

Z4S-10-30

10

315

50

~~R1 42 01 05~~

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.10.7. Pilot operated check valves, manifold mounting

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbols according NEN 3348 (ISO 1219)

R1 42 01 05

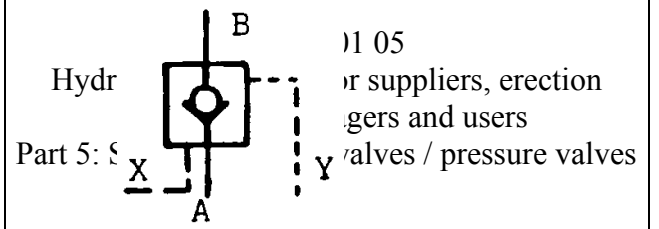
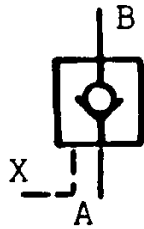
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.43

Figure 5.44

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Rexroth, PN 315

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.36

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol	Type	NW	Openings pressure	Flow max.
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R1420105

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

			as	check valve (bar)	l/min
					R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.44	SL-10P-A1-40	10	3,0	80
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.43	SV-20P-A1-40	25	2,5	250
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.44	SL-20P-A1-40	25	2,5	250
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.43	SV-30P-A1-40	32	2,5	400
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.44	SL-30P-A1-40	32	2,5	400
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.43	SV-52P-A1-10	52	1,3	700
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.44	SL-52P-A1-10	52		1,3	700
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacturer: Vickers PN 350

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.37

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Symbol	Type	NW	Openings pressure	Flow max.
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R1420105

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

			as	check valve (bar)	l/min
					R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.43	PCGV-6-AD-10	10	<div data-bbox="938 114 959 152">2</div> <div data-bbox="1174 114 1217 152">150</div> <div data-bbox="1086 136 1249 174">R1 42 01 05</div> <div data-bbox="853 174 1495 291"> <p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p> </div>
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5.43	PCGV-8-AD-10	25	2	250
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.44	PCGV-8-AD-1-10	25	2	250
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.10.8. Pilot operated check valves, sandwich type

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Symbol according NEN 3348 (ISO 1219)

R1 42 01 05

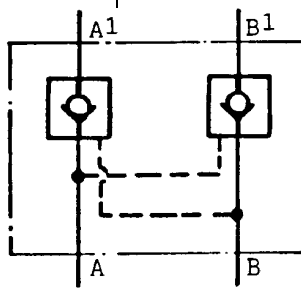
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.45

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



R1 42 01 05
 irective for suppliers, erection
 nies, managers and users
 n control valves / pressure valves

Manufacture: Rexroth

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.38

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Opening pressure as check valve	P max.	Flow max.
------	----	---------------------------------	--------	-----------

R1420105

Hydraulics-directive for suppliers, erection companies, managers and users
Part 5: Selection control valves / pressure valves

			(bar)	R142.0105 bar	l/min.
--	--	--	-------	---------------	--------

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture: Vickers

R1 42 01 05


Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Scheme 5.39

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type	NW	Opening pressure as	P max. bar	Flow max.
			R1 42 01 05	
Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves				
				

		check valve (bar)	R1 42 01 05	l/min.
--	--	-------------------	-------------	--------

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

<div data-bbox="311 114 735 152"><div>DGMPC-5-ABK-BAK-30</div><div>10</div></div>	<div data-bbox="853 114 1490 286"><div><div>1,0</div><div><div>315</div><div>R1 42 01 05</div></div><div>50</div></div><div>Hydraulics-directive for suppliers, erection companies, managers and users</div><div>Part 5: Selection control valves / pressure valves</div></div>
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DGPC-06-DADB-51	25		2,1	210	250
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Note: These valves are not suitable in combination with proportional valves.

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Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.11. Cartridge valves and accessories

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.11.1. Application

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companies, managers and users

Part 5: Selection control valves / pressure valves

Cartridges valves may be used in special applications, i.e.:

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Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

- when large flows are present ($> 250 \text{ l/min}$);

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companies, managers and users
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- when leakfree closing is achieved (from B to A);

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companies, managers and users

Part 5: Selection control valves / pressure valves

– when fast switching is achieved.

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companies, managers and users
Part 5: Selection control valves / pressure valves

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Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Complicated diagrams with cartridge used for multiple functions should be avoided.

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companies, managers and users

Part 5: Selection control valves / pressure valves

Cartridge mounting in separate modules is preferred. Covers facing up are preferred too.
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Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Cartridge dimensions as per DIN 24342, see Technical Directive R1 42 01 02,
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

paragraph 2.7.

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companies, managers and users

Part 5: Selection control valves / pressure valves

Pilot valves (DN 6) preferable to be mounted	separate. Valves should have a damping R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves
--	--

nose. Orifices in manifold.

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companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.11.2. Cartridge valves, modules and covers

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Full symbol as built-in (according DIN 24342)

R1 42 01 05

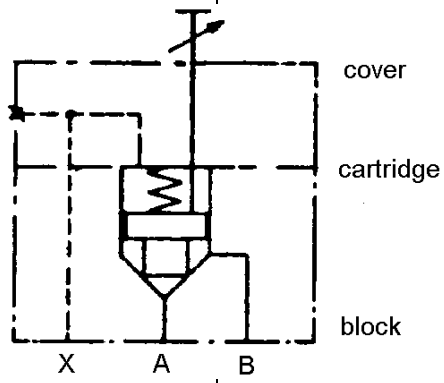
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.46

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves



2 01 05
 e for suppliers, erection
 anagers and users
 ol valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Technical specifications

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

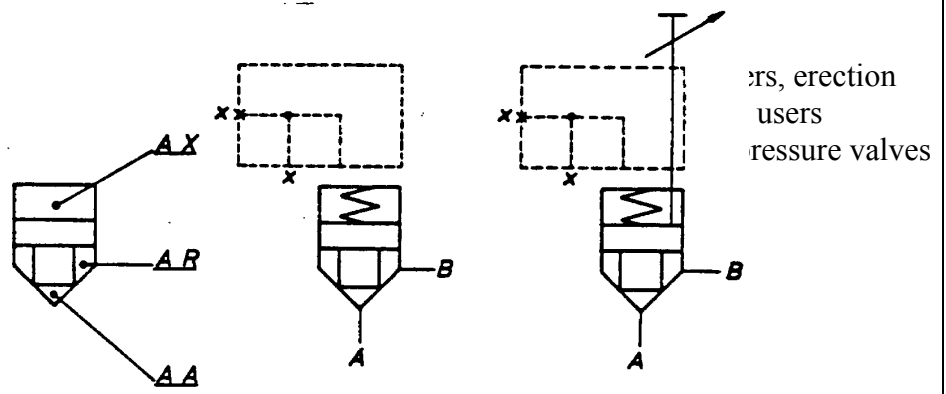
Part 5: Selection control valves / pressure valves

Figure 5.47

Figure 5.48

Figure 5.49
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Preferable use the mentioned area ratios. The character of the cartridge is dependent of the
R1 42 01 05
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

ratios of the areas.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

AA = 100%

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companies, managers and users
Part 5: Selection control valves / pressure valves

AR = 50%

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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

AX = 150%

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companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Opening pressure 1 bar.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Manufacture Rexroth

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.40

R1 42 01 05


Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type		NW	Q _{max.} l/min.
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R1 42 01 85

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LC16A10D-70		16	120
		<div data-bbox="1090 141 1249 174">R1 42 01 05</div> <div data-bbox="855 174 1484 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</div>	
		<div data-bbox="700 2060 813 2145"> corus</div>	

LC25A10D-70		25	350
		R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	

LC32A10D-70		32	R1 42 01 05 600
		<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>	

LC40A10D-70		40	1000
		<div data-bbox="1013 141 1173 174" data-label="Text"> <p>R1 42 01 05</p> </div> <div data-bbox="778 174 1407 286" data-label="Text"> <p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> </div>	

LC63A10D-70

63

~~R1 42 01 05~~

2100

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LC80A10D-70		80	R1 42 01 05 3500
	<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>		

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.11.3. Modules

R1 42 01 05

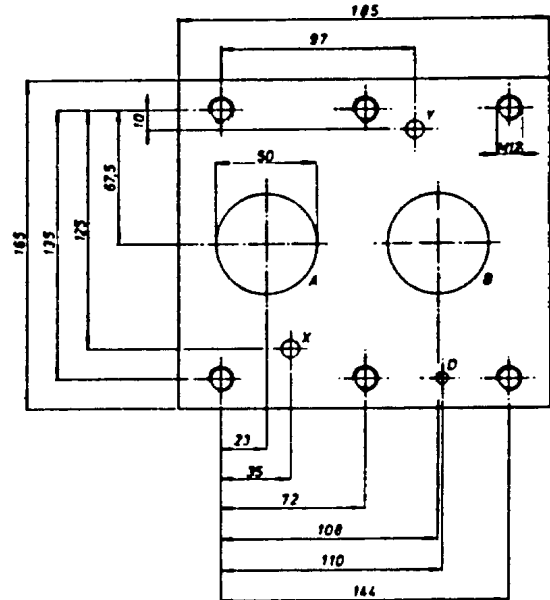
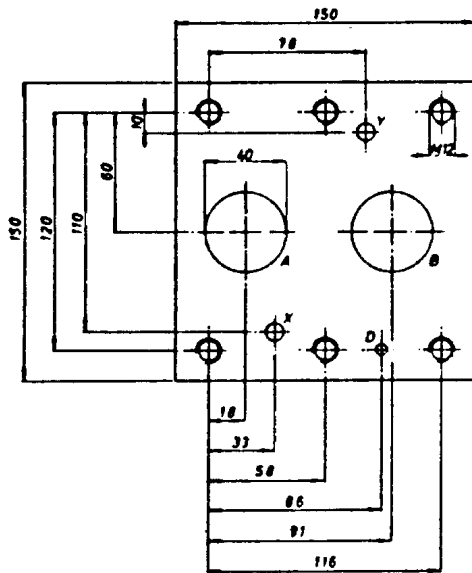
Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

Figure 5.50

Figure 5.51

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



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– PN 315

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

– medium: mineral oil.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.41

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Cartridge size		Mounting face R142 01 05
		<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>

DN 16

DN 25

DIN 24340

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DN 25		DN 32	DIN 24340
		<div data-bbox="1090 141 1249 174" data-label="Text"> <p>R1 42 01 05</p> </div> <div data-bbox="855 174 1484 286" data-label="Text"> <p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> </div>	

DN 32		DN 40	Figuur 5.50.
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

DN 40		DN 50	Figuur 5.51. R1 42 01 05
	Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves		

5.11.4. Closed covers with and without stroke limiters

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

For symbols see page 938.

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.42


R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type		DN	R1 42 01 05 Limiter
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves


LFA16D70/F	16	No
	R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	
		

LFA16H3-70/F		16	Yes
		<p data-bbox="1011 141 1171 174">R1 42 01 05</p> <p data-bbox="778 174 1407 286">Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p>	

LFA25D70/F		25	R1 42 01 05 No
		<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>	

LFA25H3-70/F		25	R1 42 01 05 Yes
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LFA32D70/F		32	No
		<div data-bbox="1088 141 1248 174" data-label="Text"> <p>R1 42 01 05</p> </div> <div data-bbox="855 174 1484 286" data-label="Text"> <p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> </div>	
		<div data-bbox="699 2056 813 2145" data-label="Page-Footer">  <p>corus</p> </div>	

LFA32H3-70/F		32	R1 42 01 05 Yes
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LFA40D70/F		40	R1 42 01 05 No
		<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>	

LFA40H3-70/F		40	Yes
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LFA50D70/F		50	No
		R1 42 01 05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	


LFA50H3-70/F		50	R1 42 01 05 Yes
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LFA63D70/F		63	R1 42 01 05 No
		<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>	

LFA63H3-70/F		63	R1 42 01 05 Yes
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Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LFA80D70/F		80	No
		<div data-bbox="1090 141 1249 174" data-label="Text"> <p>R1 42 01 05</p> </div> <div data-bbox="855 174 1484 286" data-label="Text"> <p>Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves</p> </div> <div data-bbox="700 2058 813 2145" data-label="Page-Footer">  <p>corus</p> </div>	

LFA80H3-70/F		80	Yes
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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Note: Stroke limiters with key kept up to DN 40, for larger dimensions with hexagonal nut.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

5.11.5. Covers for cartridges suitable for valve mounting

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

These can be equipped with a DN 6 or DN 10 spool valve or seat valve, see paragraph 5.1.
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

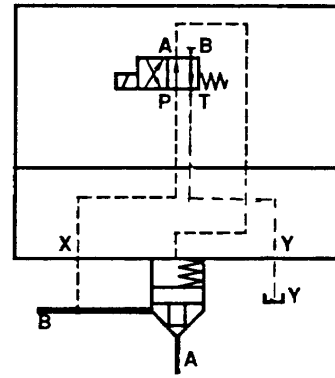
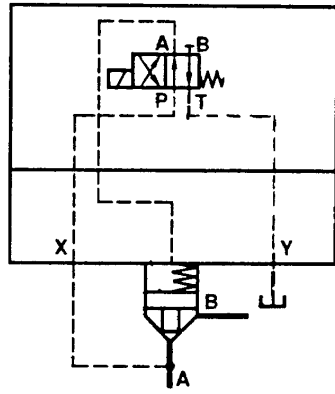
Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Figure 5.52

Figure 5.53
R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves



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R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Attention: with a deenergized control valve the connection is only closed in one direction!
R1 42 01 05

Hydraulics-directive for suppliers, erection
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Part 5: Selection control valves / pressure valves

In the other direction the cartridge has a return valve function.

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Hydraulics-directive for suppliers, erection
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Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Scheme 5.43

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

Type		Cover DN	Pilot valve DN
		R1 42 01-05 Hydraulics-directive for suppliers, erection companies, managers and users Part 5: Selection control valves / pressure valves	

LFA25WEA70/

25

6

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LFA32WEA70/		32	R1 42 01 05 6
		<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>	

LFA40WEA70/

40

R1 42 01 05

6

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LFA50WEA70/		50	R1 42 01 05 10
		<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>	

LFA63WEA70/

63

R1 42 01 05

10

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

LFA80WEA70/		80	R1 42 01 05 10
		<p>Hydraulics-directive for suppliers, erection companies, managers and users</p> <p>Part 5: Selection control valves / pressure valves</p>	

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

5.12. References

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

In this Technical Directive reference is made to

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

NEN 3348

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

DIN 24342

R1 42 01 05

Hydraulics-directive for suppliers, erection
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Part 5: Selection control valves / pressure valves

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users

Part 5: Selection control valves / pressure valves

ISO

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

1219

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

4400

R1 42 01 05

Hydraulics-directive for suppliers, erection
companies, managers and users
Part 5: Selection control valves / pressure valves

4401

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Hydraulics-directive for suppliers, erection
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Part 5: Selection control valves / pressure valves

5781

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Technical Directives

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5.13. Explanation

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Version 1.0:

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none.

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Version 1.1:

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Version 2.0:

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Total document changed.

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