

Characteristics

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

A vent function with a solenoid operated directional valve is available for circulation at minimum pressure.

Features

- Pilot operated with manual adjustment
- 2 interfaces
 - R4V Subplate ISO 6264 (DIN 24340 Form D) with VV01 vent valve
 - R6V Subplate ISO 6264 (DIN 24340 Form E) with Cetop 03 vent valve
- 3 pressure stages
- 3 adjustment modes
 - hand knob
 - acorn nut with lead seal
 - key lock
- Remote control via port X

Function:

Series R4V/R6V

System pressure in port P is applied via the X gallery to the spring loaded cone in the pilot head. The pilot head controls the pressure in the Z area on top of the main cartridge which is additionally kept close by the main spring.

If the pilot pressure exceeds the setting pressure the pilot cone opens and thus limits the pilot pressure.

When the system pressure exceeds the pilot pressure plus the spring force, the main cartridge opens to port T and limits the pressure in port P to the adjusted level.

Series R4V/R6V with vent function

Additionally to the relief function of series R, a solenoid operated vent valve connects the Z area to tank. This allows oil circulation from P to T at minimum pressure drop. The vent valve can either be a standard Cetop 03 valves (mounting form E) or a sandwich unit (mounting form D). For both types the vent position can be either at the energized or de-energized solenoid.

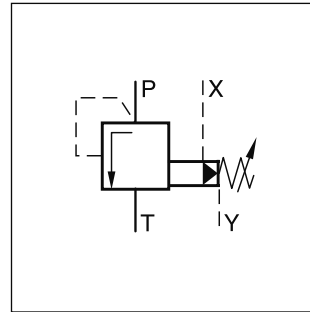
**Pilot Operated Pressure Relief Valves
Series R4V / R6V**



R6V06

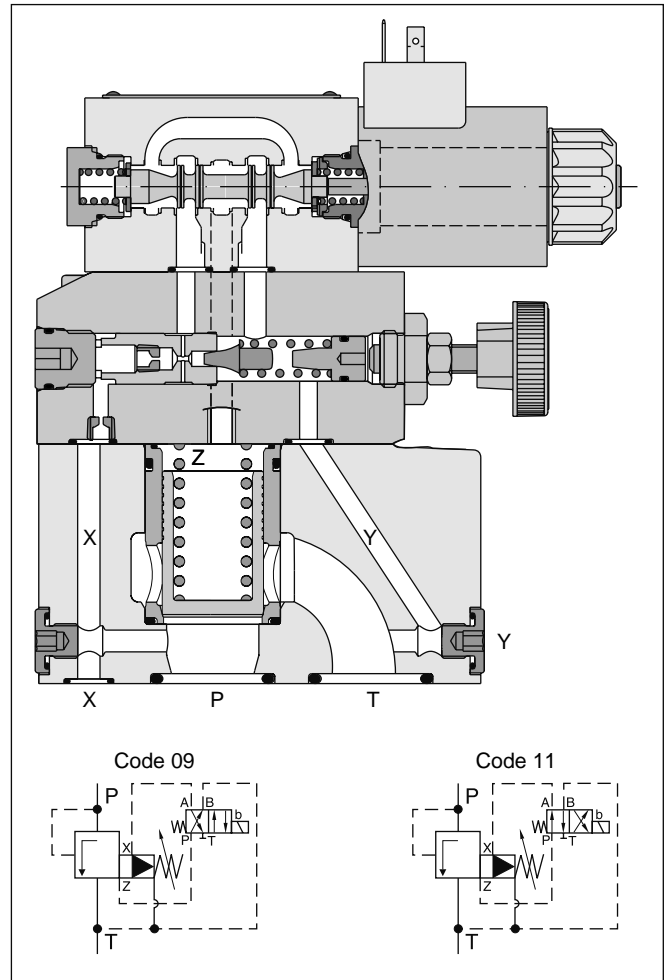


R6V06 with vent valve

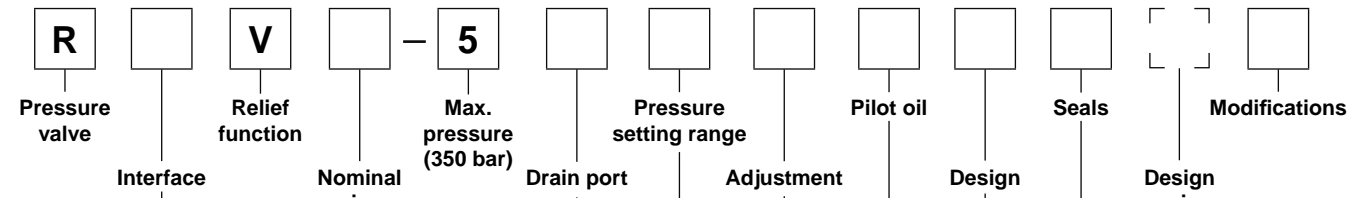


R4V06 with vent valve

R6V06 with vent valve



4



Code	Interface	
4	Subplate mounting ISO 6264	
6		

Code	Nominal size
03	NG10
06	NG25
10	NG32

Code	Interface	Drain port
3	R4V	Y port in mounting pattern
9	R6V	Y-port = G 1/8"

Code	Pressure stages ¹⁾
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

¹⁾ Other pressure stages on request.

Code	Seals
1	NBR
5	FPM

Code	Design
A	R4V
B	R6V

Pilot oil	
Code	Drain line
0	internal
1 ²⁾	external from subplate
2 ³⁾	external from valve body (Y-port)

²⁾ R4V only
³⁾ R6V only

Code	Adjustment
1	Hand knob 32mm dia. (Standard)
3	Acorn nut with lead seal
4	Key lock

R		V		- 5																
Pressure valve		Relief function		Max. pressure (350 bar)		Pressure setting range		Pilot oil		Solenoid voltage		Seals		Design		Design series (not required for ordering)				
	Interface		Nominal size		Drain port		Adjustment		Vent valve function											

Code	Interface	
4	Subplate mounting ISO 6264	
6		

Code	Nominal size
03	NG10
06	NG25
10	NG32

Code	Interface	Drain port
3	R4V	Y port in mounting pattern
9	R6V	Y-port = G 1/8"

Code	Pressure stages ¹⁾
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

¹⁾ Other pressure stages on request.

Code	Adjustment
1	Hand knob (Standard)
3	Acorn nut with lead seal
4	Key lock

Code	Voltage
G0R	12V =
G0Q	24V =
GAR	98V =
GAG	205V =
W30	110V / 50Hz 120V / 60Hz
W31	230V / 50Hz 240V / 60Hz

Code	Design
A	R4V
B	R6V

Code	Seals
1	NBR
5	FPM

Code	Modification
031 ²⁾	Vent function with slow unloading
VFM ³⁾	Vent function with slow unloading

Code	Vent valve
09	Solenoid not activ. unpress. circulation
11	Solenoid activated unpress. circulation

Pilot oil	
Code	Drain line
0	internal
1 ²⁾	external from subplate
2 ³⁾	external from valve body (Y-port)

²⁾ R4V only
³⁾ R6V only



R4V/R6V

General				
Nominal size		10	25	32
Interface		Subplate mounting acc. ISO 6264 (DIN 24340)		
Mounting position		as desired, horizontal mounting preferred		
Ambient temperature	[°C]	-20...+80		
MTTF _D value	[years]	75		
Weight	Series R6V [kg] Series R4V [kg]	4.5 2.7	5.8 4.5	7.8 6.0
Hydraulic				
Max. operating pressure	[bar]	Ports P (or A) and X up to 350, Port T (or B) and Y 30		
Pressure stages	[bar]	105, 210, 350		
Nominal flow	[l/min]	250	500	650
Fluid		Hydraulic oil according to DIN 51524 ... 51525		
Viscosity, recommended	[cSt] / [mm ² /s]	30 ... 50		
permitted	[cSt] / [mm ² /s]	20 ... 380		
Fluid temperature	[°C]	-20 ... +70		
Filtration		ISO 4406 - (1999) ; 18/16/13 (acc. NAS 1638:7)		

R4V/R6V with vent function

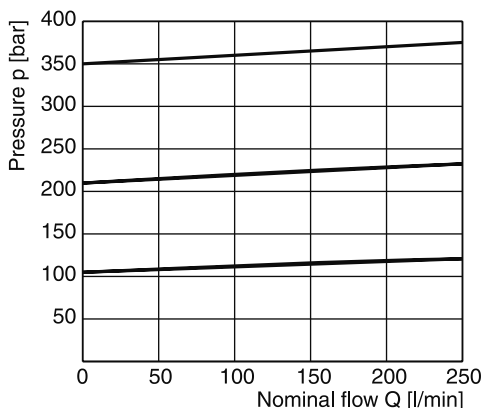
General							
Nominal size		10	25	32			
Interface		Subplate mounting acc. ISO 6264 (DIN 24340)					
Mounting position		as desired, horizontal mounting preferred					
Ambient temperature	[°C]	-20...+80					
MTTF _D value	[years]	75					
Weight	Series R6V [kg] Series R4V [kg]	5.9 4.4	7.2 6.2	9.2 7.7			
Hydraulic							
Max. operating pressure	[bar]	Ports P (or A) and X up to 350, port T (or B) and Y 30					
Pressure stages	[bar]	105, 210, 350					
Nominal flow	[l/min]	250	500	650			
Fluid		Hydraulic oil according to DIN 51524 ... 51525					
Viscosity, recommended	[cSt] / [mm ² /s]	30 ... 50					
permitted	[cSt] / [mm ² /s]	20 ... 380					
Fluid temperature	[°C]	-20 ... +70					
Filtration		ISO 4406 - (1999) ; 18/16/13 (acc. NAS 1638:7)					
Electrical							
Duty ratio	[%]	100 ED; CAUTION: coil temperature up to 180 °C possible					
Max. switching frequency	[1/h]	16000 (DC), 7200 (AC)					
Protection class		IP 65 in accordance with EN 60529 (with correctly mounted plug-in connector)					
Code		G0R	G0Q	GAR	GAG	W30	W31
Supply voltage	[V]	12V =	24V =	98V =	205V =	110V/50Hz 120V/60Hz	230V/50Hz 240V/60Hz
Tolerance supply voltage	[%]	+5...-10	+5...-10	+5...-10	+5...-10	+5...-10	+5...-10
Power consumption	hold [W] in rush [W]	31 31	31 31	31 31	31 31	78 264	78 264
Solenoid connection		Connector as per EN 175301-803					
Wiring min.	[mm ²]	3 x 1.5 recommended					
Wiring length max.	[m]	50 recommended					



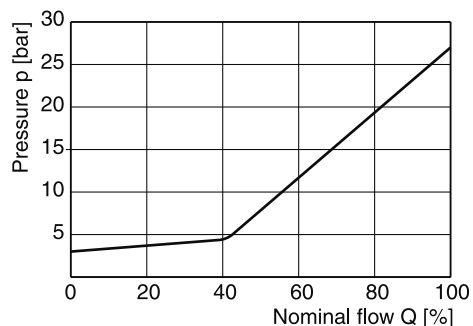
4-30				Parker Hannifin Corporation	
G0R	G0Q	GAR	GAG	W30	W31
12V =	24V =	98V =	205V =	110V/50Hz 120V/60Hz	230V/50Hz 240V/60Hz

p/Q performance curves ¹⁾

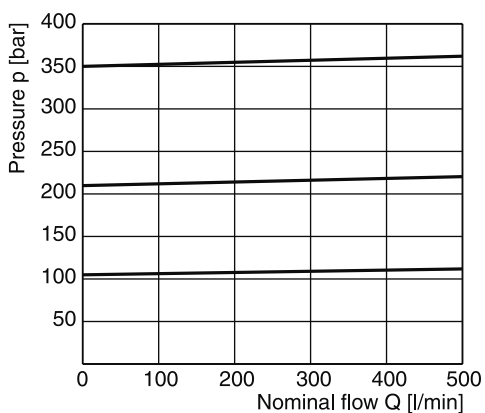
NG10



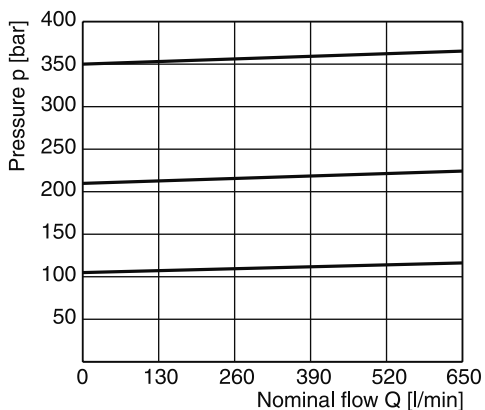
Minimum pressure curve



NG25



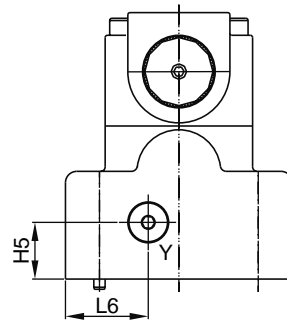
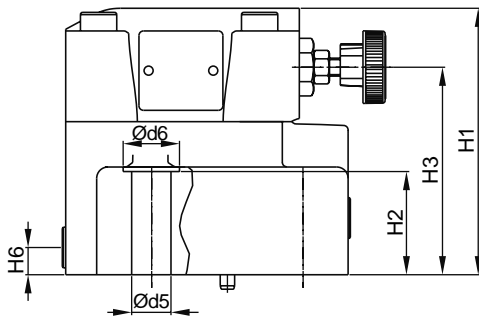
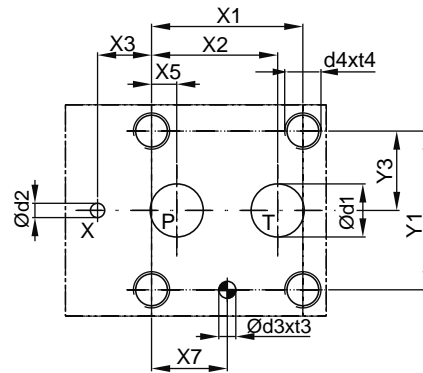
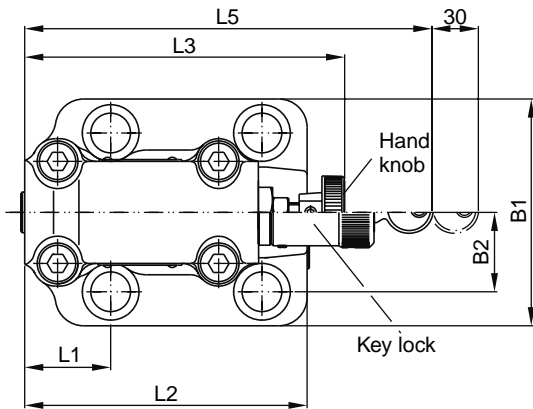
NG32



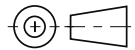
1) The performance curves are measured with external drain.
 For internal drain the tank pressure has to be added to curve.

All characteristic curves measured with HLP46 at 50°C.

R6V



Y: external drain port G 1/8"



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

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

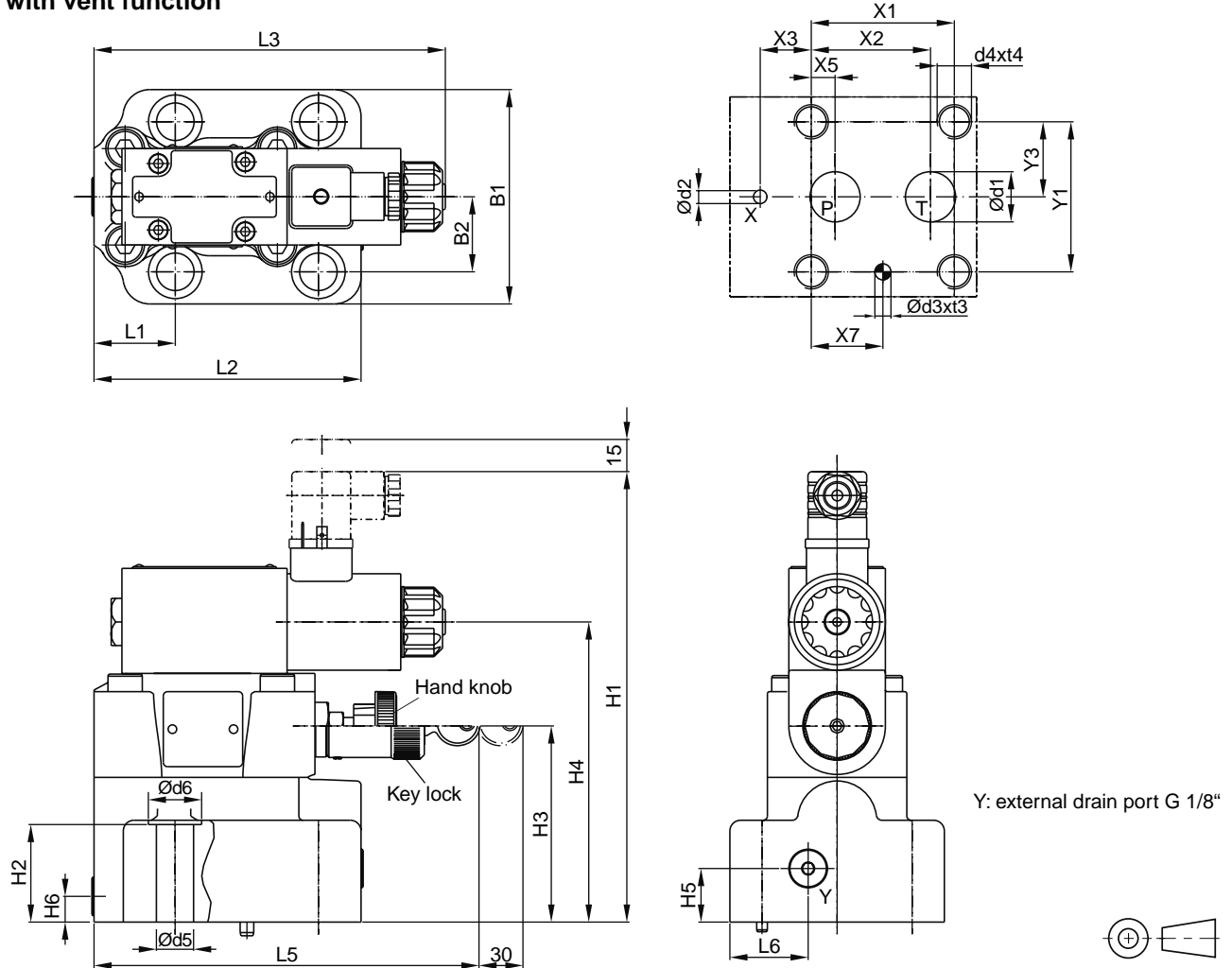
NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-09-*97	80	26.9	114	27	88	-	20.5	25	52.5	118.5	141	-	180	29.5
25	6264-08-13-*97	100	35	117.5	45.5	91.5	-	25	12	37.9	124.5	141	-	180	36.5
32	6264-10-17-*97	120	41.3	123	52	97	-	26.5	13.5	45	153	141	-	180	46.5

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

1) Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	6264-06-09-*97	BK 494	4xM12 x 45 DIN 912 12.9	108 Nm ±15%	S26-96396-0	S26-96396-5	
25	6264-08-13-*97	BK 366	4xM16 x 70 DIN 912 12.9	264 Nm ±15%	S26-98589-0	S26-98589-5	
32	6264-10-17-*97	BK 507	4xM18 x 75 DIN 912 12.9	398 Nm ±15%	S26-96392-0	S26-96392-5	

R6V with vent function



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

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

NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-09-*97	80	26.9	206	27	88	136.5	25	12	52.5	118.5	163.8	-	180	36.5
25	6264-08-13-*97	100	35	210	45.5	91.5	140	25	12	37.9	124.5	163.8	-	180	36.5
32	6264-10-17-*97	120	41.3	215.5	52	97	145.5	25	12	45	153	163.8	-	180	36.5

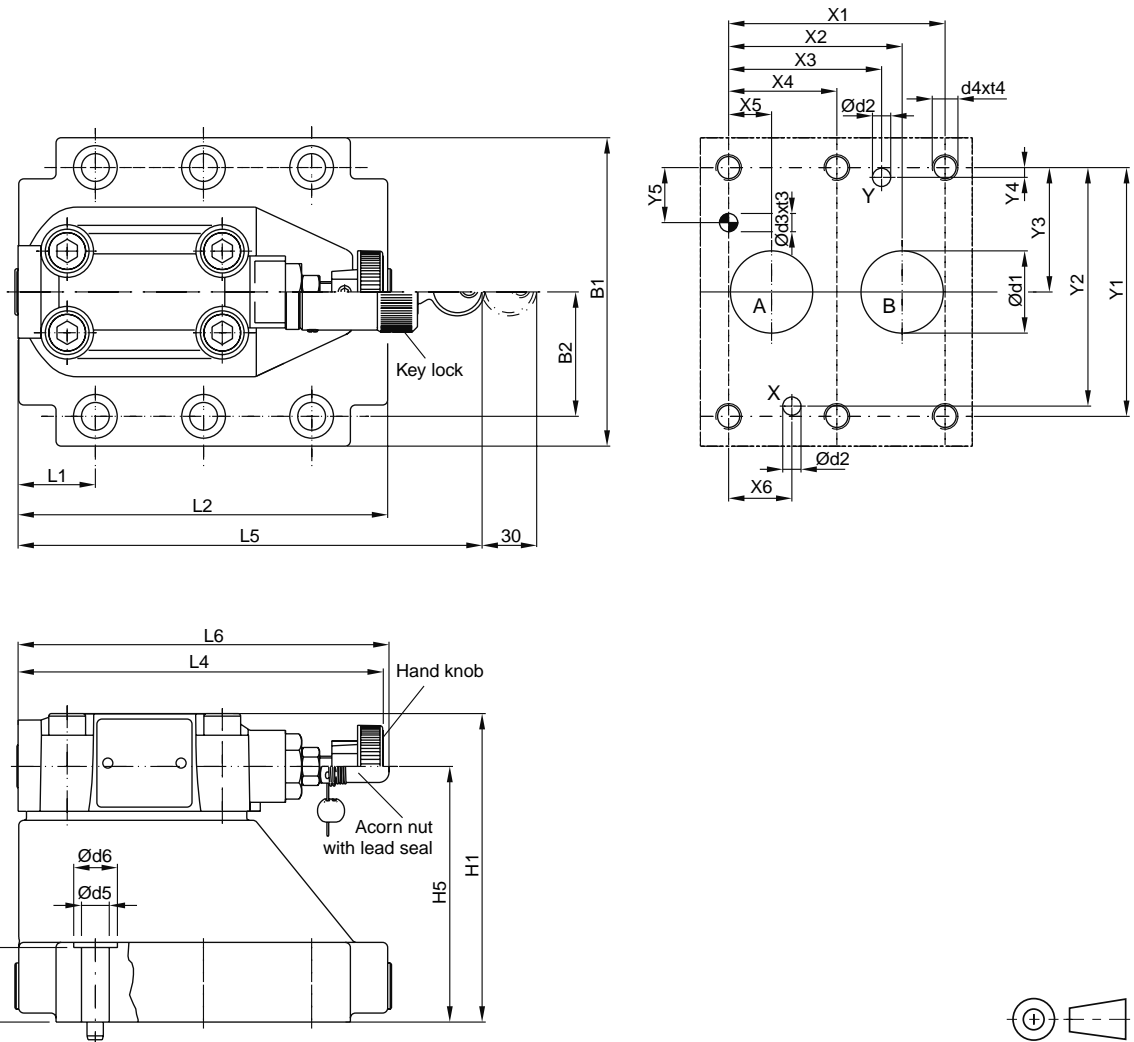
NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate ¹⁾
10	6264-06-09-*97	14.7	4.8	7.5	10	M12	20	13.5	20	SPP 3R6B 910
25	6264-08-13-*97	23.4	6.3	7.5	10	M16	27	17.5	25	SPP 6R10B 910
32	6264-10-17-*97	32	6.3	7.5	10	M18	28	20	30	SPP 10R12B 910

¹⁾ Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	6264-06-09-*97	BK 494	4xM12 x 45 DIN 912 12.9	108 Nm $\pm 15\%$	S26-96396-0	S26-96396-5	
25	6264-08-13-*97	BK 366	4xM16 x 70 DIN 912 12.9	264 Nm $\pm 15\%$	S26-98589-0	S26-98589-5	
32	6264-10-17-*97	BK 507	4xM18 x 75 DIN 912 12.9	398 Nm $\pm 15\%$	S26-96392-0	S26-96392-5	

R4V

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

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

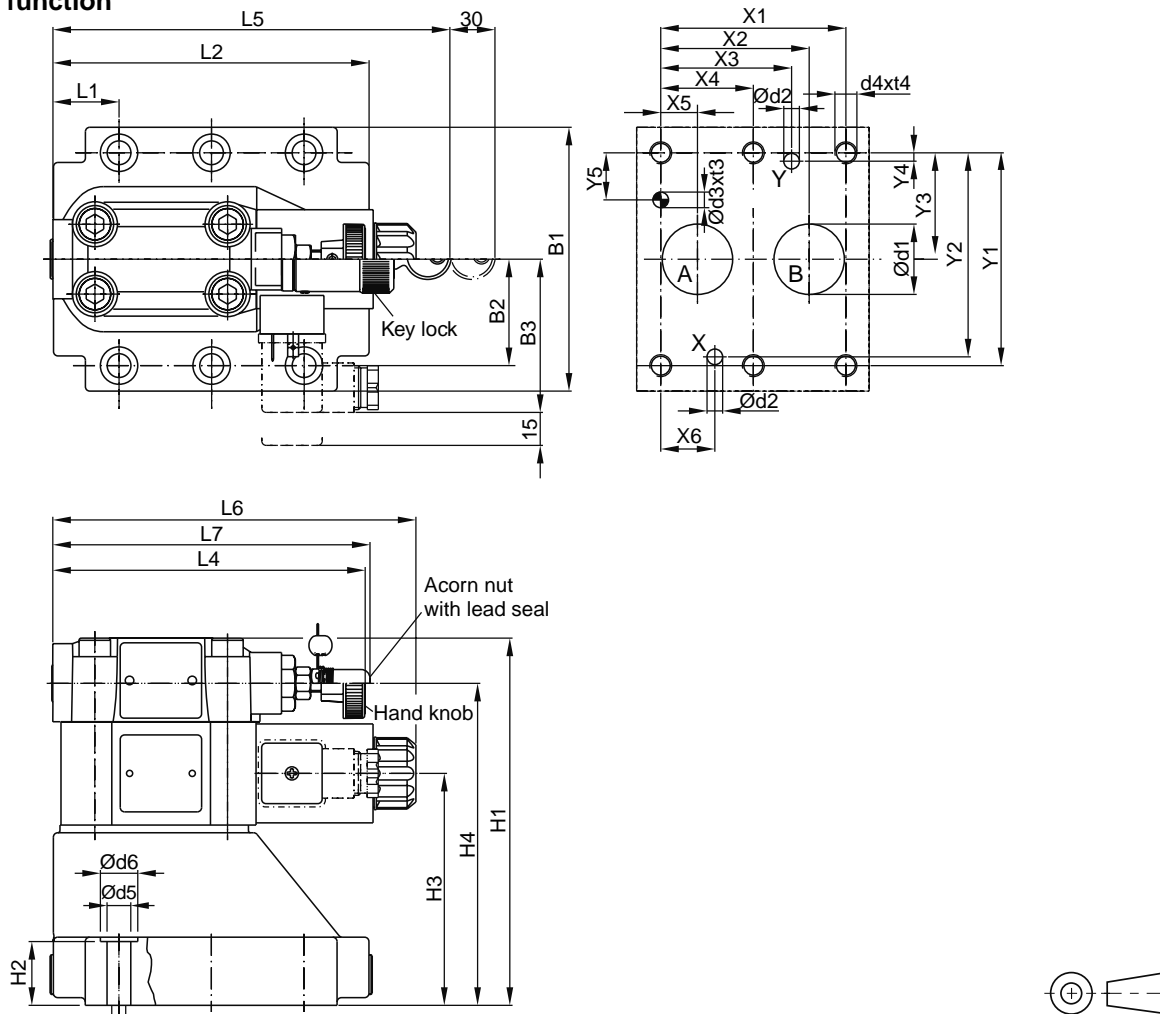
NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-07-*-97	87.3	33.35	83	21	–	–	62.5	–	29	94.8	–	143	181	144.8
25	6264-08-11-*-97	105	39.7	109.5	29	–	–	89	–	34.7	126.8	–	143	181	144.8
32	6264-10-15-*-97	120	48.4	120	29	–	–	99.5	–	30.6	144.3	–	143	181	144.8

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

¹⁾ Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	6264-06-07-*-97	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0	S26-58507-5	
25	6264-08-11-*-97	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0	S26-58475-5	
32	6264-10-15-*-97	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0	S26-58508-5	

R4V with vent function



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

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

NG	ISO-code	B1	B2	B3	H1	H2	H3	H4	H6	L1	L2	L3	L4	L5	L6	L7
10	6264-06-07-*-97	87.3	33.35	70	130	21	68.5	109.5	–	29	94.8	–	143	181	165.6	144.8
25	6264-08-11-*-97	105	39.7	70	156.5	29	95	136	–	34.7	126.8	–	143	181	165.6	144.8
32	6264-10-15-*-97	120	48.4	70	167	29	105.5	146.5	–	30.6	144.3	–	143	181	165.6	144.8

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

1) Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	6264-06-07-*-97	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0*	S26-58507-5*	
25	6264-08-11-*-97	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0*	S26-58475-5*	
32	6264-10-15-*-97	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0*	S26-58508-5*	
VV01					S56-40609-0	S56-40609-5	

* Please combine seal kit of one size with seal kit of VV01 solenoid for complete seal kit

