

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

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

Features

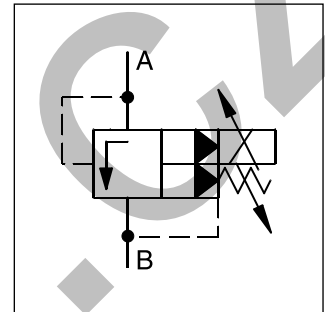
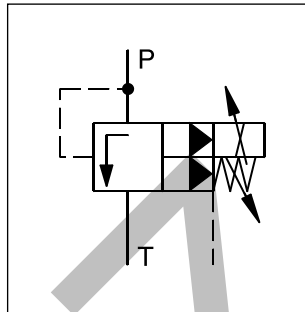
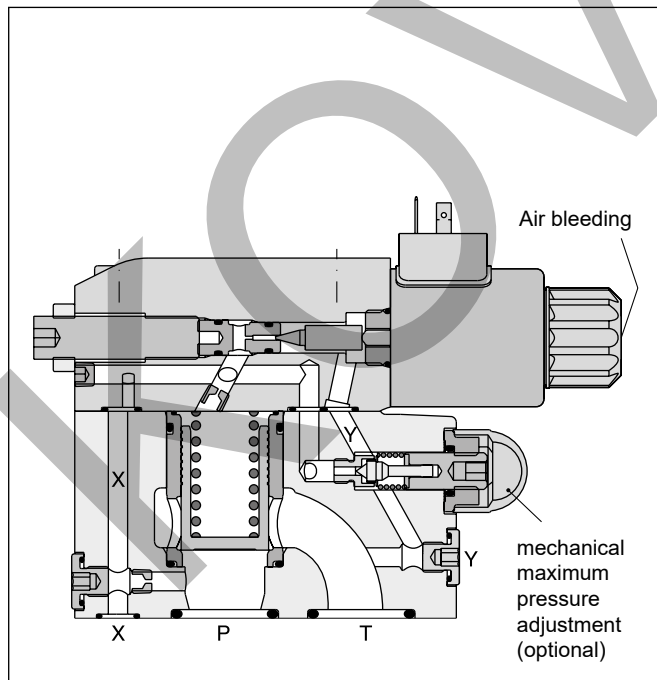
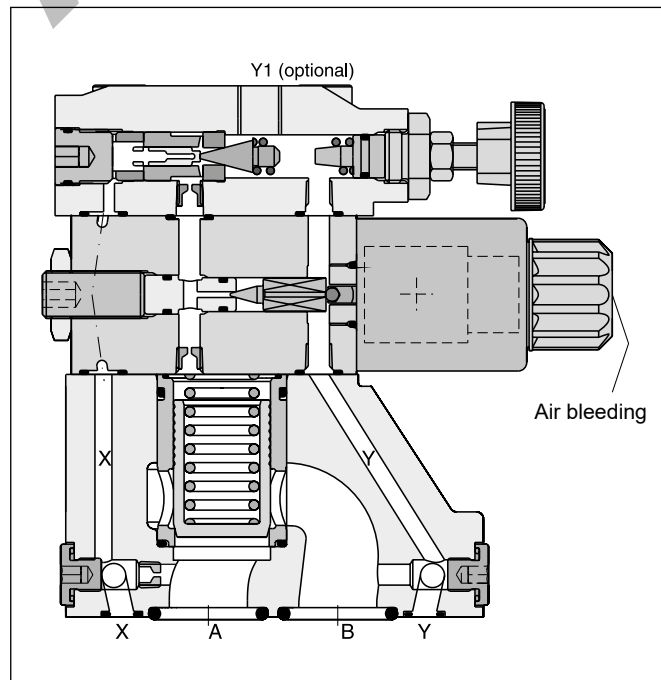
- Pilot operated with proportional solenoid
- 2 interfaces:
 - R4V subplate ISO 6264 (DIN 24340 Form D)
 - R6V subplate ISO 6264 (DIN 24340 Form E)
- 3 pressure stages
- Mechanical maximum pressure adjustment (optional for R6V)



R6V06



R4V06

**R6V06****R4V06**

Ordering Code

Pilot Operated Prop. Pressure Relief Valves
Series R4V / R6V (Proportional)

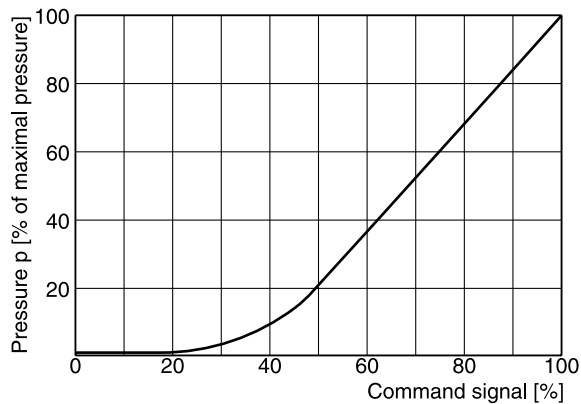
R		V		- 5						G0R					
Pressure valve		Relief function		Max. pressure (350 bar)		Pressure stages		Pilot oil		Solenoid voltage 12 V / 2.3 A		Design series (not required for ordering)		Modifications	
Interface		Nominal size		Drain port		Mechanical adjustment		Options		Design	Seals				
Code		Interface								Code		Seals			
4		Subplate mounting ISO 6264		NG10 and 25 Pin A y+ B Pin x		NG32 Pin A y+ B Pin x				Code		Design			
6				Pin x P T						Code		Design			
										Code		Options			
Code		Nominal size								Code		Options			
03		NG10								P2		With mechanical max. adjustment			
06		NG25								PS ⁵⁾		w/o mechanical max. adjustment			
10		NG32													
Code		Interface	Drain port								Code		Pilot oil		
3		R4V	Y port in mounting pattern								Code		Drain line		
9		R6V	Y-port = G 1/8"								0		internal		
											1 ³⁾		external from subplate		
											2 ⁴⁾		external from valve body (Y-port)		
Code		Pressure stages ¹⁾										Code		Interface	Mechanical adjustment
1		up to 105 bar										P ²⁾		R6V	Hexagon screw with lock nut
3		up to 210 bar										1		R4V	Hand knob
5		up to 350 bar										3		R4V	Acorn nut with lead seal

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

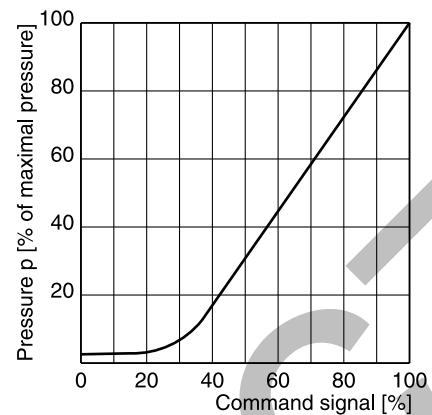
Technical Data

General					
Nominal size			10	25	32
Interface		Subplate mounting acc. ISO 6264			
Mounting position		Unrestricted, horizontal mounting preferred			
Ambient temperature		[°C]	-20...+60		
MTTF _D value		[years]	75		
Weight	Series R4V	[kg]	4.5	6.3	7.8
	Series R6V	[kg]	5.2	6.4	8.3
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	Series R4V	[l/min]	90	300	600
	Series R6V	[l/min]	250	500	650
Fluid		Hydraulic oil according to DIN 51524			
Viscosity, permitted	recommended	[cSt] / [mm²/s]	20 ... 400		
		[cSt] / [mm²/s]	30 ... 80		
Fluid temperature		[°C]	-20...+70 (NBR: -25...+70)		
Filtration		ISO 4406; 18/16/13			
Electrical (prop. solenoid)					
Duty ratio		[%]	100 ED; CAUTION: coil temperature up to 150 °C possible		
Protection class		IP65 in accordance with EN 60529 (with correctly mounted plug-in connector)			
Supply voltage		[V]	12 V =		
Max. current		[A]	2.1		
Coil resistance at 20 °C		[Ohm]	4.28		
Solenoid connection		Connector as per EN 175301-803			
Power amplifier, recommended		PCD00A-400			

R4V Signal/pressure curve

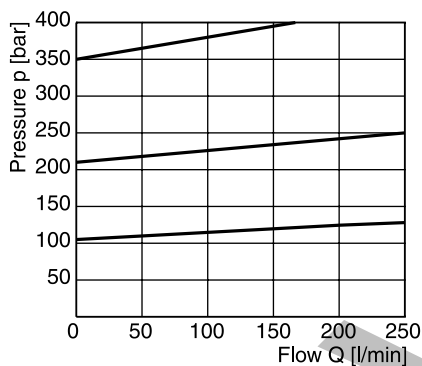


R6V Signal/pressure curve

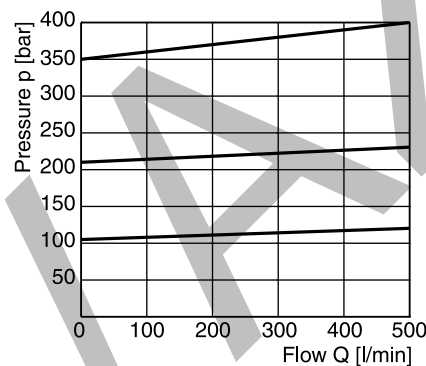


p/Q performance curves ¹⁾

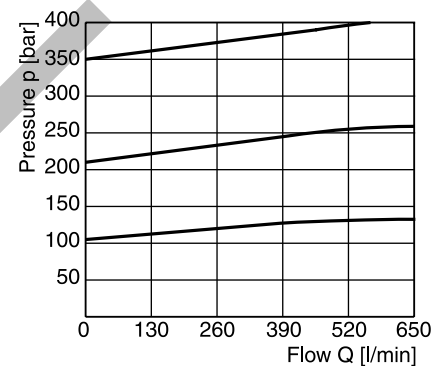
R4V / R6V03



R4V / R6V06

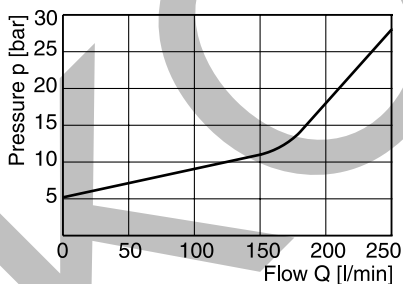


R4V / R6V10

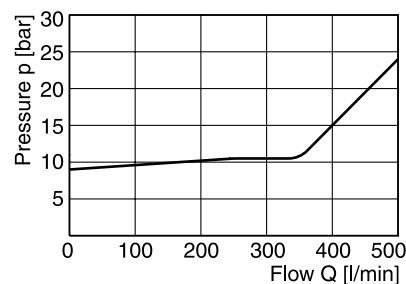


Minimum pressure curves ¹⁾

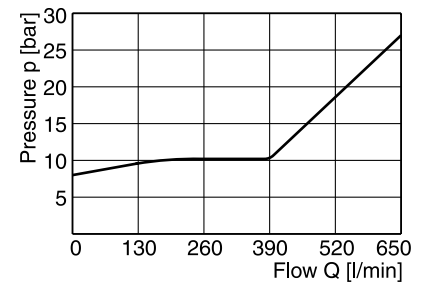
R4V / R6V03



R4V / R6V06



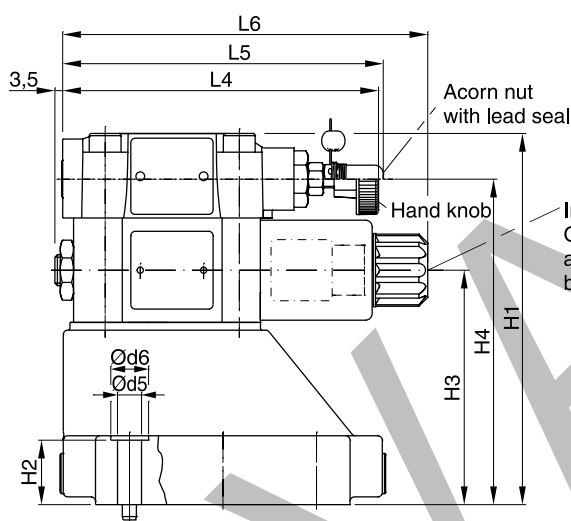
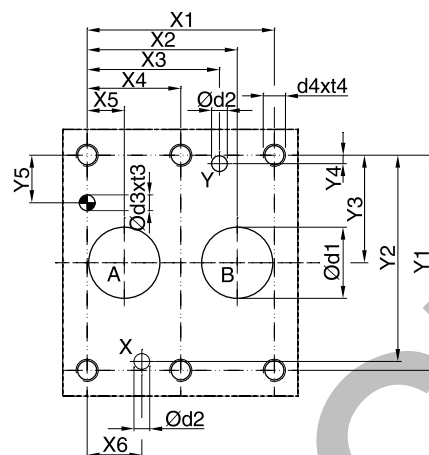
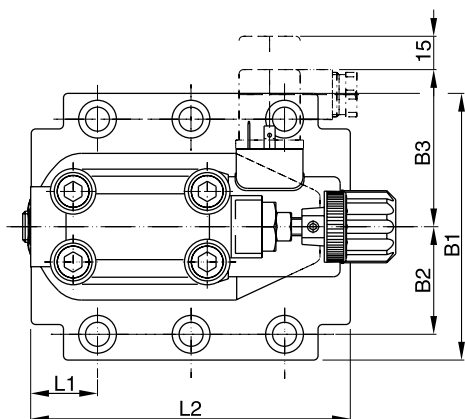
R4V / R6V10



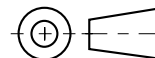
All characteristic curves measured with HLP46 at 50 °C.

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

R4V



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



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

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

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

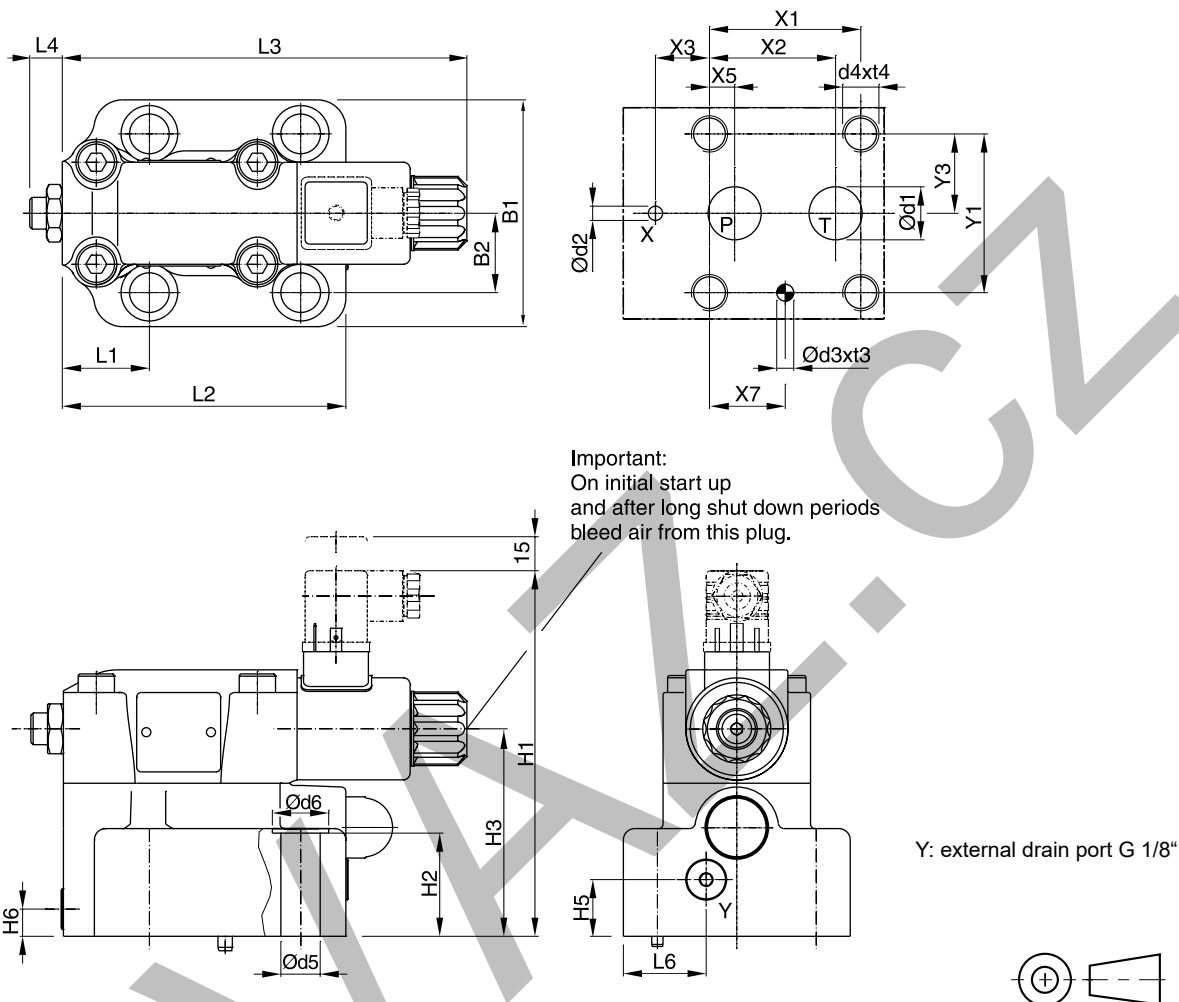
NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate ¹⁾
10	6264-06-07-*-97	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	6264-08-11-*-97	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	6264-10-15-*-97	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

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

¹⁾ Details see chapter 12, series SPP.

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

R6V

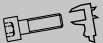

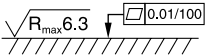


NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-09-*-97	53.8	47.5	0	—	22.1	—	22.1	53.8	—	26.9	—	—	—
25	6264-08-13-*-97	66.7	55.6	23.8	—	11.1	—	33.4	70	—	35	—	—	—
32	6264-10-17-*-97	88.9	76.2	31.8	—	12.7	—	44.5	82.6	—	41.3	—	—	—

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

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

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate 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

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

¹⁾ Details see chapter 12, series SPP.