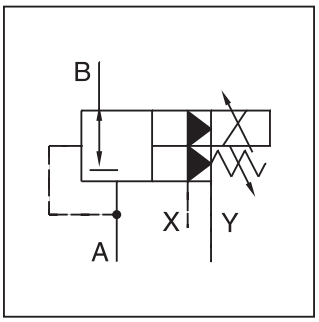
General Description

Series R4R*P2 subplate mounted proportional pressure reducing valves have a proportional solenoid operated pilot stage and a cartridge main stage.

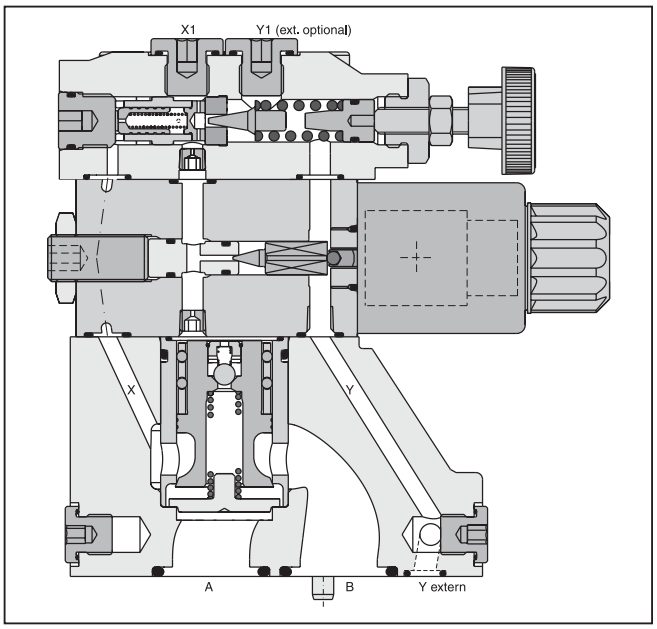
The optimum performance can be achieved in combination with the digital amplifier module PCD00A-400.



B

Features

- Pilot operated with proportional solenoid.
- Continuous adjustment by proportional solenoid.
- Subplate mounting according to ISO 5781.
- 3 pressure ranges.
- Mechanical maximum pressure adjustment.



Ordering Information

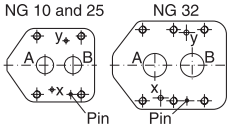
R	4	R	☐	—	5	9	☐	☐	☐	P2	G0R	B	☐	☐
Pressure Reducing Valve	Interface	Reducing Function	Size		Maximum Pressure 350 Bar (5075 PSI)	Pilot Ports G1/4"	Pressure Range	Adjustment	Drain Line Ext. from Pilot Head (Y1)	Proportional Pressure Control	Solenoid Voltage 12V 2.3A	Design Series	Seal	Options Check with Factory

Code	Description
03	NG10
06	NG25
10	NG32

Code	Pilot	Drain
1	Internal	External from Y
2	Internal	External from Y1

Code	Description
1	Nitrile
5	Fluorocarbon

Code	Description
4	Subplate Mounting ISO 5781



Code	Description
1	Hand Knob 32mm dia. Standard
3	Acorn Nut with Lead Seal

Code	Description	
1	up to 105 Bar	(1523 PSI)
3	up to 210 Bar	(3045 PSI)
5	up to 350 Bar	(5075 PSI)

Bolt Kit:

R4R03*P2	BK505
R4R06*6*P2	BK485
R4R10*P2	BK506

Weight:

R4R03*P2	2.7 kg (6.0 lbs.)
R4R06*6*P2	4.5 kg (9.9 lbs.)
R4R10*P2	6.0 kg (13.2 lbs.)

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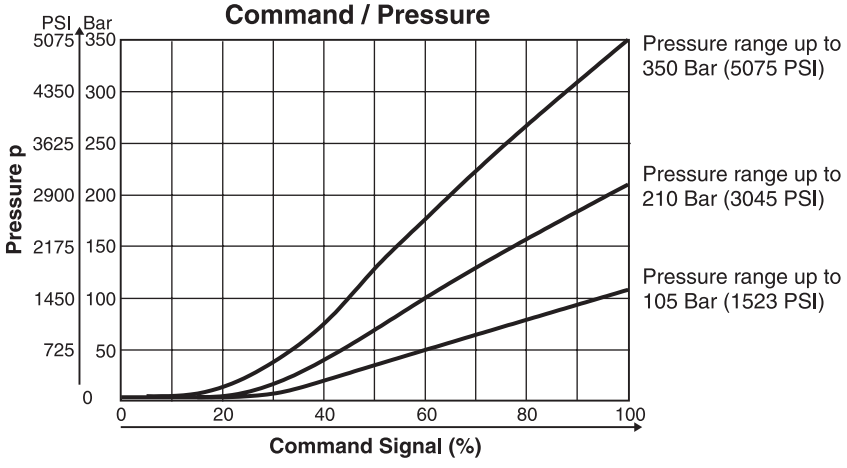
Specifications

General				
Size		**NG10**	**NG25**	**NG32**
Interface		Subplate mounting acc. ISO 5781		
Mounting Position		Unrestricted, horizontal mounting preferred		
Ambient Temperature	**[°C]**	-20 ... +80; (-4°F ... +176°F)		
$MTTF_D$ Value	**[years]**	75		
Hydraulic				
Maximum Operating Pressure		Ports A, B and X 350 Bar (5075 PSI), Port Y depressurized		
Pressure Ranges		105 Bar (1523 PSI), 210 Bar (3045 PSI), 350 Bar (5075 PSI)		
Nominal Flow		150 LPM (39.7 GPM)	350 LPM (92.6 GPM)	500 LPM (132.3 PSI)
Fluid		Hydraulic oil according to DIN 51524...51535, other on request		
Viscosity				
Recommended	**[cSt] / [mm²/s]**	30 ... 50 (139 ... 232 SSU)		
Permitted	**[cSt] / [mm²/s]**	20 ... 380 (93 ... 1761 SSU)		
Fluid Temperature	**[°C]**	-20 ... +70 (-4°F ... +158°F)		
Filtration		ISO 4406 (1999) 18/16/13 (acc. NAS 1638: 7)		
Electrical				
Duty Ratio	**[%]**	100 ED; CAUTION: Coil temperature up to 150°C (302°F) possible		
Protection Class		IP65 in accordance with EN 60529 (plugged and mounted)		
Nominal Voltage	**[V]**	12		
Maximum Current	**[A]**	2.3		
Coil Resistance	**[Ohm]**	4 at 20°C (68°F)		
Solenoid Connection		Connector as per EN 175301-803, Solenoid identificaton as per ISO9461		
Power Amplifier, Recommended		PCD00A-400		

Performance Curves



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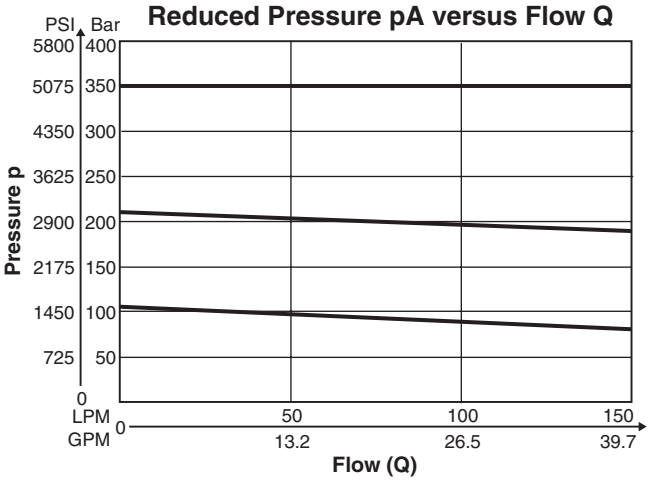
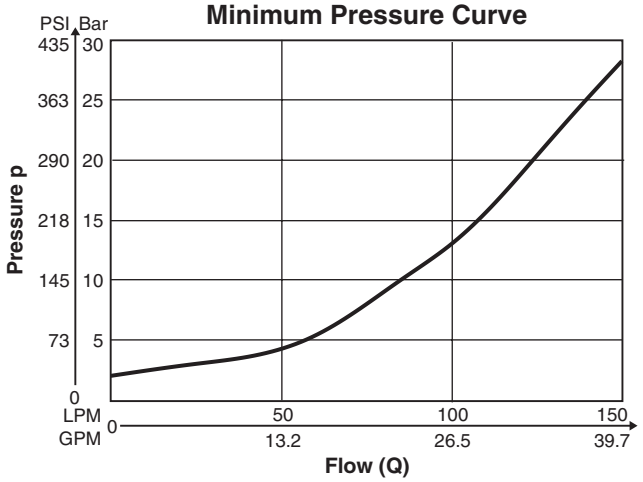
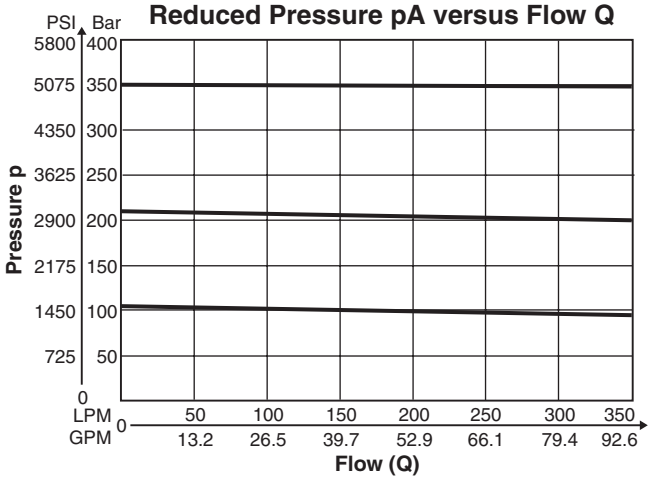
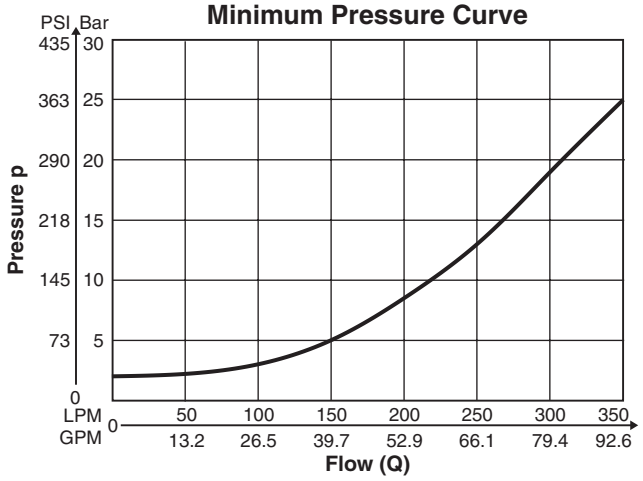
R4R03*P2 [1)]



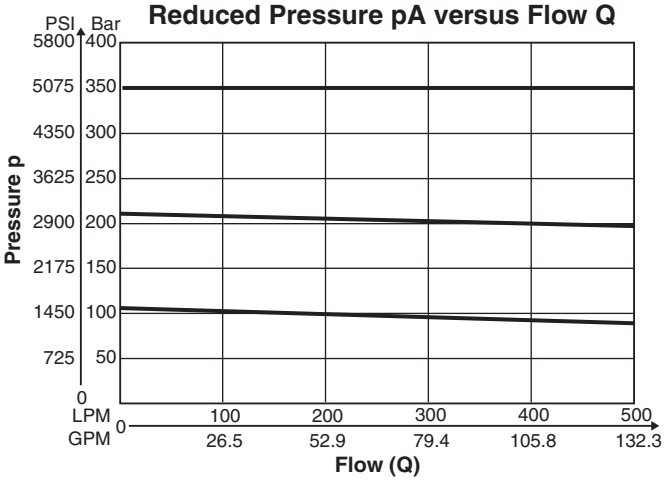


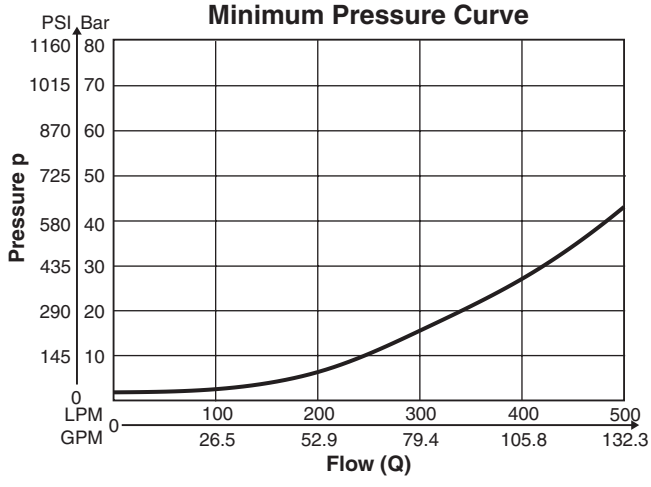
R4R06*P2 [1)]





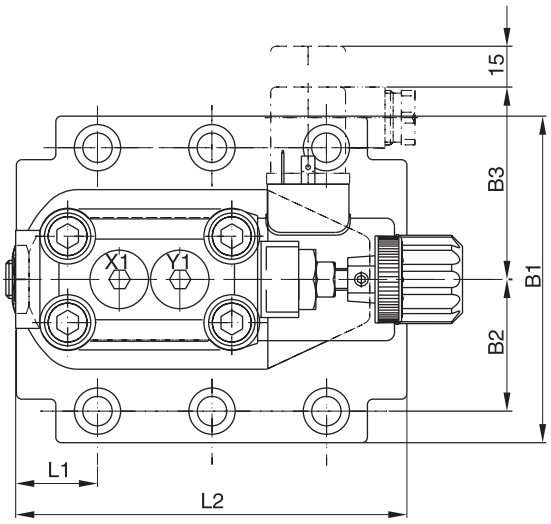
R4R10*P2 [1)]

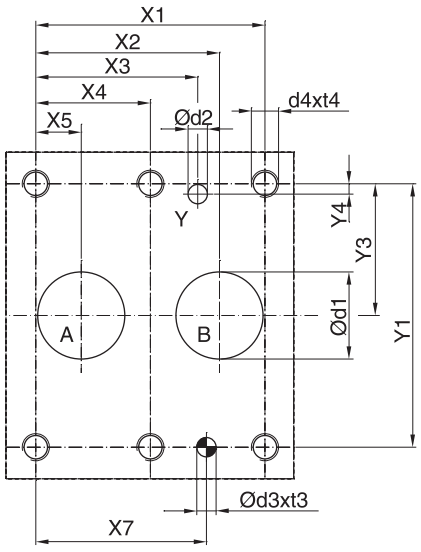


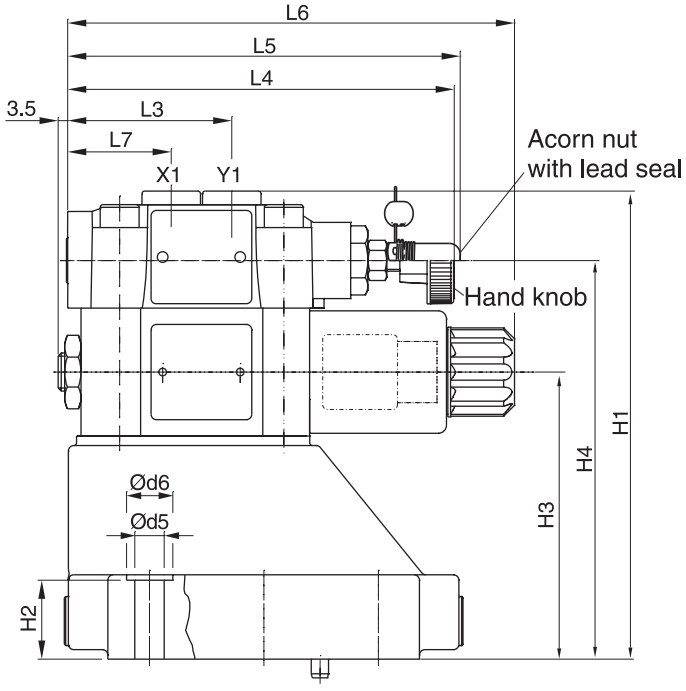


[1)] Measured at 350 Bar (5075 PSI) primary pressure pB.

B


15
B3
B1
B2
X1
Y1
L1
L2


X1
X2
X3
X4
X5
Ød2
d4xt4
Y
Y4
Y3
Y1
Ød1
A
B
Ød3xt3
X7


L6
L5
L4
3.5
L3
L7
X1
Y1
Acorn nut
with lead seal
Hand knob
H1
H4
H3
Ød6
Ød5
H2

Inch equivalents for millimeter dimensions are shown in (**)

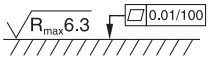
NG	ISO-Code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	5781-06-07-0-00	42.9 (1.69)	35.8 (1.41)	21.5 (0.85)	–	7.2 (0.28)	–	31.8 (1.25)	66.7 (2.63)	–	33.4 (1.31)	7.9 (0.31)	–	–
25	5781-08-10-0-00	60.3 (2.37)	49.2 (1.94)	39.7 (1.56)	–	11.1 (0.44)	–	44.5 (1.75)	79.4 (3.13)	–	39.7 (1.56)	6.4 (0.25)	–	–
32	5781-10-13-0-00	84.2 (3.31)	67.5 (2.66)	59.5 (2.34)	42.1 (1.66)	16.7 (0.66)	–	62.7 (2.47)	96.8 (3.81)	–	48.4 (1.91)	3.8 (0.15)	–	–

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

B

NG	ISO-Code	B1	B2	B3	H1	H2	H3	H4	L1	L2	L3	L4	L5	L6	L7
10	5781-06-07-0-00	87.3 (3.44)	33.4 (1.31)	71.0 (2.80)	134.0 (5.28)	21.0 (0.83)	68.5 (2.70)	109.5 (4.31)	25.0 (98.0)	90.8 (3.57)	60.8 (2.38)	143.0 (5.63)	144.8 (5.70)	164.0 (6.49)	38.6 (1.52)
25	5781-08-10-0-00	105.0 (4.13)	39.7 (1.56)	71.0 (2.80)	158.5 (6.24)	29.0 (1.14)	95.0 (3.74)	136.0 (5.35)	30.9 (1.22)	123.0 (4.84)	60.8 (2.38)	143.0 (5.63)	144.8 (5.70)	164.0 (6.49)	38.6 (1.52)
32	5781-10-13-0-00	120.0 (4.72)	48.4 (1.91)	71.0 (2.80)	171.0 (6.73)	30.0 (1.18)	105.5 (4.15)	146.5 (5.77)	29.8 (1.17)	143.5 (5.65)	60.8 (2.38)	143.0 (5.63)	144.8 (5.70)	164.0 (6.49)	38.6 (1.52)

NG	ISO-Code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate
10	5781-06-07-0-00	15.0 (0.59)	7.0 (0.28)	7.1 (0.28)	8.0 (0.31)	M10	16.0 (0.63)	10.8 (0.43)	17.0 (0.67)	SPP3M6B910
25	5781-08-10-0-00	23.4 (0.92)	7.1 (0.28)	7.1 (0.28)	8.0 (0.31)	M10	18.0 (0.71)	10.8 (0.43)	17.0 (0.67)	SPP6M8B910
32	5781-10-13-0-00	32.0 (1.26)	7.1 (0.28)	7.1 (0.28)	8.0 (0.31)	M10	20.0 (0.79)	10.8 (0.43)	17.0 (0.67)	SPP10M12B910

NG	ISO-Code	Bolt Kit			Seal Kit		Surface Finish
					Nitrile	Fluorocarbon	
10	5781-06-07-0-00	BK505	4x M10 x 35 DIN912 12.9	63 Nm (46.5 lb.-ft.) ±15%	S26-58507-0*	S26-58507-5*	
25	5781-08-10-0-00	BK485	4x M10 x 45 DIN912 12.9	63 Nm (46.5 lb.-ft.) ±15%	S26-58475-0*	S26-58475-5*	
32	5781-10-13-0-00	BK506	6x M10 x 45 DIN912 12.9	63 Nm (46.5 lb.-ft.) ±15%	S26-58508-0*	S26-58508-5*	
Prop. Section P2					S26-58473-0	S26-58473-5	

* Please combine seal kit of one size with seal kit of Prop. Section P2 for complete seal kit