

# Parker Series R4VP2 Pilot Operated Pressure Relief Valve, In-line Mounting Service Manual

Proportional pressure relief valves series R4V\*P2 are based on the mechanically adjusted series R4V. The additional proportional unit between the mechanical pilot valve and the main stage allows continuous pressure adjustment.

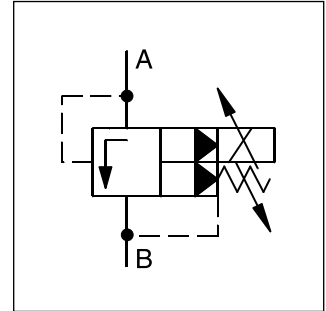
The optimum performance can be achieved in combination with the digital amplifier module PCD00A-400.

## Features

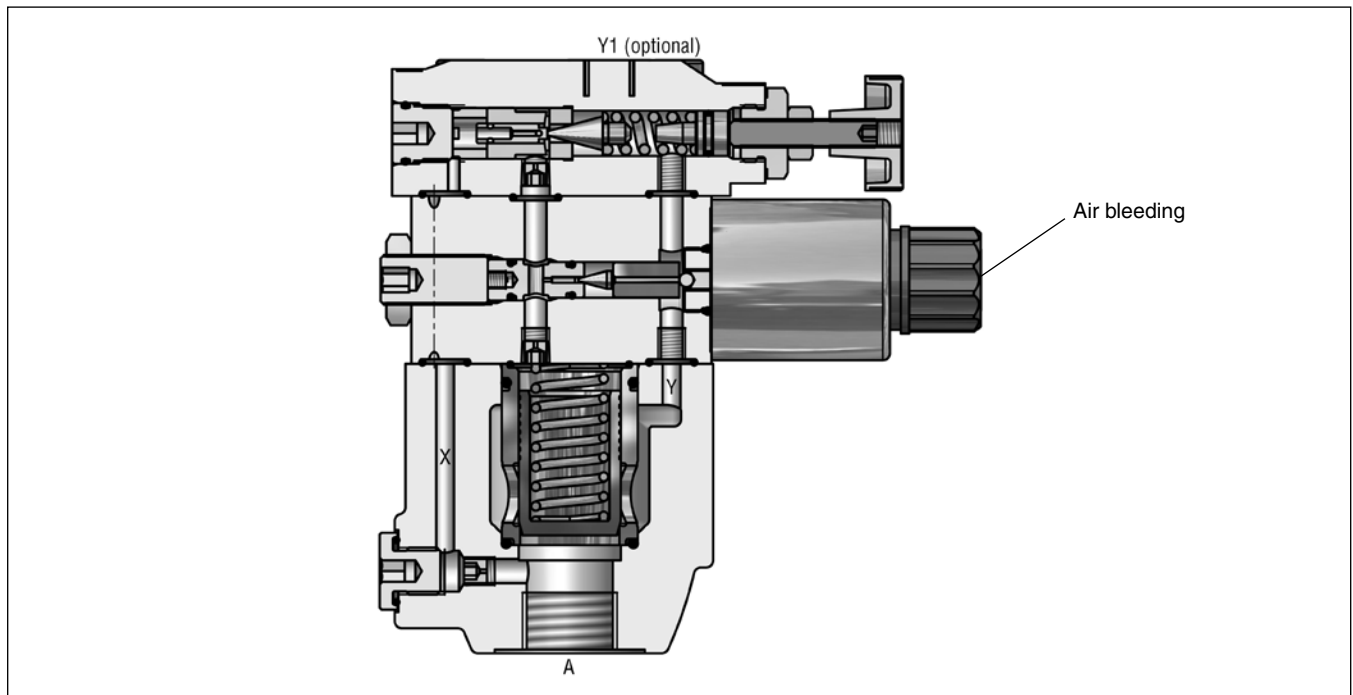
- Continuous adjustment by proportional solenoid
- 2 interfaces
  - L-body (R4V06-G $\frac{3}{4}$ ", R4V10-G1 $\frac{1}{4}$ " )
  - T-body (R4V03-G $\frac{1}{2}$ ", R4V06-G1" )
- 3 pressure stages
- With mechanical maximum pressure adjustment



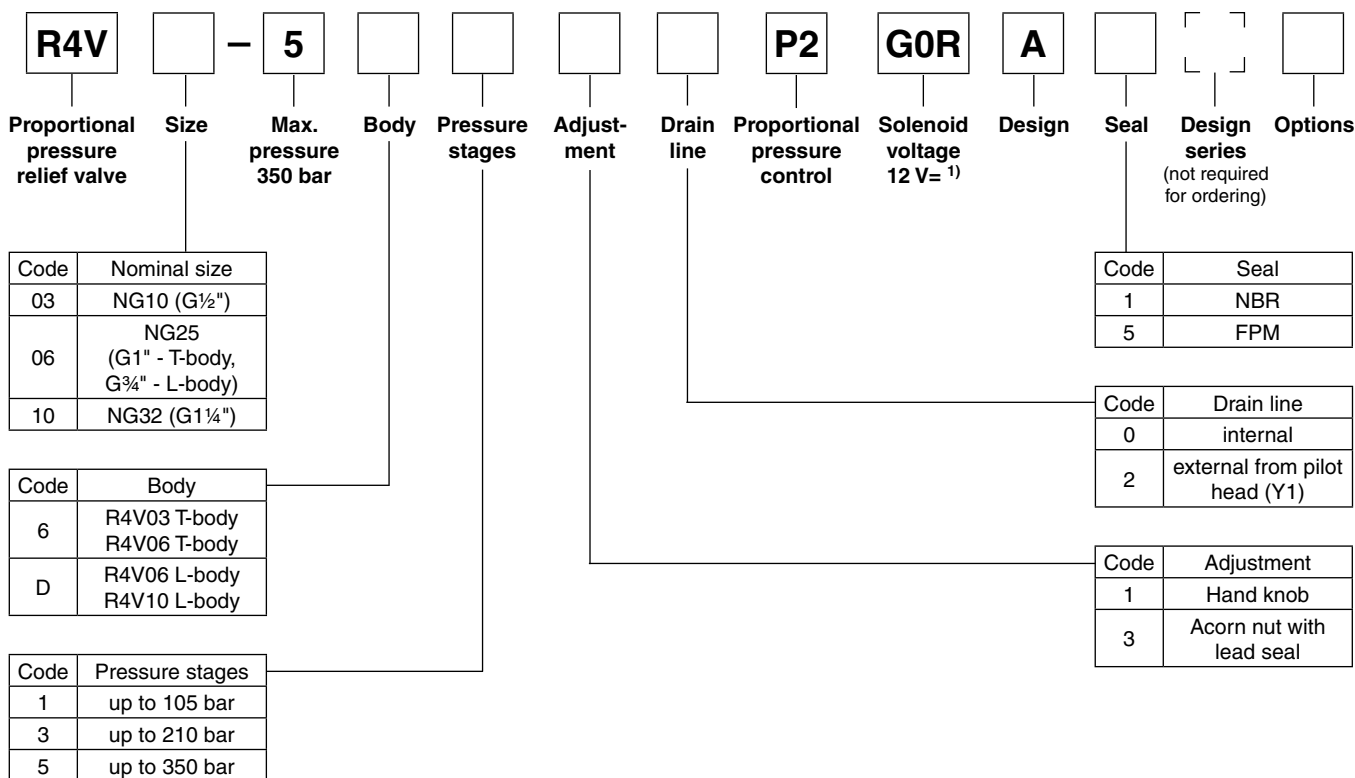
R4V10\*P2 L-body



## R4V06\*P2 L-body



**Ordering code**



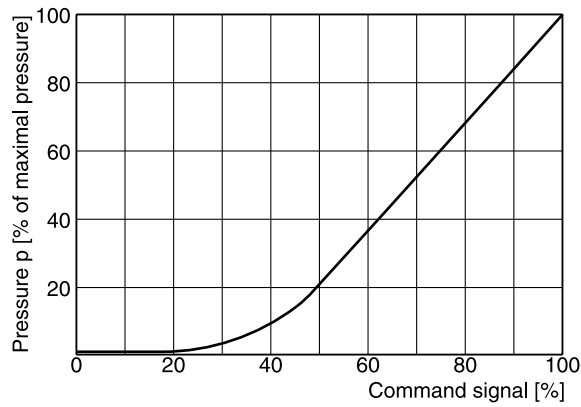
<sup>1)</sup> Onboard electronics on request

**Technical data R4V\*P2**

General				
Design		T-body		L-body
Size		03 (½")	06 (1")	06 (¾") 10 (1¼")
Mounting		Threaded body		
Mounting position		unrestricted		
Ambient temperature	[°C]	-20...+60		
MTTF <sub>D</sub> value	[years]	75		
Weight	[kg]	5.0	5.1	7.4 8.4
Hydraulic				
Max. operating pressure	[bar]	Ports A and X up to 350; Ports B and Y 30 bar		
Pressure stages	[bar]	105, 210, 350		
Nominal flow	[l/min]	60	200	200 450
Fluid		Hydraulic oil according to DIN 51524		
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)		
Viscosity permitted	[cSt] / [mm²/s]	20...400		
Viscosity recommended	[cSt] / [mm²/s]	30...80		
Filtration		ISO 4406 (1999), 18/16/13		
Electrical (prop. solenoid)				
Duty ratio	[%]	100		
Protection class		IP65 in accordance with EN 60529 (with correctly mounted plug-in connector)		
Nominal voltage	[V]	12 =		
Max. current	[A]	2.3		
Coil resistance	[Ohm]	4 at 20 °C		
Solenoid connection		Connector as per EN175301-803		
Power amplifier		PCD00A-400		

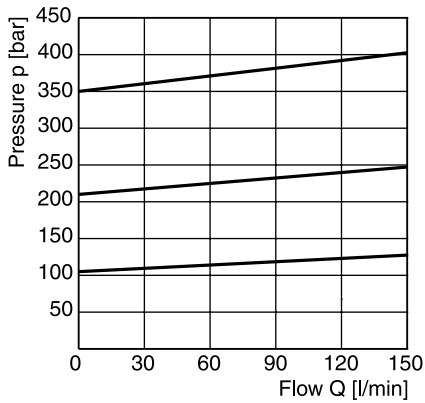
# Characteristic Curves

## Signal/pressure curve R4V

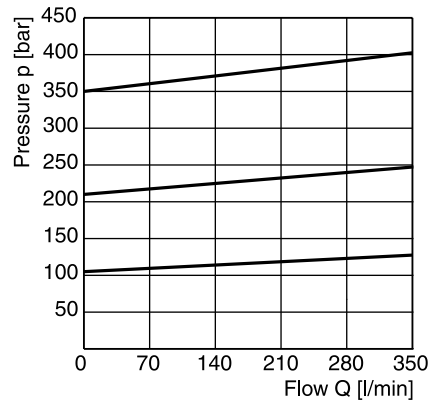


## p/Q performance curves <sup>1)</sup>

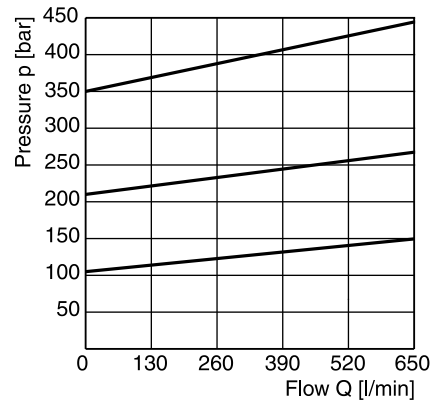
### R4V03



### R4V06



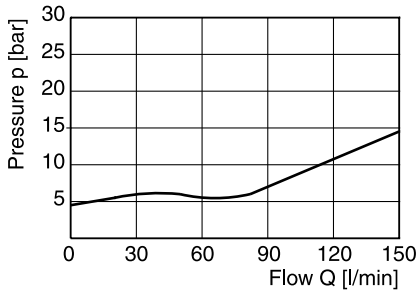
### R4V10



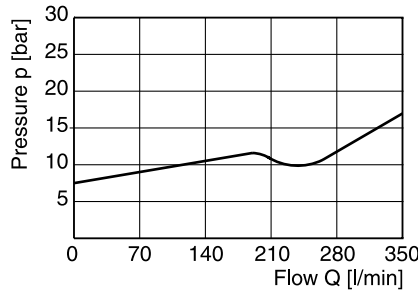
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## Minimum pressure curve <sup>1)</sup>

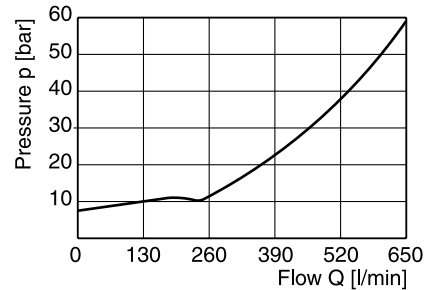
### R4V03



### R4V06



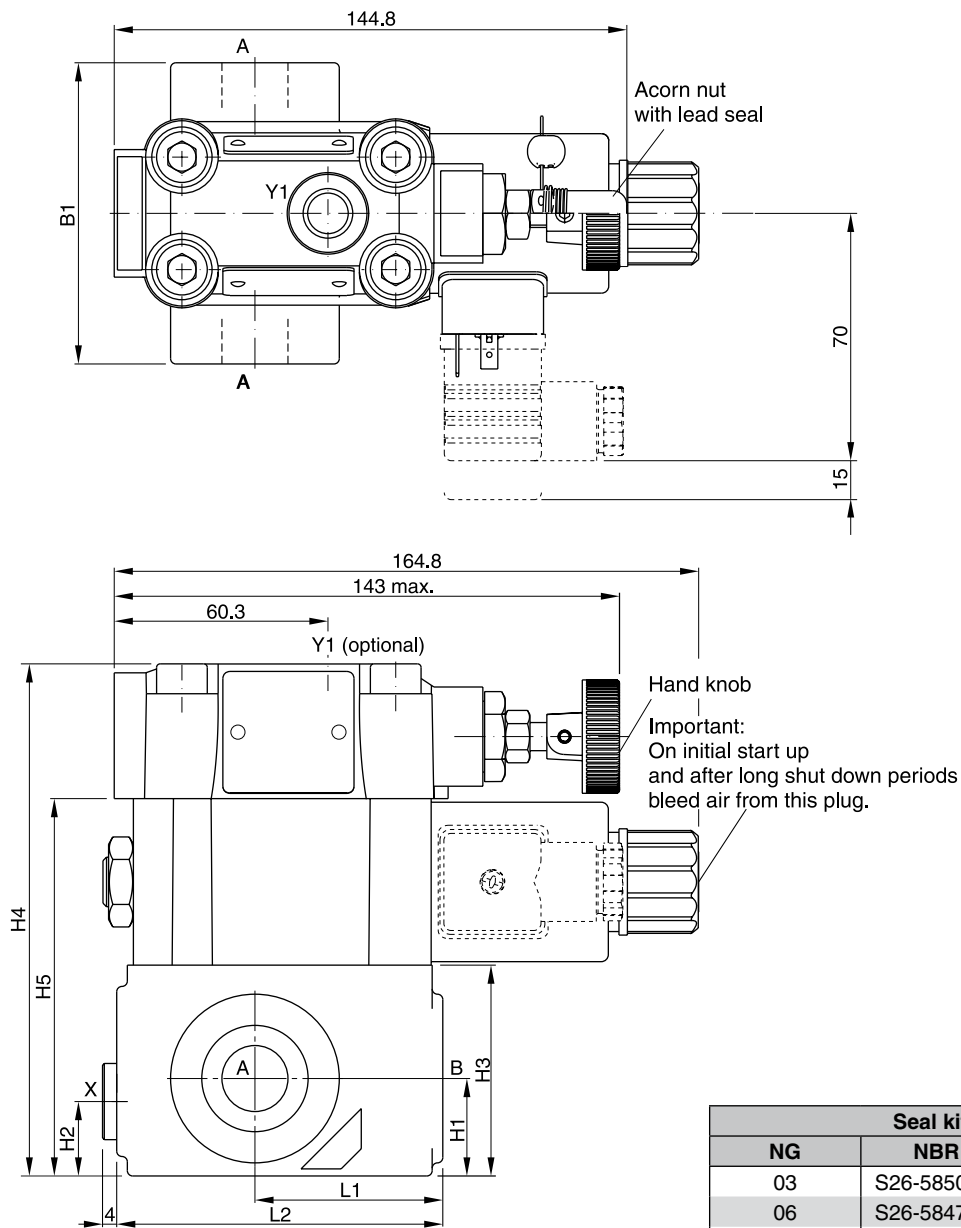
### R4V10



All characteristic curves measured with HLP46 at 50 °C.

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

**T-body**



Seal kits		
NG	NBR	FPM
03	S26-58507-0	S26-58507-5
06	S26-58475-0	S26-58475-5
Prop. section P2*	S26-58473-0	S26-58473-5

NG	Body	B1	H1	H2	H3	H4	H5	L1	L2
03	T-body	85	27.5	21	59.5	144.5	106.5	53	92
06	T-body	136	38	28	93	178	140	66.5	117.5

Ports	Function	Port size	
		R4V03*P2 T-body	R4V06*P2 T-body
A	pressure (inlet)	G½ "	G1 "
B	tank (outlet)	G½ "	G1 "
X <sup>1)</sup>	ext. remote control or vent connection	G¼ "	G¼ "
Y1 <sup>2)</sup>	external drain	G¼ "	G¼ "

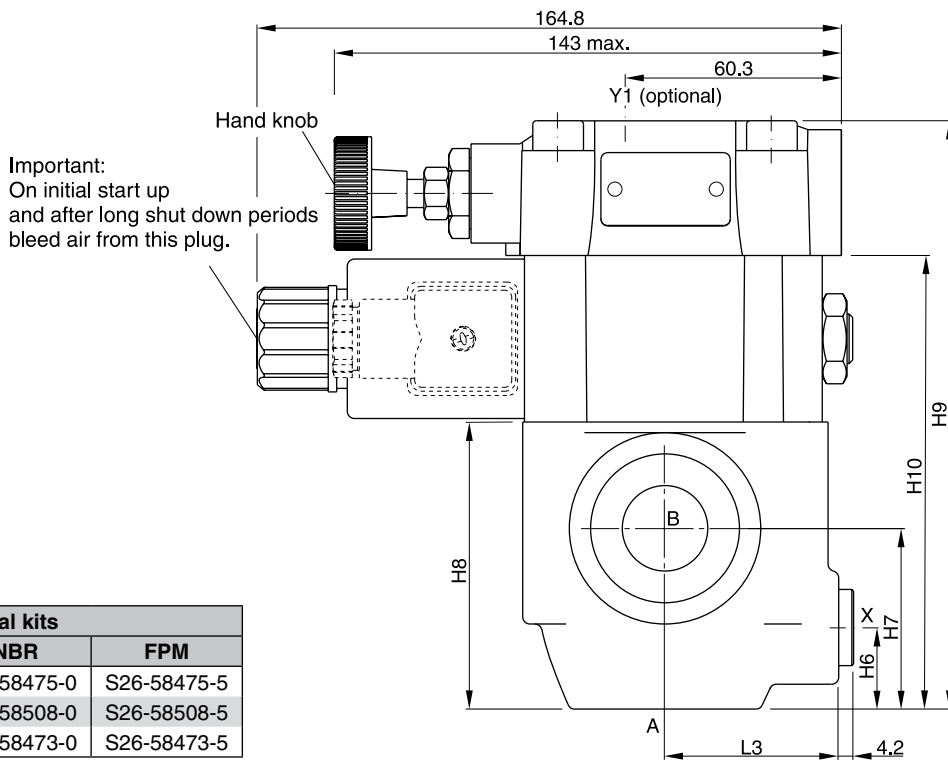
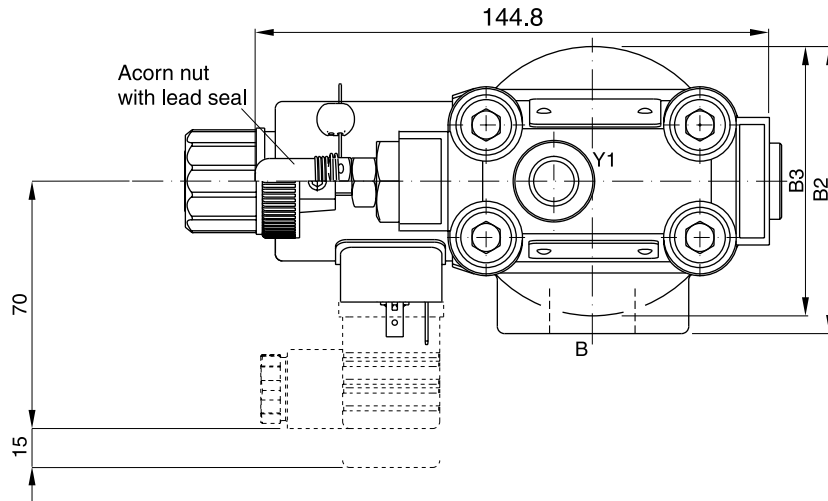
\* Please combine seal kit of one size with seal kit of prop. section for complete seal kit.

<sup>1)</sup> Closed when supplied.

<sup>2)</sup> Port Y1 is only available at drain line (code 2) external from the pilot head.

# Dimensions

## L-body



Seal kits		
NG	NBR	FPM
06	S26-58475-0	S26-58475-5
10	S26-58508-0	S26-58508-5
Prop. section P2*	S26-58473-0	S26-58473-5

NG	Body	B2	B3	H6	H7	H8	H9	H10	L3
06	L-body	81	76	23	51	81	166	128	49
10	L-body	120.7	85.8	38.1	50.8	96	181	143	49.8

Ports	Function	Port size	
		R4V06 L-body	R4V10 L-body
A	pressure (inlet)	G $\frac{3}{4}$ "	G $1\frac{1}{4}$ "
B	tank (outlet)	G $\frac{3}{4}$ "	G $1\frac{1}{4}$ "
X <sup>1)</sup>	ext. remote control or vent connection	G $\frac{1}{4}$ "	G $\frac{1}{4}$ "
Y1 <sup>2)</sup>	external drain	G $\frac{1}{4}$ "	G $\frac{1}{4}$ "

\* Please combine seal kit of one size with seal kit of prop. section for complete seal kit.

<sup>1)</sup> Closed when supplied.

<sup>2)</sup> Port Y1 is only available at drain line (code 2) external from the pilot head.