

Parker Series PRPM Pilot Operated Proportional Pressure Reducing Valve Service Manual

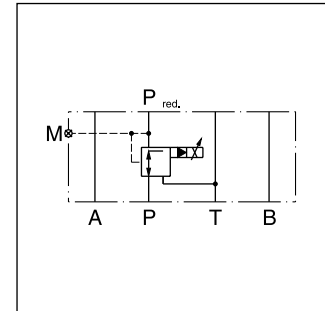
Proportional pressure reducing valves series PRPM keep a constant pressure p_{red} on the secondary side – independent of pressure fluctuations on the primary side. The integrated pressure relief function obviates the need for an additional pressure relief valve on the secondary side and reliefs to tank, if the reduced pressure rises above the setting pressure.

The proportional pressure reducing valve reduces the pressure in output port p_{red} in proportion to the solenoid current. The PRPM works practically independent of the inlet pressure. In non-activated mode, the connection to the tank is fully open with a min. pressure corresponding to the spring force.

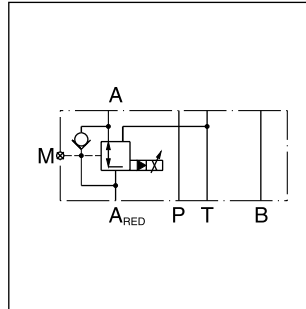
The gauge port is connected to the secondary side. Types A and B have an integrated bypass check valve. The PRPM provides optimum performance in combination with a digital amplifier module PCD00A-400.



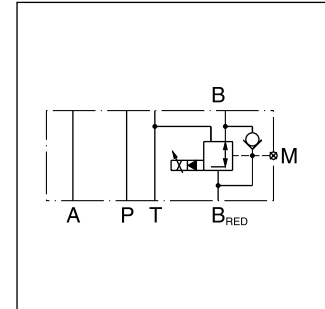
PRPM2PP



PRPM*PP



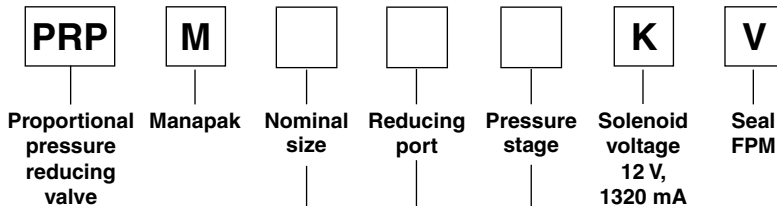
PRPM*AA



PRPM*BB

7

Ordering code



Code	Nominal size
2	NG06
3	NG10

Code	Port
AA	A
BB	B
PP	P

Code	Pressure stage [bar]
10	100
20	200
35	350

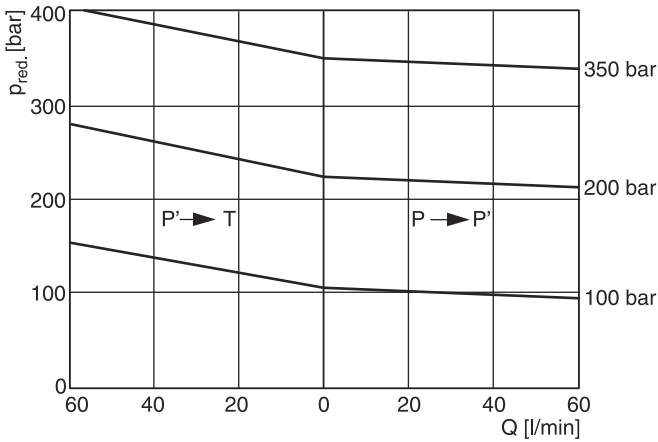
Technical Data

General			
Design	Pilot operated proportional pressure reducing valve		
Construction	Sandwich type		
Operation	Proportional solenoid		
Size	NG06		NG10
Mounting interface	ISO 4401		
Mounting position	unrestricted		
Ambient temperature	[°C]	-20 ... +60	
MTTF _D value	[years]	75	
Weight	[kg]	2.0	3.2
Hydraulic			
Fluid	Hydraulic oil according to DIN 51524		
Fluid temperature	[°C]	-20 ... +70	
Viscosity, permitted recommended	[cSt] / [mm ² /s]	20 ... 400	
	[cSt] / [mm ² /s]	30 ... 80	
Max. operating pressure	[bar]	350	
Reduced nom. pressure	[bar]	100; 200; 350	
Max. flow	[l/min]	60	60
Pilot flow	see performance curves		
Filtration	ISO 4406 (1999); 18/16/13		
Resolution	[mA]	1 mA	
Repeatability	[%]	≤1 (with optimal dither signal)	
Hysteresis	[%]	≤4 (with optimal dither signal)	
Electrical			
Solenoid	Proportional solenoid, wet-pin push type, pressure tight		
Duty ratio	[%]	100 ED	
Protection class	IP65 in accordance with EN 60529 (with correctly mounted plug-in connector)		
Supply voltage	[V]	12 (1320 mA)	
Solenoid connection	Connector as per EN 175301-803		
Amplifier	PCD00A-400		

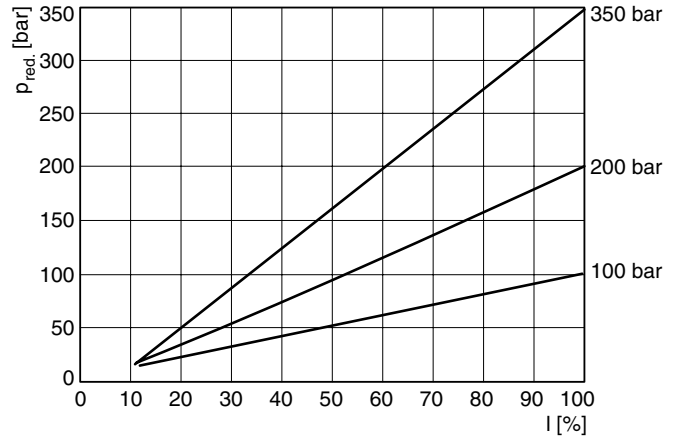


Performance Curves

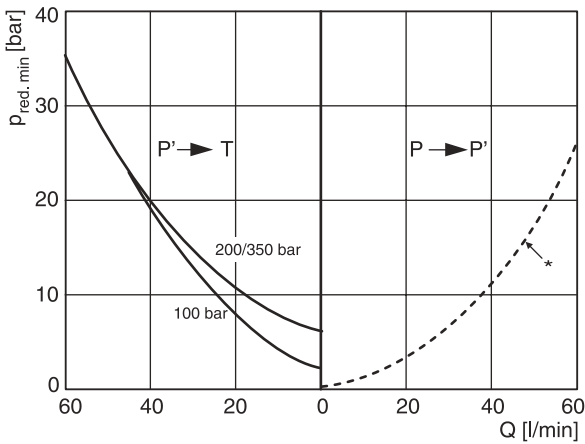
Pressure/flow NG06/NG10



Pressure/adjustment at $Q=0$ /min (static)

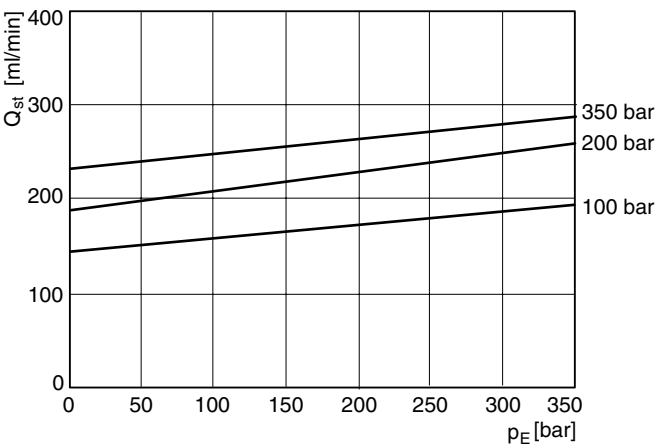


Pressure/flow (min. adjustable)

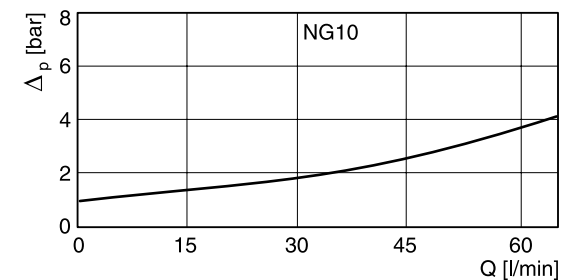
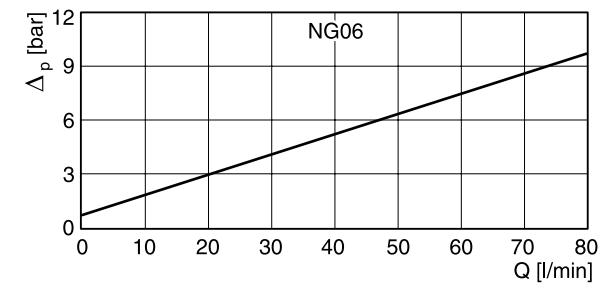


* Consumption resistance depends on system.

Pilot flow NG06/NG10



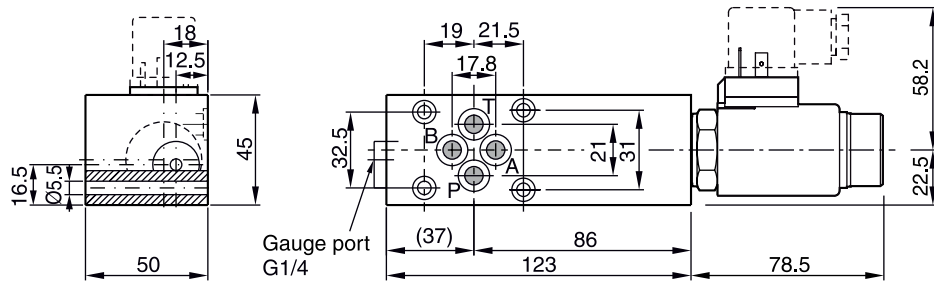
Pressure drop/flow over check valve



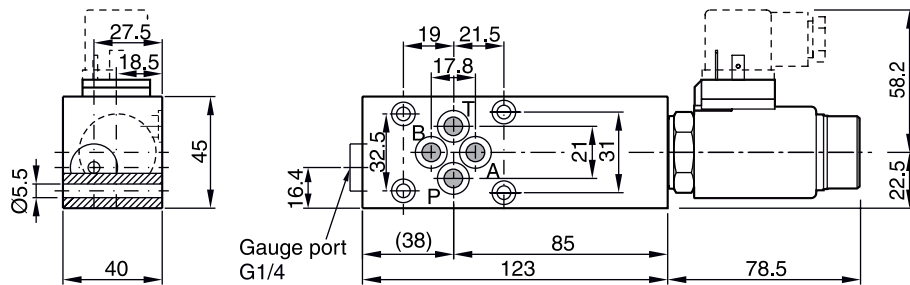
All characteristic curves measured with HLP46 at 50 °C.

Dimensions

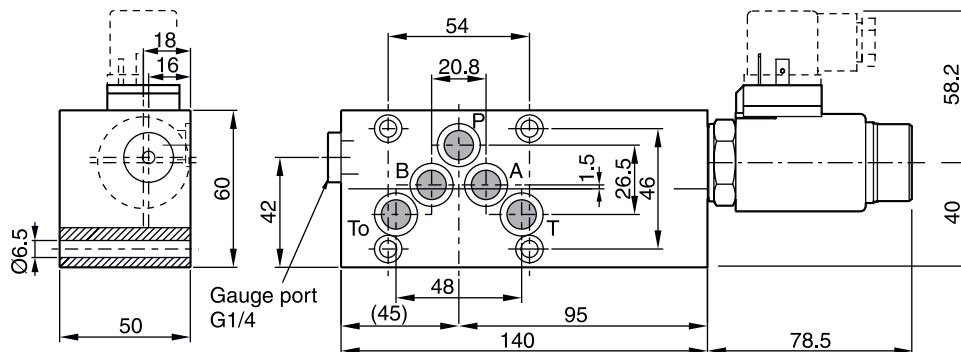
PRPM2AA*, BB**



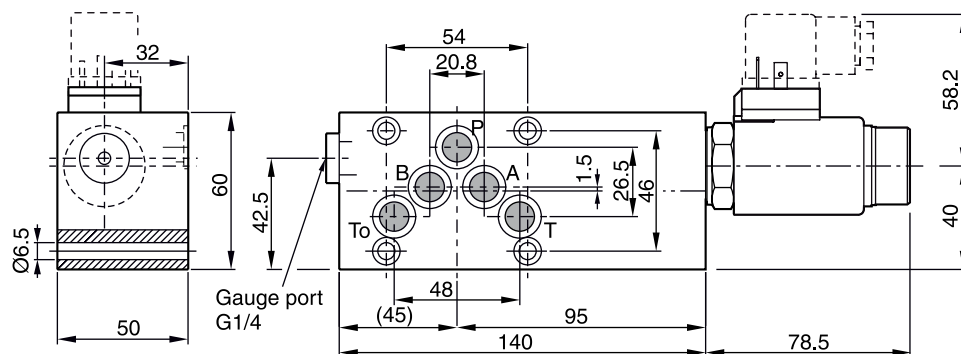
PRPM2PP*



PRPM3AA*, BB**



PRPM3PP*



7

