

## General Description

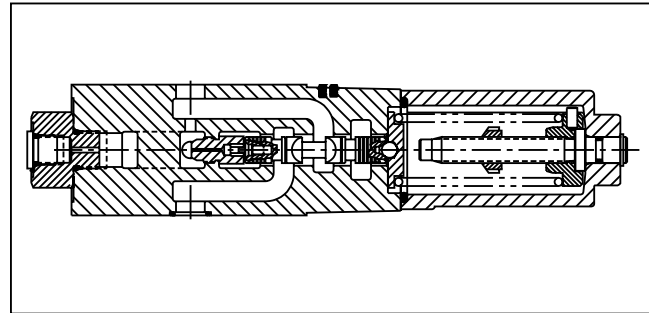
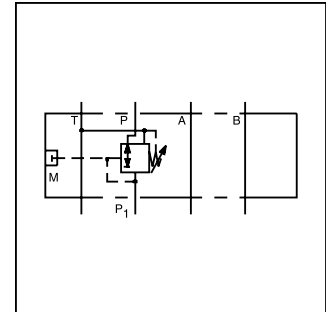
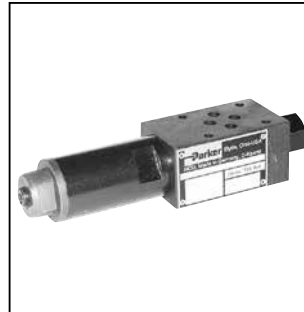
Series PRDM are direct operated pressure reducing valves that are used to regulate pressure in one area of a hydraulic circuit at a predetermined level below normal system pressure. Additionally, an integral pressure relieving function for the secondary reduced pressure circuit is incorporated into the design.

## Operation

These valves are “normally open” devices that allow fluid to flow through the controlled port during their non-actuated or “at rest” condition. When downstream pressure exceeds the value set by the spring force, the control piston moves off its seat, closing off the flow path and thus reducing the fluid passing through from the main system. The cushioned piston modulates to maintain the preset pressure in this branch of the hydraulic circuit. If, due to external forces, the pressure continues to rise in this branch circuit, the piston will keep moving against the spring force allowing fluid to be drained to tank, thereby limiting maximum pressure to the valve’s setting.

## Features

- PRDM sandwich valves may be selected to reduce pressure in the 'P' port, 'A' port or 'B' port.
- The direct operated, cushioned piston design results in fast response, low leakage and minimal hysteresis.
- Up to nine pressure adjustment ranges are available with maximum pressure settings.
- Adjustment options include: internal hex screw, hand knob or internal hex with keylock.
- Fluorocarbon seals are available.
- Available gage port connections include SAE, NPT, Metric and BSPP.



## Specifications

	PRDM2	PRDM3																				
<b>Mounting Pattern</b>	NFPA D03, CETOP 3, NG6	NFPA D05, CETOP 5, NG10																				
<b>Maximum Operating Pressure P, A, B</b>	350 Bar (5000 PSI)	315 Bar (4560 PSI)																				
<b>T</b>	10 Bar (145 PSI)	10 Bar (145 PSI)																				
<b>Max. Flow</b>	40 LPM (10.5 GPM)	80 LPM (21 GPM)																				
<b>Maximum Leakage P-A</b>	15 ml/min (1.0 cu. in.)																					
<b>Pressure Range</b>	<table border="0"> <tr> <td><b>Code</b></td> <td><b>Range</b></td> </tr> <tr> <td>01</td> <td>1.0 to 14 Bar (15 to 200 PSI)</td> </tr> <tr> <td>02*</td> <td>1.5 to 25 Bar (22 to 363 PSI)</td> </tr> <tr> <td>05**</td> <td>2 to 50 Bar (29 to 725 PSI)</td> </tr> <tr> <td>06*</td> <td>1.5 to 64 Bar (22 to 928 PSI)</td> </tr> <tr> <td>10**</td> <td>4 to 100 Bar (58 to 1450 PSI)</td> </tr> <tr> <td>15**</td> <td>6 to 150 Bar (87 to 2175 PSI)</td> </tr> <tr> <td>16*</td> <td>3 to 160 Bar (44 to 2320 PSI)</td> </tr> <tr> <td>21</td> <td>8 to 210 Bar (116 to 3045 PSI)</td> </tr> <tr> <td>35*</td> <td>10 to 315 Bar (147 to 4560 PSI)</td> </tr> </table>		<b>Code</b>	<b>Range</b>	01	1.0 to 14 Bar (15 to 200 PSI)	02*	1.5 to 25 Bar (22 to 363 PSI)	05**	2 to 50 Bar (29 to 725 PSI)	06*	1.5 to 64 Bar (22 to 928 PSI)	10**	4 to 100 Bar (58 to 1450 PSI)	15**	6 to 150 Bar (87 to 2175 PSI)	16*	3 to 160 Bar (44 to 2320 PSI)	21	8 to 210 Bar (116 to 3045 PSI)	35*	10 to 315 Bar (147 to 4560 PSI)
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<b>Viscosity Range</b>	12 to 230 cSt / mm <sup>2</sup> /s (56 to 1066 SSU)																					
<b>Filtration</b>	ISO Code 18/16/13 or Better																					

\* PRDM2 only

\*\* PRDM3 only.

**PRDM**  
 Pressure Reducing/Relieving

Size  
 Port Reduction  
 Pressure Range  
 Adjustment  
 Seal  
 Gage Port  
 Design Series  
 NOTE: Not required when ordering.

Code	Description
2	NFPA D03 Subplate Mounting
3	NFPA D05 Subplate Mounting

Code	Type
N	Nitrile
V	Fluorocarbon

Code	Type
N	1/4" NPT
S	SAE #4 (UNF-2B 7/16-20) Adapter in PRDM3
M	Metric
G	1/4" BSPP

Code	Description
PP	P Port Only
AA	A Port Only
BB	B Port Only

Code	Type
L	Hex w/Key Lock
S	Internal Hex Screw Adj.
K	Knob

Code	Description
01	1 to 14 Bar (15 to 200 PSI)
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\* PRDM2 only.  
 \*\* PRDM3 only.

**Bold: Designates Tier I products and options.**  
**Non-Bold: Designates Tier II products and options.**  
 These products will have longer lead times.

**Bolt Kits**

Size "2"				Size "3"			
No. of Sandwich	Sandwich & Valve Combination	Bolt Kit	Bolt Length mm (in)	No. of Sandwich	Sandwich & Valve Combination	D3W-30 D3DW & D31*W*	Bolt Length mm (in)
1	Sandwich & D1	BK243	73.2 (2.88)	1	Sandwich & D3	BK141	88.9 (3.50)
2	Sandwich & D1	BK225	111.3 (4.38)	2	Sandwich & D3	BK142	139.7 (5.50)
3	Sandwich & D1	BK244	152.4 (6.00)	3	Sandwich & D3	BK143	190.5 (7.50)
4	Sandwich & D1	BK245	190.5 (7.50)				

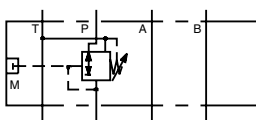
\* D31VW with internal pilot and internal drain only.

Bolt Kits must be ordered separately.

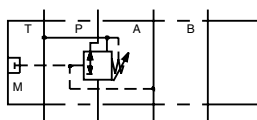
**Weights:**

PRDM2 1.3 kg (2.9 lbs.)  
 PRDM3 2.6 kg (5.8 lbs.)

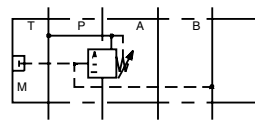
**Schematics**



PP Option



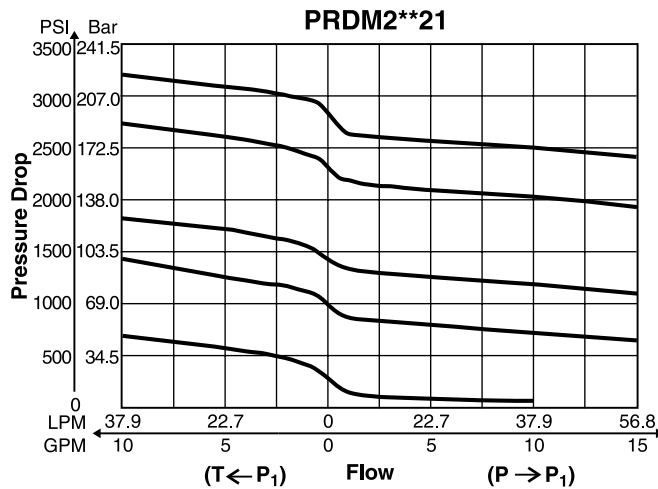
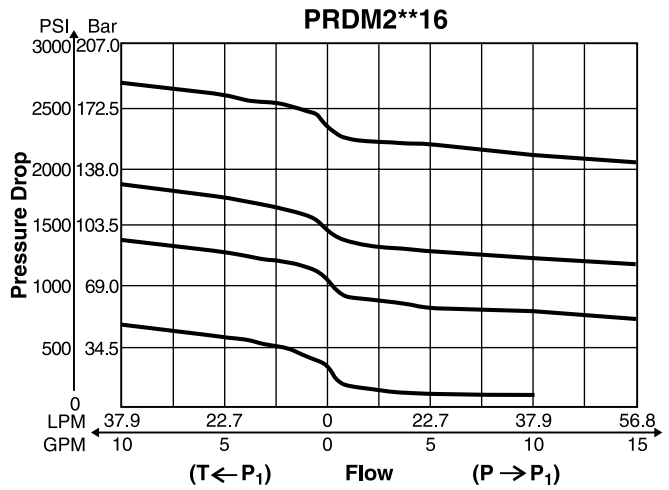
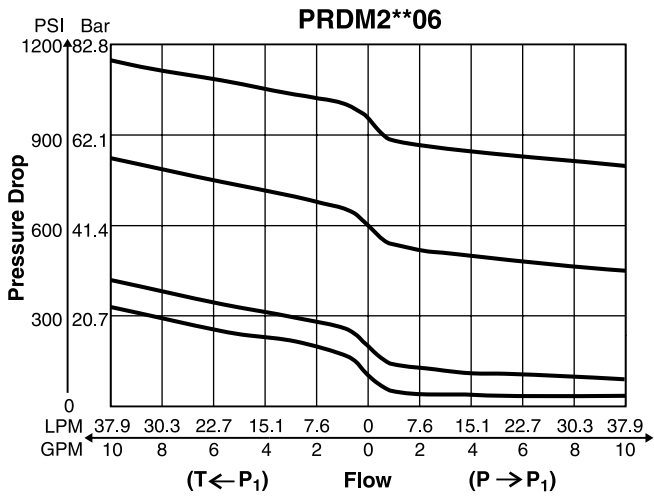
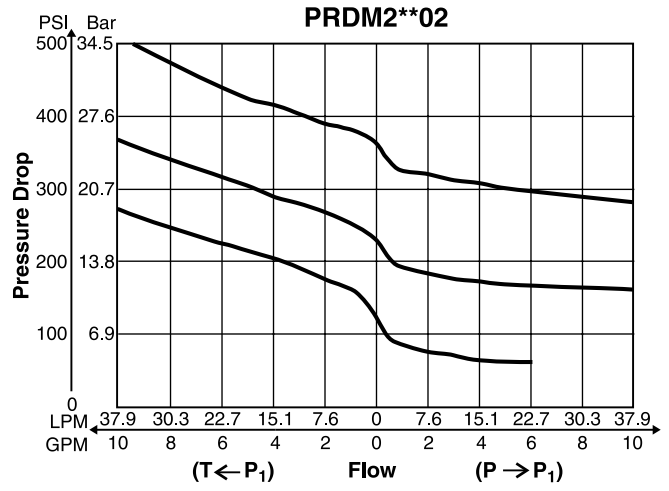
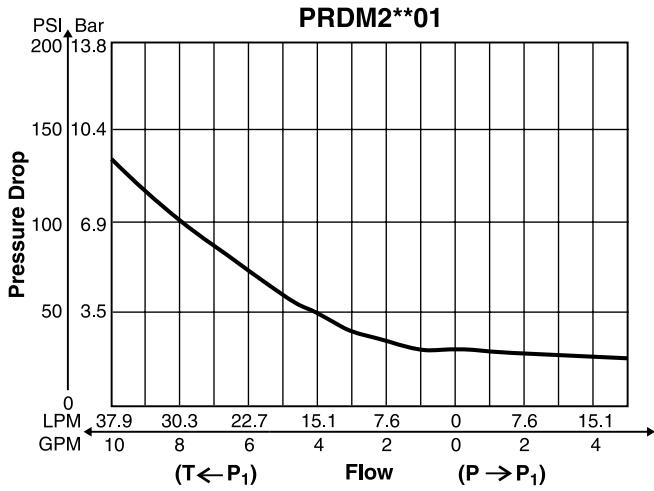
AA Option



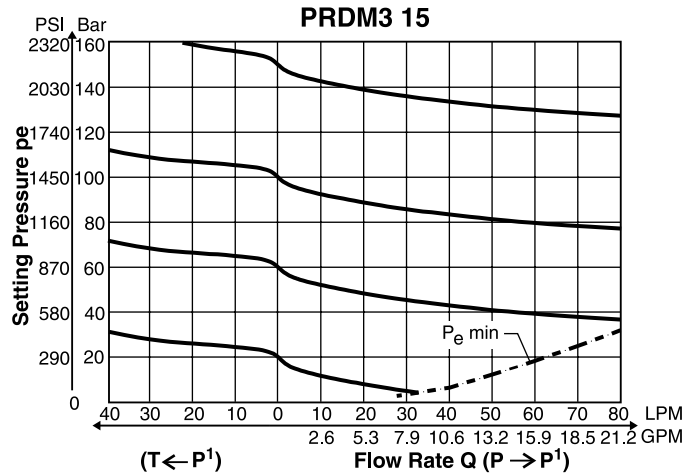
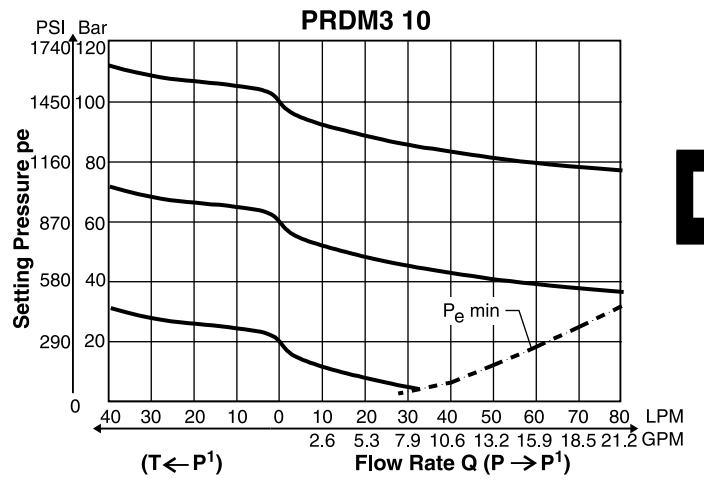
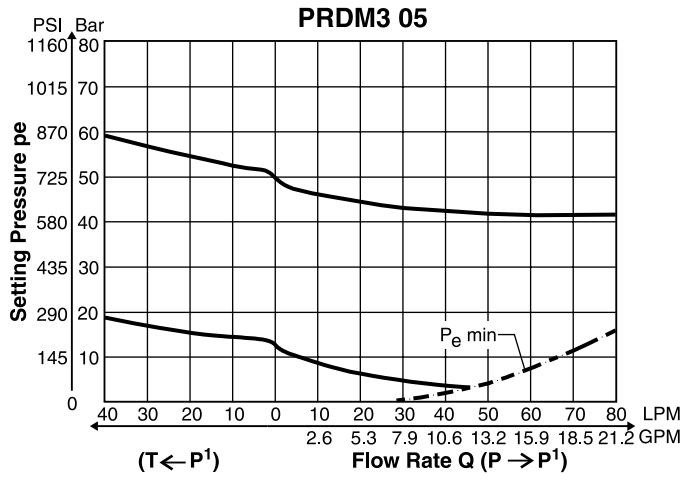
BB Option

Parker Sandwich.indd, dd

**B**



**NOTE: Lowest pressure setting dependent upon system resistance.**

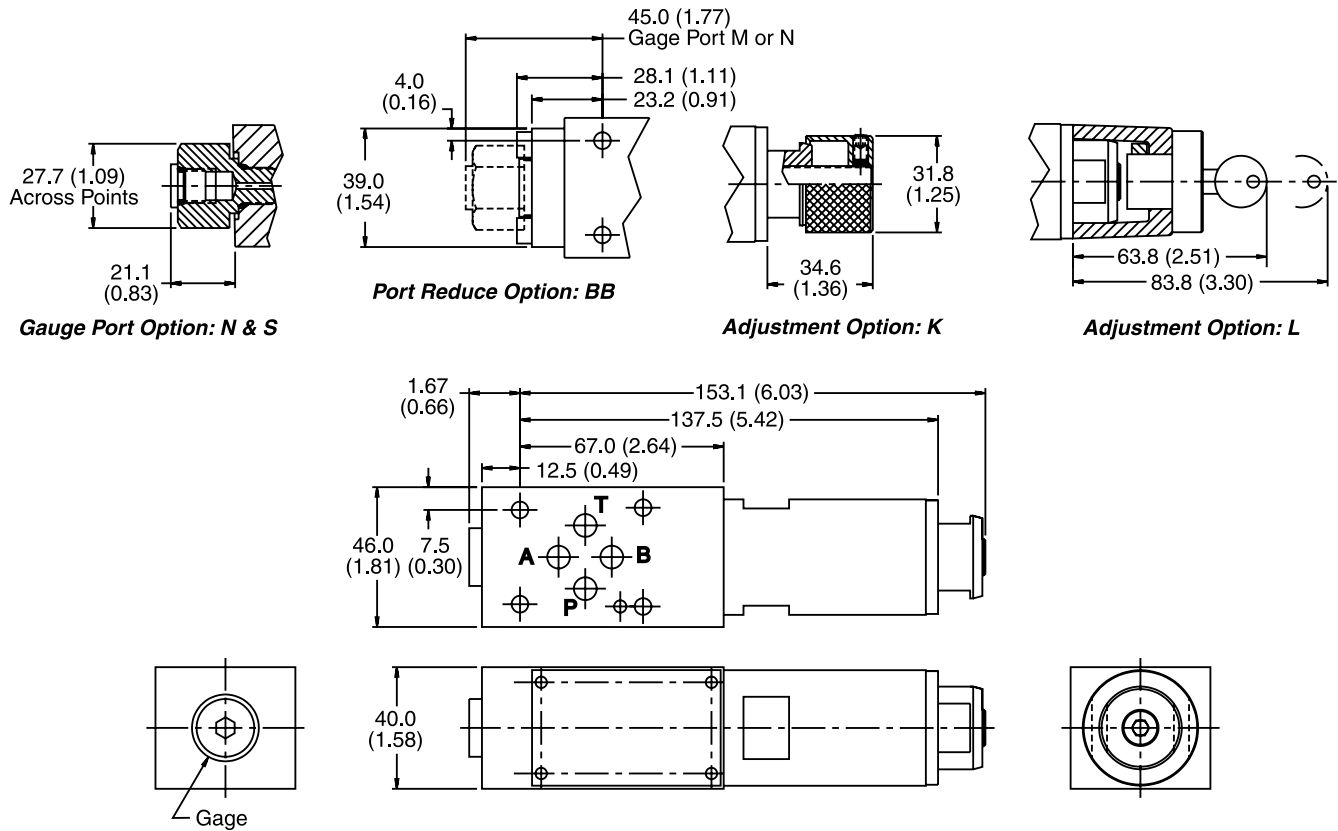


**NOTE: Lowest pressure setting dependent upon system resistance.**

**PRDM2**

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

**B**



**PRDM3**

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

