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Characteristics

Pressure relief valves series RDM are direct-operated piston type valves with low hysteresis. They can be used as a P-T relief, and a T-T controlled counter balance valve. 4 pressure stages with max. pressure settings of 25, 64, 160 and 210 bar are available.

A pressure gauge/measuring port connection is available in the valve body.

Function

PT... pressure is relieved in P at the limited value.

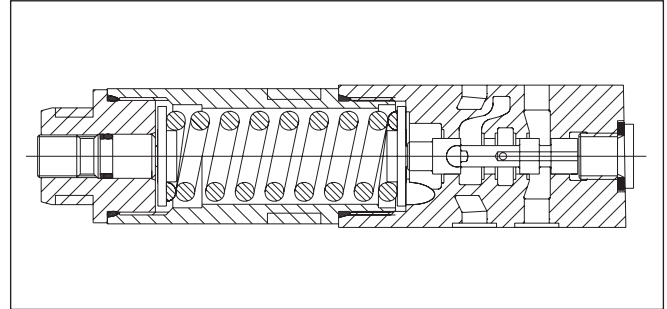
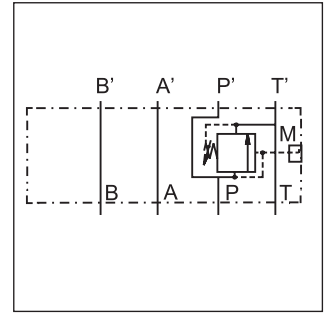
Excess oil is led into T line.

TT... back pressure in T at the adjusted value (counter-balance).

Features

- RDM Manopak sandwich valves may be selected to relieve pressure in the 'P' or 'T' port.
- The direct-operated, cushioned piston design results in fast response, low leakage and minimal hysteresis.
- Up to four pressure adjustment ranges are available with maximum pressure settings of 25, 64, 160 and 210 bar.
- Options include: A choice of two adjustment styles, and five gauge port sizes.

**Direct-Operated Pressure Relief Valve
Series RDM**



Technical data

Series	RDM2	RDM3
Mounting pattern	ISO 4401-03-02-0-94	ISO 4401-05-04-0-94
Max. pressure P, A, B T	350 bar 50 bar	315 bar 10 bar
Max. flow	40 l/min	80 l/min
Pressure adjusted range	02 1.5 06 1.5 16 3 21 3 35 5	up to 25 bar up to 64 bar up to 160 bar up to 210 bar up to 350 bar
Viscosity range	12-230 cST	
Weight [kg]	1.3	2.6
Filtration	ISO 4406 : 1999; 18/16/13	

Direct-Operated Pressure Relief Valve Series RDM

Ordering Code

RD	M					V		
Pressure relief valve, direct-operated	Manapak	Size	Pressure relief	Pressure range	Adjustment	Seal FPM	Gauge port	Design series

Code	Size
2	NG06
3	NG10

Code	Pressure relief
PT	P
TT ¹⁾	T

¹⁾ TT only NG06 max. 160 bar

Code	Gauge port
G²⁾	G1/4
C	Coupling M16

²⁾ Standard in housing

Code	Adjustment
S	Slotted screw
L	Lock Knob
K	Knob (only NG06)

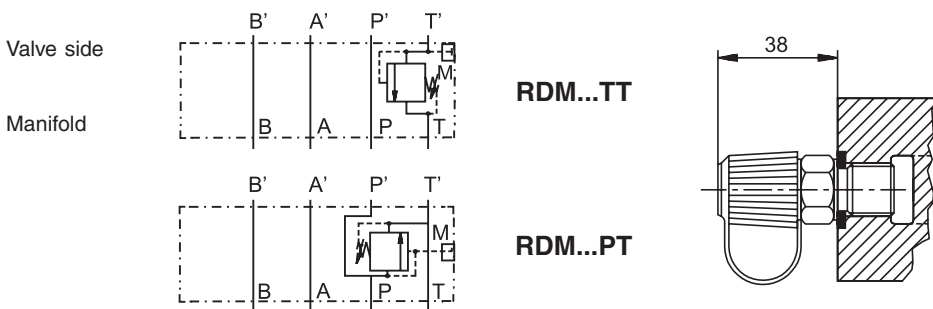
Code	Pressure range RDM2
02	25 bar
06	64 bar
16	160 bar
21	210 bar
35	350 bar

Code	Pressure range RDM3
05	50 bar
10	100 bar
15	150 bar
21	210 bar

Bold letters = Short-term availability

7

Schematics



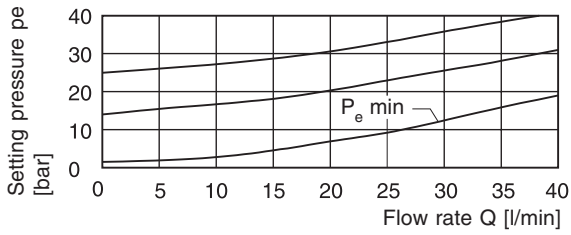
Seal kit RDM2	
Seal	Order code
FPM	SK-RDM2-V

RDM.PMD CM

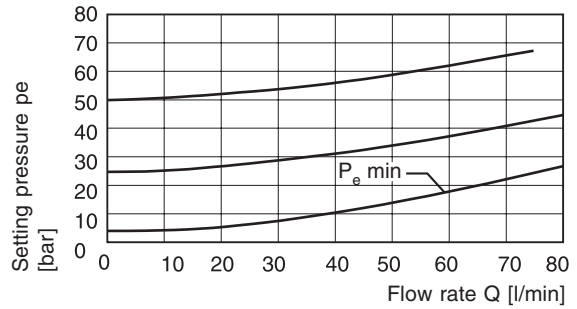


RDM2

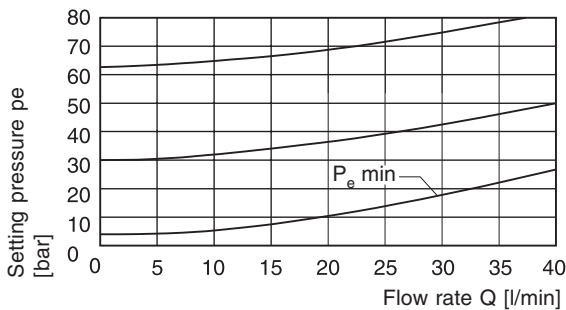
RDM2 02



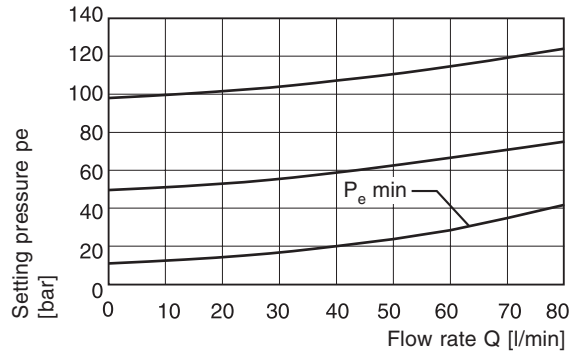
RDM3 05



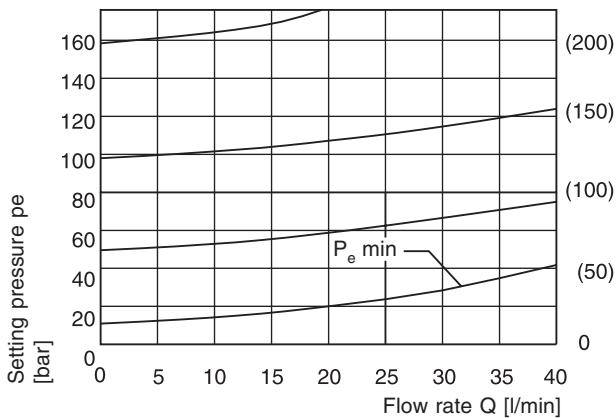
RDM2 06



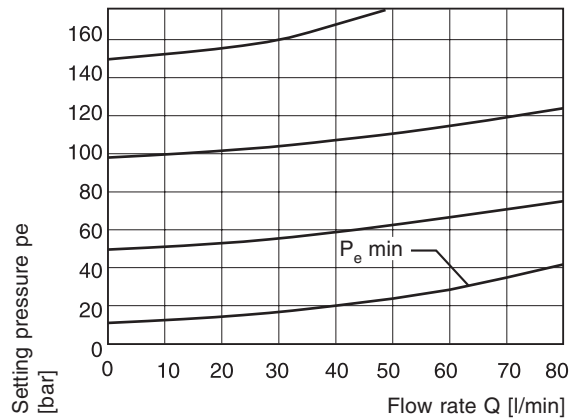
RDM3 10



RDM2 16 (21)



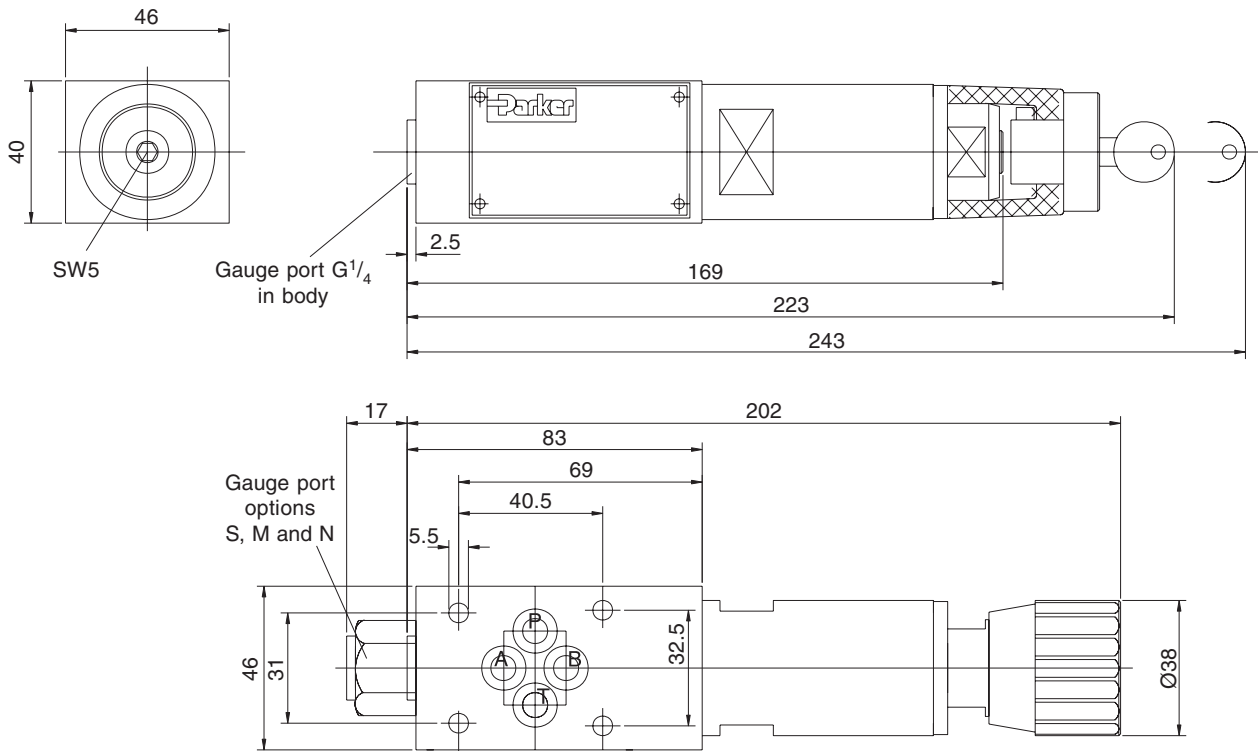
RDM3 15



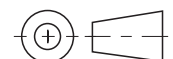
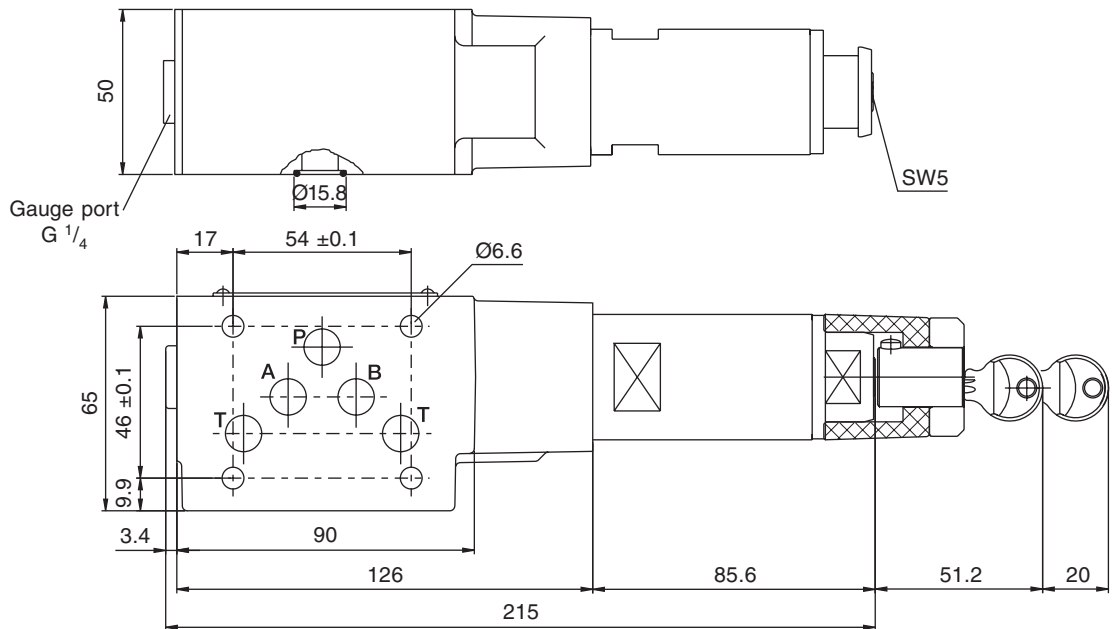
7

Dimensions

RDM2



RDM3



RDM.PMD CM



7

Characteristics

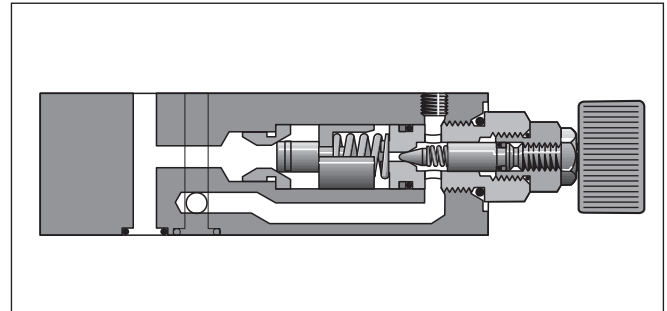
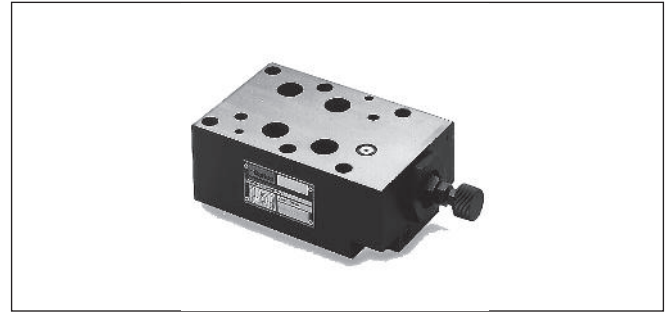
The pilot-operated pressure relief valves from the Parker Manapak series RM are sandwich plate valves designed for stacking beneath a directional valve with a standardised mounting pattern. Depending on type, pressure limiting can be achieved in ports P, A, or B with unloading always taking place at T.

RM valves may only be mounted in the defined mounting position.

Features

- The valve bodies of the Parker Manapak valve series RM are made of steel.
- The pressure can be set by slotted head screw, knob, or knob with lock.
- Piloting results in a flat p/Q performance curve which is essentially only influenced by Q-dependent flow resistance.
- The orifices located in the main spool limit the pilot oil flow.

Pilot-Operated Pressure Relief Valve Series RM

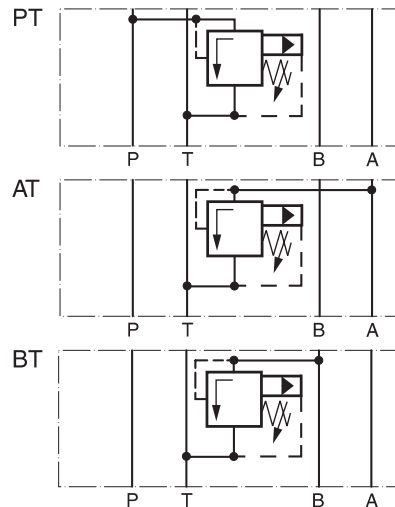


Technical data

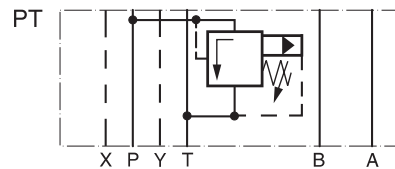
General		pressure relief sandwich valve		
Design		hydraulic		
Actuation		hydraulic		
Size		NG10	NG16	NG25
Mounting interface		ISO 4401 : 1994		
Mounting position		any		
Ambient temperature	[°C]	-40...+60		
Weight [kg]		3.7	4.9	5.9
Hydraulic				
Max. operating pressure	[bar]	350		
Fluid		hydraulic oil to ISO		
Fluid temperature	[°C]	-20...+60		
Viscosity				
recommended	[mm ² /s]	30...80		
permitted		20...380		
Filtration		ISO 4406 : 1999; 18/16/13		

Schematics

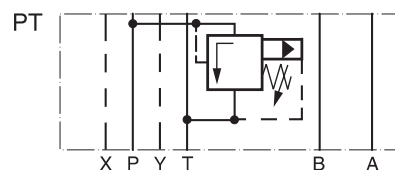
RM3



RM4



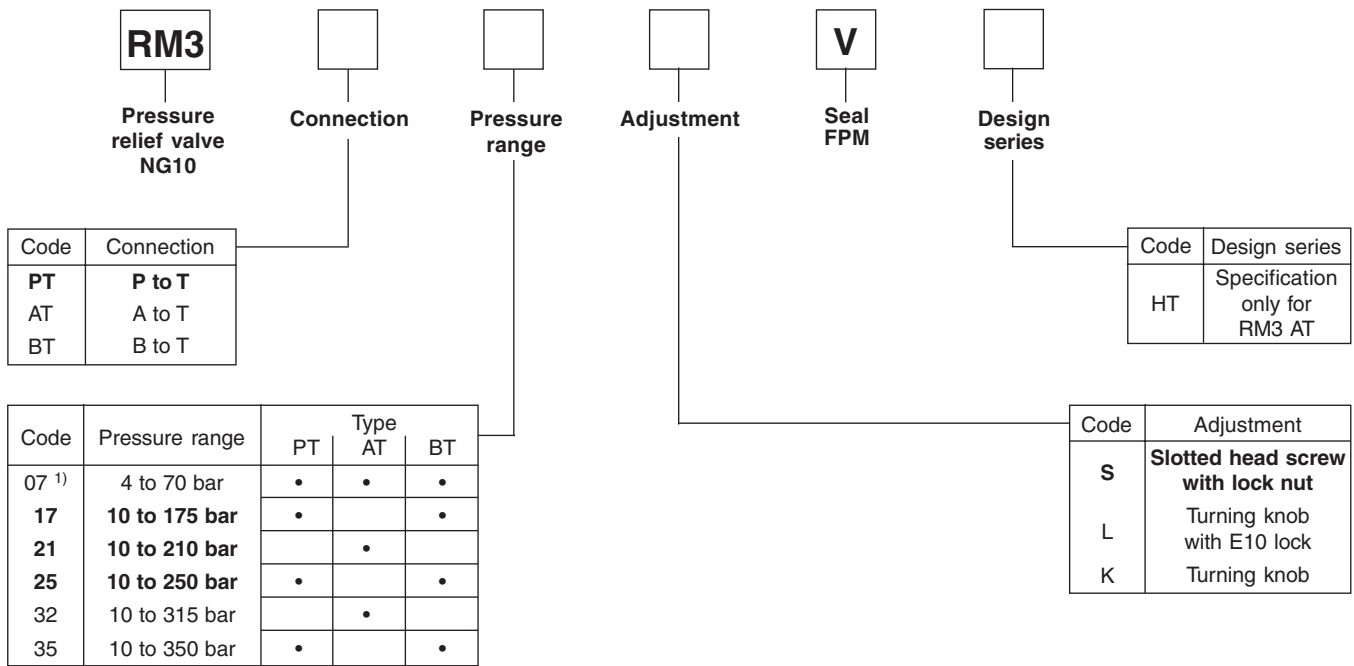
RM6



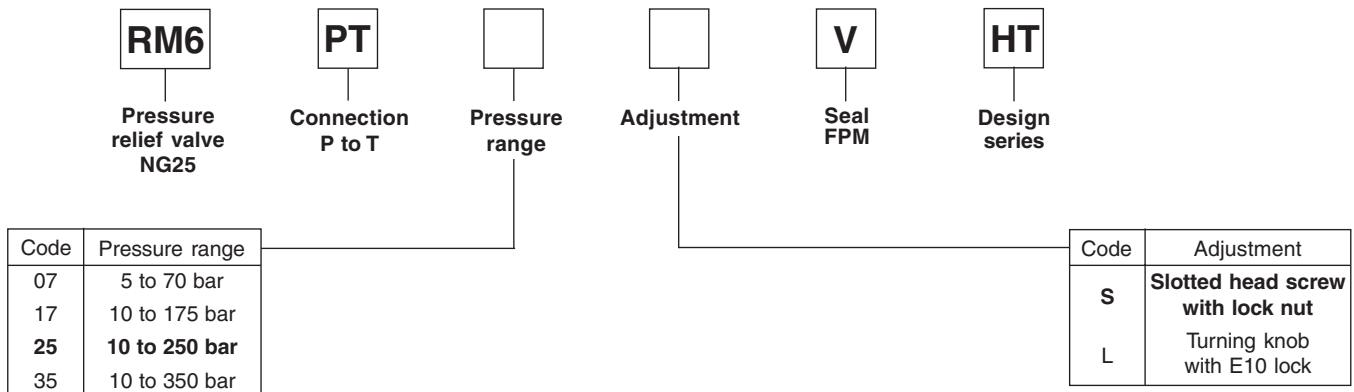
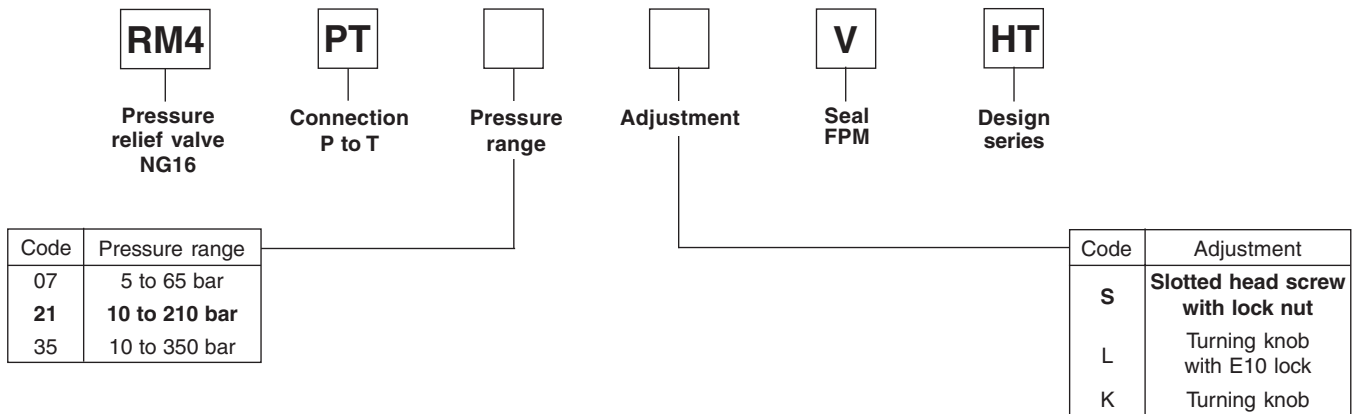
RM.PMD CM

Pilot-Operated Pressure Relief Valve Series RM

Ordering Code

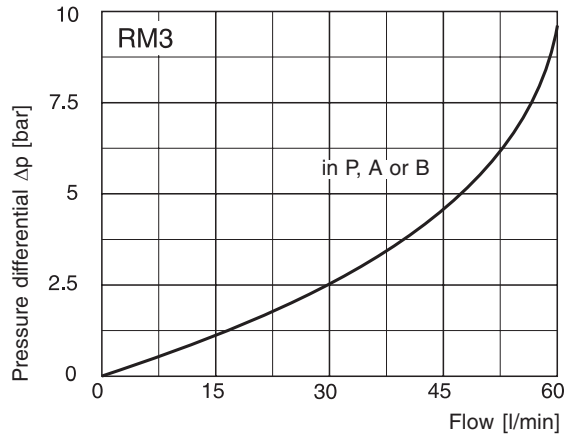
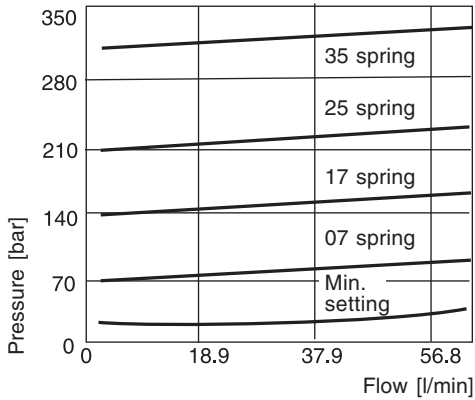


¹⁾ Type AT = 5-65 bar

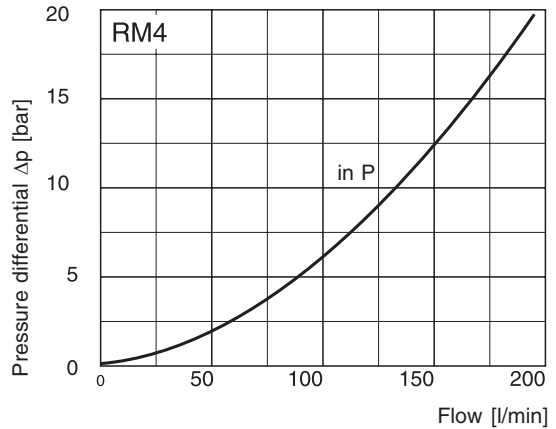
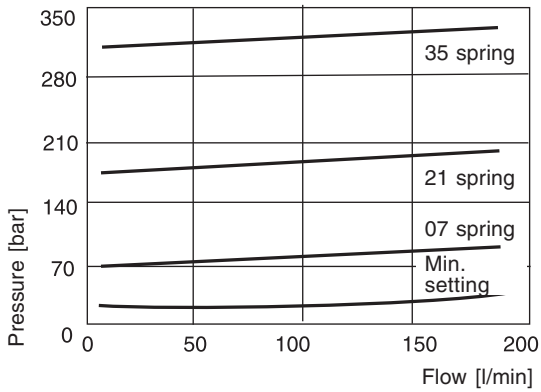


Bold letters =
Short-term availability

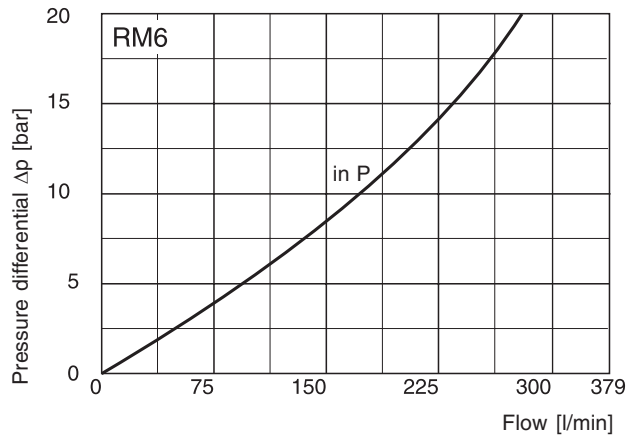
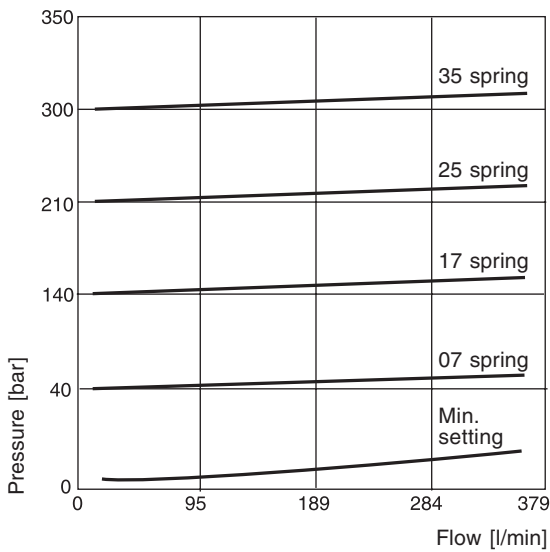
RM3 Pressure curve



RM4 Pressure curve



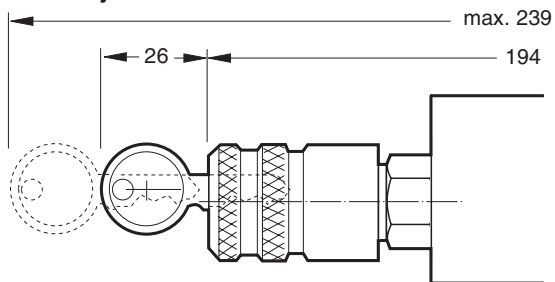
RM6 Pressure curve



RM.PMD CM

Dimensions

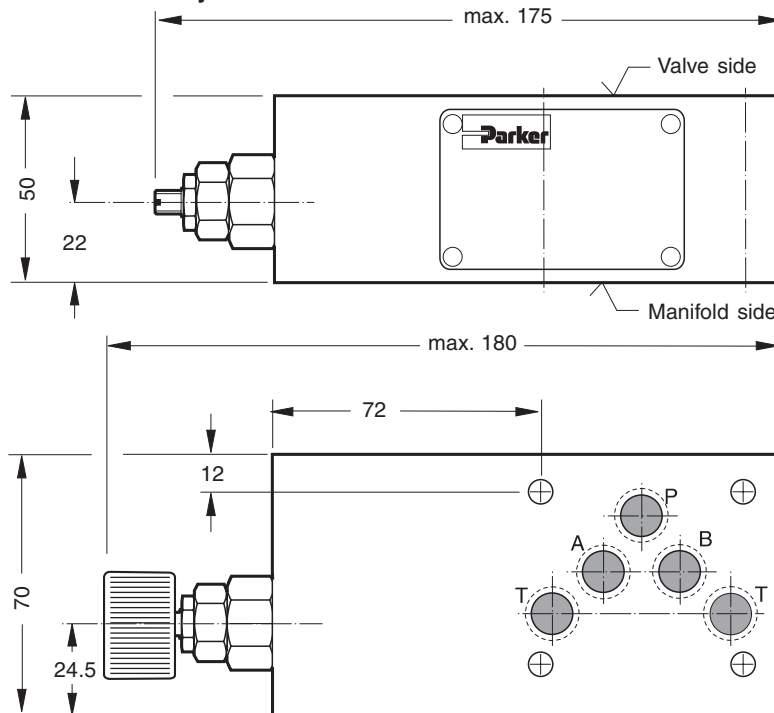
RM3 Adjustment Code L



Seal kit RM3	
Seal	Order code
V	SK-RM3-V-11

Adjustment Code K

Adjustment Code S

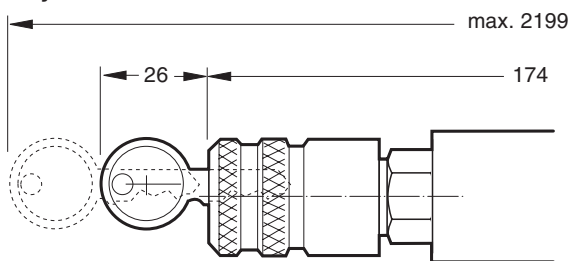


Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and the positioning pins are always mounted on the manifold side.

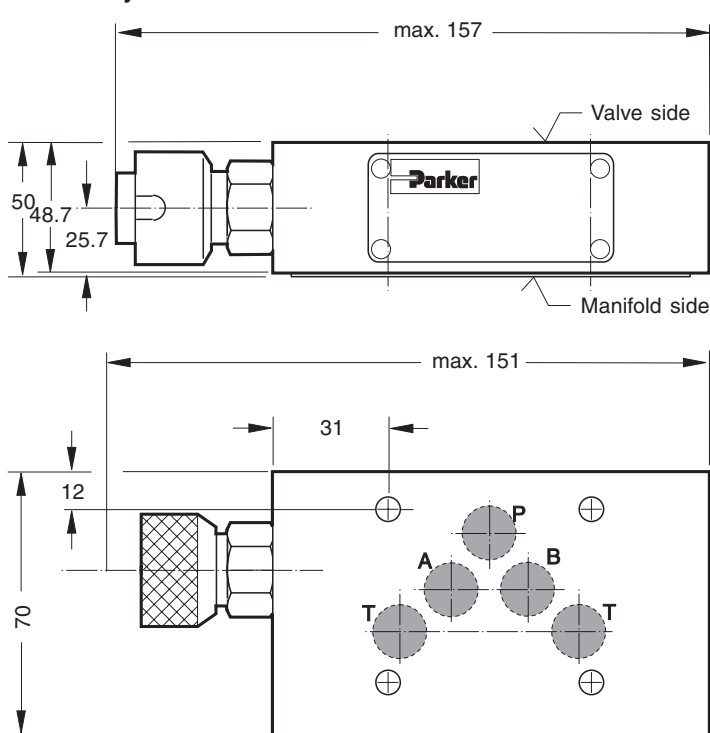
RM3 AT*HT

Adjustment Code L



Adjustment Code K

Adjustment Code S

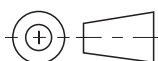


Note:

The seal plate and the O-rings for sealing the connecting surface of the manifold side are included with the HT model.

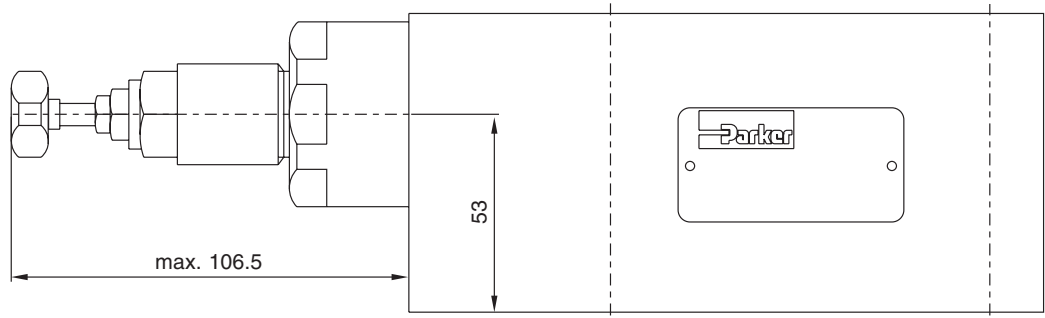
RM.PMD CM

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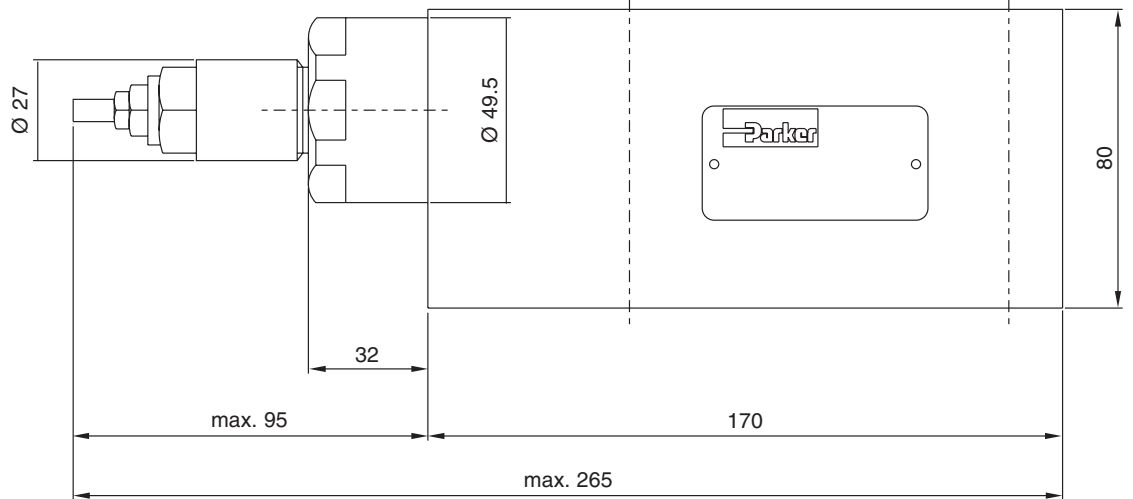


Dimensions

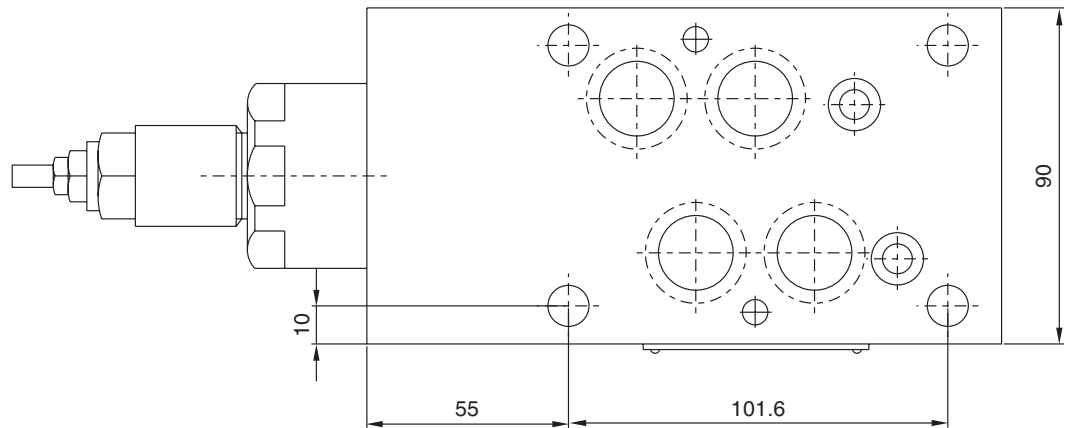
RM4



Adjustment Code K



Adjustment Code S



7



Note:

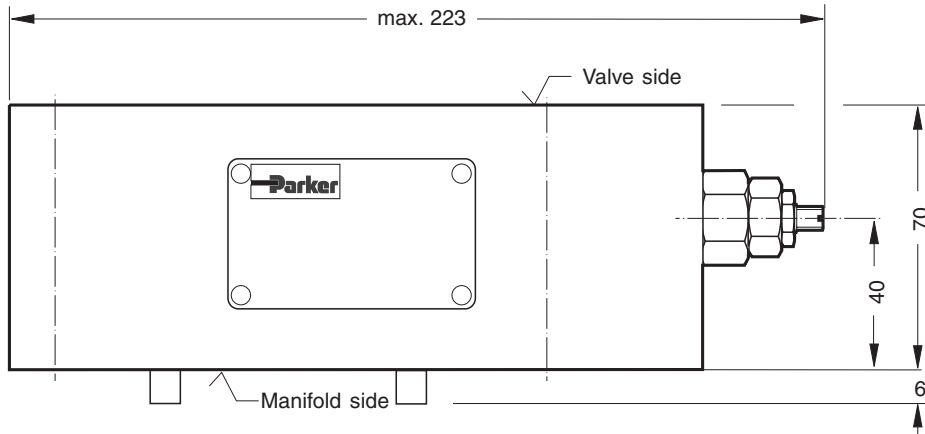
The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and the positioning pins are always mounted on the manifold side.

Seal kit RM4	
Seal	Order code
V	SK-RM4-V-10

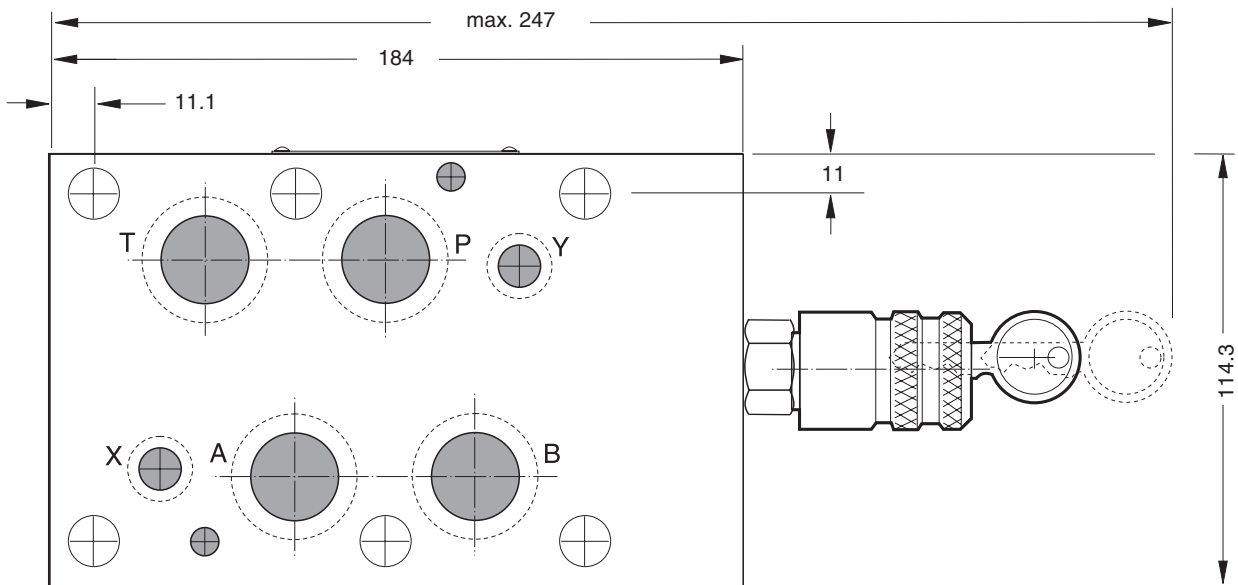
Dimensions

RM6

Adjustment Code S



Adjustment Code L



7

Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and the positioning pins are always mounted on the manifold side.

Seal kit RM6	
Seal	Order code
V	SK-RM6-V-11

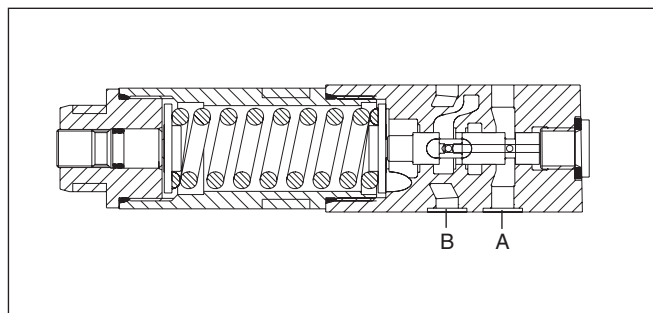
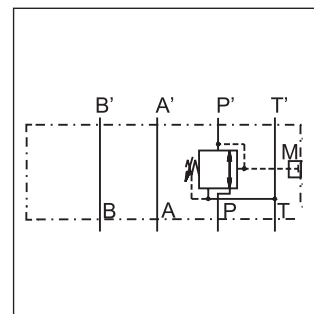
Characteristics

Direct-Operated Pressure Reducing Valve Series PRDM

Series PRDM are direct-operated pressure reducing valves 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.

Function

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 the tank, thereby limiting maximum pressure to the valve's setting.



Features

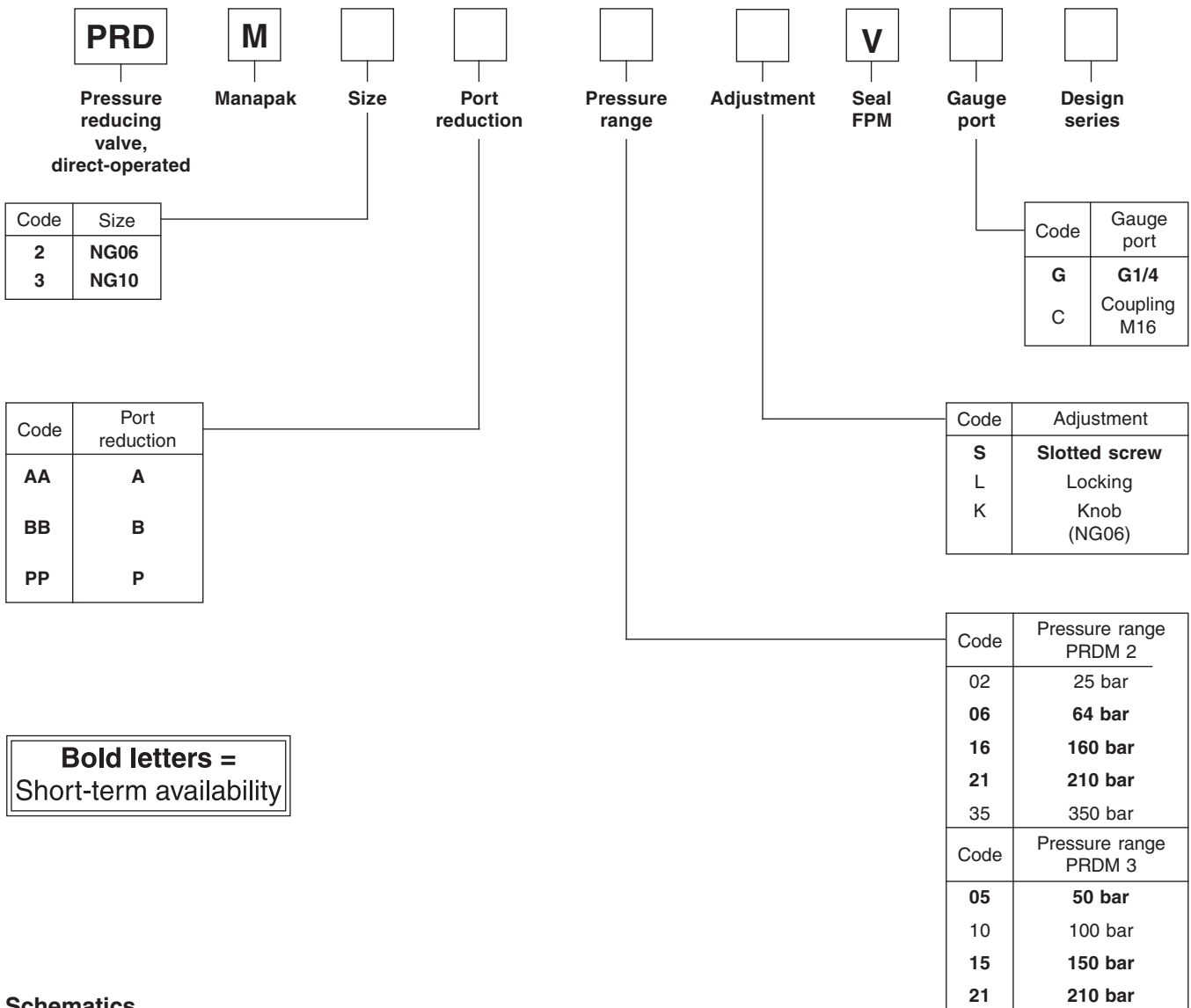
- PRDM Manopak sandwich valves may be selected to reduce pressure in the 'P', 'A' or 'B' port.
- The direct-operated, cushioned piston design results in fast response, low leakage and minimal hysteresis.
- Up to four pressure adjustment ranges are available with maximum pressure settings of 25, 70, 160 and 210 bar (363, 1015, 2320, 3045 PSI).
- Options include: A choice of two adjustment styles, and five gauge port sizes.

Characteristics

Series	PRDM2	PRDM3
Mounting Pattern	ISO 4401-03-02-0-94	ISO 4401-05-04-0-94
Max. operating pressure P, A, B T	350 bar 50 bar	315 bar 10 bar
Max. Flow	40 l/min	80 l/min
Pressure adjusted range	02 1.5 06 1.5 16 3 21 3 35 5	up to 25 bar up to 64 bar up to 160 bar up to 210 bar up to 350 bar
Viscosity range	12-230 cST	
Weight [kg]	1.3	2.6
Filtration	ISO 4406 : 1999; 18/16/13	

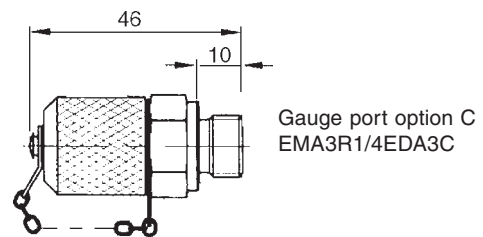
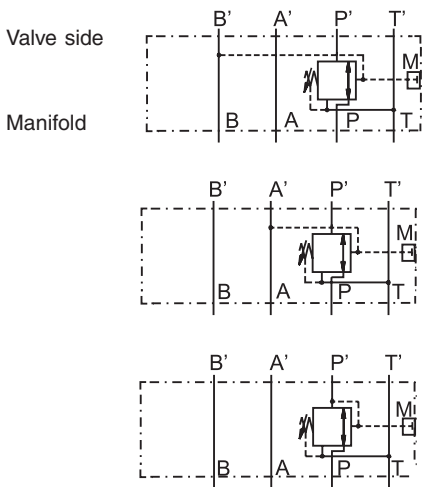
Note: max. leakage from P to A - 5ml/min

Ordering Code



7

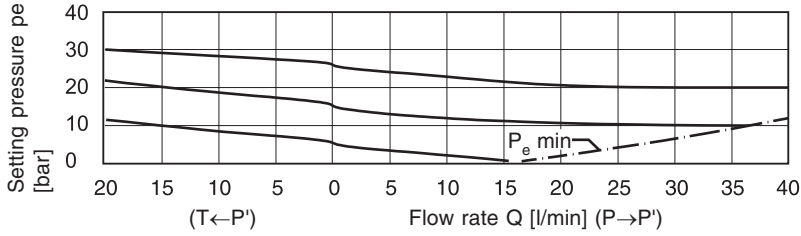
Schematics



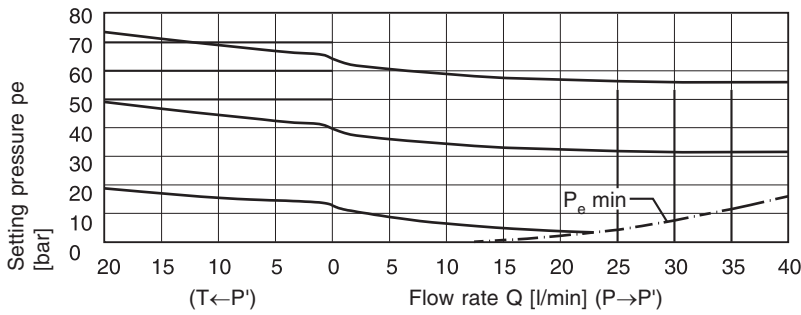
Seal kit	PRDM2	PRDM3
Seal	Order code	
FPM	SK-PRDM2-V	SK-PRDM3-V

PRDM2

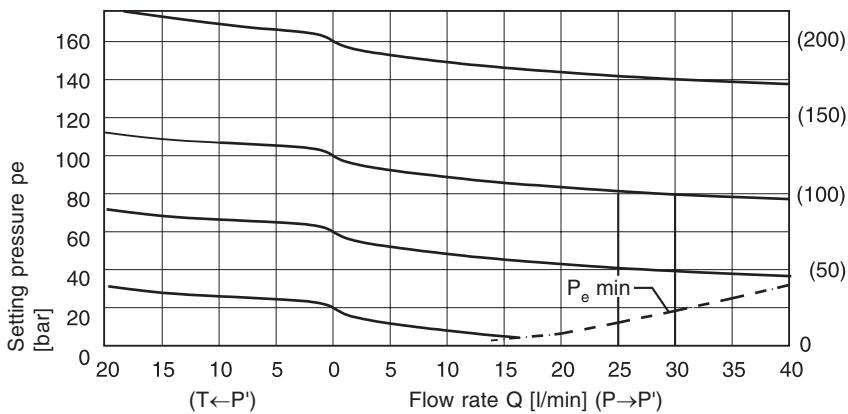
PRDM2 02



PRDM2 06



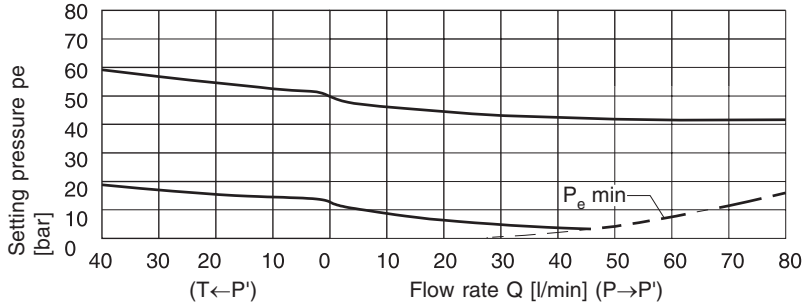
PRDM2 16 (21)



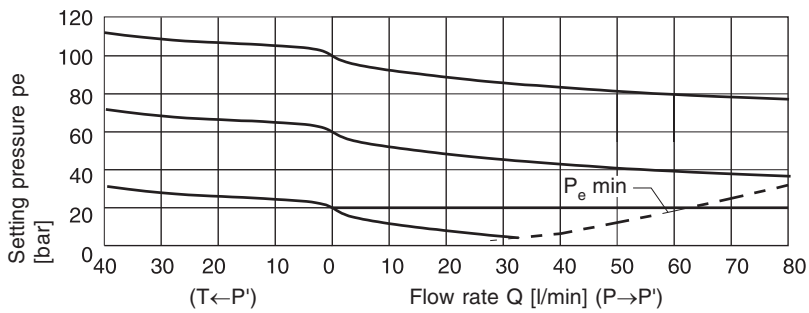
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PRDM3

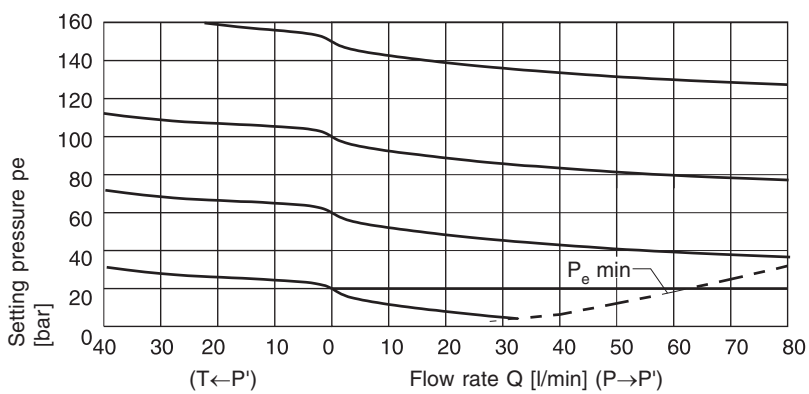
PRDM3 05



PRDM3 10

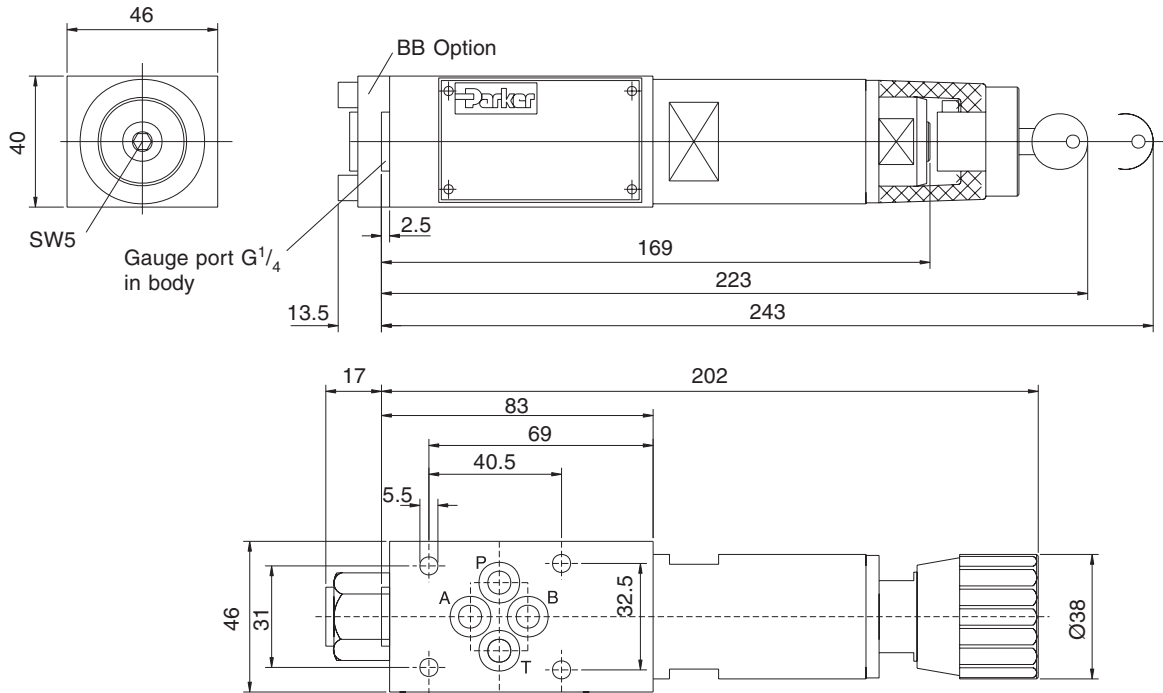


PRDM3 15

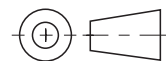
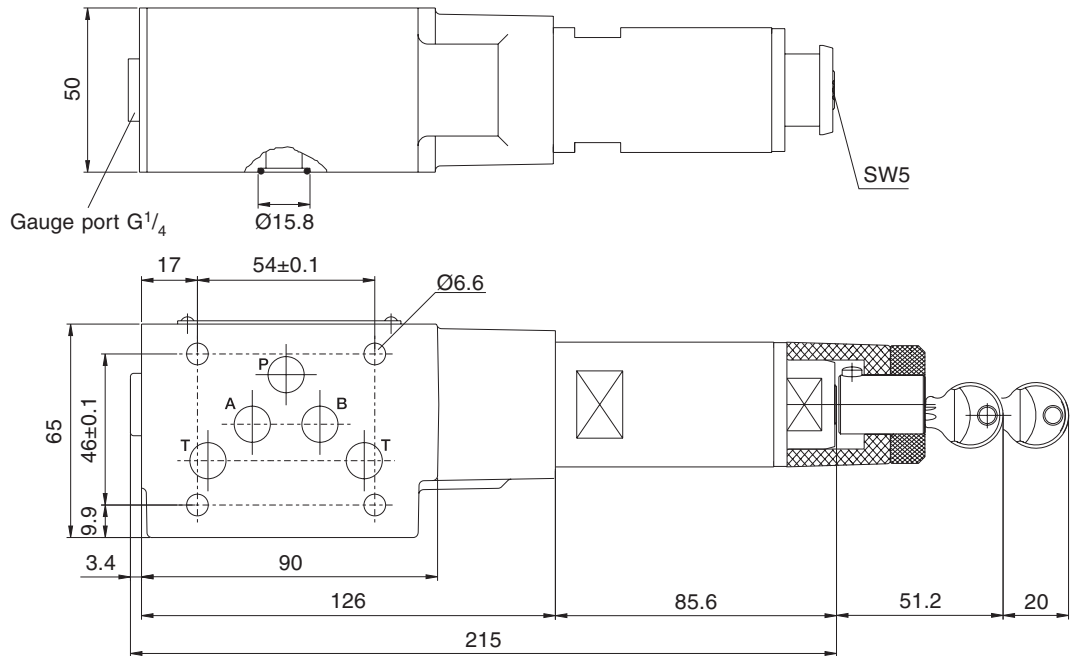


PRDM.PMD CM

PRDM2



PRDM3



Characteristics

The pilot-operated pressure reducing valves from the Parker Manapak series PRM are sandwich plate valves designed for stacking beneath a directional valve with a standardised mounting pattern. The pressure reducing valve, except for models PRM3 AA and BB, is always in the P channel.

The pressure reduction for the desired connecting port is achieved by internal connections of the pilot and drain lines with the corresponding channels.

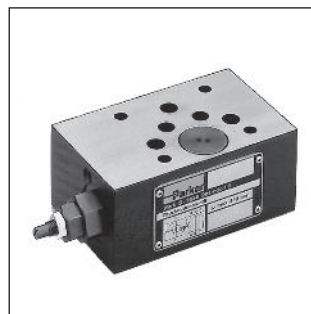
Features

- The valve bodies of the Parker Manapak valve series PRM are made of steel.
- The control pressure range can be set by slotted head screw, knob, or knob with lock.
- Pressure gauge/measuring connections are available in the valve body.
- Piloting results in a flat p/Q performance curve which is essentially only influenced by Q-dependent flow resistance.
- The orifices located in the compensator spool limit the pilot oil flow.

Characteristics

Port size	NG10	NG16	NG25
Mounting pattern	ISO 4401		
Series	PRM3	PRM4	PRM6
Pressure stages	70 bar	70 bar	70 bar
	175 bar	--	175 bar
	--	210 bar	--
	250 bar	--	250 bar
	350 bar	350 bar	--
Working pressure	350 bar	350 bar	250 bar
Min. setting range	4 bar	4 bar	10 bar
Pressure reduction in channel	P, A, B	P	P, A
Weight [kg]	2.7	5.0	5.6

Pilot-Operated Pressure Reducing Valve Series PRM

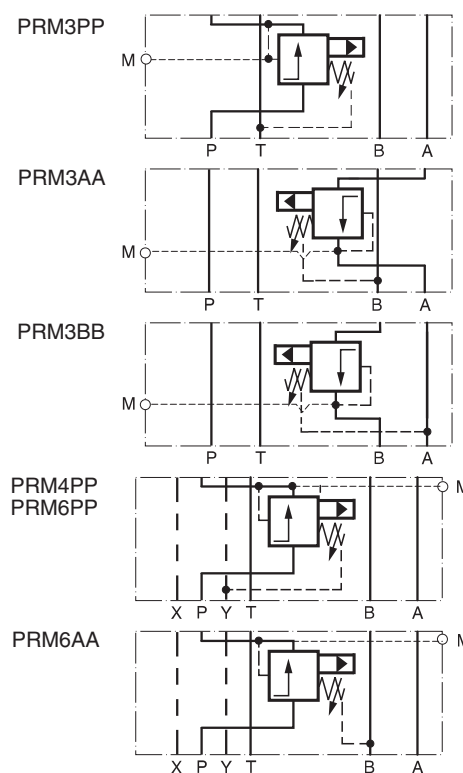


PRM3PP



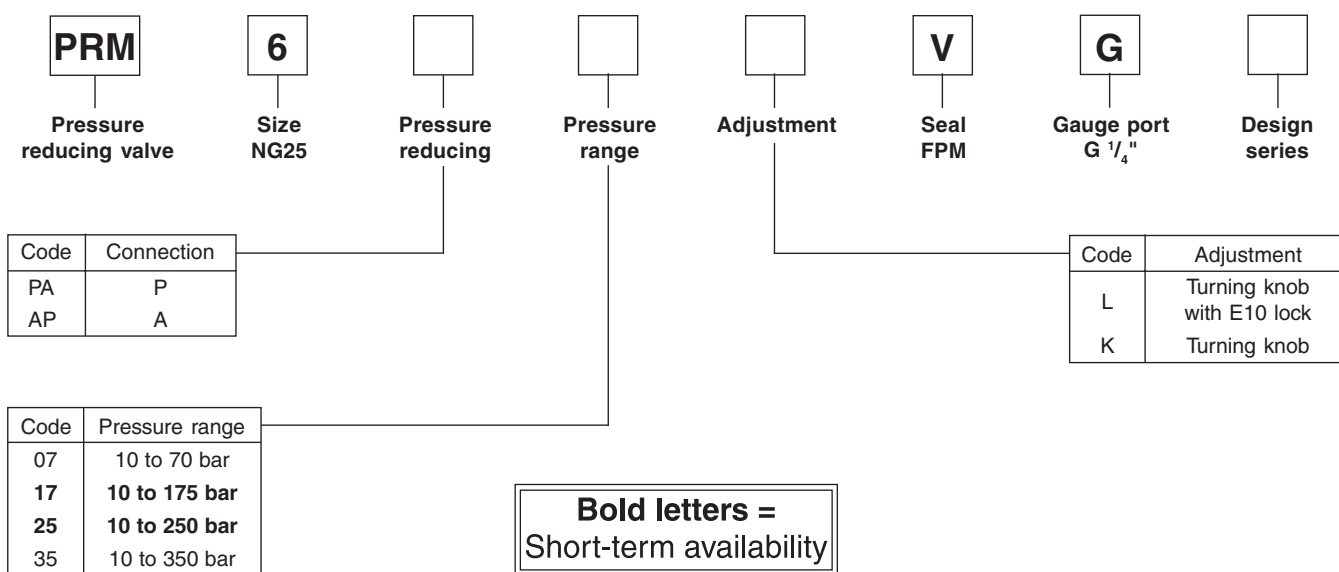
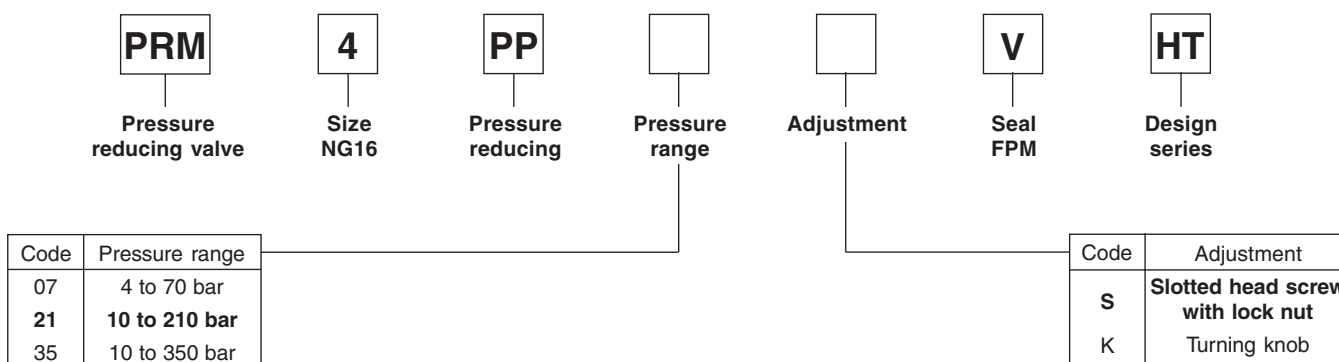
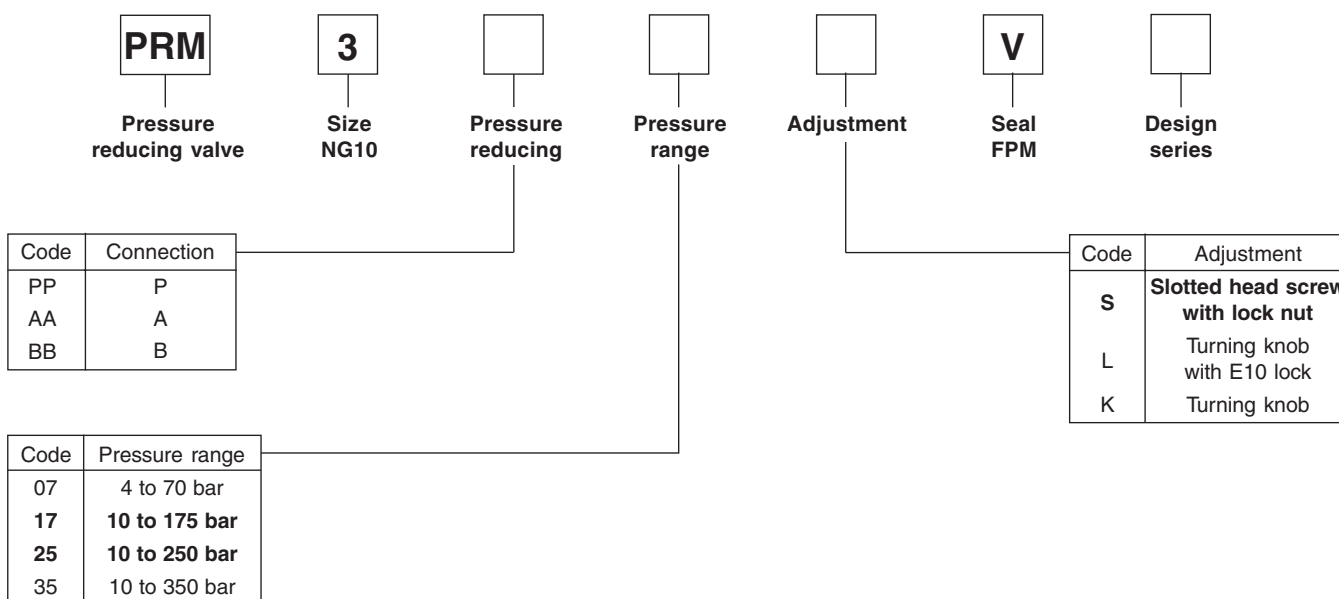
PRM6

Schematics

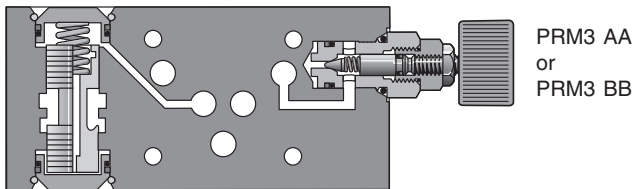
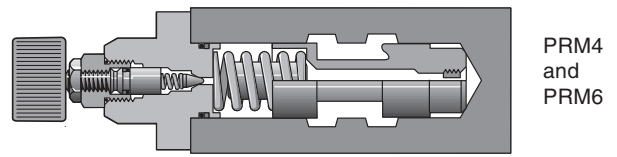
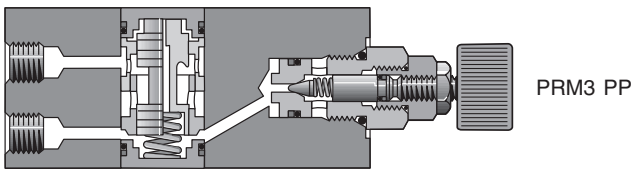


Pilot-Operated Pressure Reducing Valve Series PRM

Ordering Code



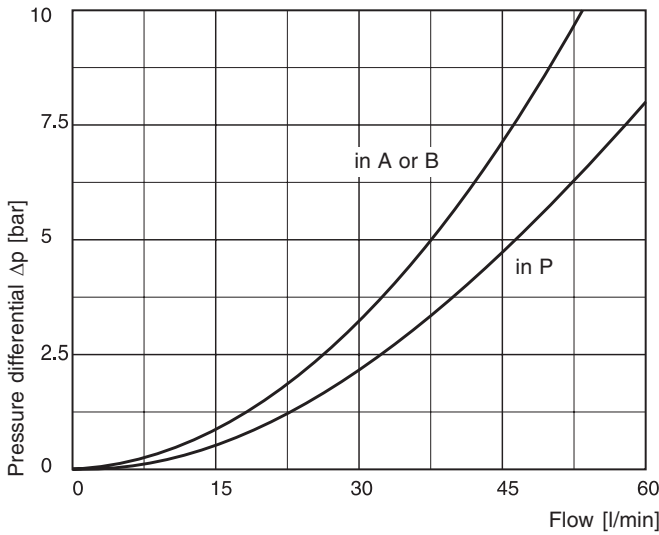
PRM.PMD CM



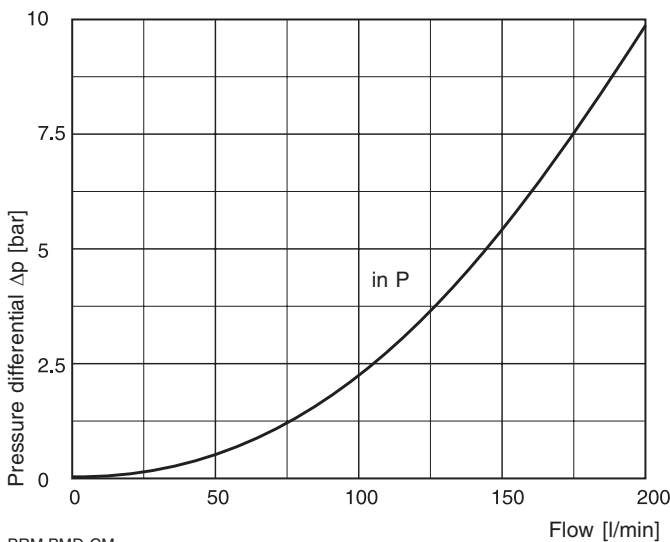
Gauge port size	
Valve type	Port size
PRM3	1/4 NPTF
PRM4	G1/4
PRM6	G1/4

$\Delta p/Q$ performance curves

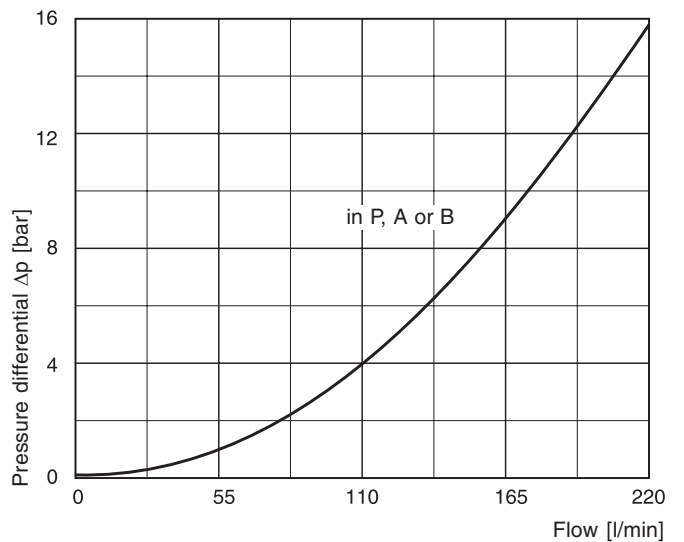
PRM3



PRM4



PRM6

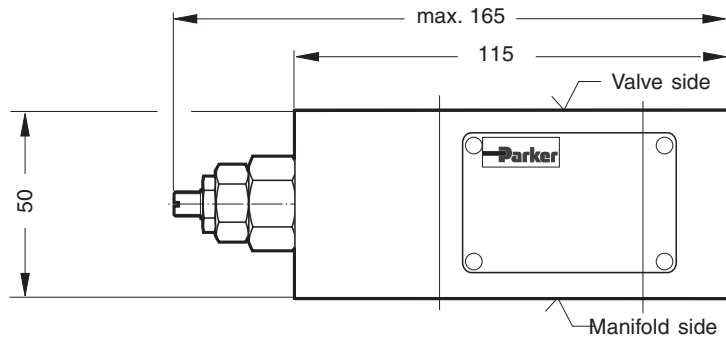


PRM.PMD CM

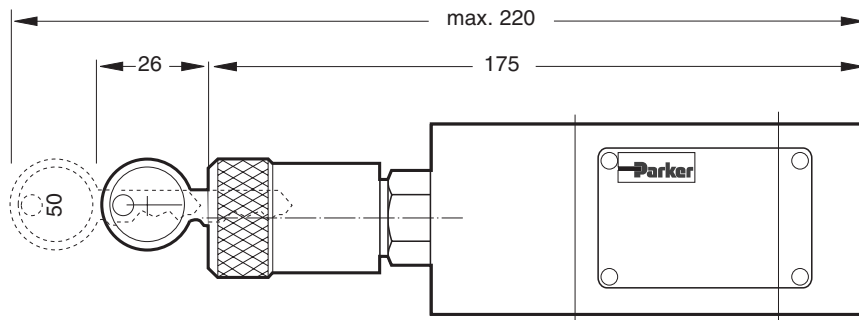
Dimensions

PRM3PP

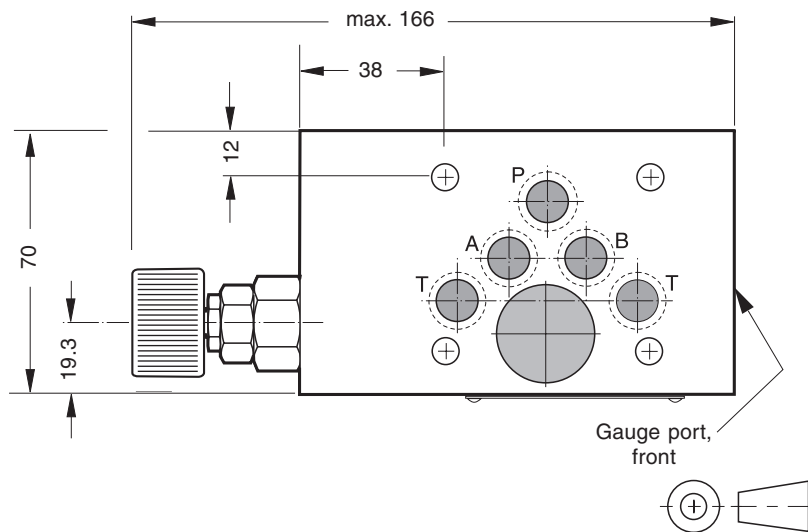
**Adjustment
Code S**



**Adjustment
Code L**



**Adjustment
Code K**



7

Note:

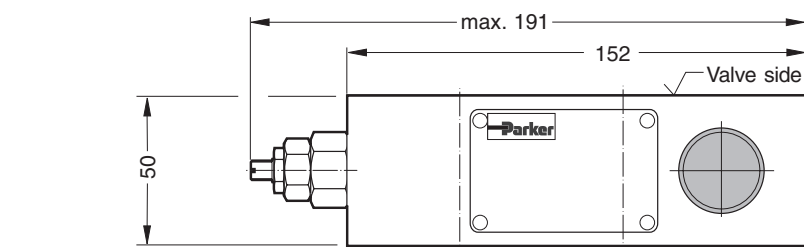
The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and the positioning pins are always mounted on the manifold side.

Seal kit PRM3PP	
Seal	Order code
V	SK-PRM3-V-30

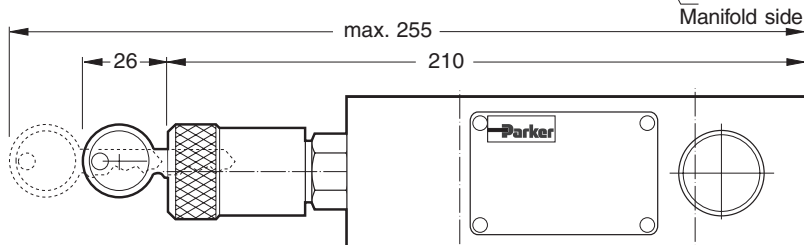
Dimensions

PRM3AA

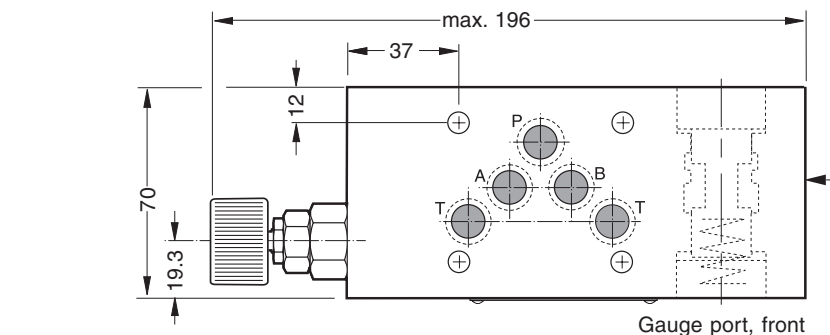
Adjustment
Code S



Adjustment
Code L

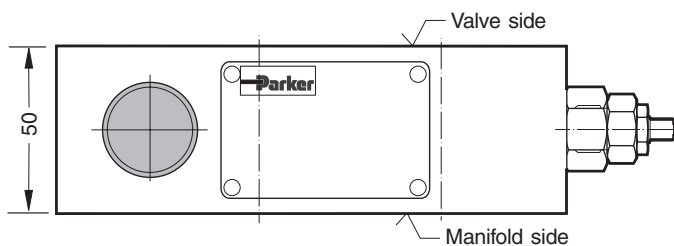


Adjustment
Code K

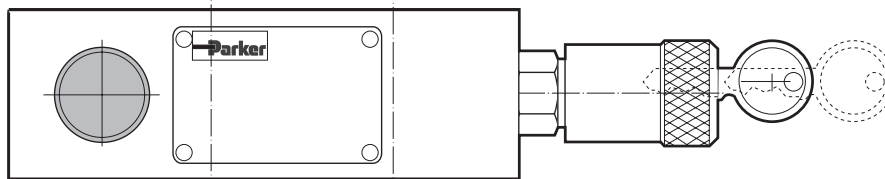


PRM3BB

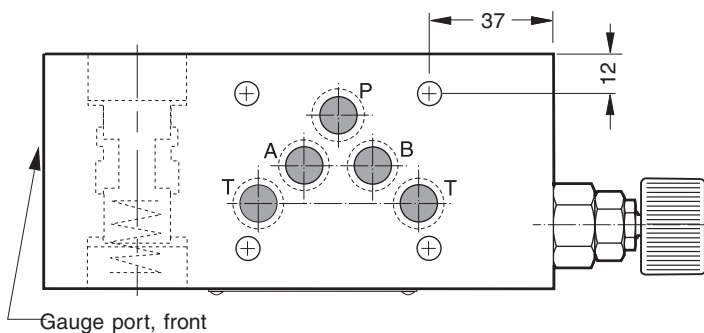
Adjustment
Code S



Adjustment
Code L



Adjustment
Code K



Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and the positioning pins are always mounted on the manifold side.

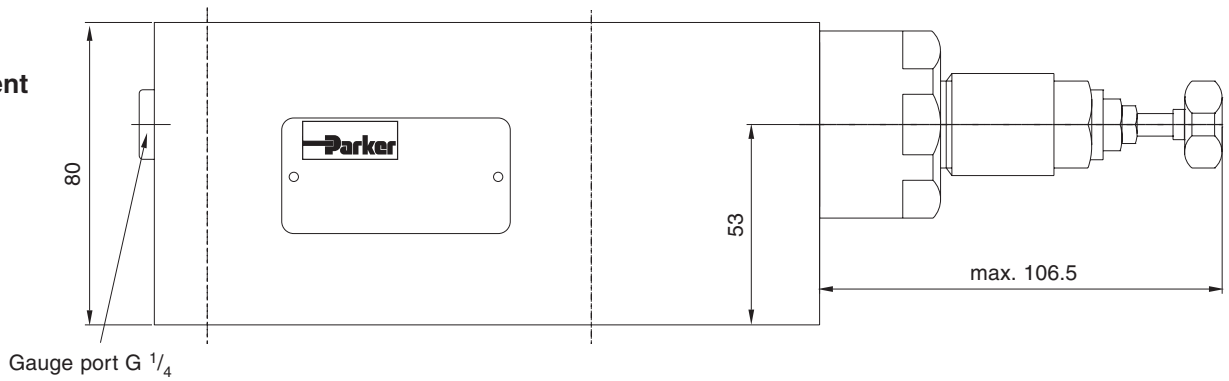
PRM.PMD CM

Seal kit RM3AA/BB	
Seal	Order code
V	SK-PRM3-V-11

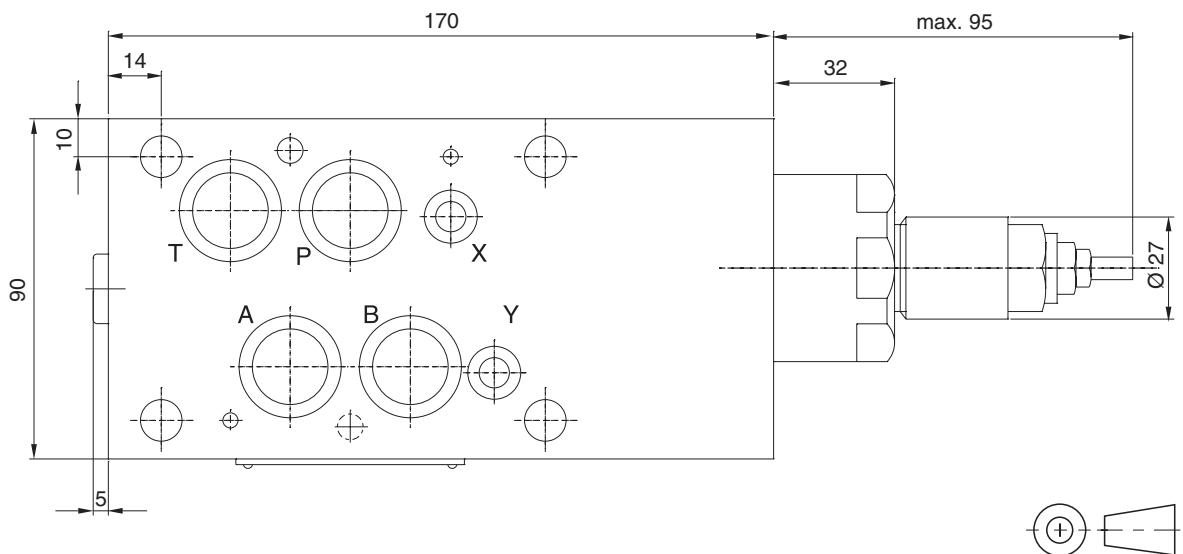
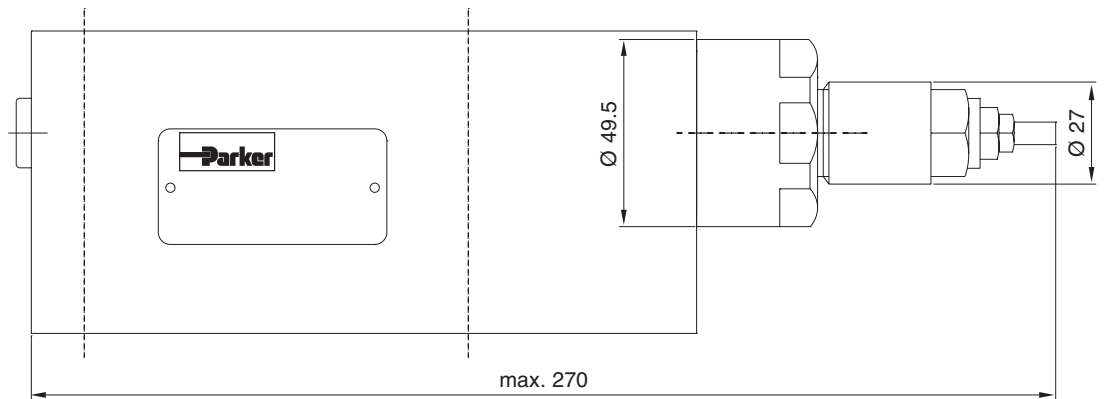
Dimensions

PRM4PP

**Adjustment
Code K**



**Adjustment
Code S**



Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and the positioning pins are always mounted on the manifold side.

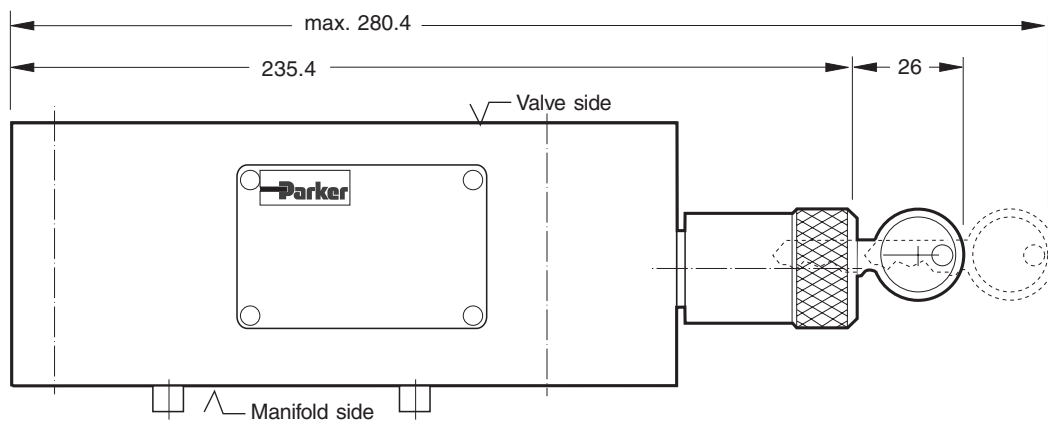
Seal kit PRM4	
Seal	Order code
V	SK-PRM4-V-10

7

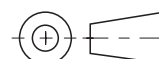
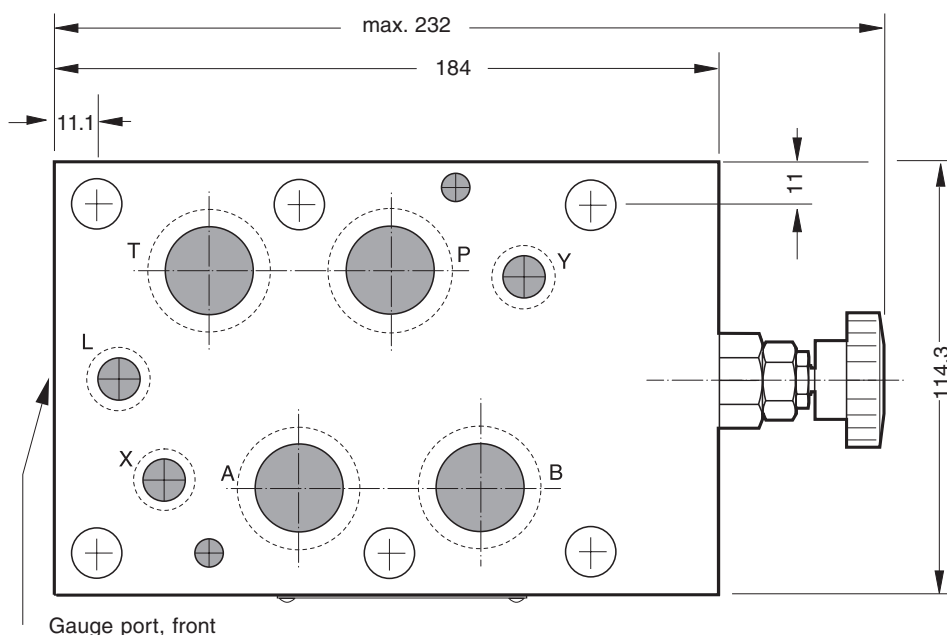
Dimensions

PRM6

**Adjustment
Code L**



**Adjustment
Code K**



Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and the positioning pins are always mounted on the manifold side.

Seal kit PRM6	
Seal	Order code
V	SK-FM6-V-25

Proportional pressure reducing valves are used to keep the pressure constant in a consumer irrespective of pressure fluctuations on the supply side. The reduced pressure can be set individually with the aid of one pressure control valve per consumer. The integrated pressure relief function obviates the need for any additional pressure relief valve in the reduced pipe.

The proportional pressure reducing valve reduces the pressure in output port p_{red} in proportion to the solenoid current of the force-controlled wet-pin solenoid. This valve

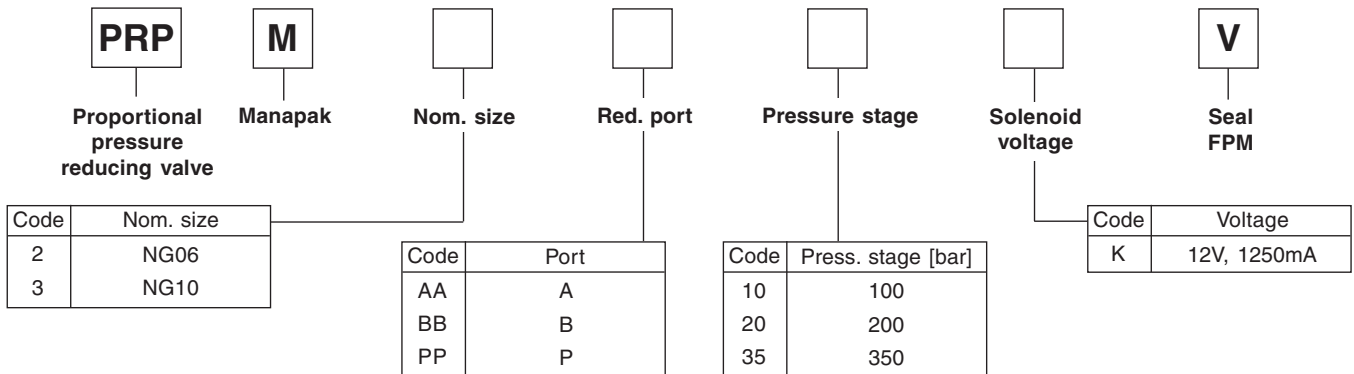
works practically independent of the inlet pressure p_E . If the reducing pressure in port p_{red} increases at least with Δp_{an} , this over-pressure will be relieved from the tank (T). In a non-activated mode, the connection to the tank is fully open with a min. pressure corresponding to the spring force. The pressure adjustment is very sensitive.

The reduced pipe has a gauge port. Types A and B each have a bypass non-return valve mounted directly on the plate.

Technical data

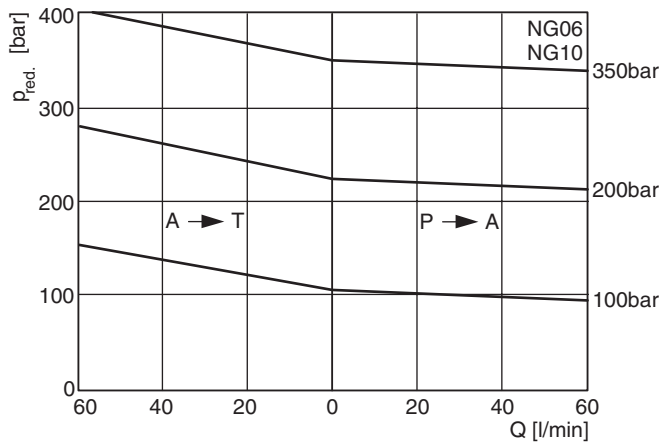
General		pilot-operated proportional pressure reducing valve	
Design		sandwich type	
Construction		proportional solenoid	
Size	acc. to ISO 4401	nom. size NG06	nom. size NG10
Mounting		4 holes for socket cap screws M5 (NG10: M6) or studs M5 (NG10: M6)	
Port		sandwich valve	
Mounting position		any	
Ambient temperature	[°C]	-20 ... +50	
Fastening torque	[Nm]	$M_D = 5.5$ (qual. 8.8) for socket cap screws $M_D = 50$ for cartridges	$M_D = 9.5$ (qual. 8.8) for socket cap screws $M_D = 50$ for cartridges
Weight	[kg]	2	3.2
Hydraulic		mineral oil (other fluid on request)	
Operating liquid		mineral oil (other fluid on request)	
Pressure fluid temperature	[°C]	-20 ... +70	
Viscosity range ν	[mm ² /s]	12 to 320	
Max. working pressure	[bar]	400	
Reduced nom. pressure	[bar]	100; 200; 350	
Max. flow	[l/min]	0...60	
Pilot flow		see performance curves	
Max. contamination level		ISO 1406, class 16/13, to be achieved with $\beta_{6...10} > 75$	
Resolution	[mA]	1 mA	
Repeatability	[%]	≤1 (with optimal dither signal)	
Hysteresis	[%]	≤3 (with optimal dither signal)	
Electrical		proportional solenoid, wet-pin push type, pressure tight	
Solenoid		proportional solenoid, wet-pin push type, pressure tight	
Relative duty factor		100% ED	
Protection class		IP 65 acc. to DIN 40050	
Voltage		12V (1250mA) / 24V(680mA)	
Connection		Plug 2+PE acc. to EN 175301-803	
Amplifier		PCD00A-400	

Ordering code

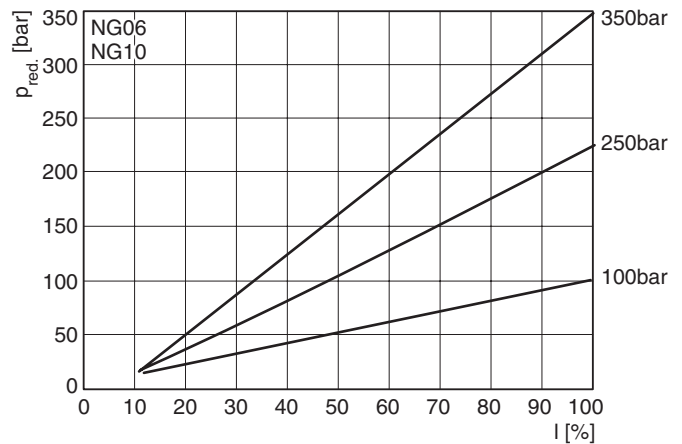


PRPM.PMD CM

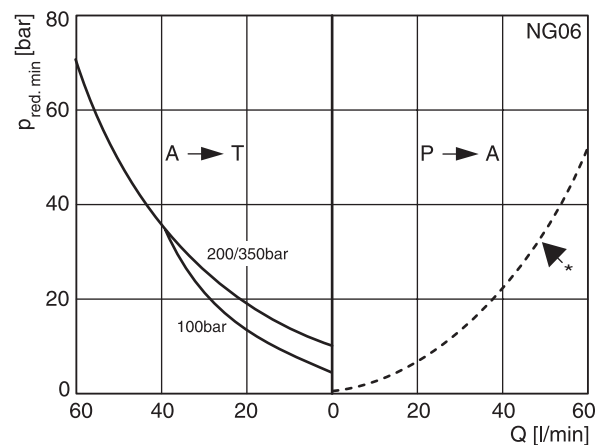
Pressure/flow curve $p_{red} = f(Q)$



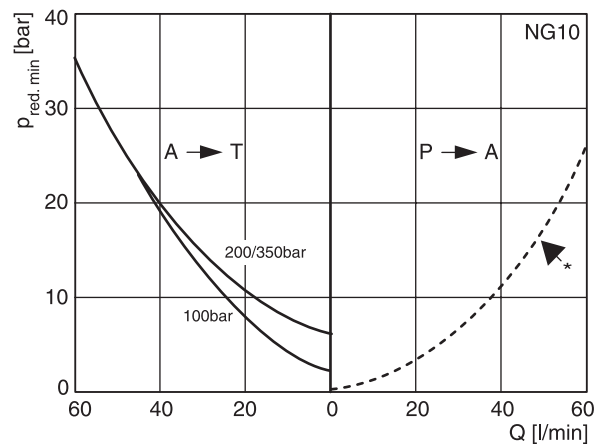
Pressure/adjustment $p_{red} = f(l)$, bei $Q=0$ l/min (static)



Pressure/flow curve (min. adjustable) $p_{red} = f(Q)$

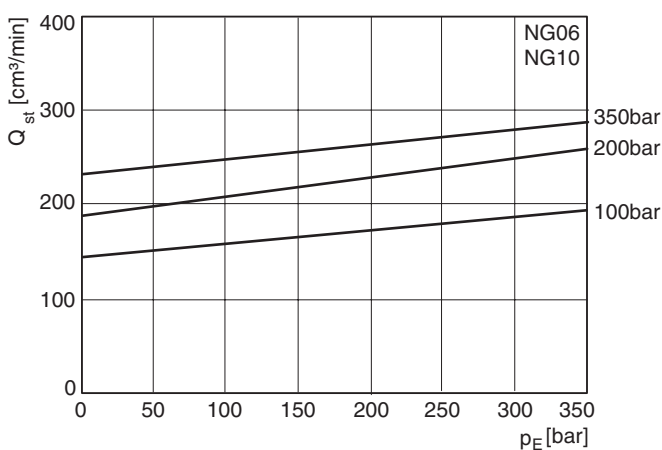


Consumption resistance depends on system.

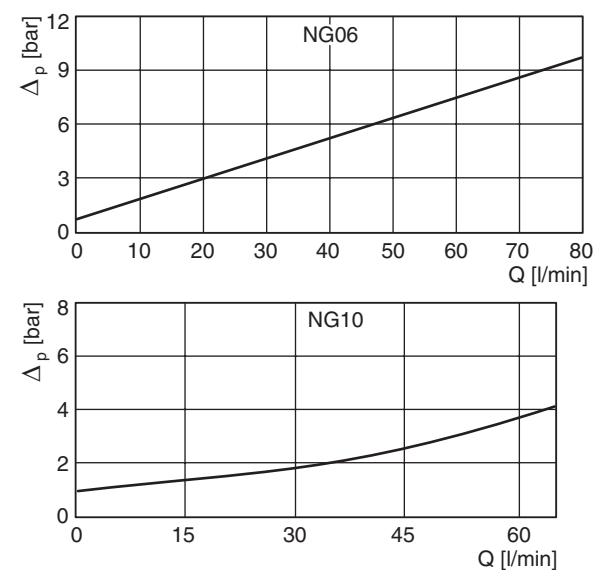


Consumption resistance depends on system.

Pilot flow curve $p_{red} = f(Q)$



Pressure drop/flow curve over RV

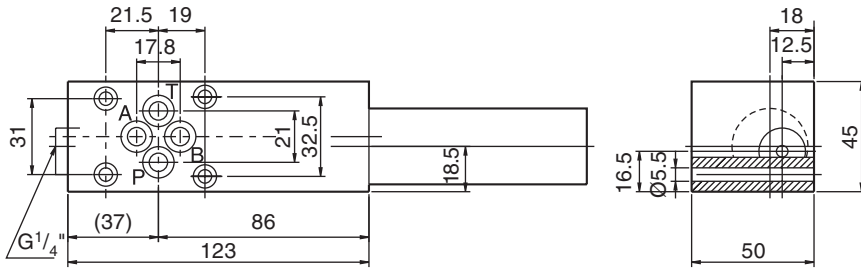


All measures taken at viscosity $\nu = 30 \text{ mm}^2/\text{s}$.

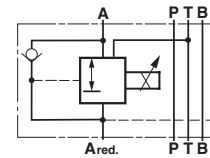
PRPM.PMD CM

Dimensions

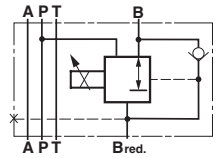
PRPM2A* ,B*



Symbol PRPM2A*

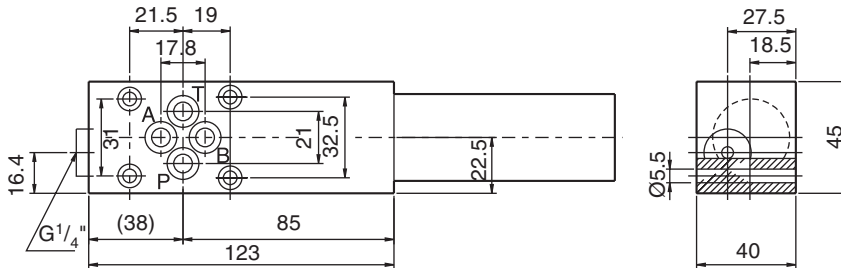


Symbol PRPM2B*

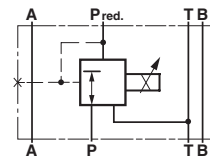


Sandwich type: Presse reduction code B is located on cartridge side B.

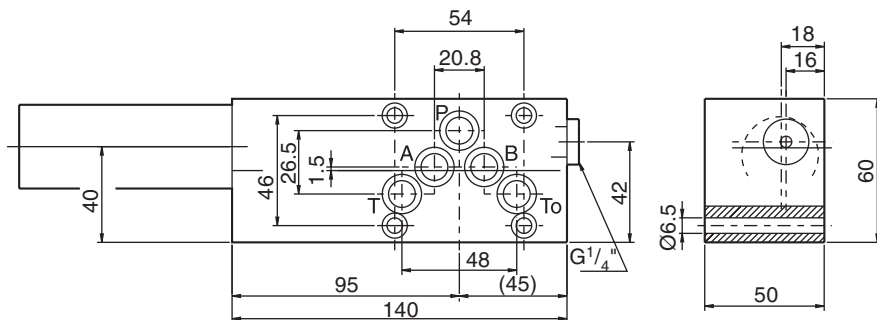
PRPM2P*



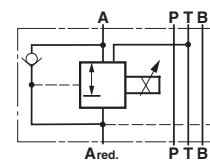
Symbol PRPM2P*



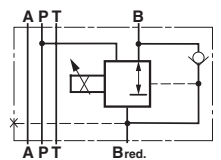
PRPM3A* ,B*



Symbol PRPM3A*

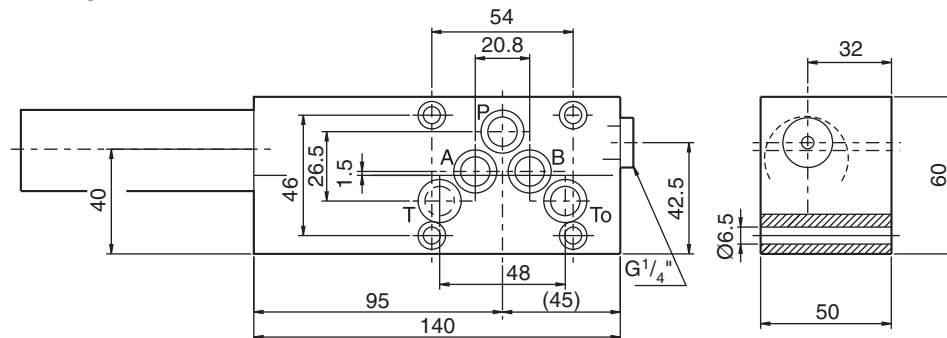


Symbol PRPM3B*

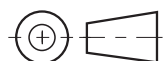
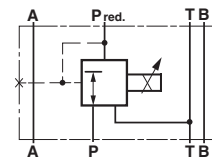


Sandwich type: Presse reduction code B is located on cartridge side B.

PRPM3P*



Symbol PRPM3P*



PRPM.PMD CM



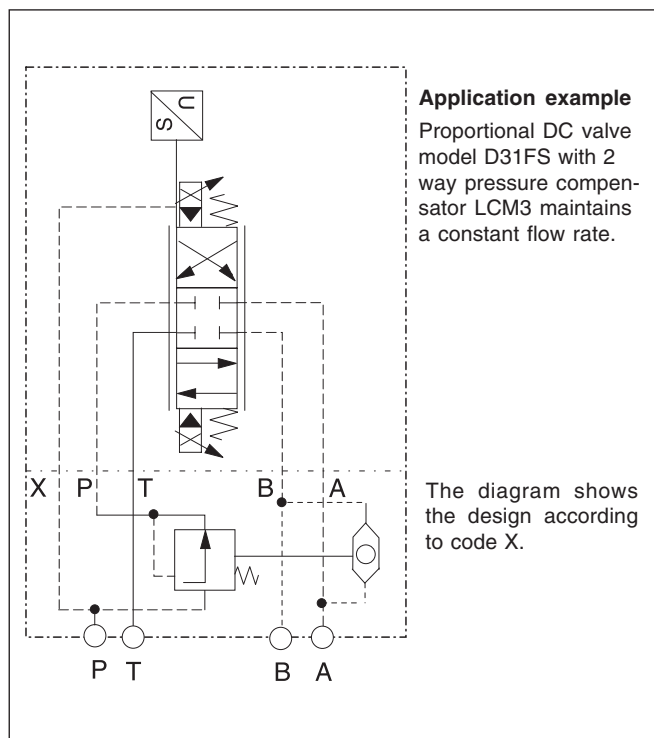
2-way pressure compensators, series LCM, are sandwich plate valves designed for stacking beneath a proportional directional control valve with a standardised mounting pattern.

The valve maintains a constant pressure differential between ports P and A or P and B across the directional valve. When the cross sectional opening of the directional valves is held steady, a constant volume flow rate is achieved, regardless of consumer load fluctuations.

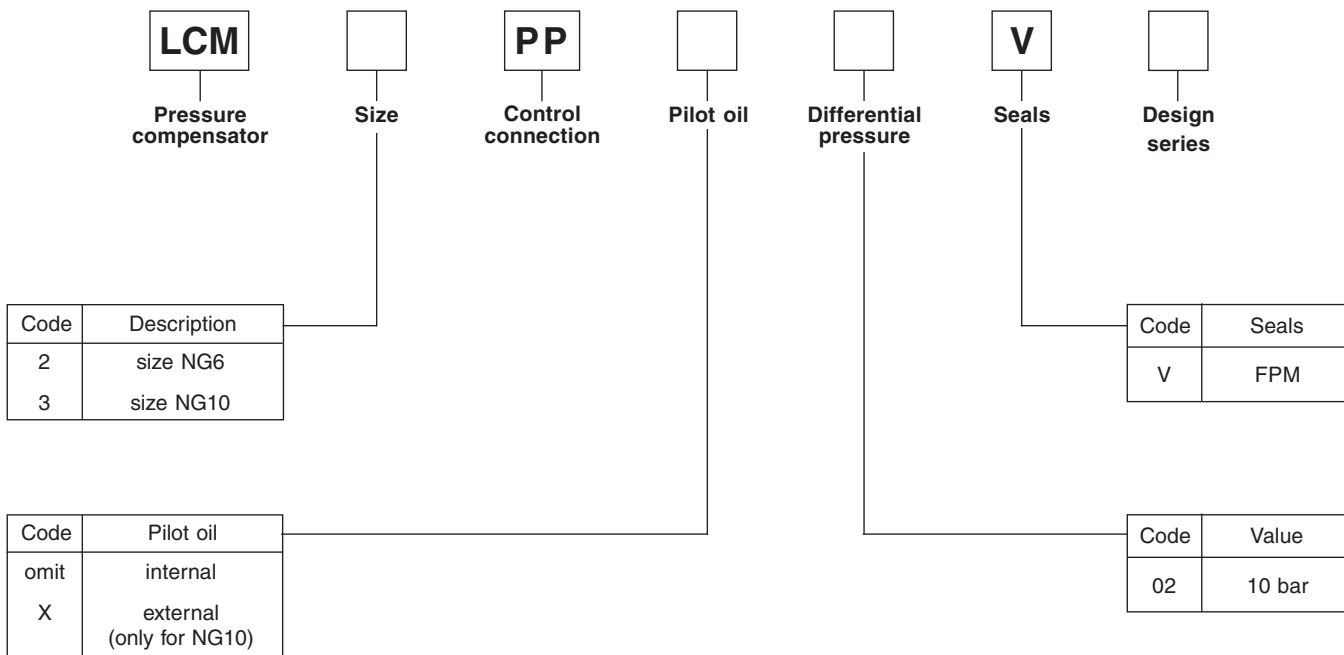
The control pressure applied to the spring side of the compensator spool is supplied from port A or B via a shuttle valve. Flow rate regulation is automatically effective in the port with the highest pressure.

Characteristics

Port sizes	DIN	NG6	NG10
	CETOP	03	05
	NFPA	D03	D05
Mounting pattern	DIN 24340, CETOP RP121, ISO 4401,NFPA		
Working pressure	350 bar		
Pressure difference	10 bar		
	Model LCM2 (NG6)		Model LCM3(NG10)



Ordering Code

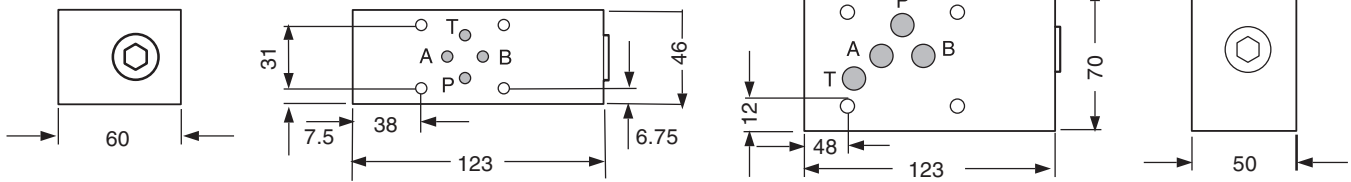


Dimensions

Dimensions

LCM2

LCM3



Mounting screws: BK 403 (4 x M5 x 90)

Mounting screws: BK 412 (4 x M6x 90)

For mounting screws connected with the directional valves D1 or D31.

The views show the mounting surface for the directional valve.

Characteristics

**Throttle Check Valve
Series FM**

Double-throttle check valves from the Parker Manapak series FM are sandwich plate valves designed for stacking beneath a directional valve with a standard mounting pattern. Throttle and check valves are arranged in ports A and B.

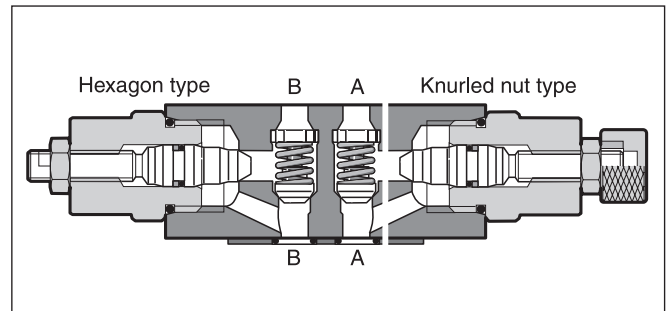
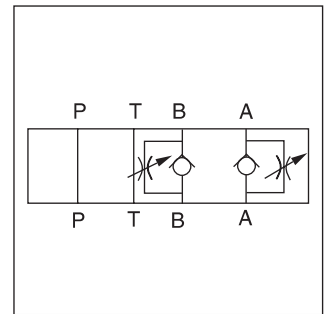
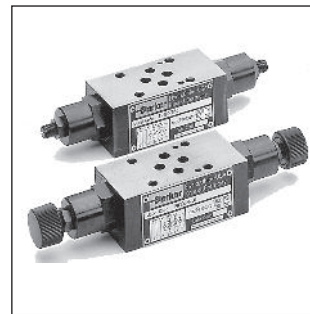
By altering the mounting position (FM2 and FM3) or internal components (FM4), meter-in or meter-out flow control functions can be selected.

The throttle check valve can also be used to influence the switching time of pilot operated directional valves. In this case, the valve is positioned between the pilot stage (CETOP03, NG6) and the main stage (CETOP05, NG10 up to CETOP10, NG32).

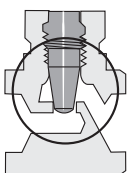
The FM6 valve is only available as meter-out.

Features

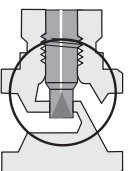
- Three types of metering needle design can be selected when ordering FM2 and FM3 valves to achieve the throttle characteristics required to suit the application.
- Large bypass check valves allow high flow at low pressure drop.



Metering needle types for FM2 and FM3 "Standard" type



A two-stage needle provides fine adjustment in the lower flow range with 3 adjustment rotations. After 3 more rotations, the valve is completely open.



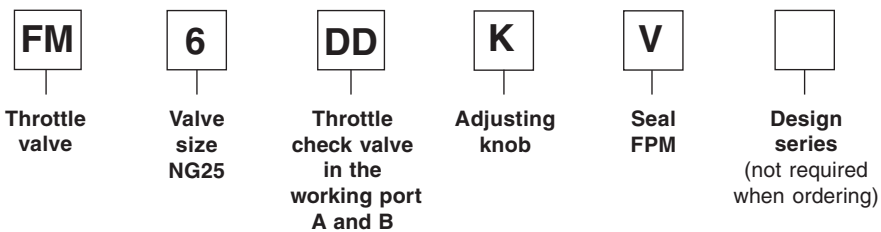
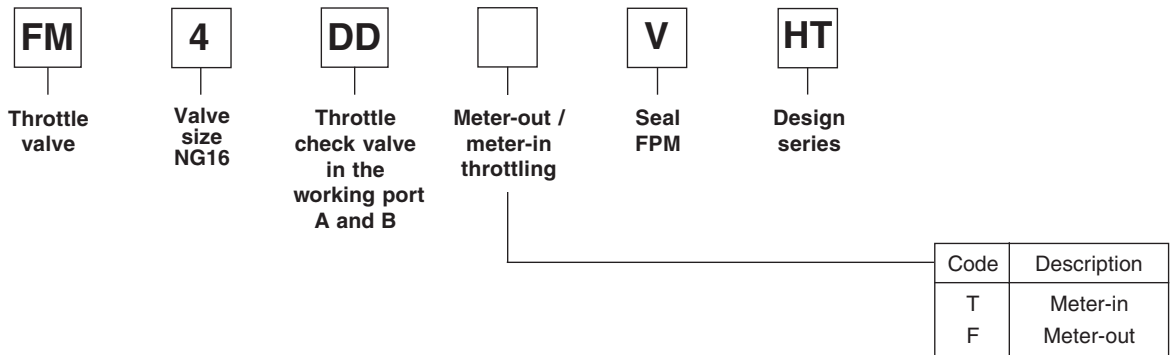
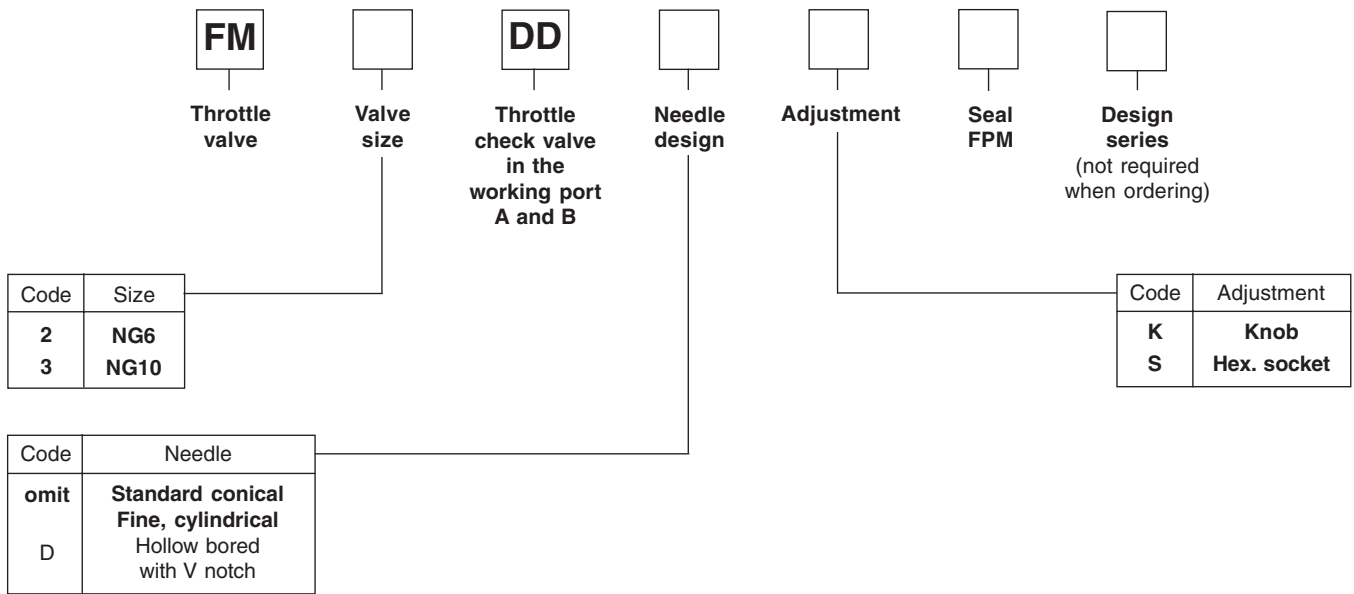
Design "D"

A cylindrical needle with a V notch allows the fine adjustment in the entire setting range.

Characteristics

Series	FM2	FM3	FM4	FM6
Mounting pattern	NG6 NFFA D03	NG10 NFFA D05	NG16 NFFA D07	NG25 NFFA D08
	CETOP 03	CETOP 05	CETOP07	CETOP 08
Max. pressure	350 bar	350 bar	350 bar	210 bar
Max. flow	53 LPM	76 LPM	200 LPM	341 LPM
Opening press.	0.3 bar	0.3 bar	0.3 bar	0.3 bar
Supply throttle	X	X	X	—
Meter-out throttle	X	X	X	X
Mounting pos.	as desired	as desired	as desired	as desired
Ambient temperature	max. +50°C	max. 50°C	max. 50°C	max. 50°C
Pressure fluid temperature	max. +70°C	max. +70°C	max. +70°C	max. +70°C
Weight [kg]	1.3	2.4	5.4	7.9

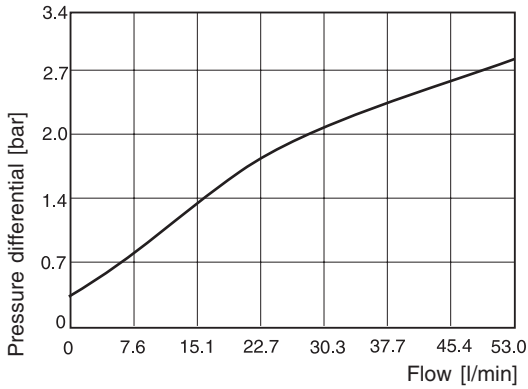
Throttle Check Valve Series FM



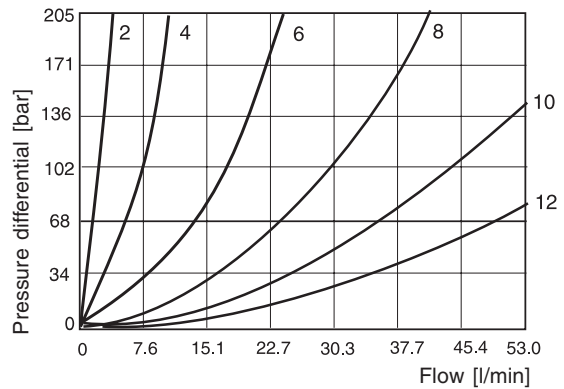
FM6 valves are only supplied for meter-out throttling, with conical standard needle, and with knob adjustment as well as FPM seal.

Bold letters =
Short-term availability

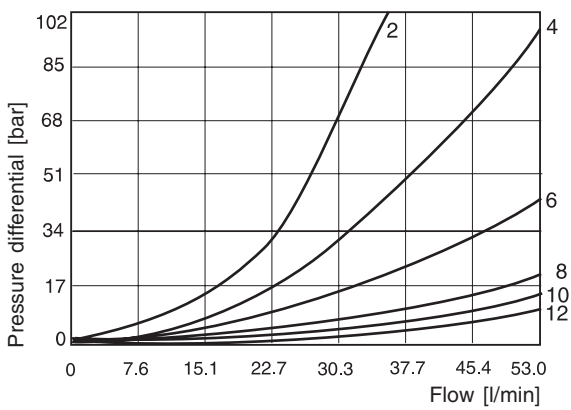
FM2 flow, check valve



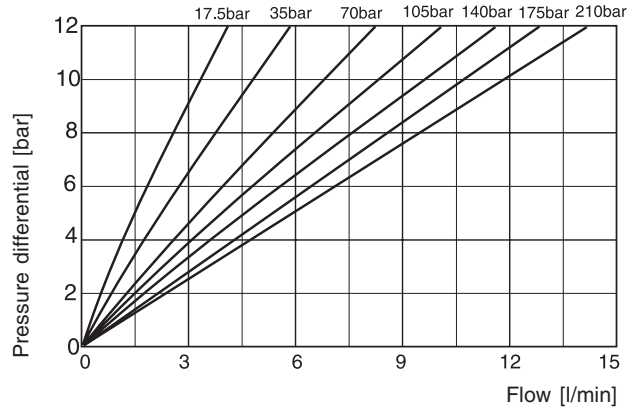
FM2D needle with V notch



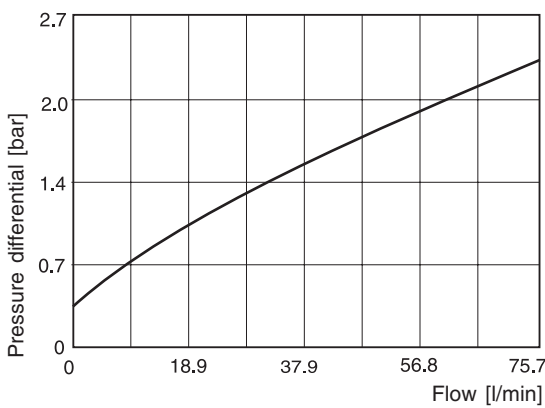
FM2 conical



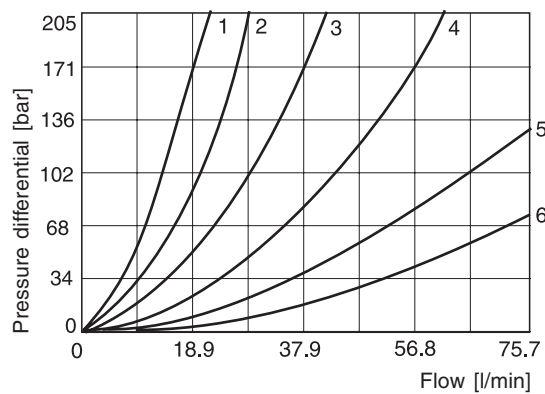
FM2G needle with parallel slots



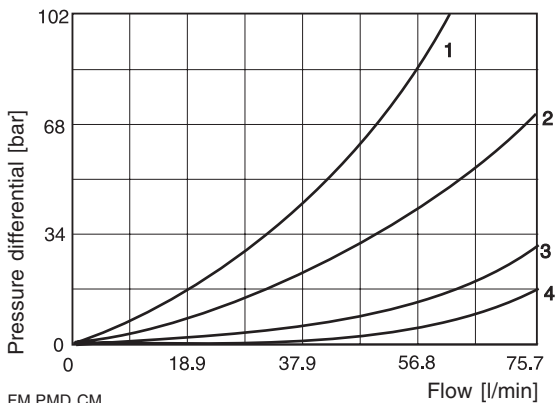
FM3 flow, check valve



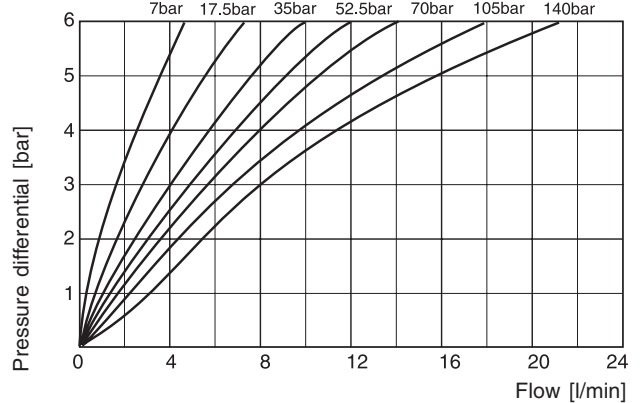
FM3D needle with V notch



FM3 standard needle



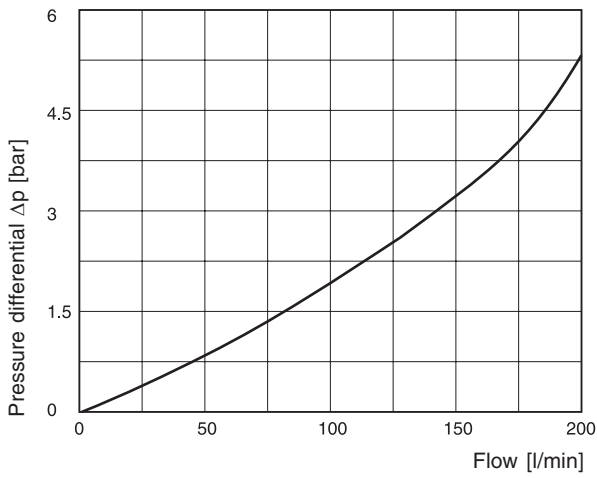
FM3G needle with parallel slots



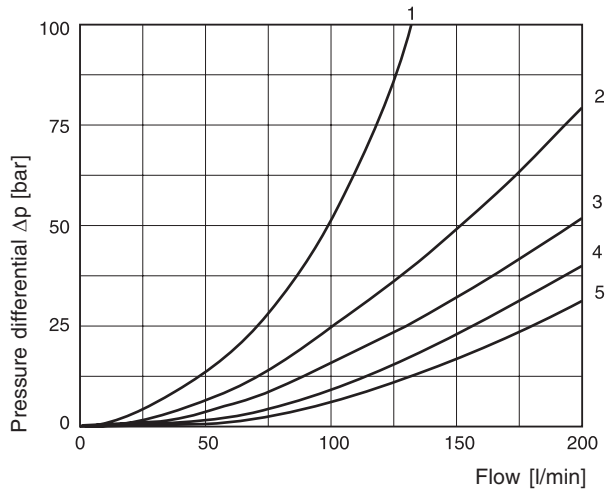
FM.PMD CM

7

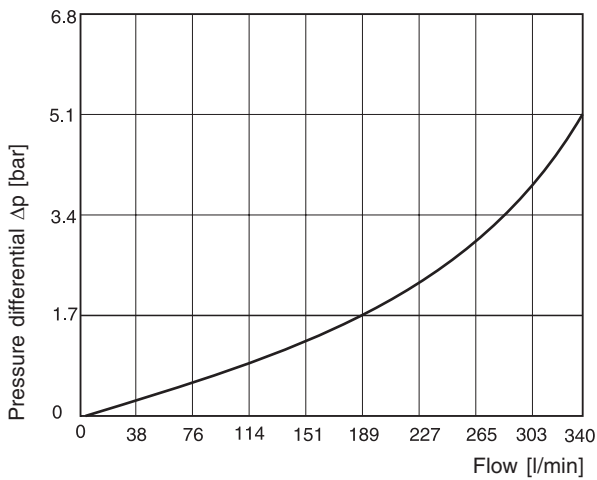
FM4 flow, check valve



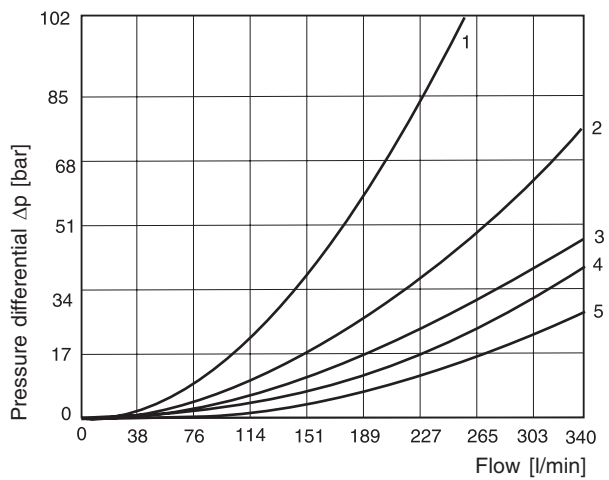
**FM4 with standard needle
 1 to 5 number of needle rotations**



FM6 flow, check valve



**FM6 with standard needle
 1 to 5 number of needle rotations**

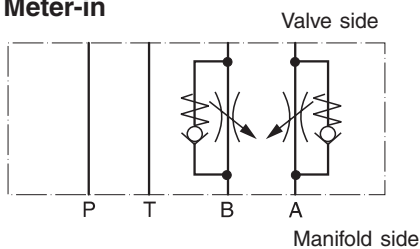


7

Dimensions

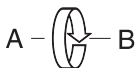
FM2

Meter-in

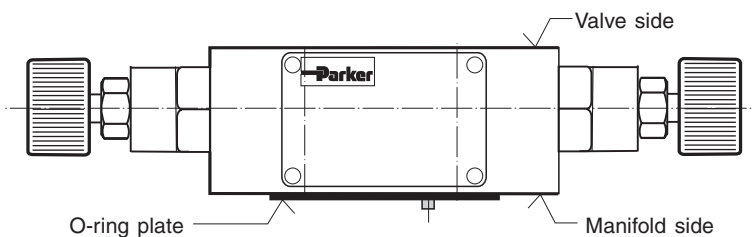
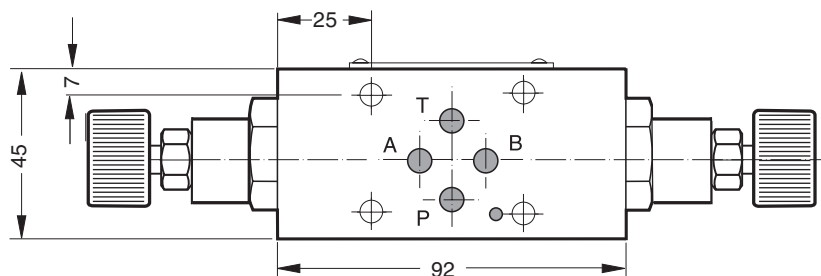
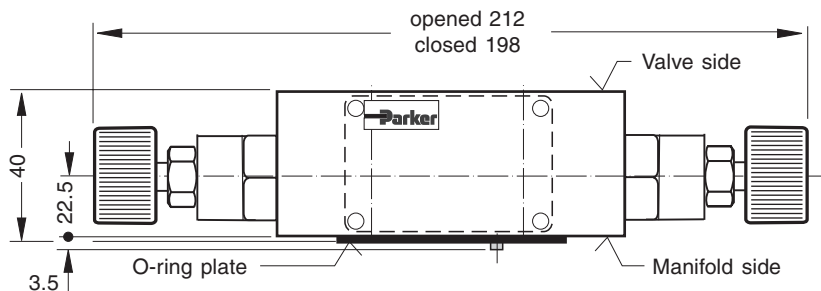
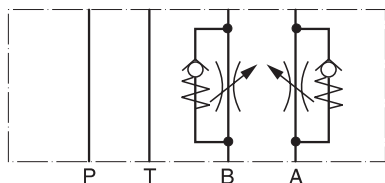


Meter-in or meter-out:

A functional change is achieved by rotating the mounting position of the valve 180° about the longitudinal axis (A-B).



Meter-out



Note:

The O-ring plate (with O-rings) for sealing the connecting surface of the manifold side is included. The O-ring and positioning pin are always mounted on the manifold side.

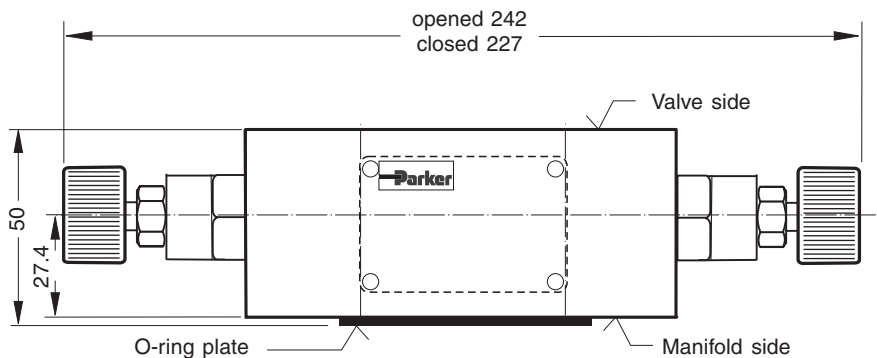
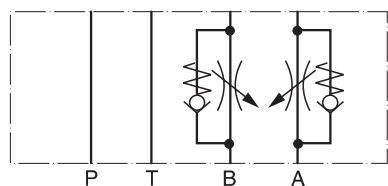
Seal kit FM2	
Seal	Order code
V	SK-FM2-V-20

Throttle Check Valve Series FM

Dimensions

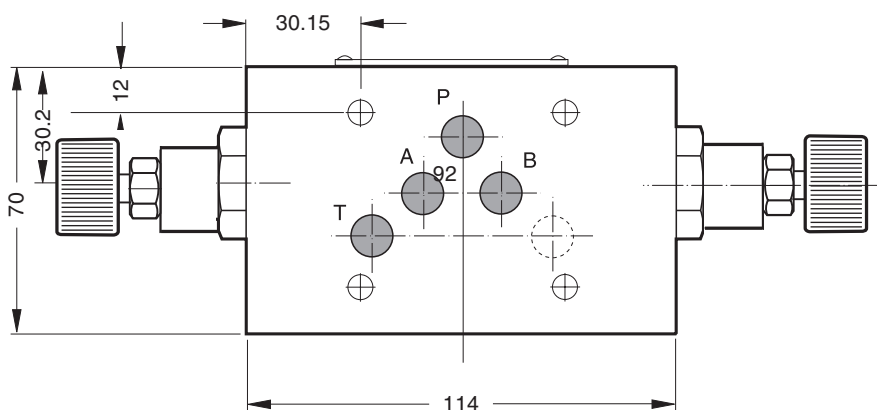
FM3

Meter-in

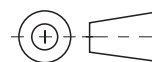
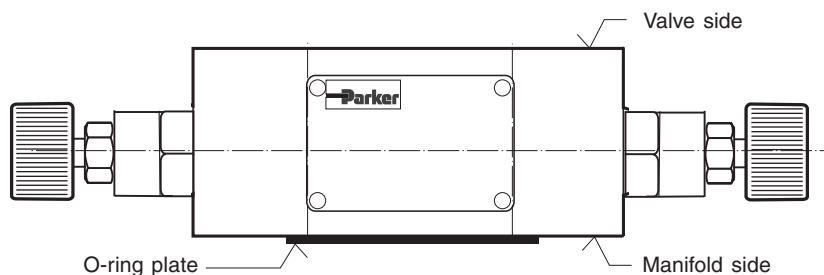
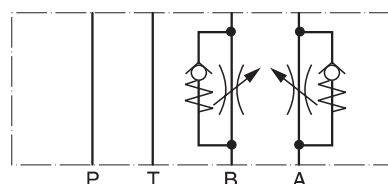


Meter-in or meter-out:

A functional change is achieved by rotating the mounting position of the valve 180° about the transverse axis (P).



Meter-out

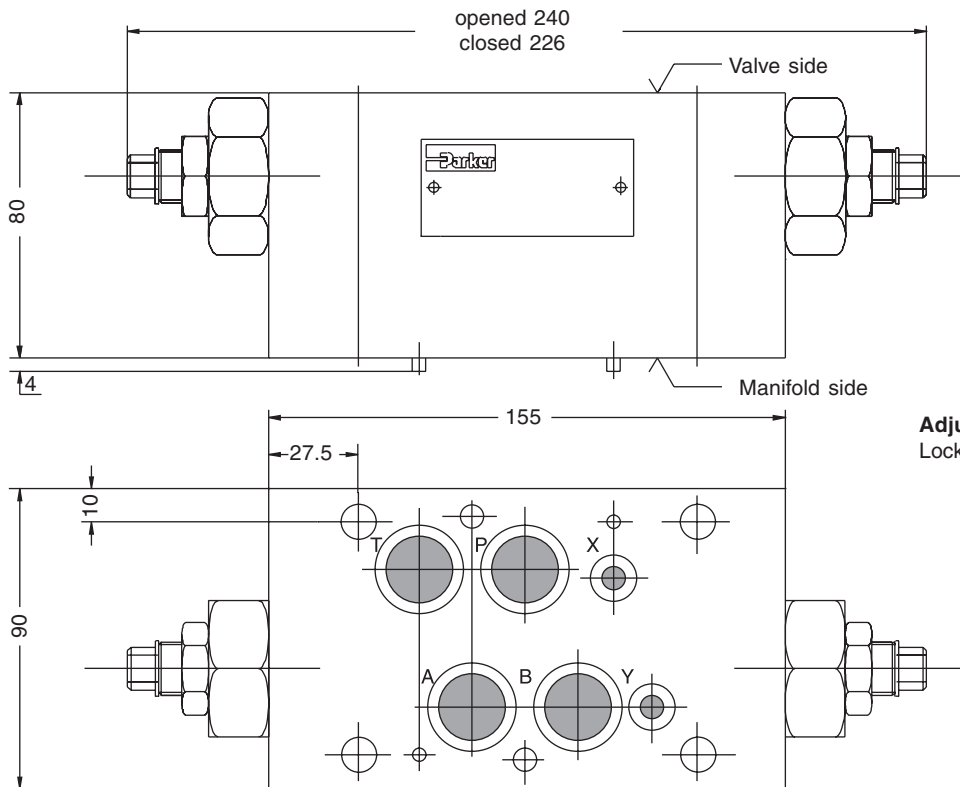


Note:

The O-ring plate (with O-rings) for sealing the connecting surface of the manifold side is included. The O-ring and positioning pin are always mounted on the manifold side.

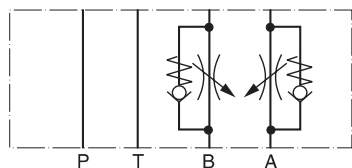
Seal kit FM3	
Seal	Order code
V	SK-FM3-V-20

FM4



Adjustment:
Lockable hexagon

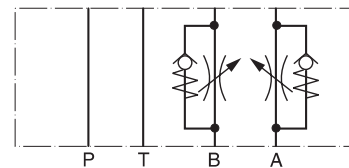
Meter-in



Meter-in or meter-out:

A functional change is achieved by rotating the mounting position of the valve 180° about the longitudinal axis (A-B).

Meter-out



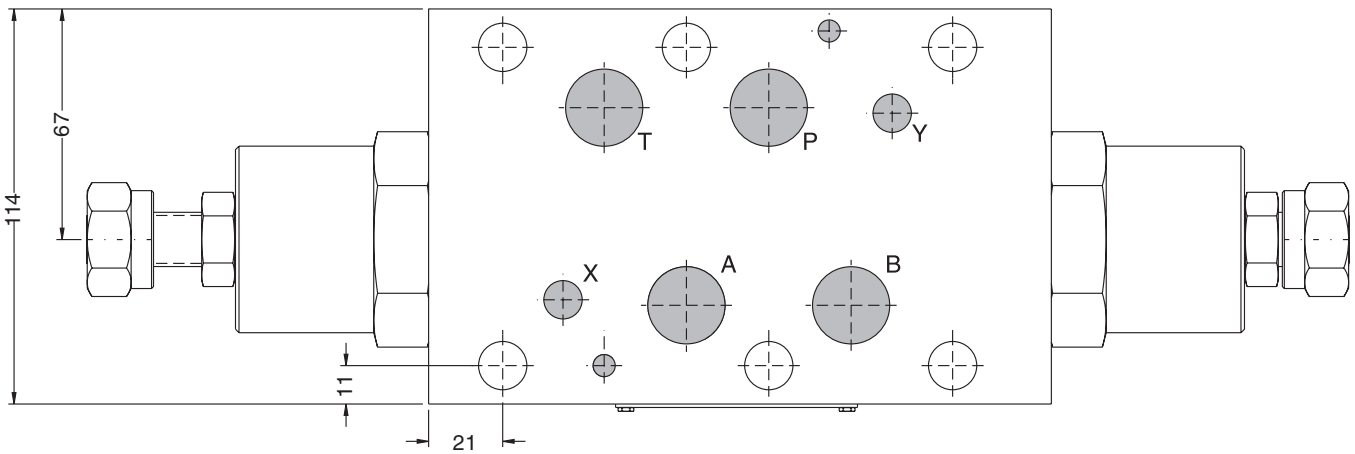
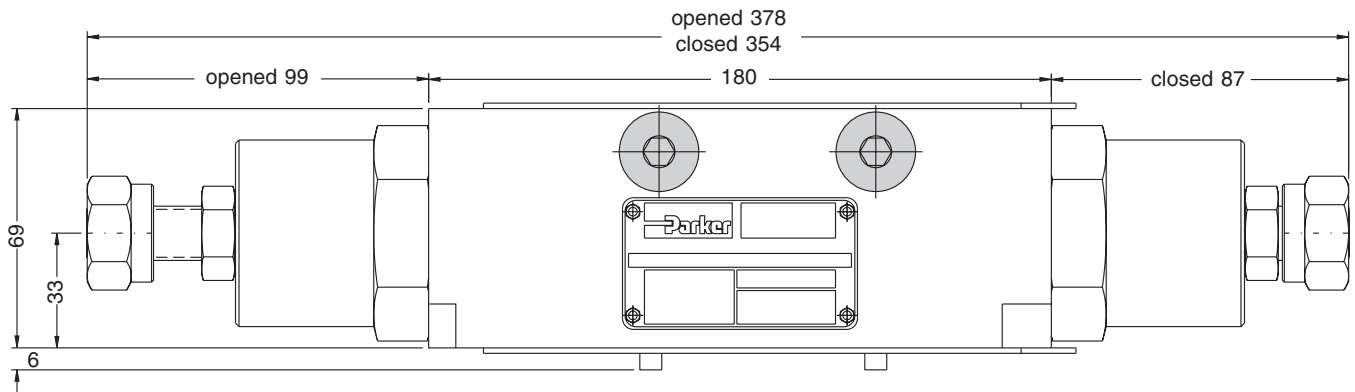
Note:

The O-ring plate (with O-rings) for sealing the connecting surface of the manifold side is included. The O-ring and positioning pin are always mounted on the manifold side.

Seal kit FM4	
Seal	Order code
V	SK-FM4VHT

Dimensions

FM6



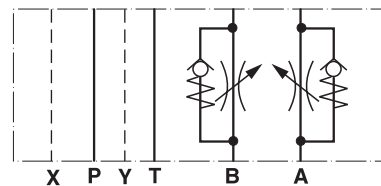
7

Adjustment: knob

Meter-in

is not available for valve FM6

Meter-out



Note:

The O-ring plate (with O-rings) for sealing the connecting surface of the manifold side is included. The O-ring and positioning pin are always mounted on the manifold side.

Seal kit FM6	
Seal	Order code
V	SK-FM6-V-12

Characteristics

Check valves from the Parker Manapak series CM are sandwich plate valves designed for stacking beneath a directional valve with a standardised mounting pattern. Depending on the function required, one or two check valves are arranged in ports P, T, A, and B. Number and flow direction are indicated with letter codes.

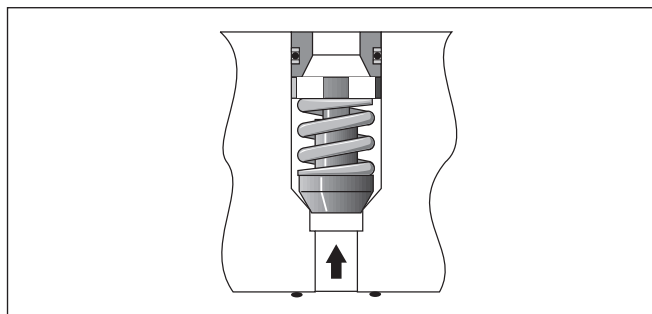
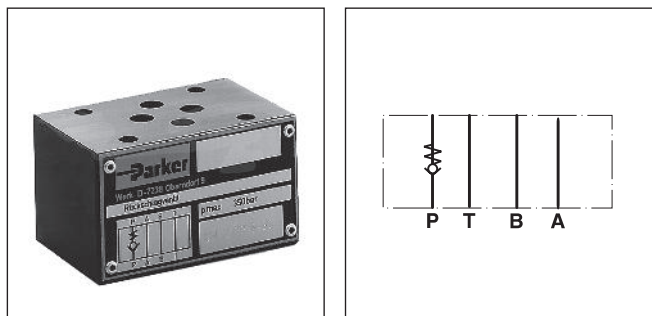
Features

- The valve bodies of the Parker Manapak valve series CM are made of steel.
- Eight options for the arrangement of the check valve in the body offer a multitude of uses for hydraulic switching.
- If switching must be changed, the locating pin can be swapped and the function changed by turning the valve.

Characteristics

Series	CM2	CM3
Mounting pattern	ISO 4401-03-02-0-94	ISO 4401-05-04-0-94
Max. pressure	350 bar	350 bar
Max. flow	53 l/min	76 l/min
Opening pressure	0.3 bar	0.3 bar
Mounting position	any	any
Ambient temp.	max. +50°C	max. +50°C
Pressure fluid temp.	max. +70°C	max. +70°C
Weight [kg]	0.9	1.7

Direct Operated Check Valve Series CM

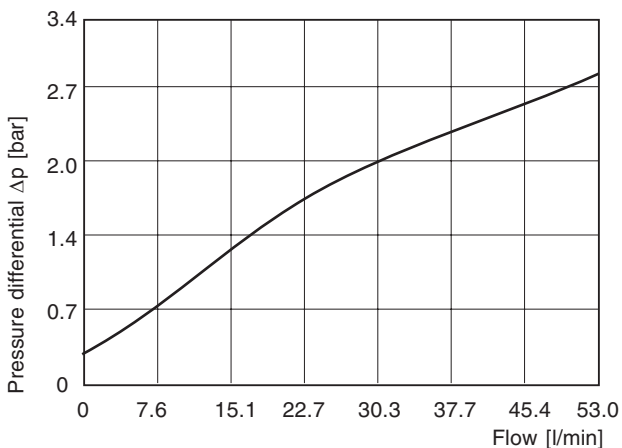


Installation notes

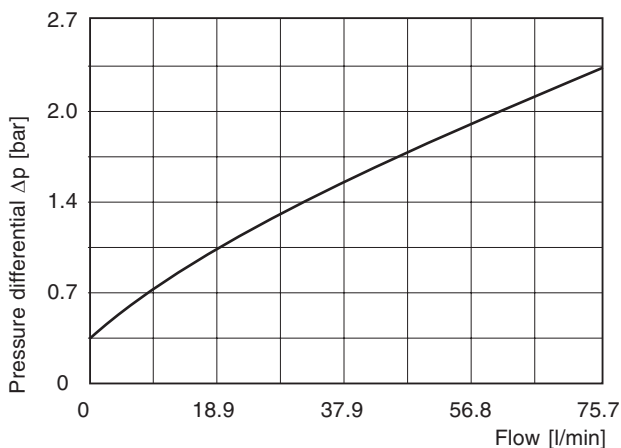
Recommendations regarding cleanliness, pressure fluids, seals, and other factor important for installing and use of these products can be found at the end of the series section under General Information.

Performance curves

CM2 ($\Delta p/Q$ performance curve)

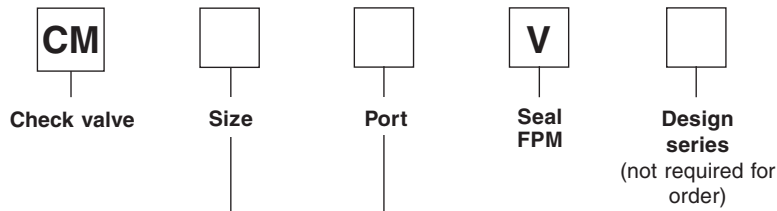


CM3 ($\Delta p/Q$ performance curve)



CM.PMD CM

Ordering Code



Code	Description
2	Intermediate plate DIN NG6
3	Intermediate plate DIN NG10

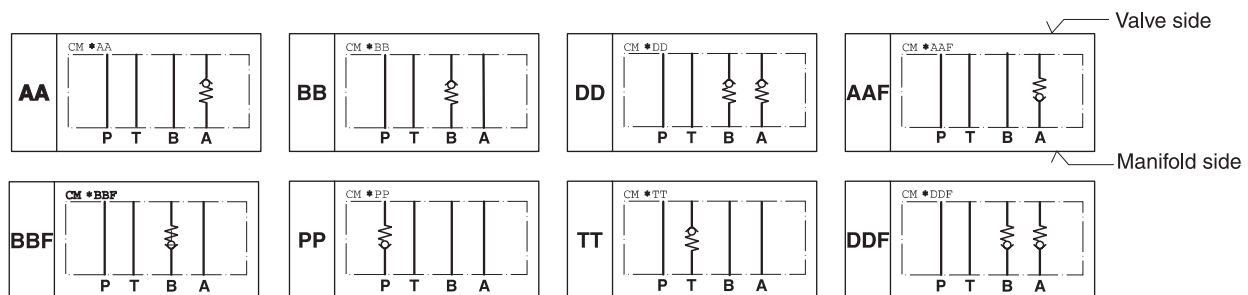
Code	Free flow polarity	Check valve in channel:
AA	From directional valve to manifold	A
BB	From directional valve to manifold	B
DD	From directional valve to manifold	A a. B
PP	From manifold to directional valve	P
TT	From directional valve to manifold	T
AAF	From manifold to directional valve	A
BBF	From manifold to directional valve	B
DDF	From manifold to directional valve	A a. B
PT ¹⁾	T = From directional valve to manifold P = From manifold to directional valve	P a. T

Bold letters =
Short-term availability

¹⁾ only CM2

Schematics

The valve side is shown at the top of the symbols, the manifold side with channel designation is shown on the bottom.



CM.PMD CM

Dimensions

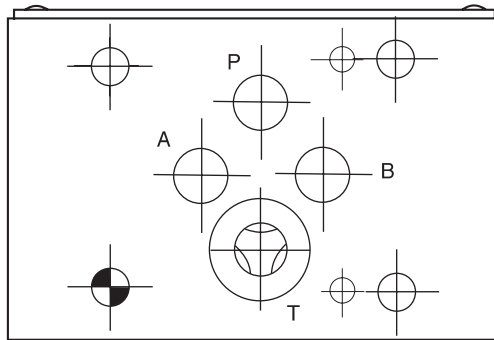
Bottom view*

(manifold side)

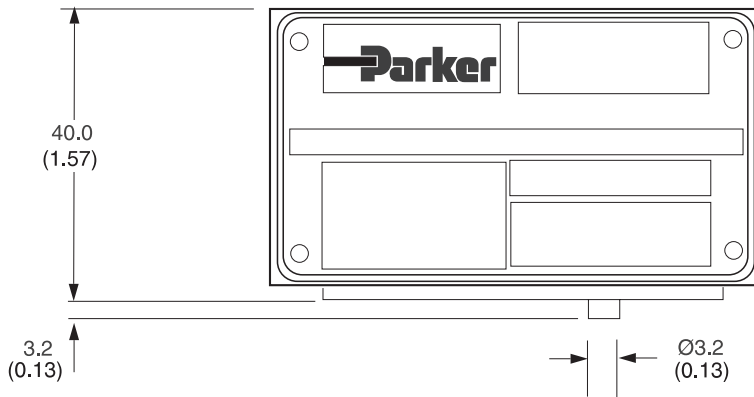
*O-Ring plate

is not shown!

This view shows the TT model.

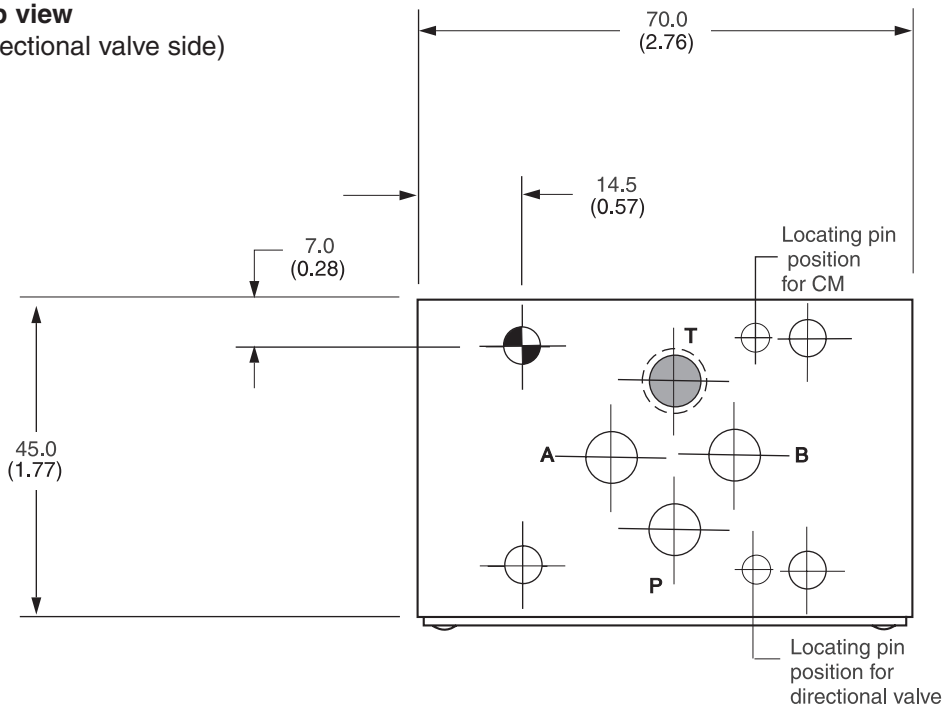


Front side



Top view

(directional valve side)



Note:

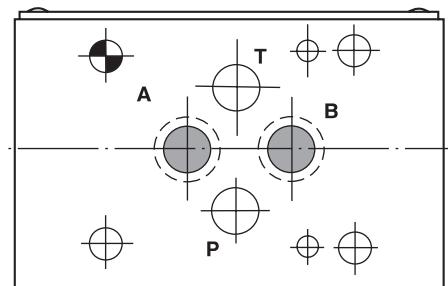
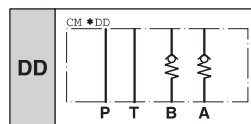
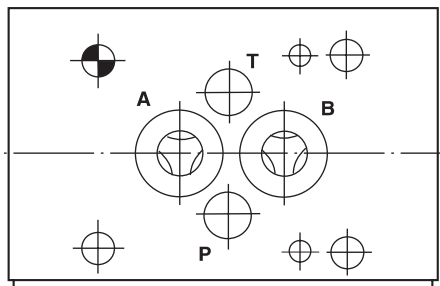
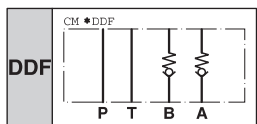
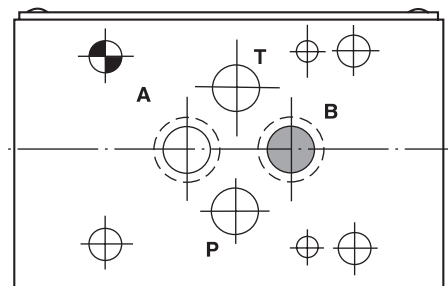
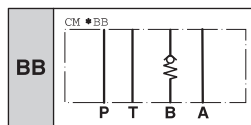
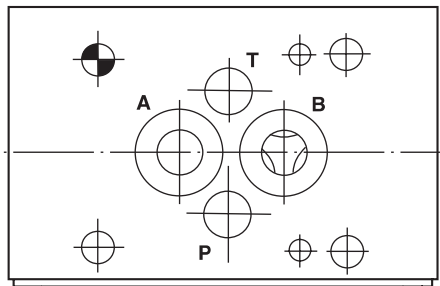
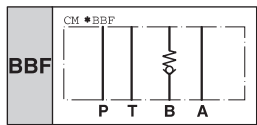
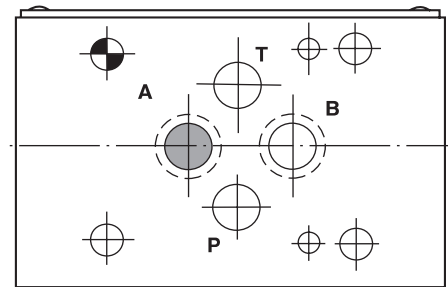
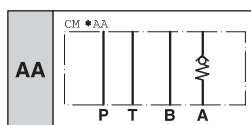
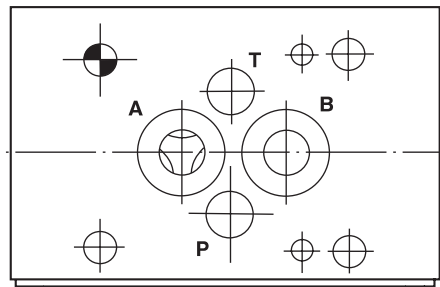
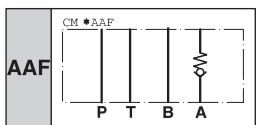
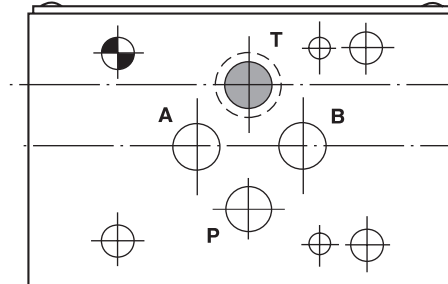
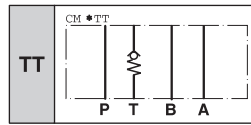
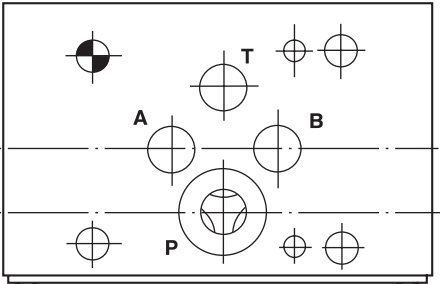
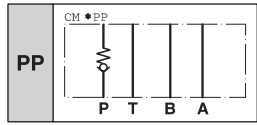
The O-ring plate for sealing the connecting surface of the manifold side is included. The O-ring plate and the positioning pin are always mounted on the manifold side.

Seal kit CM2	
Seal	Order code
V	SK-CM2-V

CM.PMD CM

7

Seen from the directional valve side



CM.PMD CM

7

Dimensions

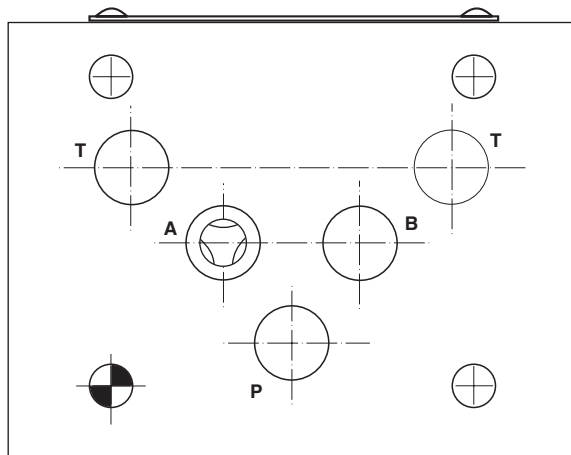
Bottom view*

(manifold side)

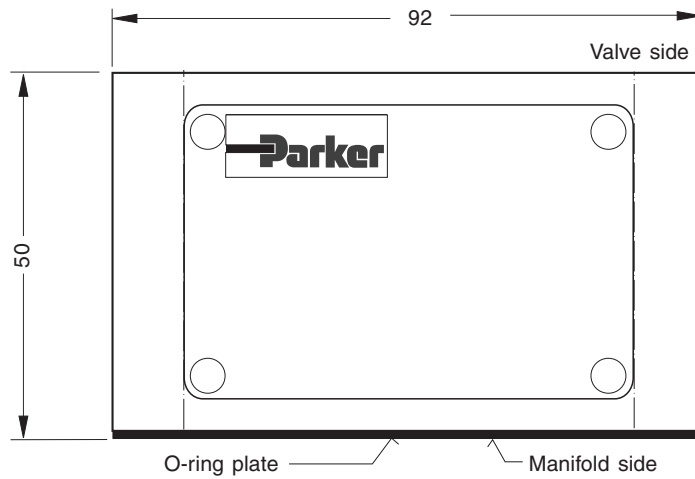
*O-Ring plate

is not shown!

This view shows the AA model.

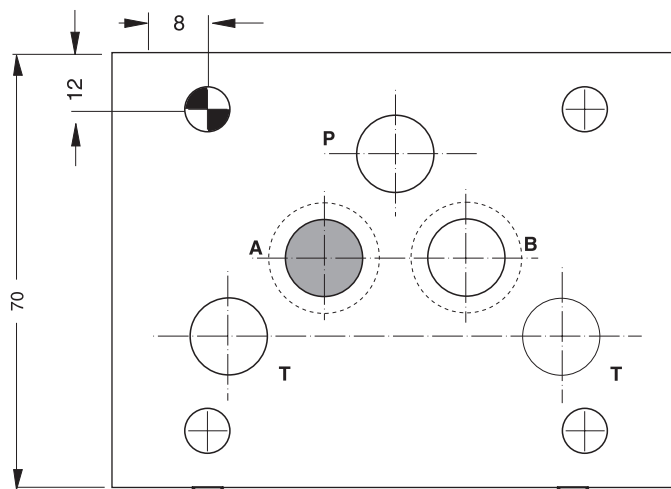


Front side



Top view

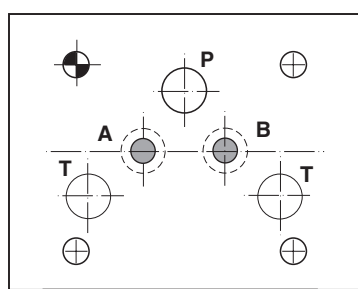
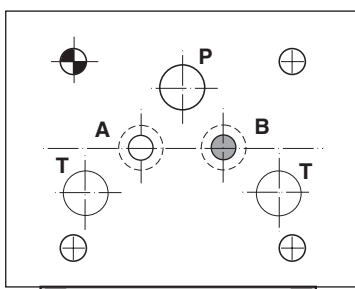
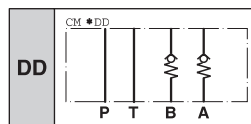
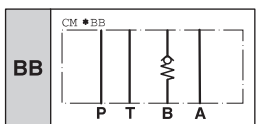
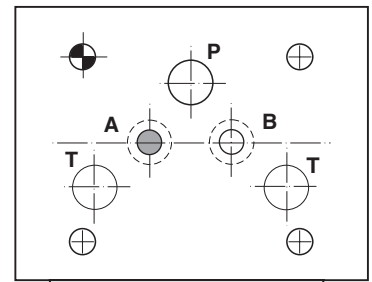
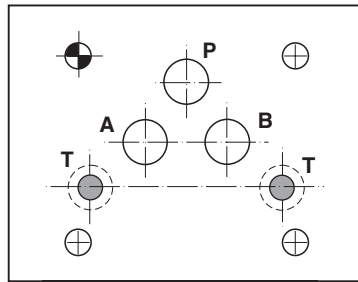
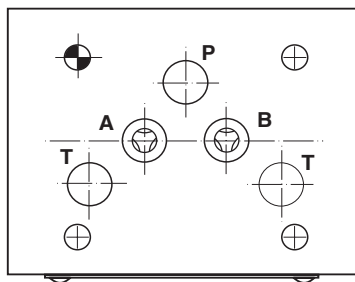
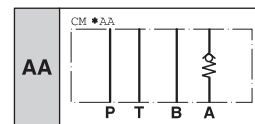
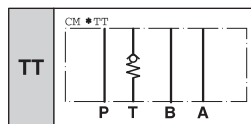
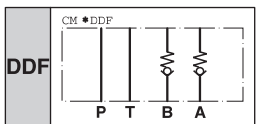
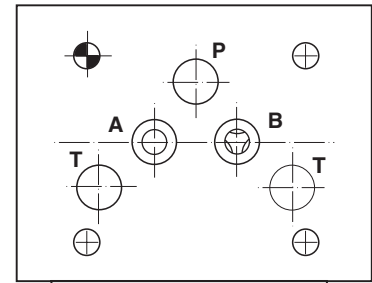
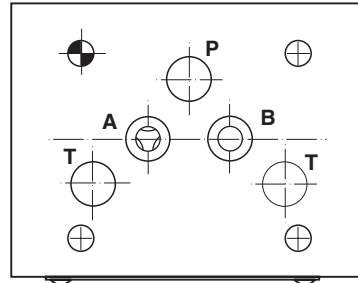
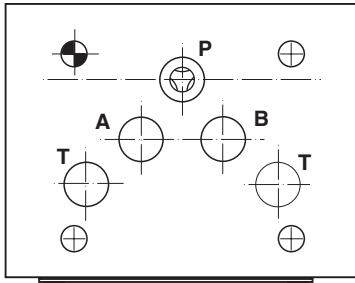
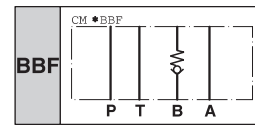
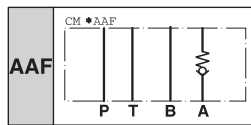
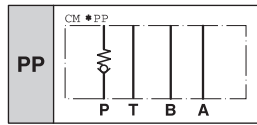
(directional valve side)



CM.PMD CM



Seen from the directional valve side



7

Seal kit CM3	
Seal	Order code
V	SK-CM3-V

CM.PMD CM

Characteristics

**Pilot-Operated Check Valve
Series CPOM**

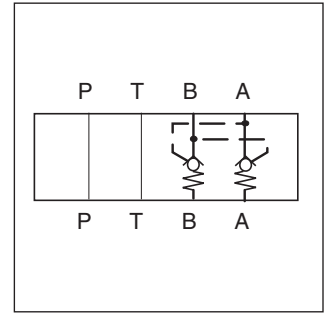
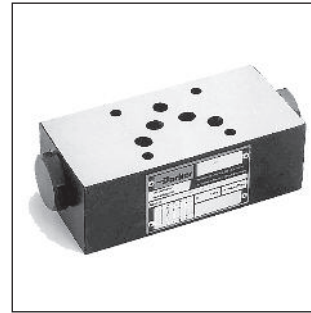
Pilot-operated check valves from the Parker Manapak series CPOM are sandwich plate valves designed for stacking beneath a directional valve with a standardised mounting pattern. Depending on the function required, one or two pilot-operated check valves are arranged in the ports A and/or B. The free flow direction is always from the valve side to the manifold side.

Function

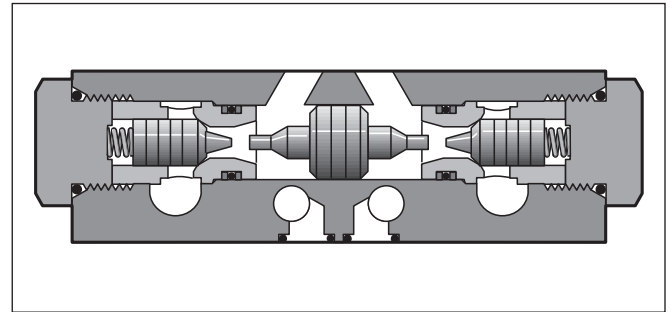
The check valves open when flowing to the consumer side, where the opposing check valve is hydraulically-mechanically pilot-operated simultaneously by a control spool, and thus the return flow is enabled from other consumer sides.

Features

- The valve bodies of the Parker Manapak valve series CPOM are made of steel.
- The valve poppet is precisely guided into the steel sleeve and ensures a good seal on the seat. This metallic sealing configuration is subject to the criteria as a result of metallic line contact and operational wear.
- When the valve poppet is open, the large cross-section allows high flow rates at low differential pressure.
- Different control ratios can be chosen with the NG6 and NG10 valves.



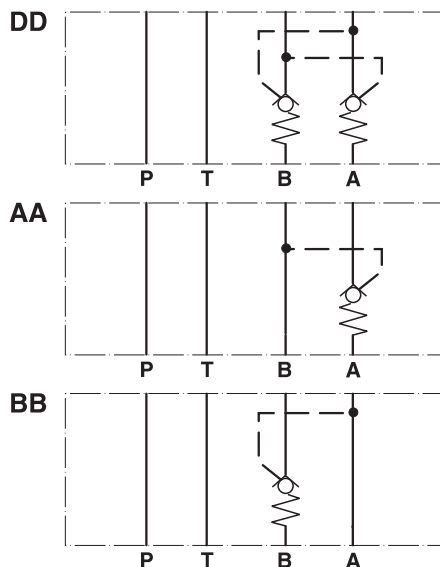
CPOM3



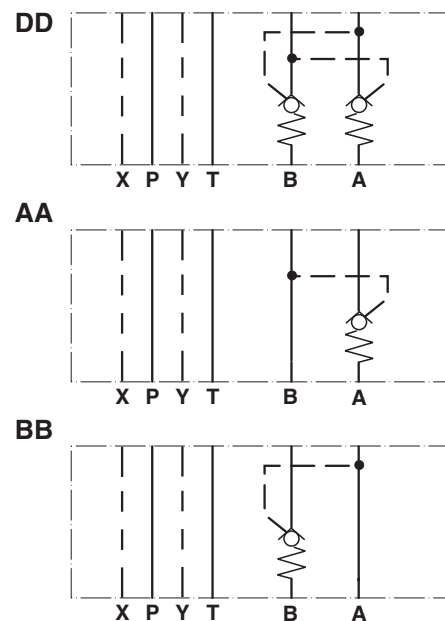
Characteristics

Port size	DIN	NG6	NG10	NG16	NG25
Mounting pattern		ISO 4401			
Series		CPOM2	CPOM3	CPOM4	CPOM6
Working pressure		350 bar	350 bar	350 bar	210 bar
Opening pressure		1.0 bar	0.8 bar	0.5 bar	0.4 bar
Control ratio		1 : 3 or 1 : 7	1 : 3 or 1 : 6.5	1 : 2.4	1 : 3
Weight [kg]		1.8	4.0	7.4	9.5

CPOM2 / CPOM3



CPOM4 / CPOM6

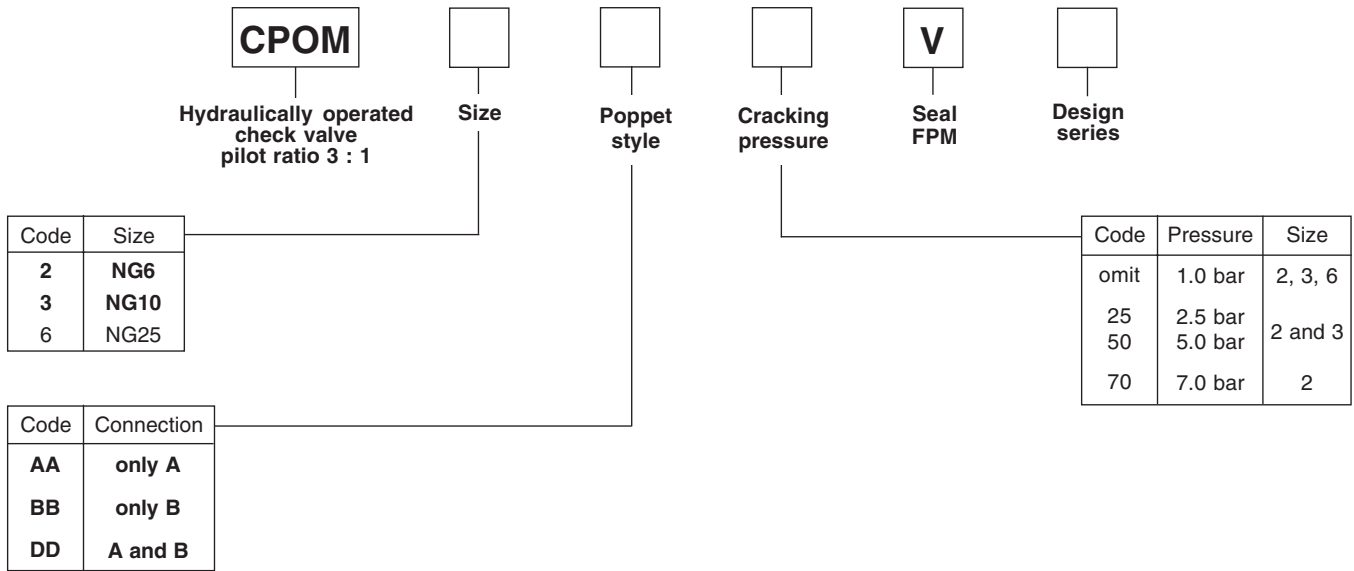


CPOM.PMD CM

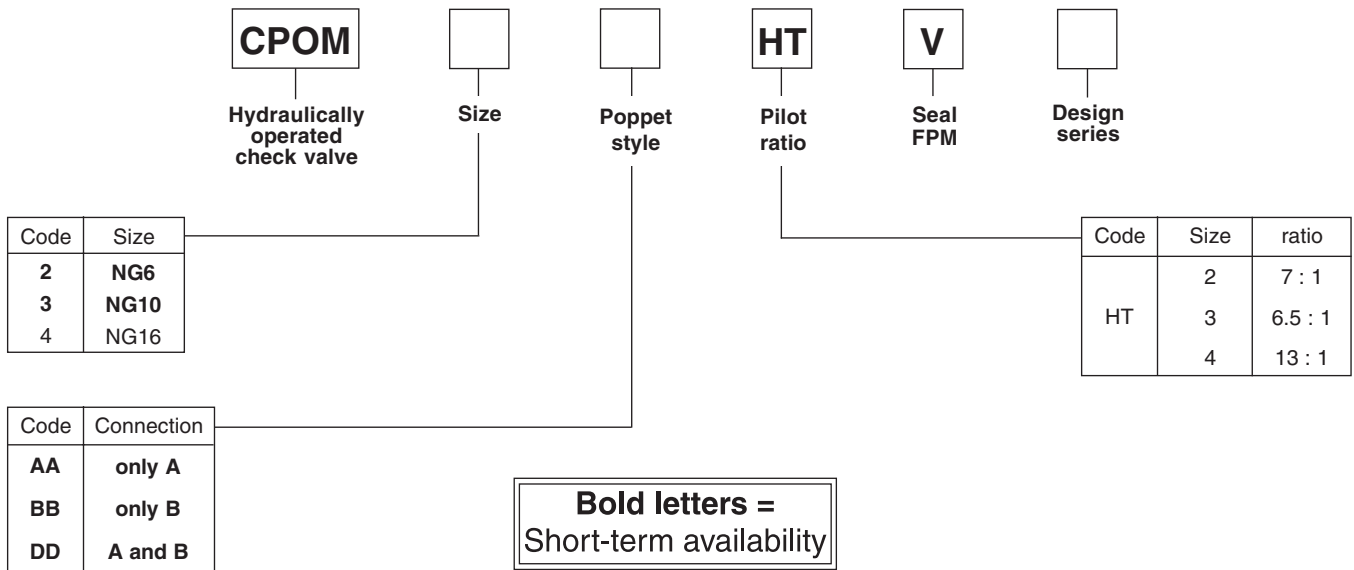


Ordering Code

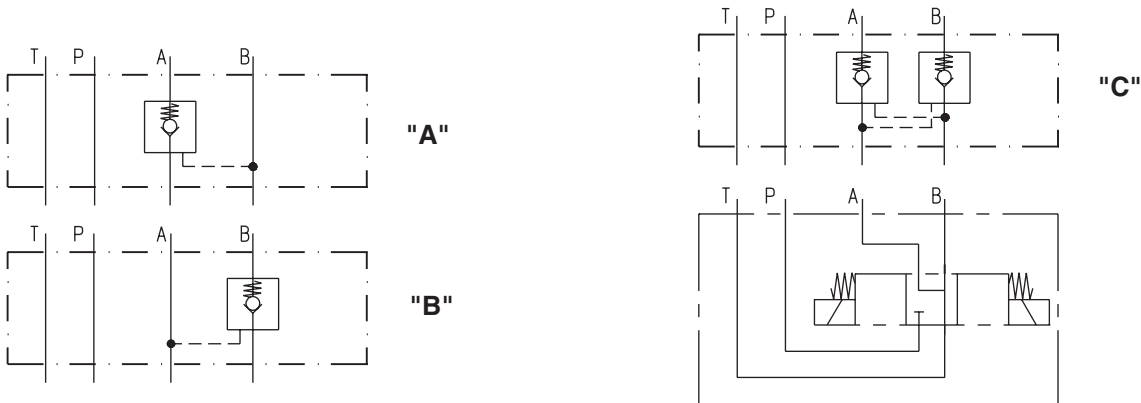
Without pre-opening



With pre-opening



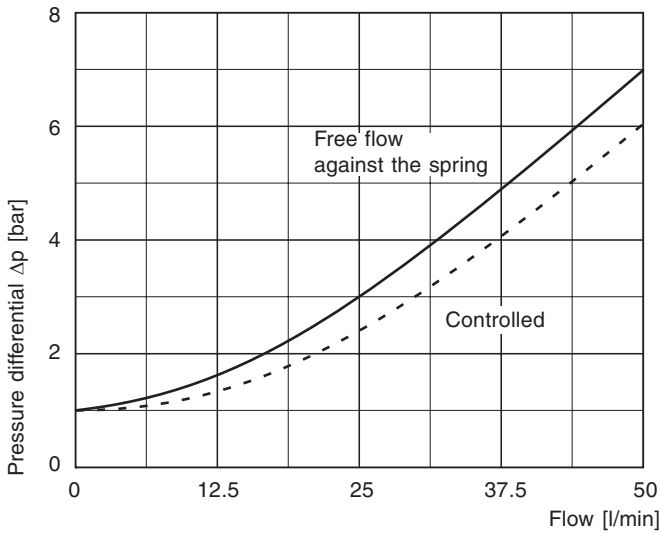
Switch code



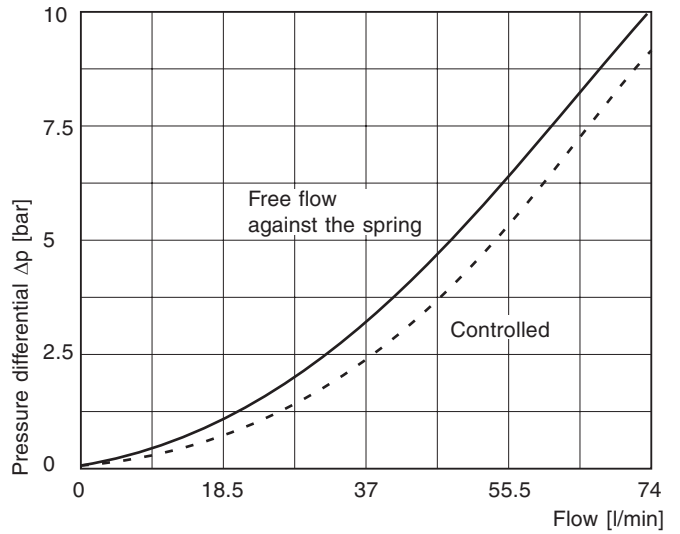
CPOM.PMD CM

$\Delta p/Q$ performance curves

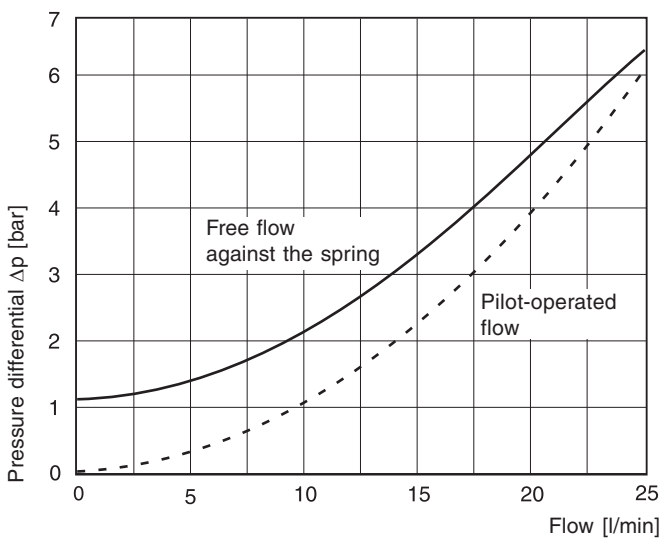
CPOM2



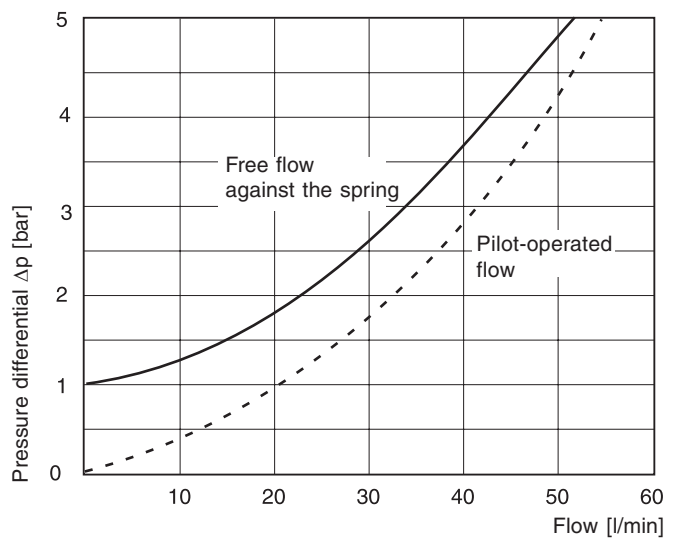
CPOM3



CPOM2 (type HT)



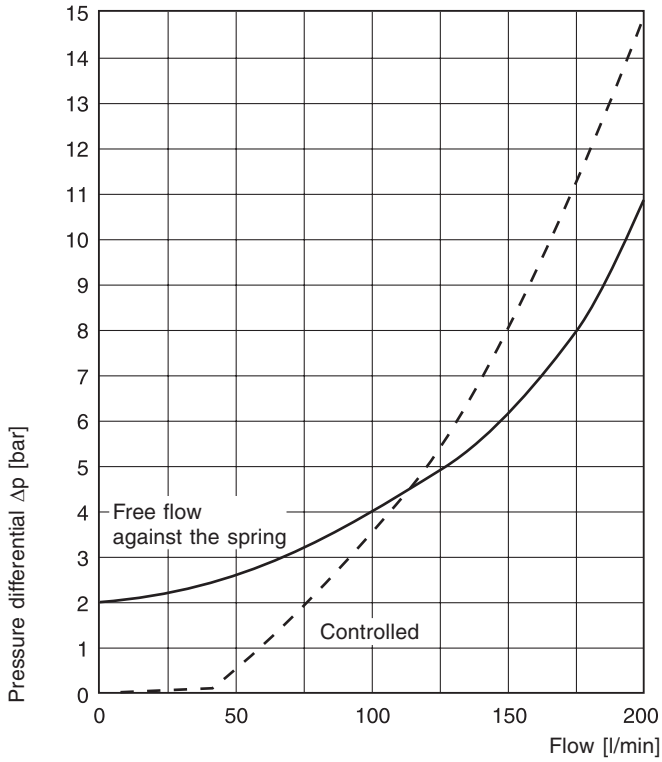
CPOM3 (type HT)



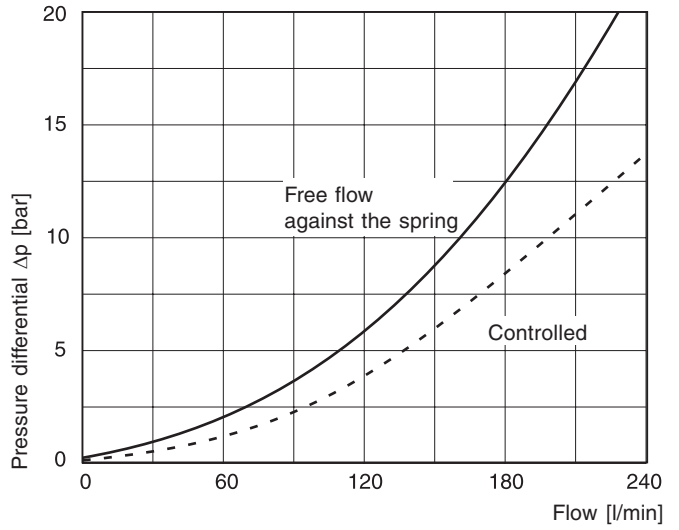
7

$\Delta p/Q$ performance curves

CPOM4 (type HT)



CPOM6



7

Dimensions

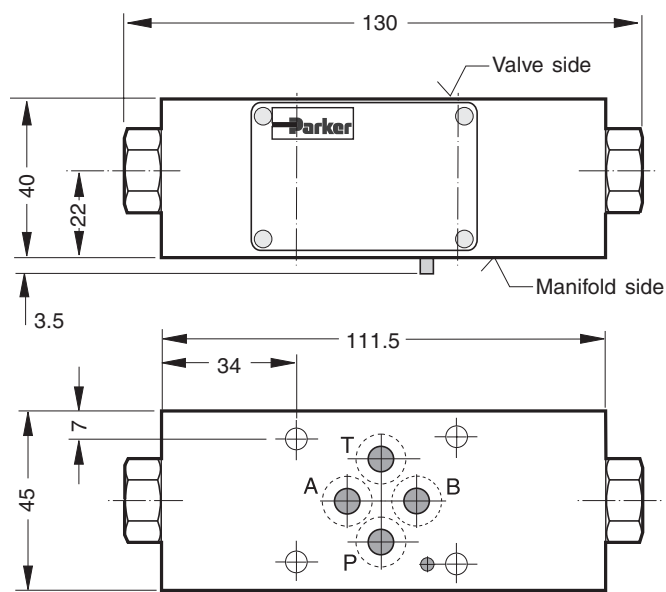
**Pilot-Operated Check Valve
Series CPOM**

CPOM2

Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and positioning pins are always mounted on the manifold side.

Seal kit CPOM2		
Control ratio	Seal	Order code
HT	V	SK-CPOM2-V-11

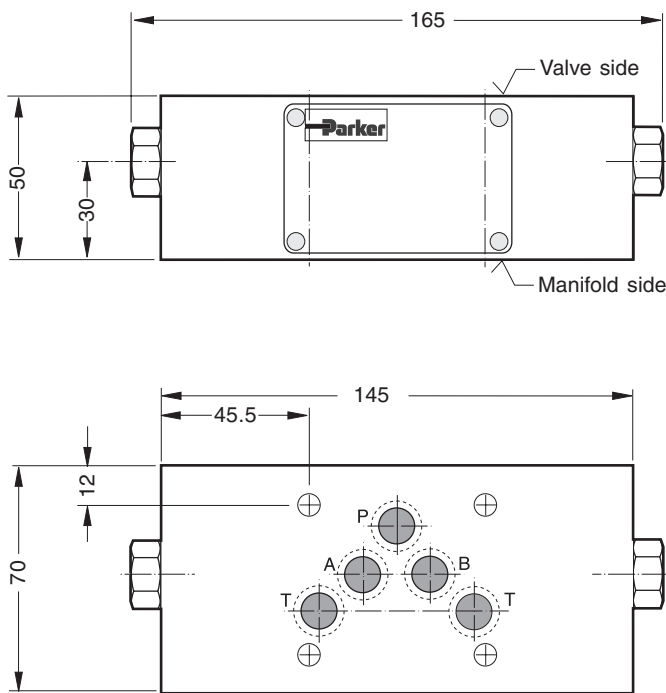


CPOM3

Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and positioning pins are always mounted on the manifold side.

Seal kit CPOM3	
Seal	Order code
V	SK-CPOM3-V-11



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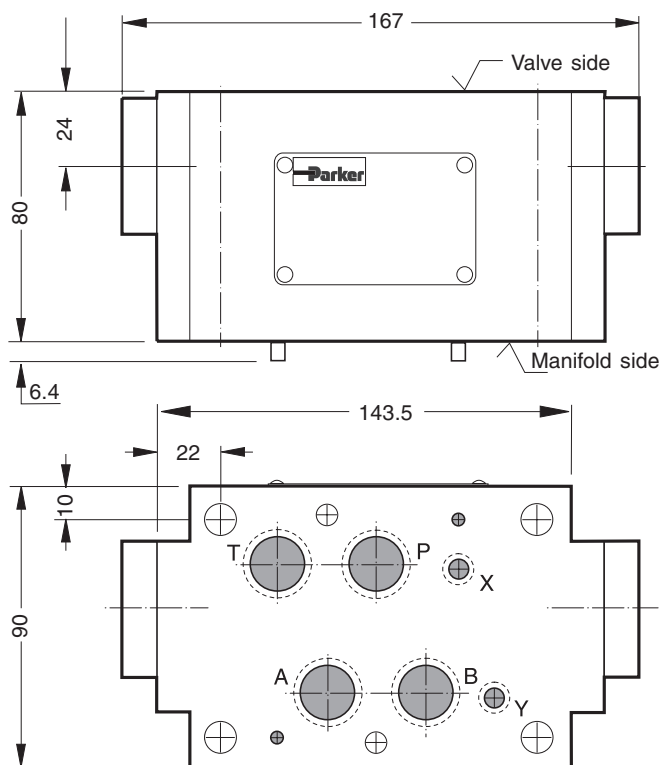


Dimensions

CPOM4

Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and positioning pins are always mounted on the manifold side.

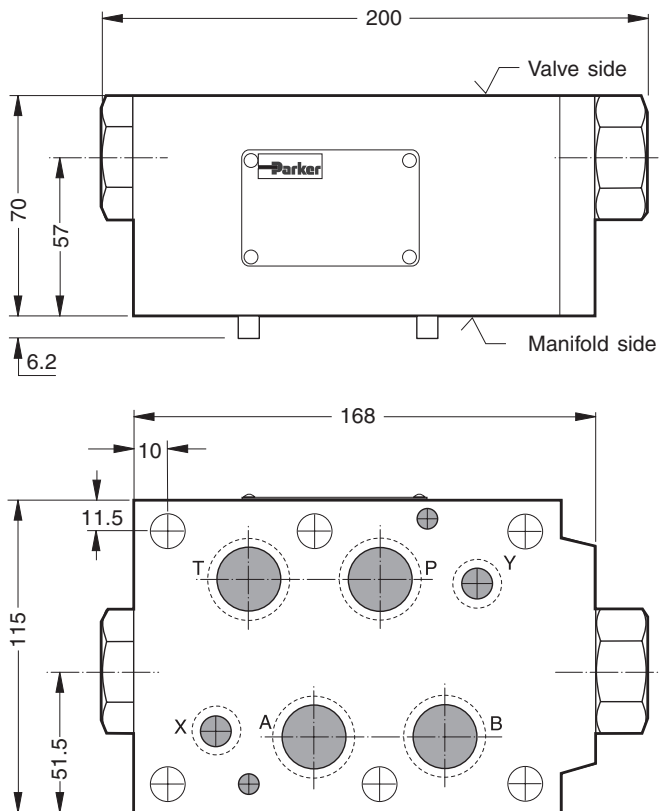


Seal kit CPOM4	
Seal	Order code
V	SK-CPOM4HTV

CPOM6

Note:

The O-rings for sealing the connecting surface of the manifold side are included. The O-rings and positioning pins are always mounted on the manifold side.



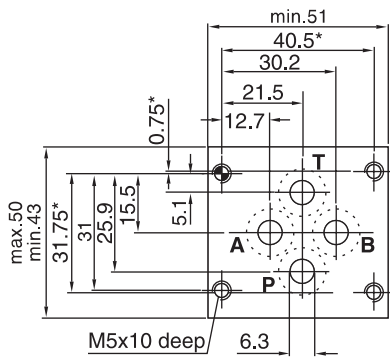
Seal kit CPOM6	
Seal	Order code
V	SK-CPOM6-V-20



CPOM.PMD CM

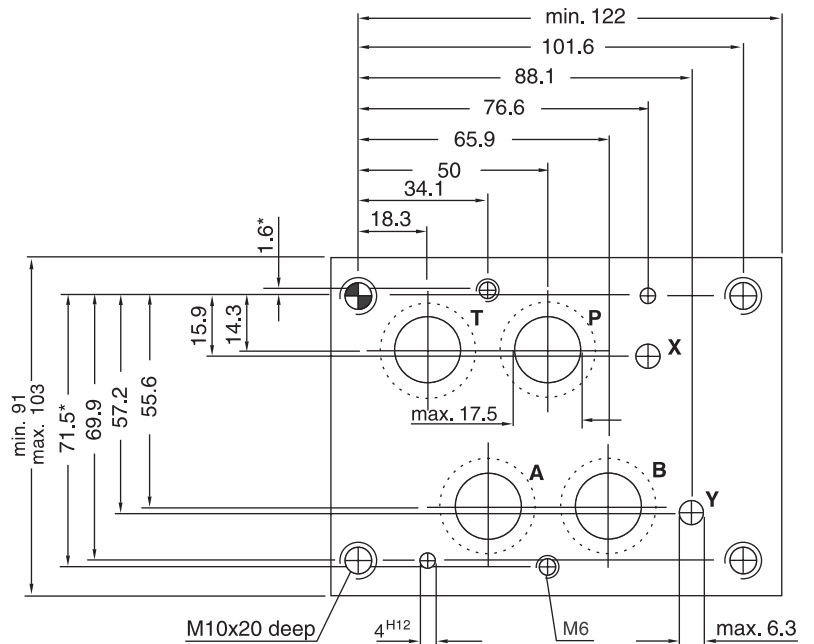
NG6

Code: ISO 4401-03-02-0-94



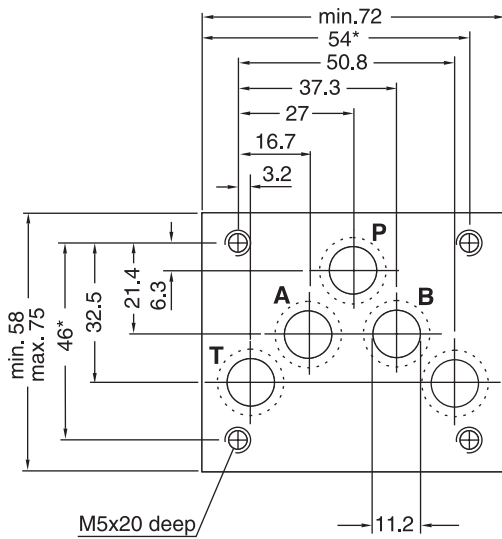
NG16

Code: ISO 4401-07-06-0-94



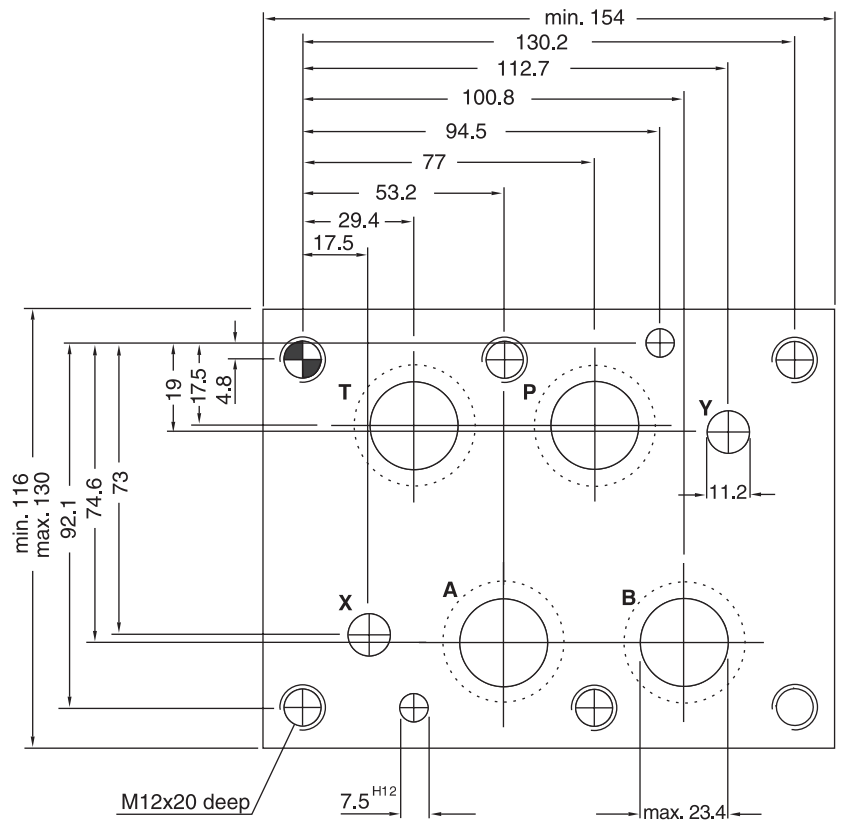
NG10

Code: ISO 4401-05-05-0-94



NG25

Code: ISO 4401-08-07-0-94 (Port diameter acc. to NFPA)



Dimensions marked with*: ± 0.1mm.
 All other dimensions: ± 0.2mm.

Lochbilder.PMD CM

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General Information

Mounting

Manapak sandwich valves can be installed as desired. Each has a mounting pattern, whose dimensions correspond to the following standards.

- ISO 4401
- DIN 24430
- CETOP RP121
- NFPA

Mounting screws

Cylinder head bolts as per DIN 912/12.9, or studs as per DIN 835 10.9 with cylindrical nuts are used to mount the height stacking Manapak sandwich valves.

Length of the mounting screws

The screw lengths are the sum of the depth of engagement plus stacking length, the stud lengths are the sum of the stacking length plus thread depth of the nuts.

For nominal size 06, only studs with a sufficient guide (shank diameter 5 mm) may be used.

Torques

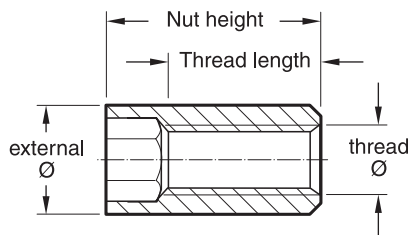
The mounting screws or studs must be tightened with the prescribed tightening torque so that safety and proper seal are ensured.

Studs - nuts

Threads	Ident-No.	Nut height	Thread length
M5	HR10048109	25 mm	20 mm
M6	HR10048110	25 mm	20 mm
M10	007634	25 mm	15 mm
M12	10-B-734	35 mm	25 mm

Threads length

Threads	M5	M6	M10	M12
thread length	1.5 x Ø thread			



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