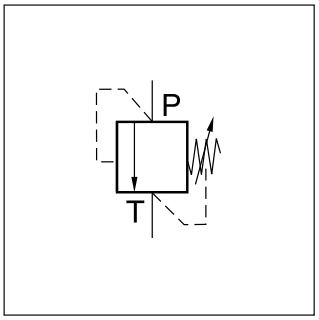
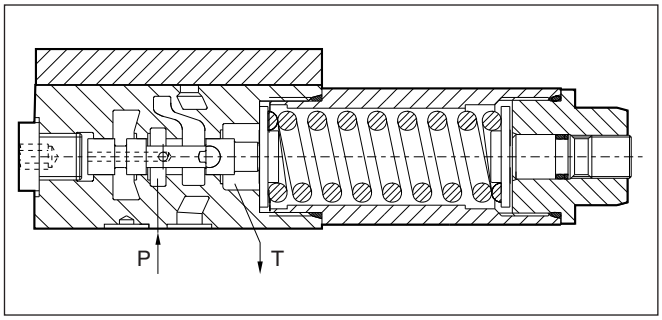
Series	Description	Size						Mounting			Operation		Page
	Parker Standard DIN / ISO	06	10	06	10	25	32	Subplate	Panel	Screw-in	Direct	Pilot	
	Pressure relief valves, manual operation												
VS				•				•			•		4-3
VB	For high secondary pressure			•	•			•			•		4-7
VBY	For high secondary pressure			•	•			•				•	4-13
EVSA		•	•							•	•		4-19
R1E02	Remote control valve	•						•	•		•		4-23
R4V/R6V					•	•	•	•				•	4-27
DSDU	With German certificate (TÜV)				•	•	•	•				•	4-37
	Pressure relief valves, proportional operation												
RE06M*W				•				•			•		4-41
RE06M*T				•				•			•		4-45
R4V/R6V					•	•	•	•				•	4-51
R4V/R6V	Onboard Elektronics				•	•	•	•				•	4-59
VBY*K	For high secondary pressure			•	•			•				•	4-69
	Unloading and sequence valves, manual operation												
R4U					•	•	•	•				•	4-75
R4S					•	•	•	•				•	4-83
	Pressure reducing valves, manual operation												
VM				•				•			•		4-87
R4R					•	•	•	•				•	4-93
	Pressure reducing valves, proportional operation												
VMY				•	•			•				•	4-97
R4R					•	•	•	•				•	4-105
	Accessories												
	Plug-in connectors Mounting patterns												4-111

More pressure valves are presented in the following chapters:
Chapter 7: Sandwich Valves
Chapter 8: Slip-In Cartridge Valves
Chapter 9: SAE Flange Valves
Chapter 10: Valves for Pipe Mounting

Notes

The pressure relief valve VS*06 is a direct operated spool valve for subplate mounting with internal drain to port T. The connection and function is according to ISO 6264.





Function

- Spool type valve
- Subplate mounting according to ISO 6264
- 5 pressure stages
- 2 adjustment modes
- Gauge port

Ordering code

VS		A	06	V	G		
Pressure relief valve	**Pressure stages**	**Adjustment screw with hexagon socket**	**Nominal size**	**FPM Seals**	**Gauge port G1/4“**	**Lock**	**Design series** (not required for ordering)

Code	Pressure stages
025	up to 25 bar
064	**up to 64 bar**
160	**up to 160 bar**
210	**up to 210 bar**
350	up to 350 bar

Code	Lock
omit	**Normal**
Z *	DIN lock

* not pictured

Bold letters =
Short-term availability

Technical data

General		
Design		Direct operated relief valves spool type
Nominal size		DIN NG06 / CETOP03 / NFPA D03
Interface		Subplate mounting according to ISO 6264
Mounting position		unrestricted
Ambient temperature	[°C]	-20...+80
$MTTF_D$ value	[years]	150
Weight	[kg]	1.3
Hydraulics		
Max. operating pressure	[bar]	Port P 350, Port T depressurized
Pressure stages	[bar]	25, 64, 160, 210, 350
Nominal flow	[l/min]	25
Fluid		Hydraulic oil according to DIN 51524...525
Fluid temperature	[°C]	Recommended +30...+50, permitted -20...+70
Viscosity permitted	[cSt] / [mm²/s]	20...380
recommended	[cSt] / [mm²/s]	30...50
Filtration		ISO 4406 (1999); 18/16/13

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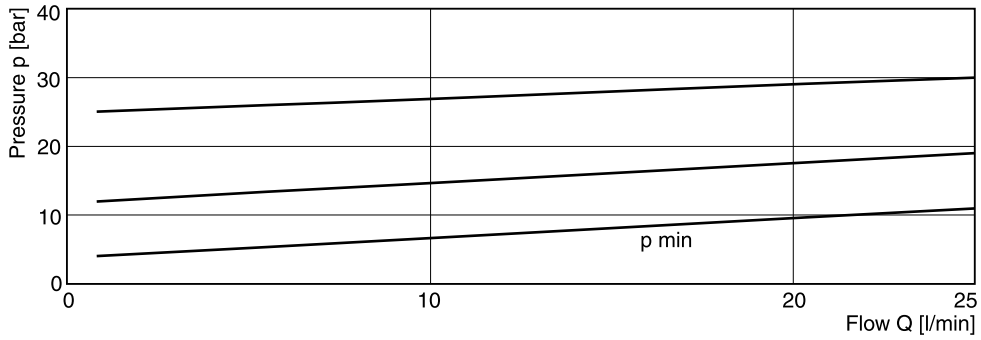
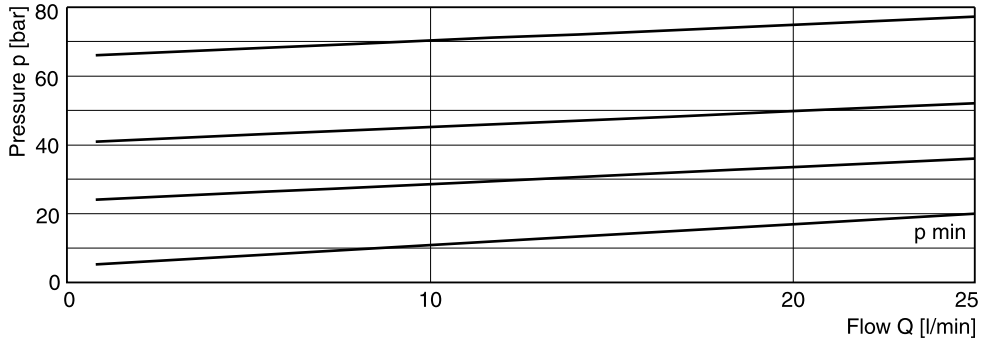
p/Q performance curves

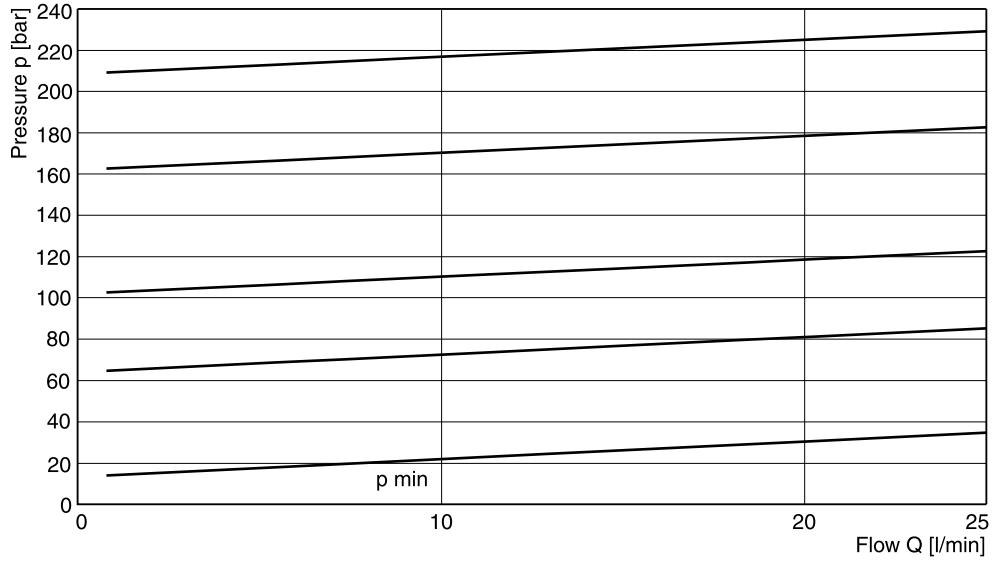
Pressure stage 25 bar



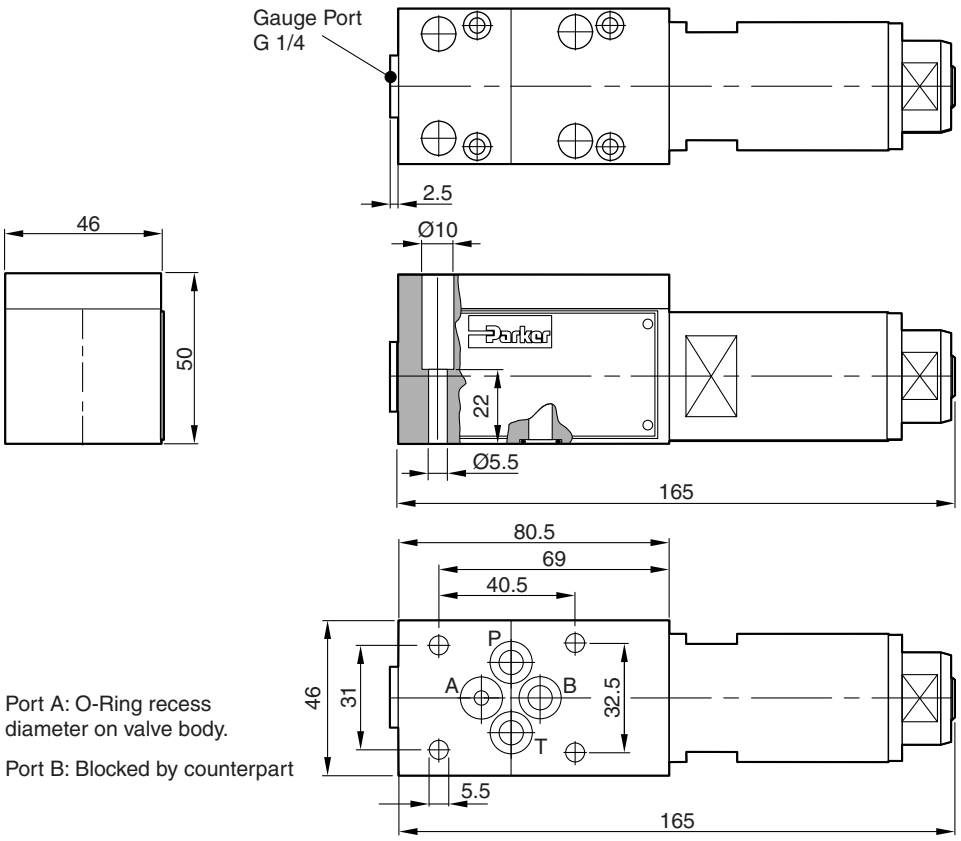
Pressure stage 64 bar



Pressure stage 160, 210 and 350 bar



All characteristic curves measured with HLP46 at 50°C.

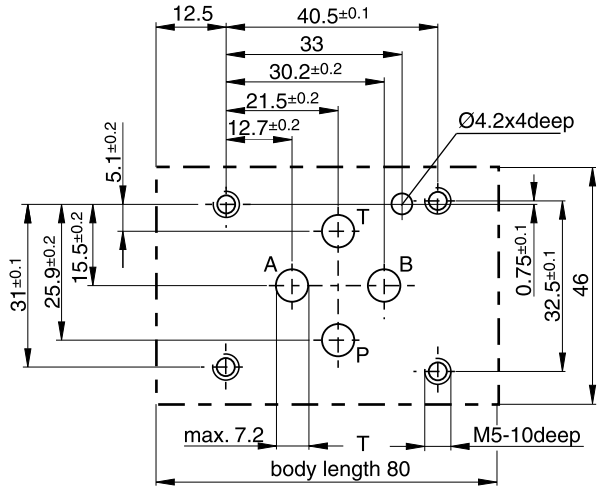


Port A: O-Ring recess diameter on valve body.

Port B: Blocked by counterpart

Surface finish	Bolt kit			Kit FPM
R_{max}6.3 0.01/100	BK375	4xM5x30 DIN 912 12.9	7.6 Nm ±15%	SK-VB/VM/VS-A06V

Mounting pattern ISO 6264, code 6264-03-04-*-97



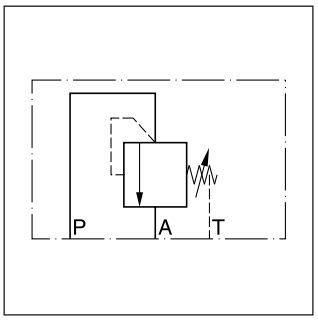
Notes

Direct operated pressure relief valve with manual adjustment. The series VB can also be used as a pressure sequence valve, because of the high pressure capability in the outlet port and the external drain port.

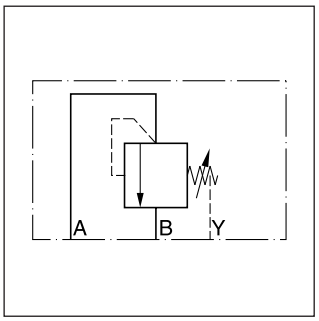
VB*A10

Features

- Spool type valve
- Subplate mounting according to ISO 5781
- 5 pressure stages at NG06
- 3 pressure stages at NG10
- 2 adjustment modes

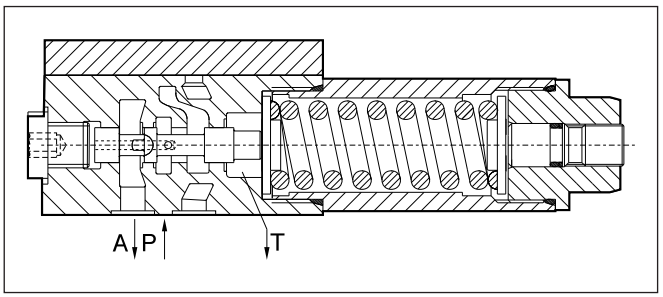


VB*A06

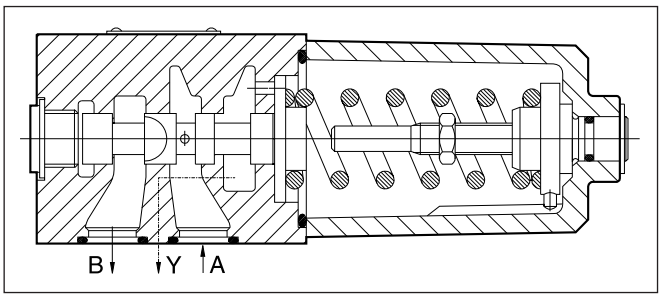


VB*A10

VB*A06



VB*A10



Ordering code

VB		A		V			
Pressure relief valve	**Pressure stages**	**Adjustment screw with hexagon socket**	**Nominal size**	**FPM Seals**	**Gauge port**	**Lock**	**Design series** (not required for ordering)

Code	Pressure stages
025 [1]	up to 25 bar
064	**up to 64 bar**
125 [2]	**up to 125 bar**
160 [1]	**up to 160 bar**
210	**up to 210 bar**
350 [1]	up to 350 bar

[1] only NG 06
[2] only NG 10

Code	Nominal size
06	**NG 06**
10	**NG 10**

Code	Lock
omit	**Normal**
Z	Key lock

Code	Gauge port
G [1]	**G 1/4”**
M [2]	**M18x1.5**

Bold letters =
Short-term availability

Technical data

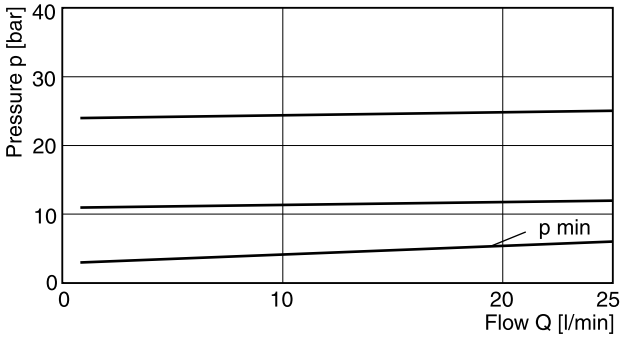
General			
Design		Direct operated pressure relief valve, spool type	
Nominal size		**NG 06 (CETOP 03 / NFPA D03)**	**NG 10 (CETOP 05 / NFPA D05)**
Interface		Subplate mounting according to ISO 5781	
Mounting position		unrestricted	
Ambient temperature	[°C]	-20...+80	
$MTTF_D$ value	[years]	150	
Weight	[kg]	1.3	3.7
Hydraulic			
Max. operating pressure	[bar]	Port P and A 350 Port T depressurized	Port A and B 315 Port Y depressurized
Pressure stages	[bar]	25, 64, 160, 210, 350	64, 125, 210
Nominal flow	[l/min]	25	60
Fluid		Hydraulic oil according to DIN 51524...525	
Fluid temperature	[°C]	-20...+70	
Viscosity recommended	[cSt] / [mm²/s]	30...50	
permitted	[cSt] / [mm²/s]	20...380	
Filtration		ISO 4406 (1999) 18/16/13	

4

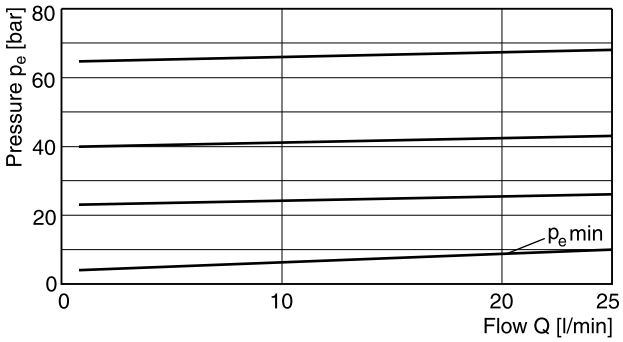
p/Q performance curves

VB*06

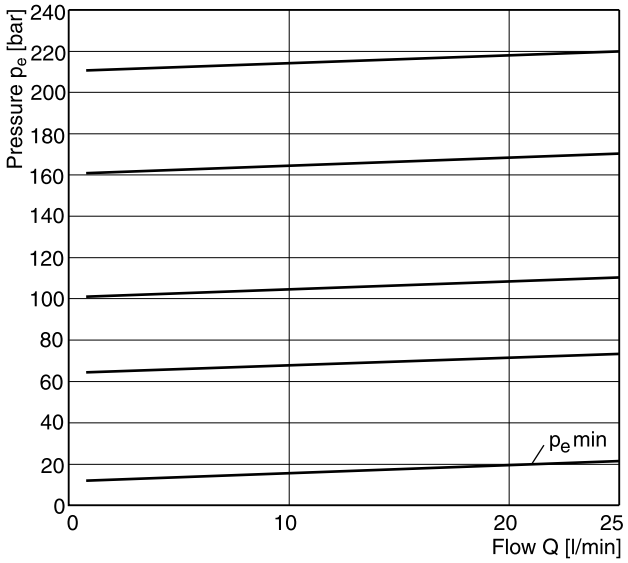
Setting pressure max. 25 bar



Setting pressure max. 64 bar

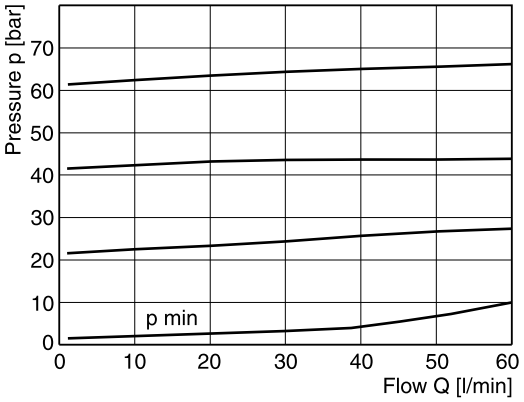


Setting pressure max. 160 or 210 bar

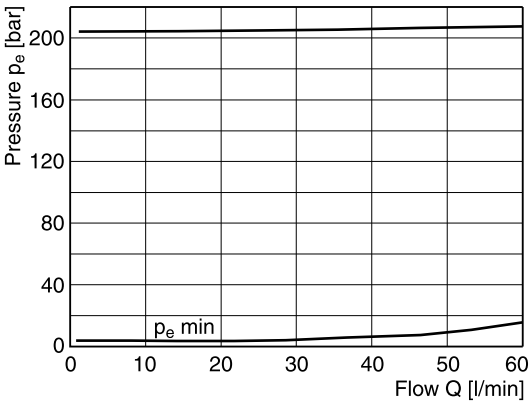


VB*10

Setting pressure max. 64 bar



Setting pressure max. 210 bar



All characteristic curves measured with HLP46 at 50°C.

VB_UK.INDD CM_26.10.2009

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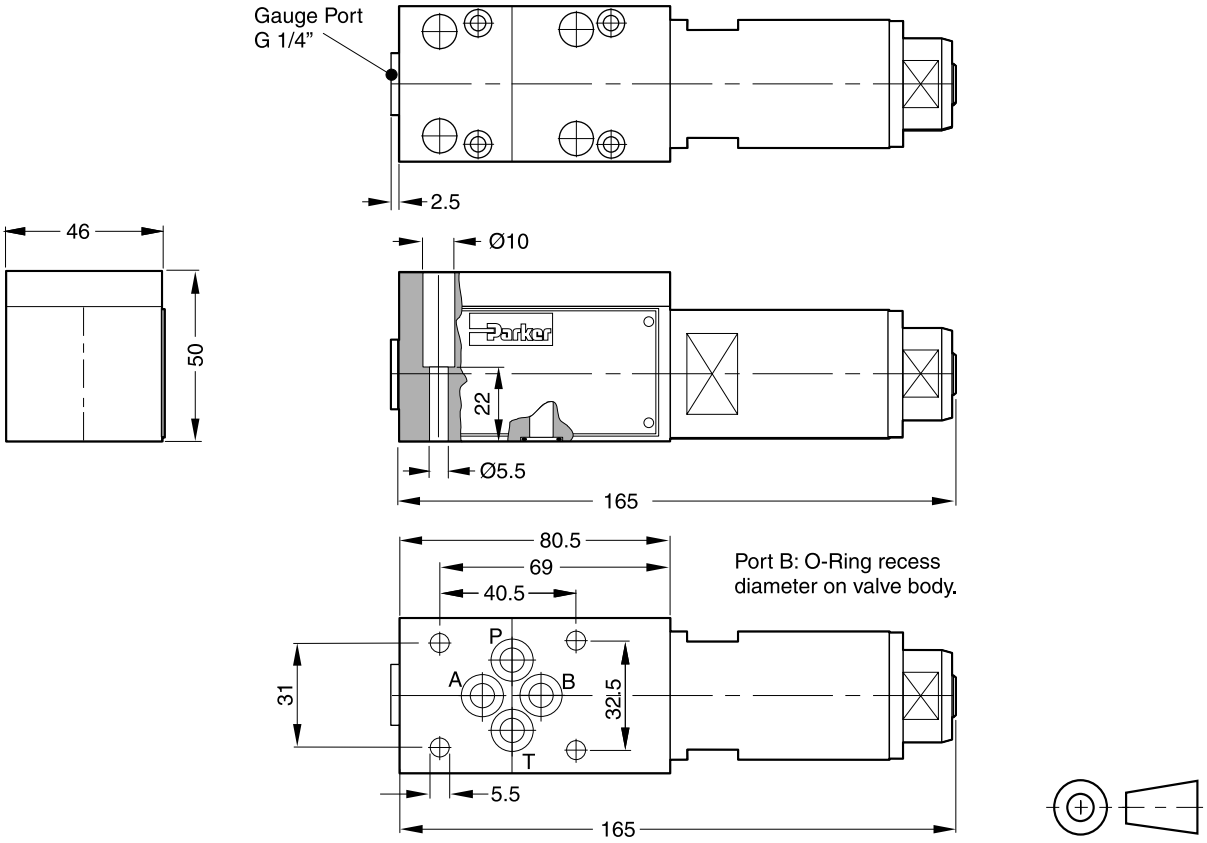
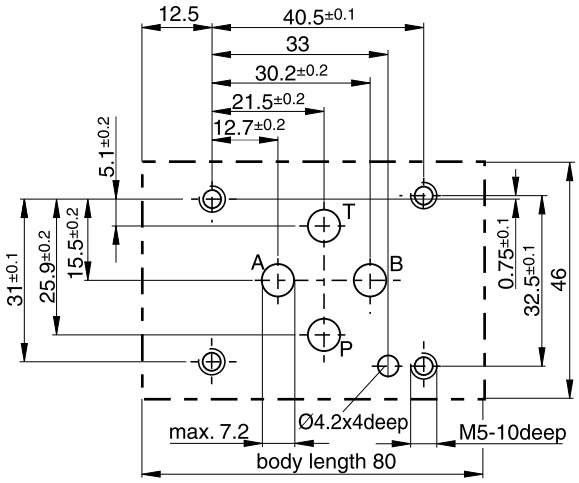
Kaarst, Germany

NG06

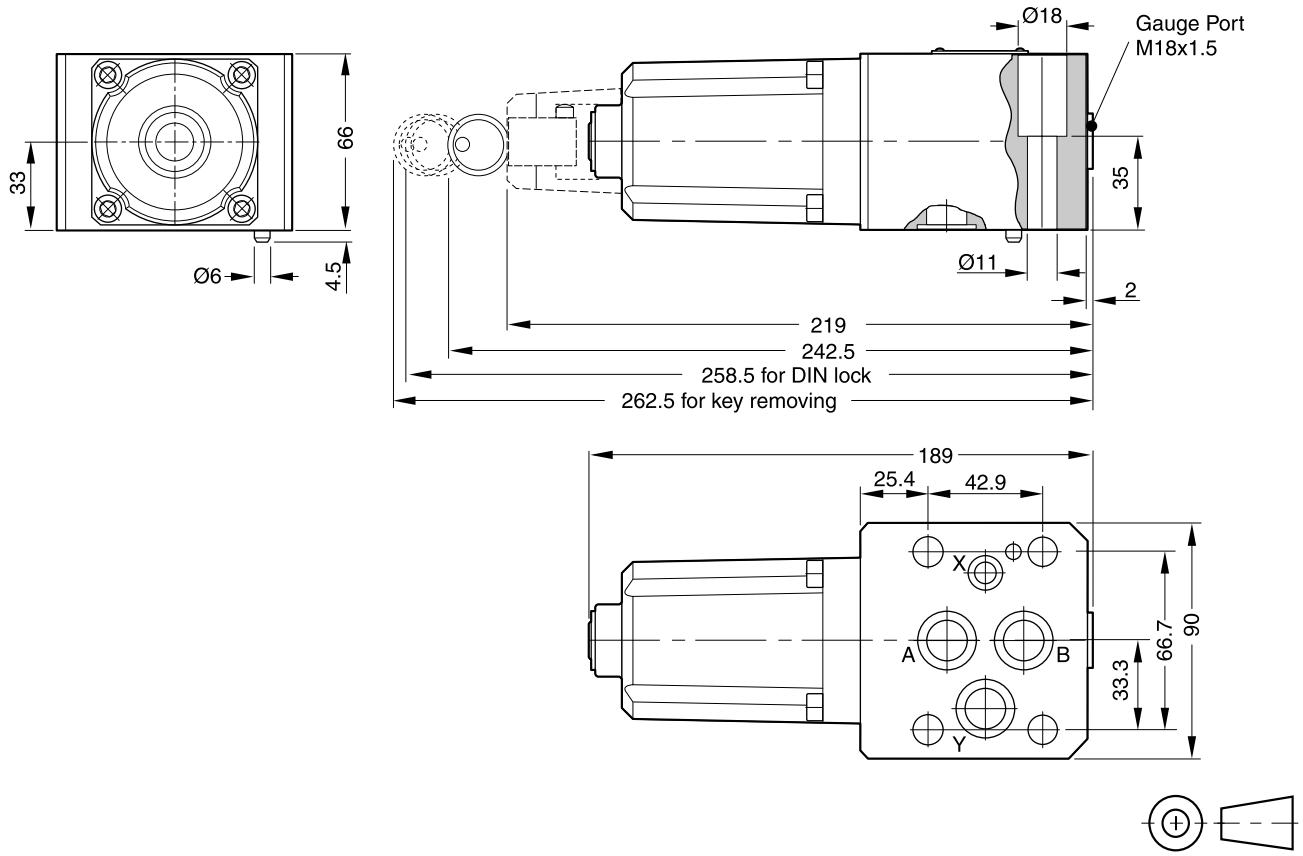


Surface finish	Bolt kit			Kit FPM
R_{max}6.3 ⏥ 0.01/100	BK375	4xM5x30 DIN 912 12.9	7.6 Nm ±15%	SK-VB/VM/VS-A06V

Mounting pattern ISO 5781-03-04-0-00

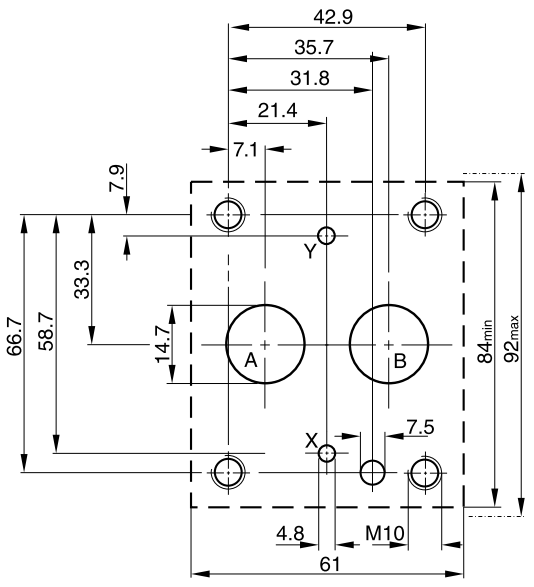


NG10



Surface finish	Bolt kit			Kit FPM
R_{max}6.3 ⏥ 0.01/100	BK389	4xM10x50 DIN 912 12.9	63 Nm ±15%	SK-VB/VM-A10V

Mounting pattern ISO 5781-06-07-0-00



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Notes

Pilot operated relief valves of the series VBY consist of a pilot with manual adjustment and a spool type main stage. The valves need to be externally drained.

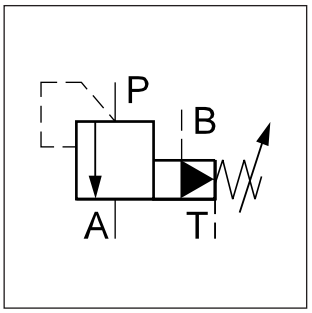
The series VBY can also be used as pressure sequence valve, because of the high pressure capability in the outlet port and the external drain port.

Features

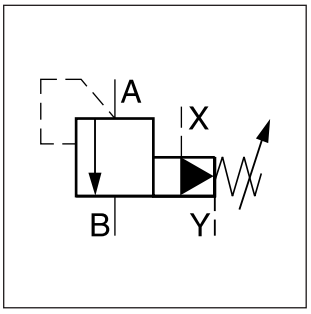
- Subplate mounting acc. to ISO 5781
- Main stage spool type
- Pilot stage seated type
- 4 pressure stages
- 2 adjustment modes
  - screw with hexagon socket
  - Key lock

VBY*A06

VBY*A10



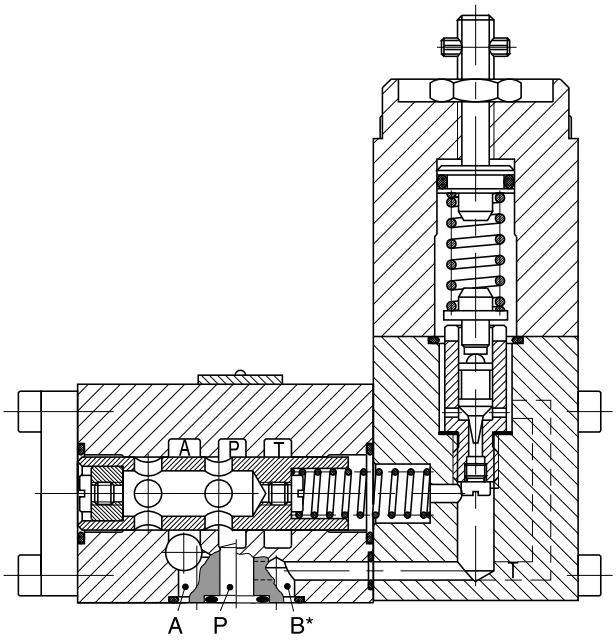
VBY*A06



VBY*A10

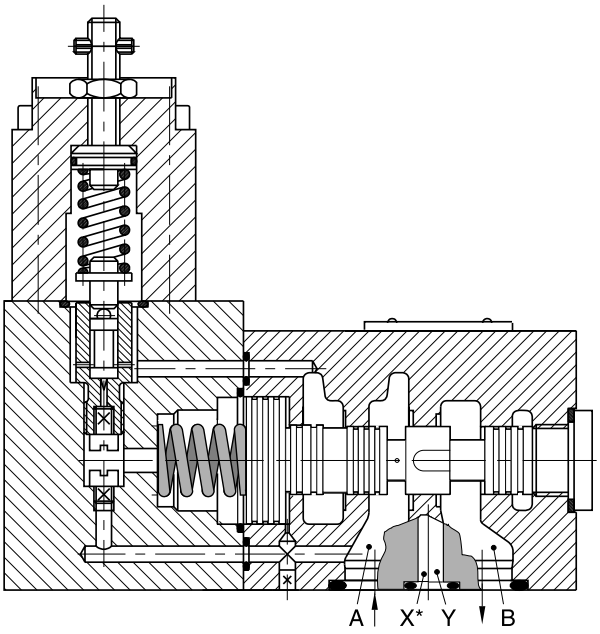
4

VBY*A06



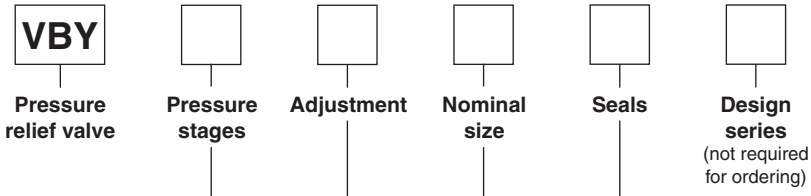
* Port B for remote control, otherwise to be blocked

VBY*A10



* Port X for remote control, otherwise to be blocked

Ordering code



Code	Pressure stages
064	**up to 64 bar**
160	**up to 160 bar**
210	**up to 210 bar**
315	up to 315 bar

Code	Adjustment
A	**Screw with hexagon socket**
H	Turning knob with key lock

Code	Seals
N	**NBR**
V	FPM

Code	Nominal size
06	**NG06**
10	**NG10**

Bold letters =
Short-term availability

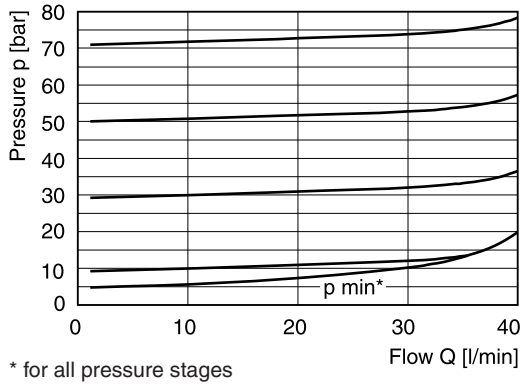
Technical data

Nominal size		**NG06**	**NG10**
Design		Pilot operated pressure relief valve, spool type	
Interface		Subplate mounting according to ISO 5781	
Mounting position		unrestricted	
Ambient temperature	[°C]	-20...+80	
Max. operating pressure	[bar]	P, A, B 315	A, B, X 315
External drain port pressure	[bar]	T 100	Y 100
Pressure stages	[bar]	64, 160, 210, 315	
Fluid temperature	[°C]	-20...+70	
Viscosity, recommended	[cSt] / [mm²/s]	30...50	
permitted	[cSt] / [mm²/s]	20...380	
Filtration		ISO 4406 (1999) 18/16/13	
Nominal flow	[l/min]	See p/Q curves	
Pilot oil flow	[cm³/min]	approx. 500	approx. 1000
$MTTF_D$ value	[years]	75	
Weight	[kg]	2.4	4.5

p/Q performance curves VBY

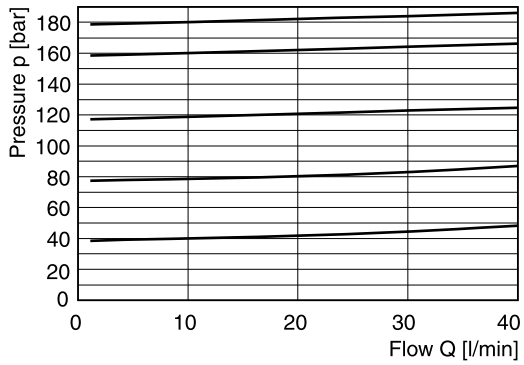
NG06

Max. 64 bar NG06

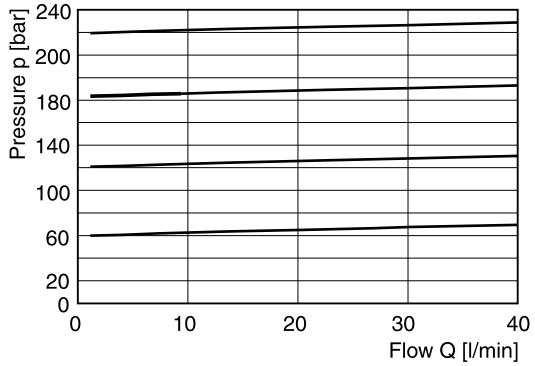


* for all pressure stages

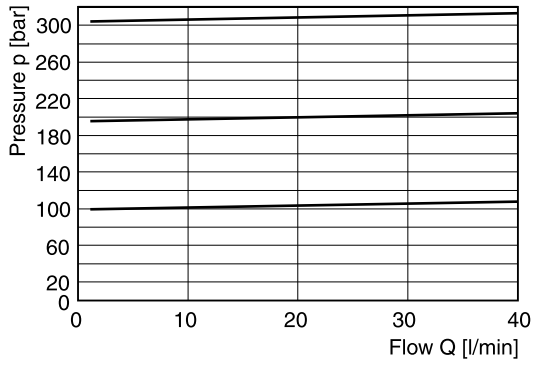
Max. 160 bar NG06



Max. 210 bar NG06

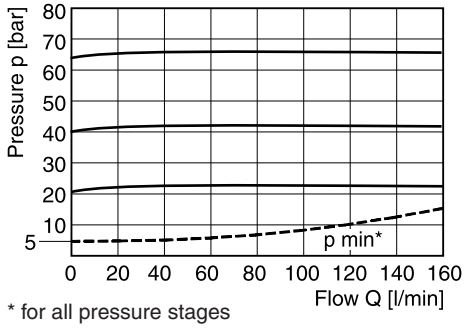


Max. 315 bar NG06



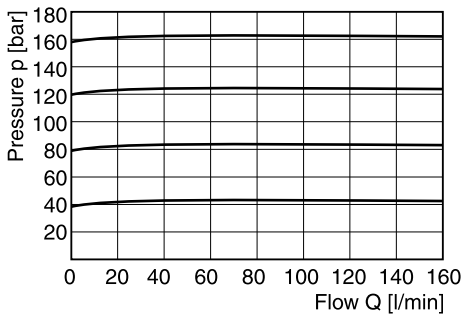
NG10

Max. 64 bar NG10

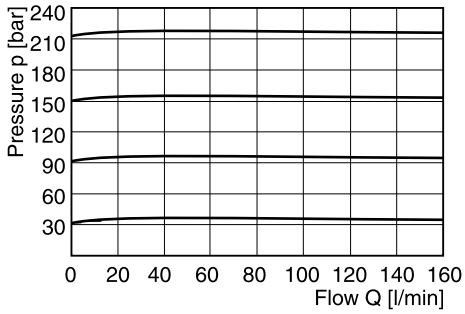


* for all pressure stages

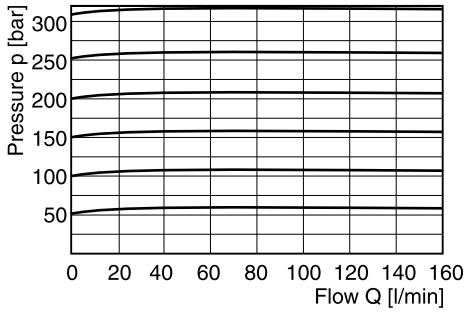
Max. 160 bar NG10



Max. 210 bar NG10



Max. 315 bar NG10



All characteristic curves measured with HLP46 at 50°C.

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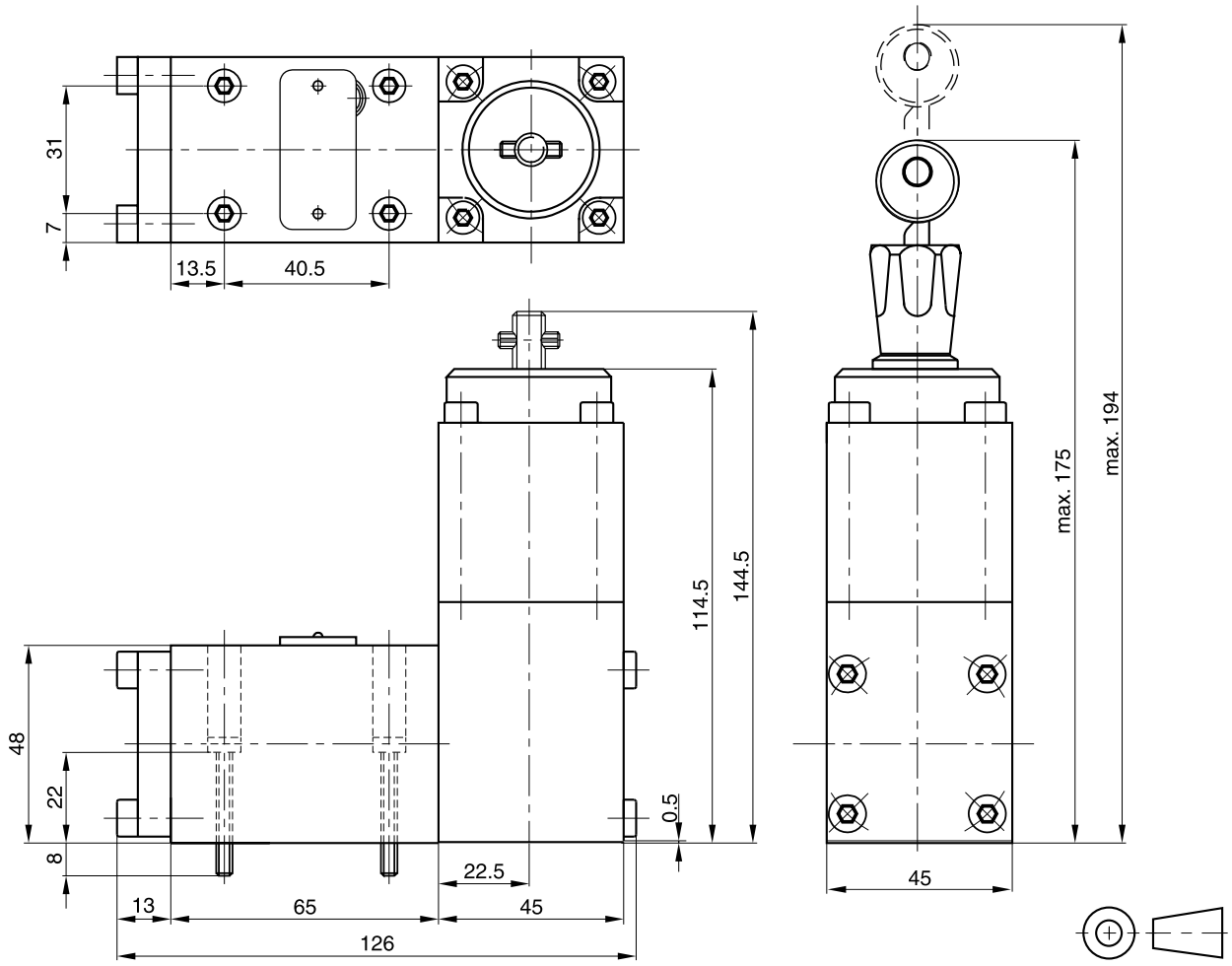
Kaarst, Germany

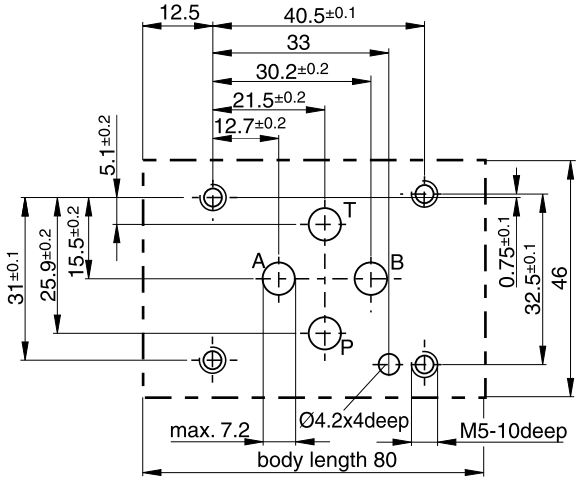
4

NG06

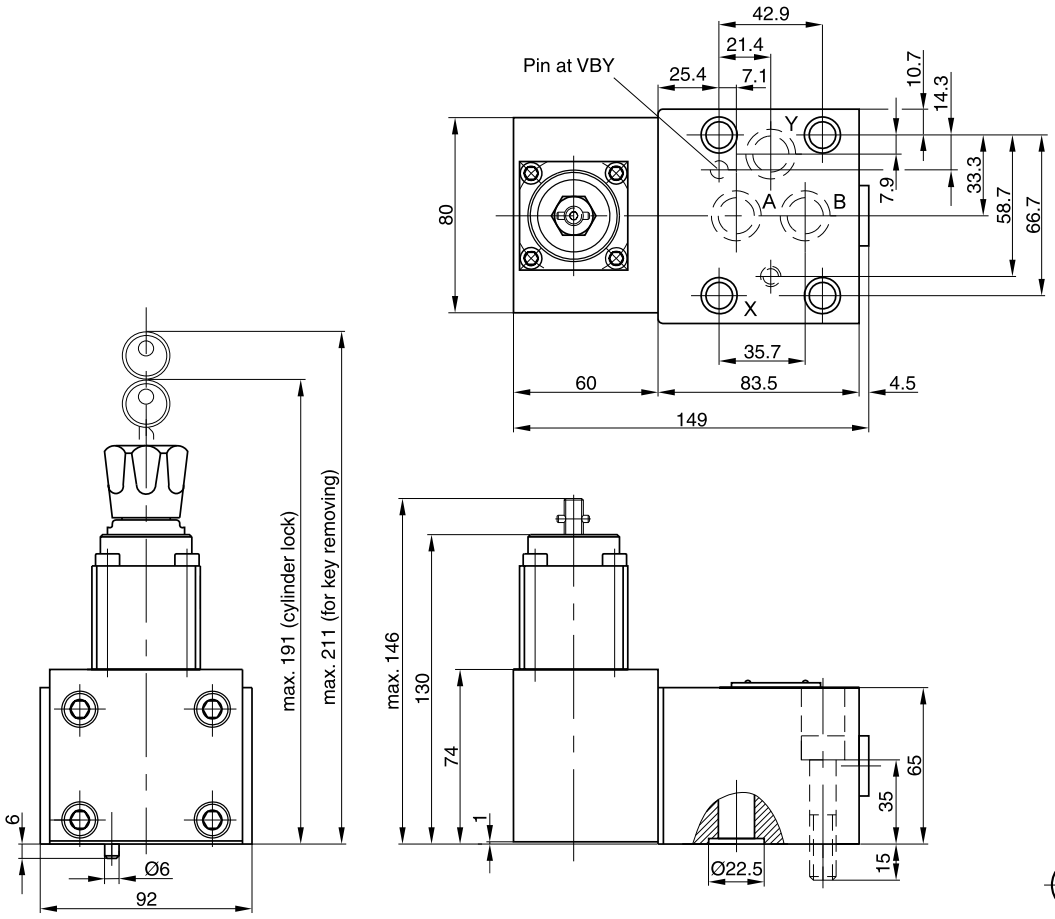


Surface finish	Bolt kit			Kit FPM
R_{max}6.3 ⏥ 0.01/100	BK375	4xM5x30 DIN 912 12.9	7.6 Nm ±15%	SK-VBY-A06V

Mounting pattern ISO 5781-03-04-0-00

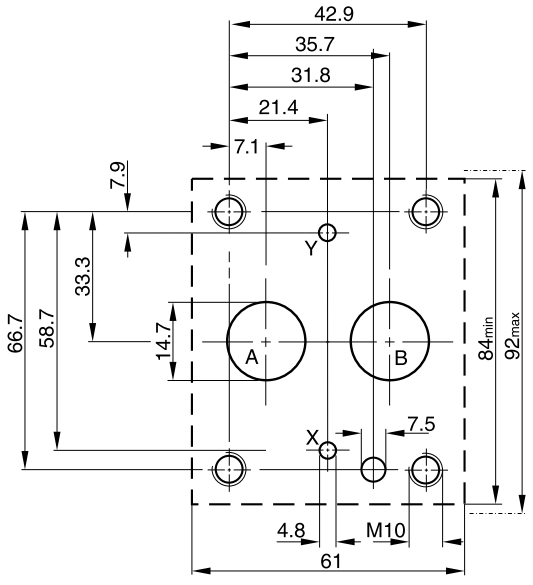


NG10



Surface finish	Bolt kit			Kit FPM
$\sqrt{R_{max}6.3}$ 0.01/100	BK389	4xM10x50 DIN 912 12.9	63 Nm ±15%	SK-VB/VM-A10V

Mounting pattern ISO 5781-06-07-0-00



VBY_UK.INDD CM_13.04.2010

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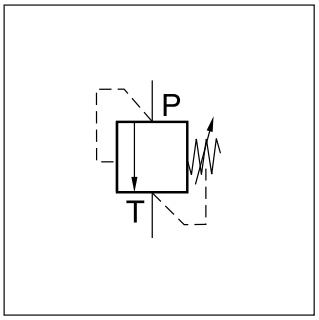
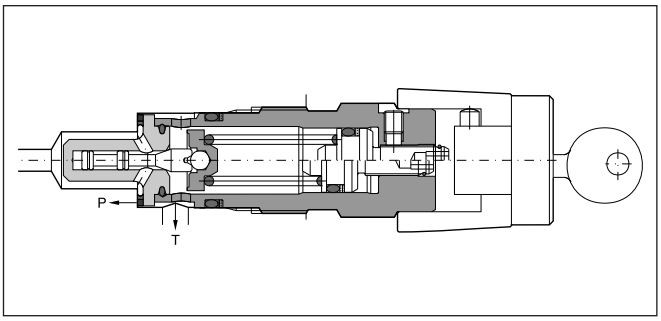
Hydraulic Controls Division
Kaarst, Germany

Notes

The direct operated pressure relief valve series EVSA is a seated type valve for screw-in mounting. It is available in two sizes and three pressure stages.





Function

When the pressure in port P exceeds the setting pressure the cone opens to port T and thus limits the pressure in port P to the adjusted level.

The integrated damping spool prevents pressure fluctuations in the transition region. The pressure is set by the adjusting screw, which is locked by the clamping screw. The setting can optionally be secured by a cylinder lock (key lock).

Features

- Seated type valve
- Screw-in mounting
- 3 pressure stages
- 2 adjustment modes
  - screw with lock nut
  - key lock

Note

The spring must be unloaded when the EVSA is screwed out of the manifold.

Technical data

General			
Design		Direct operated relief valve, seated type	
Nominal size		**NG06**	**NG10**
Interface		Screw-in mounting	
Mounting position		unrestricted	
Ambient temperature	[°C]	-20...+80	
$MTTF_D$ value	[years]	150	
Weight	[kg]	0.3	0.45
Hydraulics			
Max. operating pressure	[bar]	Port P 315, Port T depressurized	
Pressure stages	[bar]	64, 160, 315	
Nominal flow	[l/min]	40 (NG06), 80 (NG10)	
Fluid		Hydraulic oil according to DIN 51524...525	
Fluid temperature	[°C]	Recommended +30...+50, permitted -20...+70	
Viscosity permitted	[cSt] / [mm²/s]	20...380	
recommended	[cSt] / [mm²/s]	30...50	
Filtration		ISO 4406 (1999); 18/16/13	

Ordering code

EVSA		A		1		
Pressure relief valve	**Pressure stages**	**Adjustment screw with hex. socket**	**Nominal size / thread type**	**FPM Seals**	**Design series** (not required for ordering)	**Lock**

Code	Pressure stages
064	**up to 64 bar**
160	**up to 160 bar**
315	**up to 315 bar**

Code	Lock
omit	**Normal**
Z	Key lock

Code	Nominal size
06	**NG06, M28x1.5**
10	**NG10, M35x1.5**

Bold letters =
Short-term availability

EVSA_UK.INDD CM_26.10.2009

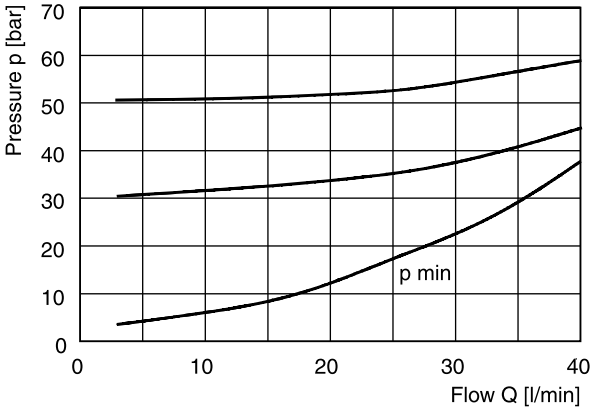
Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

4

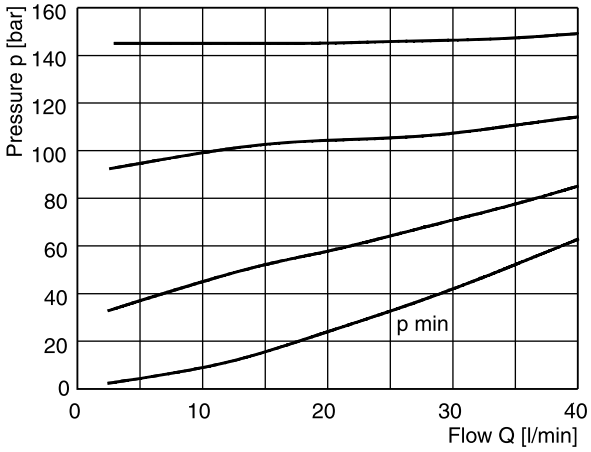
Δp/Q performance curves

NG06

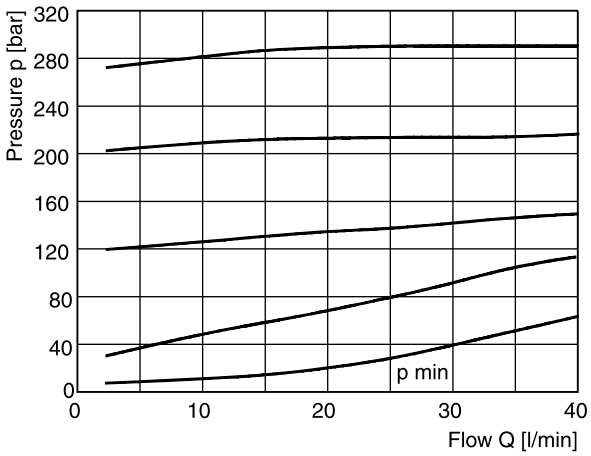
Pressure stage 64 bar



Pressure stage 160 bar

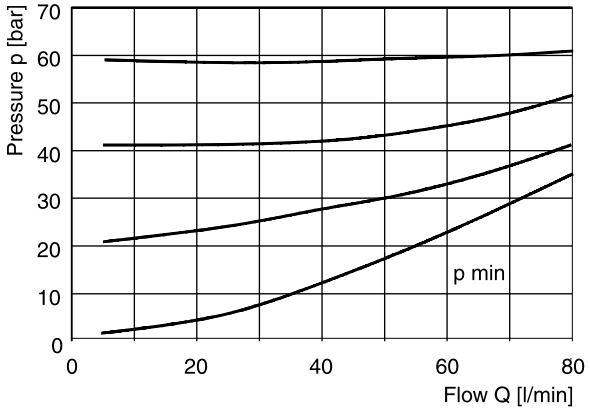


Pressure stage 315 bar

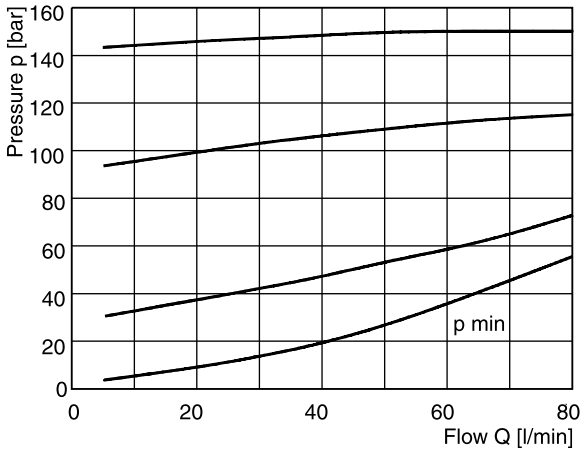


NG10

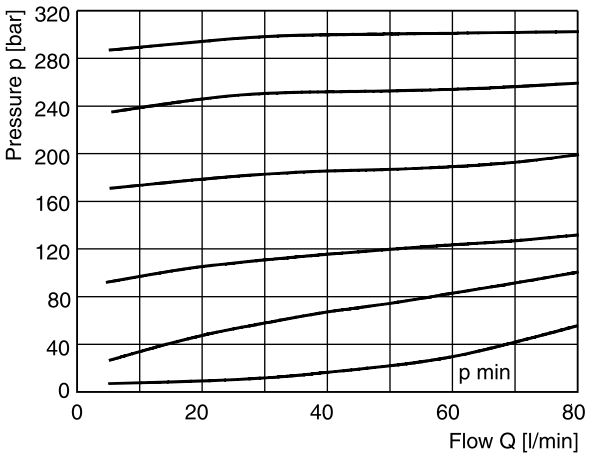
Pressure stage 64 bar



Pressure stage 160 bar

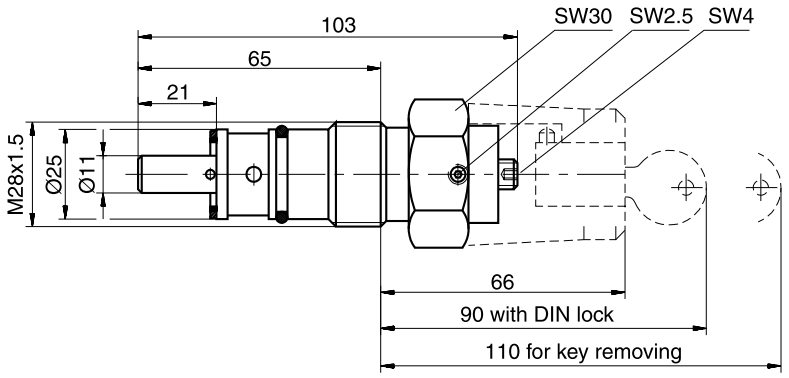


Pressure stage 315 bar



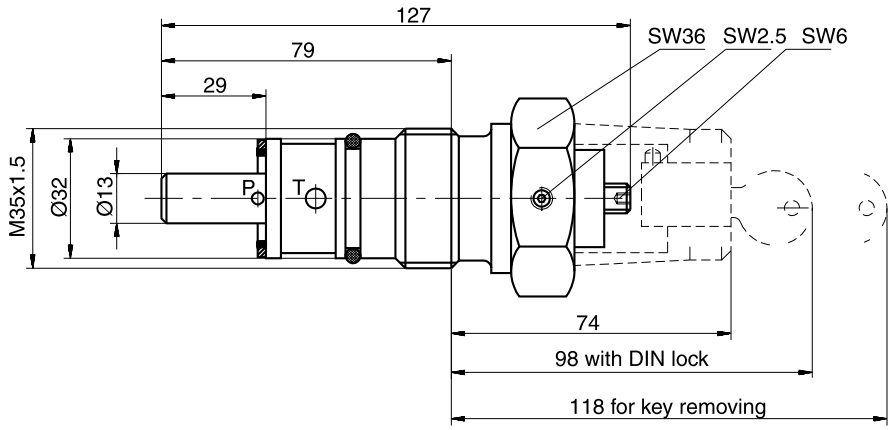
All characteristic curves measured with HLP46 at 50°C.

EVSA NG06



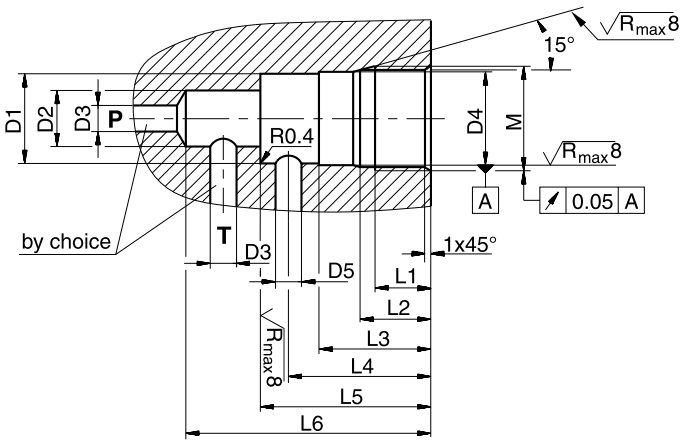
Kit
SK-EVSAA0613

EVSA NG10



Kit
SK-EVSAA1013

Installation dimensions



Size	M	D_1	D_2	D_3	D_4	D_5	L_1	L_2	L_3	L_4	L_5	L_6
NG06	M28 x 1.5	Ø24.8	Ø15	Ø6.8	$Ø25^{H9}$	Ø6.8	15	19	30	35	45	65
NG10	M35 x 1.5	Ø31.8	Ø18.5	Ø10	$Ø32^{H9}$	Ø10	18	23	35	41 - 46	52	80

Notes

Direct operated pressure relief valves series R1E02 are seated type valves typically used for remote pressure controls. In applications where the reliability and simplicity of a hydraulic remote control are preferred to an electro-hydraulic system the R1E02 series is an ideal solution.

Typically pilot operated pressure valves or compensators of variable pumps are controlled.

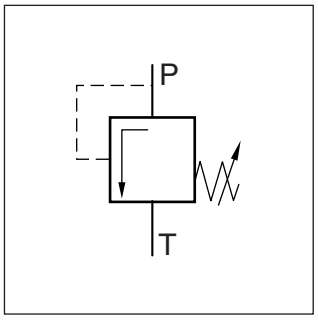
Features

- Seated type valve
- 3 body variants:
  - foot mounting
  - front panel mounting
  - subplate mounting
- 3 pressure stages
- 3 adjustment modes
  - hand knob
  - acorn nut with lead seal
  - adjusting with lock

Foot mounting

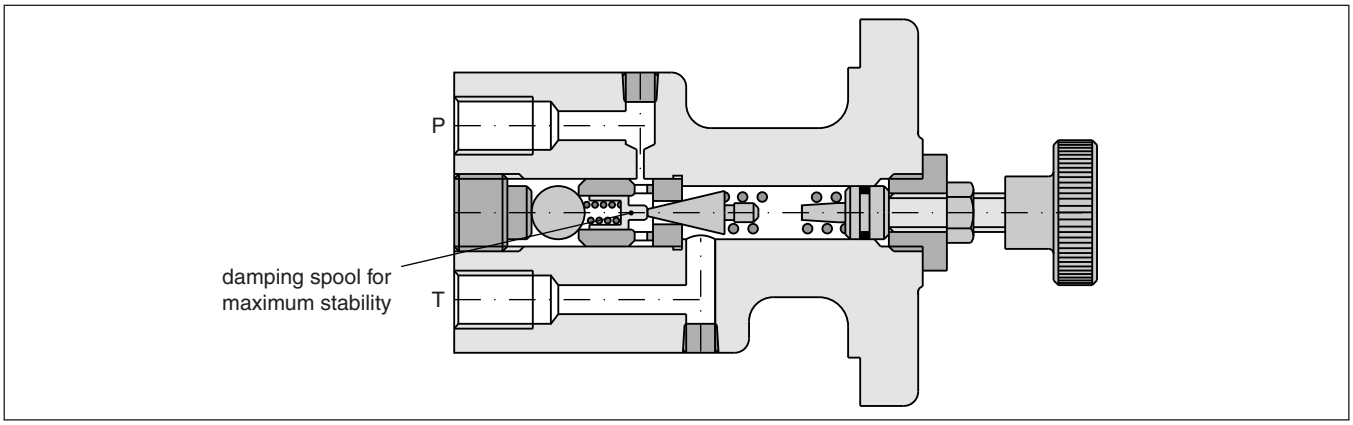
Front panel mounting

Subplate mounting

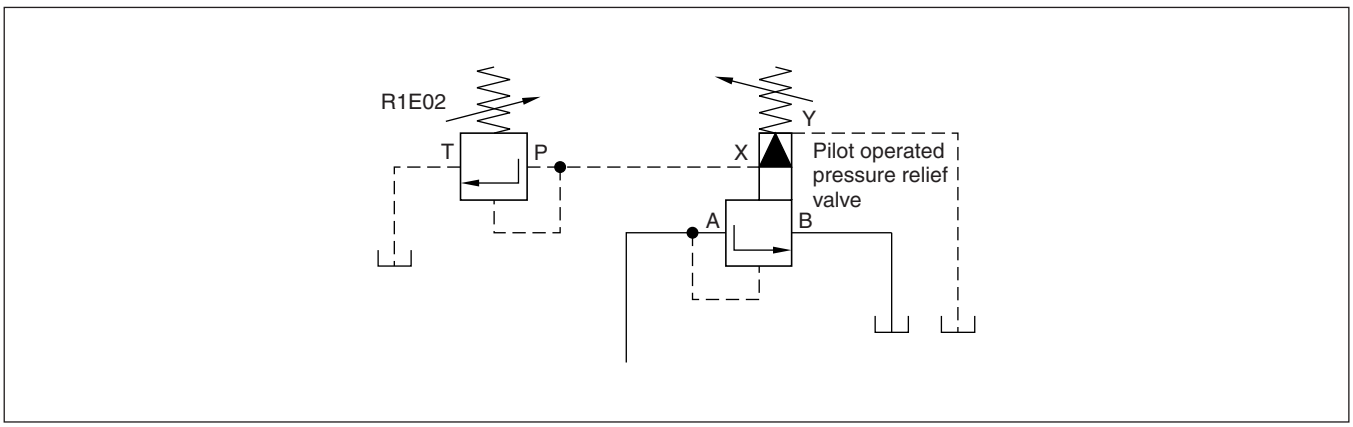


4

R1E02, front panel mounting



Typical application as remote pilot valve



Ordering code

R1E02	–			2		A	1	
Pressure relief valve		Body variants	Pressure stages	Connec-tions G1/4“	Adjust-ment	Design series	Seals NBR	Options

Code	Body variants
1	foot mounting
2	front panel mounting
3	subplate mounting

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Code	Adjustment
1	Hand knob Ø 32 mm
3	Acorn nut with lead seal
4 [1)]	Key lock

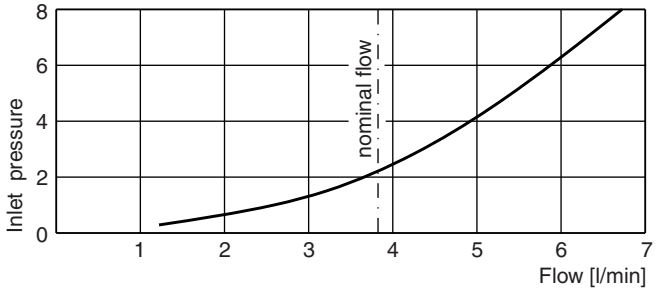
[1)] on bodies for subplate mounting use plate S16-64188.

NEW Master Code - supplied under Parker brand name

Technical data

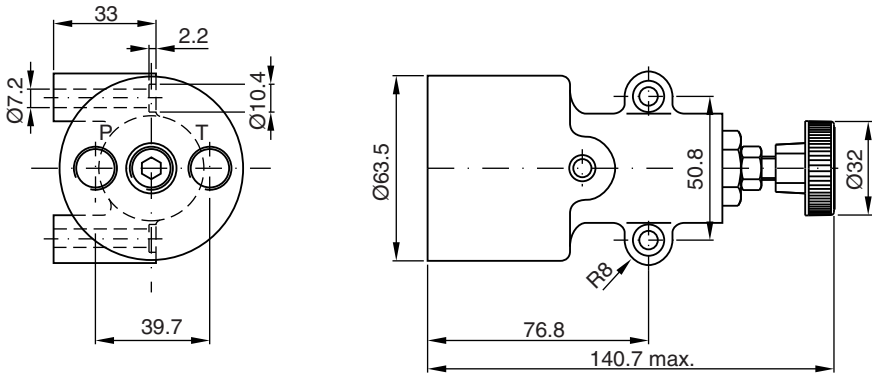
General				
Design		Direct operated relief valve, seated type		
Nominal size		1/4”		
Body variants		foot mounting	front panel mounting	subplate mounting
Mounting position		unrestricted		
Ambient temperature	[°C]	-20...+60		
$MTTF_D$ value	[years]	150		
Weight	[kg]	2.1	2.1	1.0
Hydraulics				
Max. operating pressure	[bar]	Port P 350, Port T depressurized		
Pressure stages	[bar]	105, 210, 350		
Fluid temperature	[°C]	-20...+70		
Nominal flow	[l/min]	3.8		
Fluid		Hydraulic oil according to DIN 51524...525		
Minimum setting pressure	[bar]	7		
Viscosity permitted	[cSt] / [mm²/s]	10...650		
recommended	[cSt] / [mm²/s]	30		
Filtration		ISO 4406 (1999); 18/16/13		

Typical system pressure in relation to flow



Measured with HLP46 at 50°C.

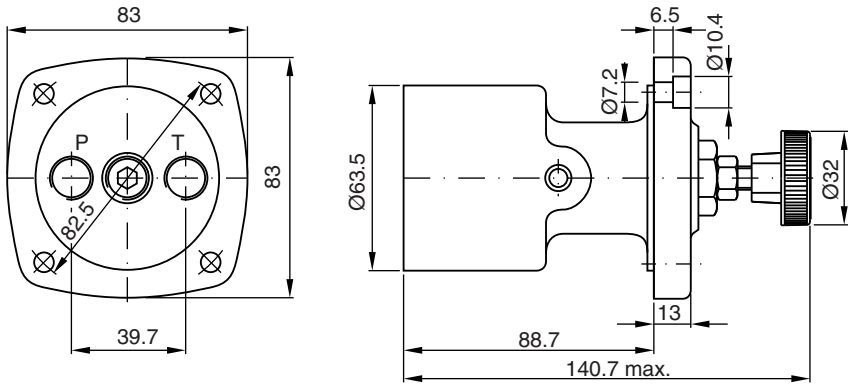
Foot mounting



Ports P and T: G1/4”

Kit
S26-58466-0

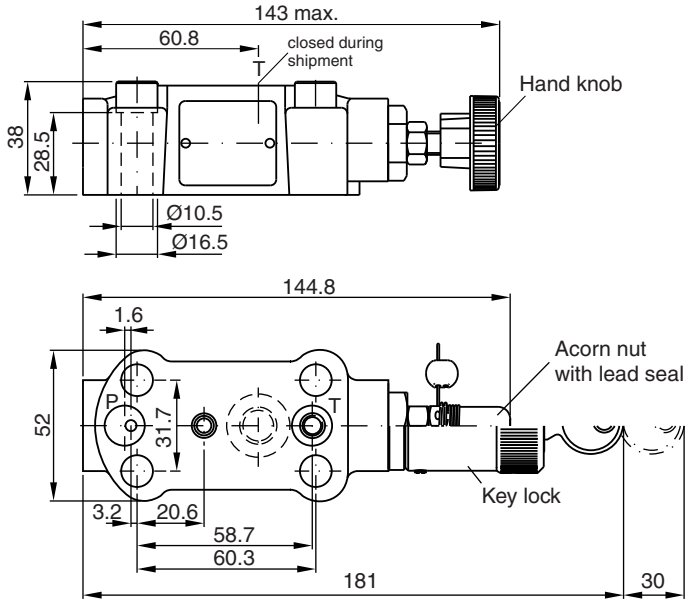
Front panel mounting



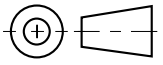
Ports P and T: G1/4”

Kit
S26-58466-0

Subplate mounting



Kit
S16-91963-0



Notes

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

Pilot operated pressure relief valves series R4V (DIN 24340 Form D) and R6V (DIN 24340 Form E) consist of a manually adjusted pilot stage and a seated type main stage.

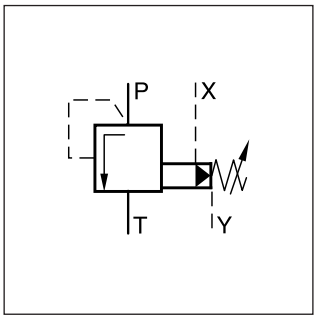
A vent function with a solenoid operated directional valve is available for circulation at minimum pressure.

Features

- Pilot operated with manual adjustment
- 2 interfaces
  - R4V Subplate ISO 6264 (DIN 24340 Form D) with VV01 vent valve
  - R6V Subplate ISO 6264 (DIN 24340 Form E) with Cetop 03 vent valve
- 3 pressure stages
- 3 adjustment modes
  - hand knob
  - acorn nut with lead seal
  - Key lock
- Remote control via port X

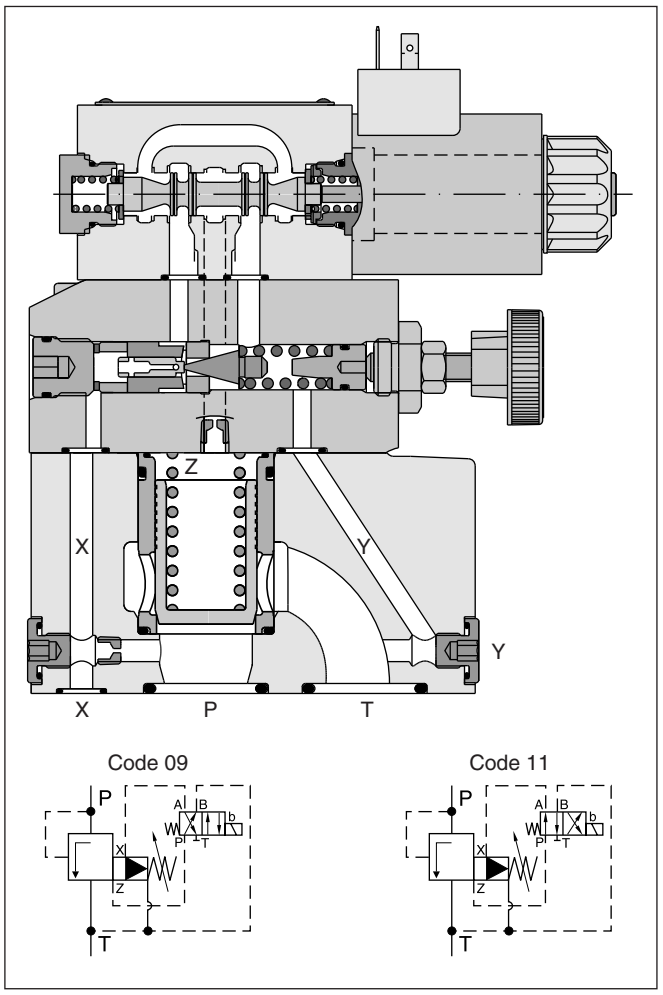
R6V06

R6V06 with vent valve



R4V06 with vent valve

R6V06 with vent valve



Function:

Series R4V/R6V

System pressure in port P is applied via the X gallery to the spring loaded cone in the pilot head. The pilot head controls the pressure in the Z area on top of the main cartridge which is additionally kept close by the main spring.

If the pilot pressure exceeds the setting pressure the pilot cone opens and thus limits the pilot pressure.

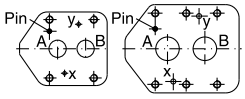
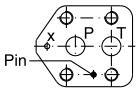
When the system pressure exceeds the pilot pressure plus the spring force, the main cartridge opens to port T and limits the pressure in port P to the adjusted level.

Series R4V/R6V with vent function

Additionally to the relief function of series R, a solenoid operated vent valve connects the Z area to tank. This allows oil circulation from P to T at minimum pressure drop. The vent valve can either be a standard Cetop 03 valves (mounting form E) or a sandwich unit (mounting form D). For both types the vent position can be either at the energized or de-energized solenoid.

4

R		V		-	5							
Pressure valve	Interface	Relief function	Nominal size		Max. pressure (350 bar)	Drain port	Pressure setting range	Adjust-ment	Pilot oil	Design series	Seals	Modifi-cations

Code	Interface	
4	Subplate mounting ISO 6264	NG 10 and 25 / NG 32 
6		

Code	Seals
1	NBR
5	FPM

Code	Design
A	R4V
B	R6V

Code	Nominal size
03	NG10
06	NG25
10	NG32

Pilot oil	
Code	Drain line
0	internal
1 [1)]	external from subplate
2 [2)]	external from valve body (Y-port)

[1)] R4V only
[2)] R6V only

Code	Interface	Drain port
3	R4V	Y port in mounting pattern
9	R6V	Y-port = G 1/8“

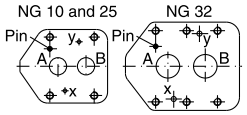
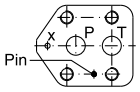
Code	Adjustment
1	Hand knob 32mm dia. (Standard)
3	Acorn nut with lead seal
4	Key lock

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Other pressure stages on request.

NEW Master Code - supplied under Parker brand name

R		V		-	5									
Pressure valve	Interface	Relief function	Nominal size		Max. Pressure (350 bar)	Drain port	Pressure setting range	Adjust-ment	Pilot oil	Vent valve function	Solenoid voltage	Design series	Seals	Modifi-cations

Code	Interface	
4	Subplate mounting ISO 6264	
6		

Code	Seals
1	NBR
5	FPM

Code	Design
A	R4V
B	R6V

Code	Nominal size
03	NG10
06	NG25
10	NG32

Code	Voltage
G0R	12V =
G0Q	24V =
GAR	98V =
GAG	205V =
W30	110V / 50Hz 120V / 60Hz
W31	230V / 50Hz 240V / 60Hz

Code	Interface	Drain port
3	R4V	Y port in mounting pattern
9	R6V	Y-port = G 1/8“

Code	Vent valve
09	Solenoid not activ. unpress. circulation
11	Solenoid activated unpress. circulation

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Other pressure stages on request.

Code	Adjustment
1	Hand knob (Standard)
3	Acorn nut with lead seal
4	Key lock

Pilot oil	
Code	Drain line
0	internal
1 [1)]	external from subplate
2 [2)]	external from valve body (Y-port)

[1)] R4V only
[2)] R6V only

NEW Master Code - supplied under Parker brand name

4

R4V/R6V

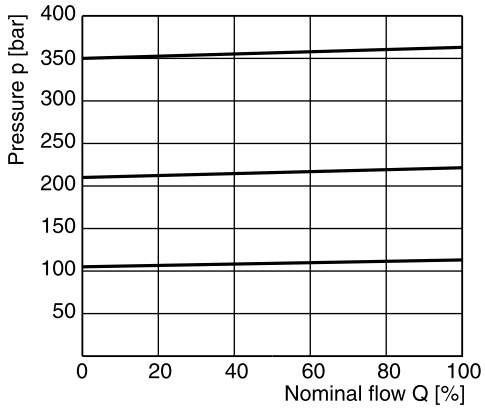
General					
Nominal size			**10**	**25**	**32**
Interface			Subplate mounting acc. ISO 6264		
Mounting position			as desired, horizontal mounting prefered		
Ambient temperature		[°C]	-20...+80		
$MTTF_D$ value		[years]	75		
Weight	Series R6V	[kg]	4.5	5.8	7.8
	Series R4V	[kg]	2.7	4.5	6.0
Hydraulic					
Max. operating pressure		[bar]	Ports P (or A) and X up to 350, Port T (or B) and Y 30		
Pressure stages		[bar]	105, 210, 350		
Nominal flow	Series R6V	[l/min]	250	500	650
	Series R4V	[l/min]	150	350	650
Fluid			Hydraulic oil according to DIN 51524 ... 525		
Viscosity, recommended		[cSt] / [mm²/s]	30 ... 50		
permitted		[cSt] / [mm²/s]	20 ... 380		
Fluid temperature		[°C]	-20 ... +70		
Filtration			ISO 4406 - (1999) ; 18/16/13		

4

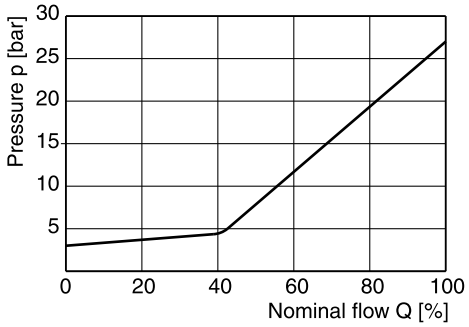
R4V/R6V with vent function

General								
Nominal size			**10**		**25**		**32**	
Interface			Subplate mounting acc. ISO 6264					
Mounting position			as desired, horizontal mounting prefered					
Ambient temperature		[°C]	-20...+80					
$MTTF_D$ value		[years]	75					
Weight	Series R6V	[kg]	5.9		7.2		9.2	
	Series R4V	[kg]	4.4		6.2		7.7	
Hydraulic								
Max. operating pressure		[bar]	Ports P (or A) and X up to 350, port T (or B) and Y 30					
Pressure stages		[bar]	105, 210, 350					
Nominal flow	Series R6V	[l/min]	250		500		650	
	Series R4V	[l/min]	150		350		650	
Fluid			Hydraulic oil according to DIN 51524 ... 525					
Viscosity, recommended		[cSt] / [mm²/s]	30 ... 50					
permitted		[cSt] / [mm²/s]	20 ... 380					
Fluid temperature		[°C]	-20 ... +70					
Filtration			ISO 4406 - (1999) ; 18/16/13					
Electrical								
Duty ratio		[%]	100 ED; CAUTION: coil temperature up to 180 °C possible					
Max. switching frequency		[1/h]	16000 (DC), 7200 (AC)					
Protection class			IP 65 in according with EN 60529 (plugged and mounted)					
	Code		G0R	G0Q	GAR	GAG	W30	W31
Supply voltage		[V]	12V =	24V =	98V =	205V =	110V/50Hz 120V/60Hz	230V/50Hz 240V/60Hz
Tolerance supply voltage		[%]	+5...-10	+5...-10	+5...-10	+5...-10	+5...-10	+5...-10
Power consumption	hold	[W]	31	31	31	31	78	78
	in rush	[W]	31	31	31	31	264	264
Solenoid connection			Connector as per EN 175301-803					
Wiring min.		[mm²]	3 x 1.5 recommended					
Wiring length max.		[m]	50 recommended					

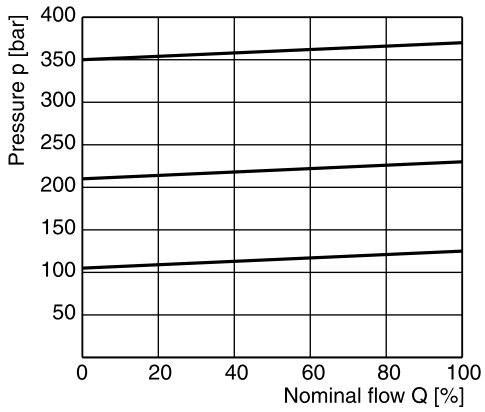
p/Q performance curve
Series R4V [1)]



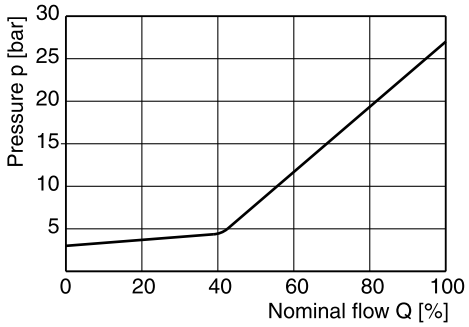
Minimum pressure curve



p/Q performance curve
Series R6V [1)]



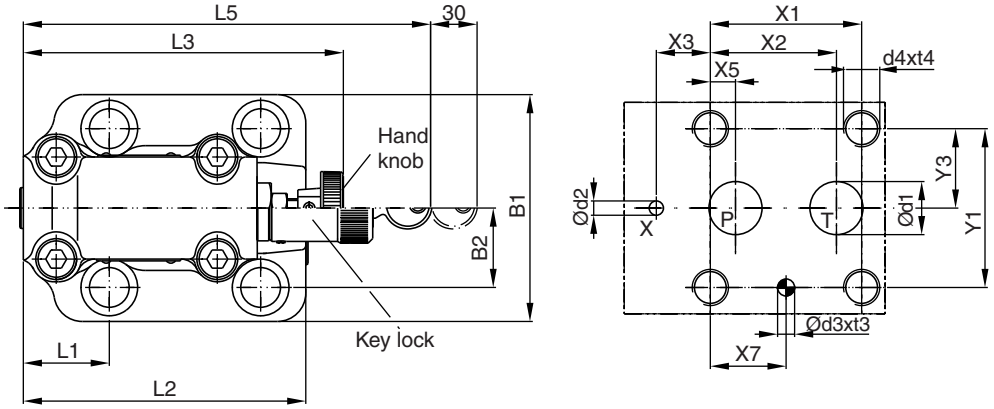
Minimum pressure curve

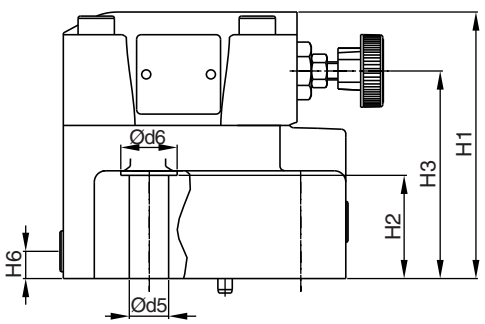


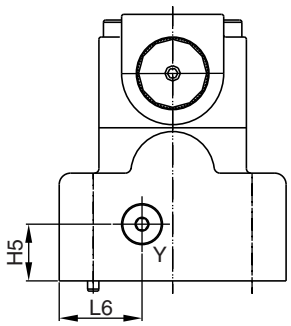
1) The performance curves are measured with external drain.
For internal drain the tank pressure has to be added to curve.

All characteristic curves measured with HLP46 at 50°C.

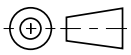
R6V







Y: external drain port G 1/8“



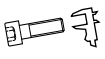
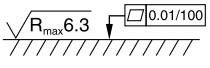
NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-09-*-97	53.8	47.5	0	–	22.1	–	22.1	53.8	–	26.9	–	–	–
25	6264-08-13-*-97	66.7	55.6	23.8	–	11.1	–	33.4	70	–	35	–	–	–
32	6264-10-17-*-97	88.9	76.2	31.8	–	12.7	–	44.5	82.6	–	41.3	–	–	–

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

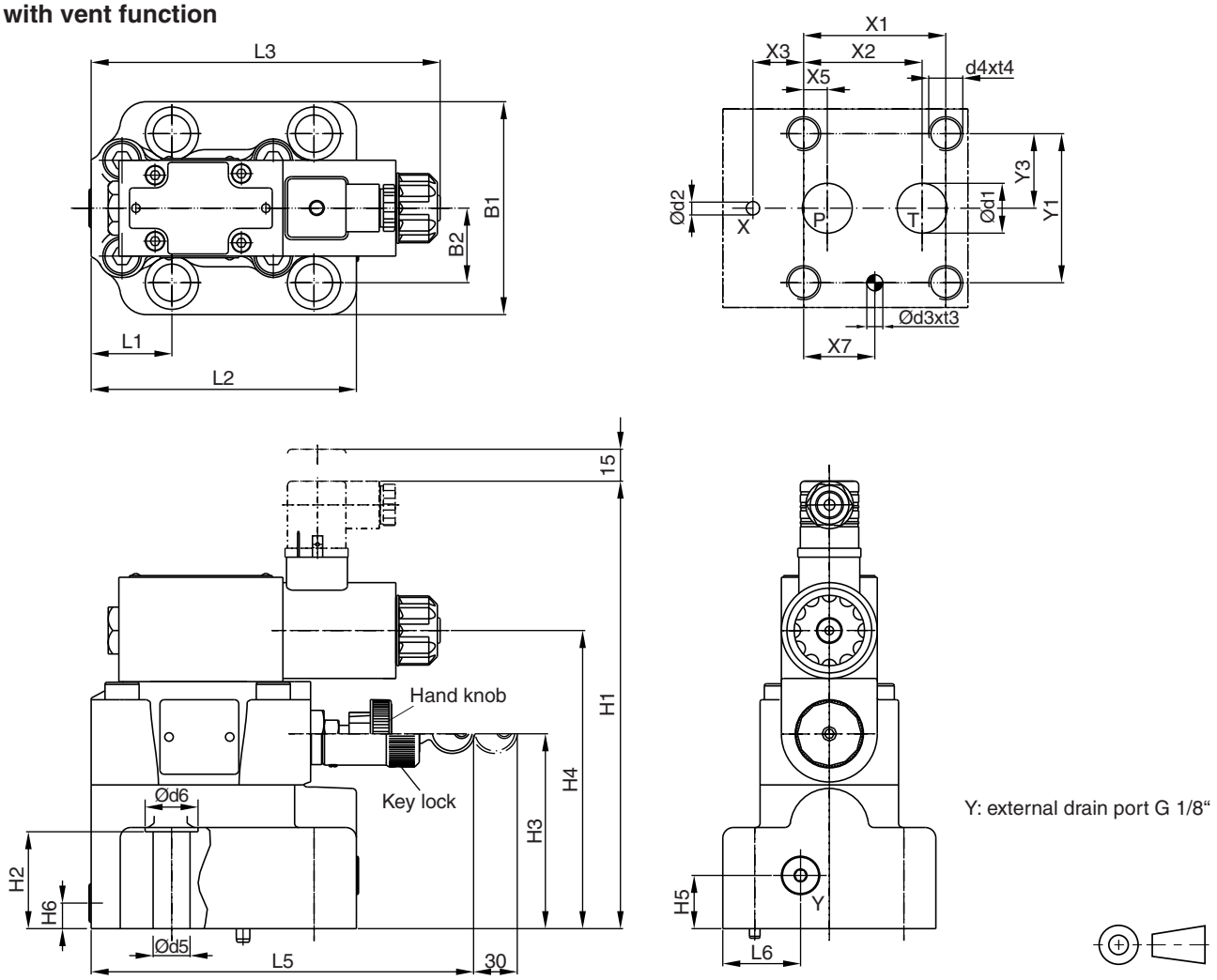
NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-09-*-97	80	26.9	114	27	88		20.5	25	52.5	118.5	141		180	29.5
25	6264-08-13-*-97	100	35	117.5	45.5	91.5	–	25	12	37.9	124.5	141	–	180	36.5
32	6264-10-17-*-97	120	41.3	123	52	97		26.5	13.5	45	153	141		180	46.5

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	6264-06-09-*-97	14.7	4.8	7.5	10	M12	20	13.5	20	SPP 3R6B 910
25	6264-08-13-*-97	23.4	6.3	7.5	10	M16	27	17.5	25	SPP 6R10B 910
32	6264-10-17-*-97	32	6.3	7.5	10	M18	28	20	30	SPP 10R12B 910

[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	6264-06-09-*-97	BK 494	4xM12 x 45 DIN 912 12.9	108 Nm ±15%	S26-96396-0	S26-96396-5	
25	6264-08-13-*-97	BK 366	4xM16 x 70 DIN 912 12.9	264 Nm ±15%	S26-98589-0	S26-98589-5	
32	6264-10-17-*-97	BK 507	4xM18 x 75 DIN 912 12.9	398 Nm ±15%	S26-96392-0	S26-96392-5	

R6V with vent function



Y: external drain port G 1/8“

NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-09-*-97	53.8	47.5	0	–	22.1	–	22.1	53.8	–	26.9	–	–	–
25	6264-08-13-*-97	66.7	55.6	23.8	–	11.1	–	33.4	70	–	35	–	–	–
32	6264-10-17-*-97	88.9	76.2	31.8	–	12.7	–	44.5	82.6	–	41.3	–	–	–

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

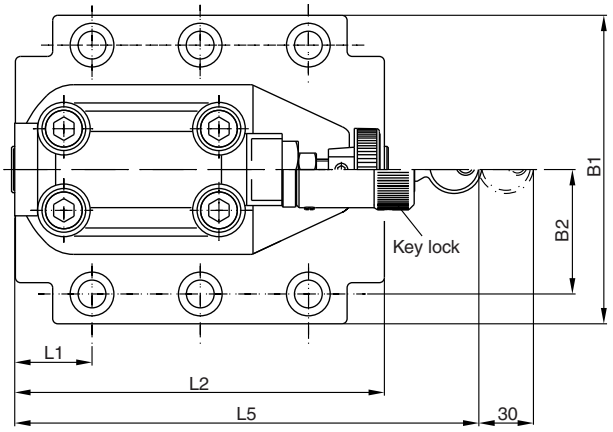
NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-09-*-97	80	26.9	206	27	88	136.5	25	12	52.5	118.5	163.8		180	36.5
25	6264-08-13-*-97	100	35	210	45.5	91.5	140	25	12	37.9	124.5	163.8	–	180	36.5
32	6264-10-17-*-97	120	41.3	215.5	52	97	145.5	25	12	45	153	163.8		180	36.5

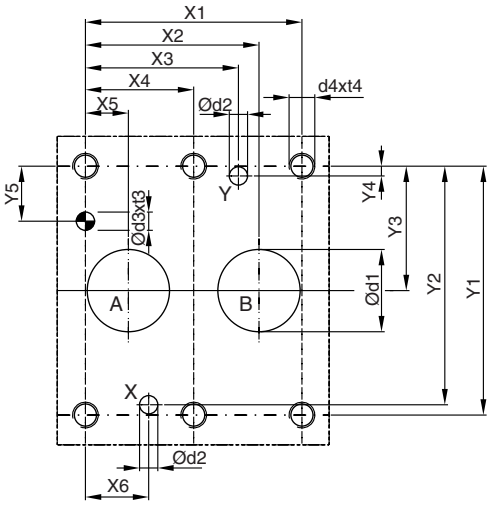
NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	6264-06-09-*-97	14.7	4.8	7.5	10	M12	20	13.5	20	SPP 3R6B 910
25	6264-08-13-*-97	23.4	6.3	7.5	10	M16	27	17.5	25	SPP 6R10B 910
32	6264-10-17-*-97	32	6.3	7.5	10	M18	28	20	30	SPP 10R12B 910

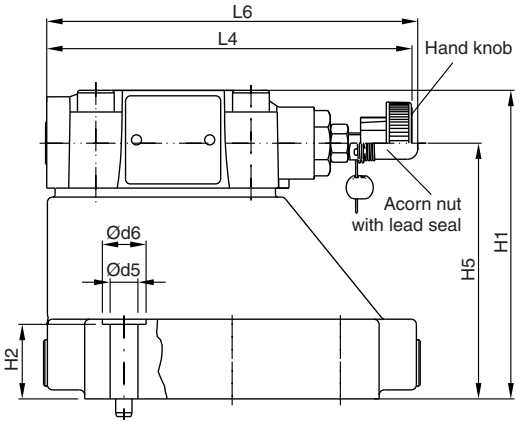
[1] Details see chapter 12, series SPP

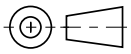
NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	6264-06-09-*-97	BK 494	4xM12 x 45 DIN 912 12.9	108 Nm ±15%	S26-96396-0	S26-96396-5	
25	6264-08-13-*-97	BK 366	4xM16 x 70 DIN 912 12.9	264 Nm ±15%	S26-98589-0	S26-98589-5	
32	6264-10-17-*-97	BK 507	4xM18 x 75 DIN 912 12.9	398 Nm ±15%	S26-96392-0	S26-96392-5	

R4V









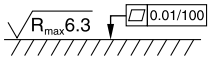
NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-07-*-97	42.9	35.8	21.5	–	7.2	21.5	0	66.7	58.8	33.4	7.9	14.3	–
25	6264-08-11-*-97	60.3	49.2	39.7	–	11.1	20.6	0	79.4	73	39.7	6.4	15.9	–
32	6264-10-15-*-97	84.2	67.5	59.5	42.1	16.7	24.6	0	96.8	92.8	48.4	3.8	21.4	–

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

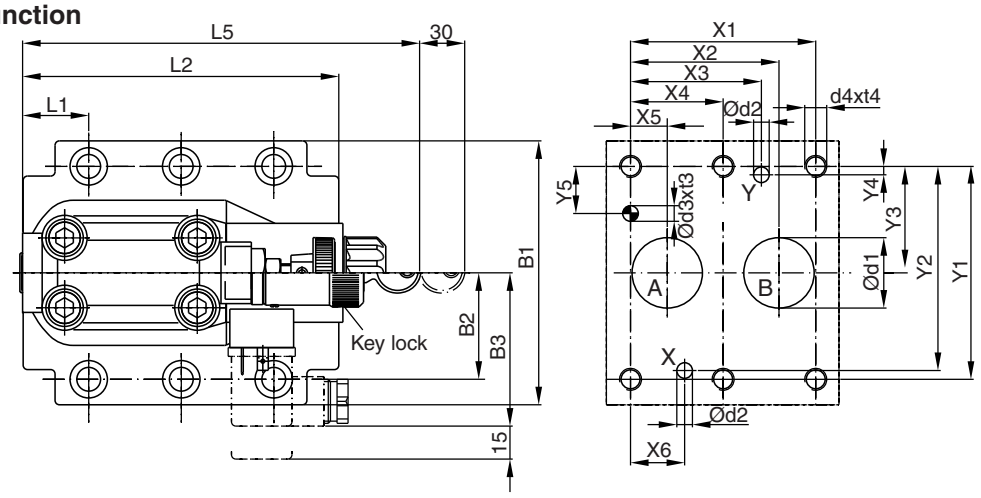
NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-07-*-97	87.3	33.35	83	21	–	–	62.5	–	29	94.8	–	143	181	144.8
25	6264-08-11-*-97	105	39.7	109.5	29	–	–	89	–	34.7	126.8	–	143	181	144.8
32	6264-10-15-*-97	120	48.4	120	29	–	–	99.5	–	30.6	144.3	–	143	181	144.8

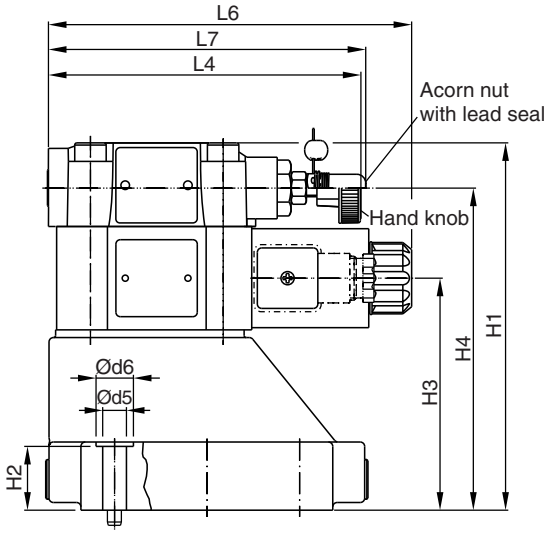
NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	6264-06-07-*-97	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	6264-08-11-*-97	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	6264-10-15-*-97	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

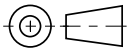
[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	6264-06-07-*-97	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0	S26-58507-5	
25	6264-08-11-*-97	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0	S26-58475-5	
32	6264-10-15-*-97	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0	S26-58508-5	

R4V with vent function







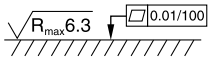
NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-07-*-97	42.9	35.8	21.5	–	7.2	21.5	0	66.7	58.8	33.4	7.9	14.3	–
25	6264-08-11-*-97	60.3	49.2	39.7	–	11.1	20.6	0	79.4	73	39.7	6.4	15.9	–
32	6264-10-15-*-97	84.2	67.5	59.5	42.1	16.7	24.6	0	96.8	92.8	48.4	3.8	21.4	–

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

NG	ISO-code	B1	B2	B3	H1	H2	H3	H4	H6	L1	L2	L3	L4	L5	L6	L7
10	6264-06-07-*-97	87.3	33.35	70	130	21	68.5	109.5	–	29	94.8	–	143	181	165.6	144.8
25	6264-08-11-*-97	105	39.7	70	156.5	29	95	136	–	34.7	126.8	–	143	181	165.6	144.8
32	6264-10-15-*-97	120	48.4	70	167	29	105.5	146.5	–	30.6	144.3	–	143	181	165.6	144.8

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	6264-06-07-*-97	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	6264-08-11-*-97	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	6264-10-15-*-97	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit NBR	Kit FPM	Surface finish
10	6264-06-07-*-97	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0*	S26-58507-5*	
25	6264-08-11-*-97	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0*	S26-58475-5*	
32	6264-10-15-*-97	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0*	S26-58508-5*	
VV01					S56-40609-0	S56-40609-5	

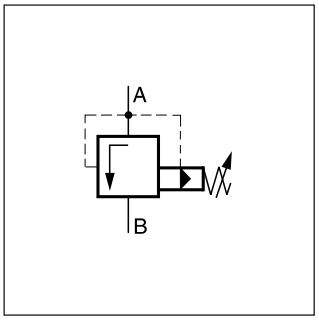
* Please combine seal kit of one size with seal kit of VV01 solenoid for complete seal kit

R4V-R6V_UK.INDD CM_13.04.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

Notes

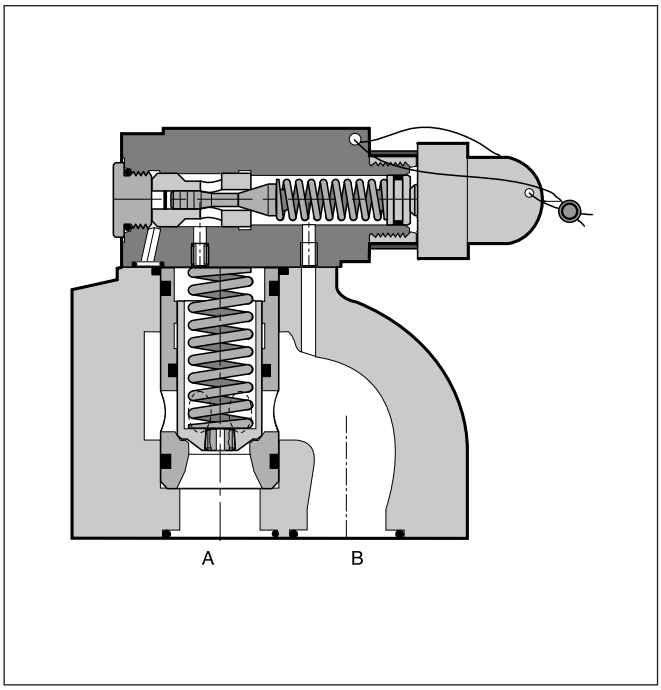
The pilot operated pressure relief valves series DSDU limit the system pressure by opening the pressure port to the tank. They are mostly used for accumulator pressure relief. The valve is set and sealed by the German technical monitoring association TÜV. The valve delivery includes a copy of the TÜV certificate of conformity.



Features

- TÜV certificate
- EC unit certification (Module G) according to directive 97/23/EC
- Subplate mounting acc. to ISO 6264
- Nominal size 25
- Remote control via port X

Other TÜV approved pressure relief valves on request.



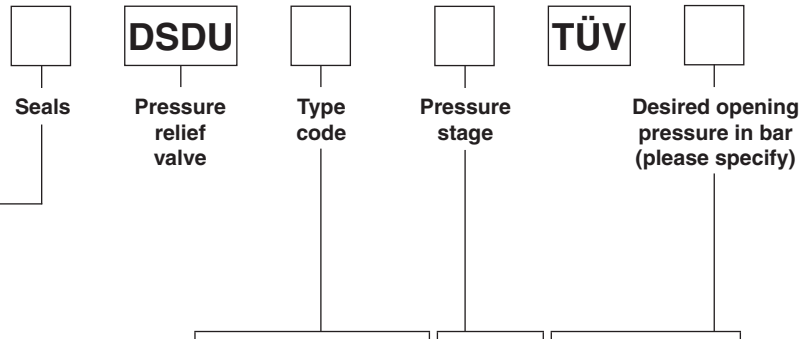
DSDU*P20

4

Technical data

General			
Size			25
Interface			Subplate mounting according to ISO 6264
Mounting position			as desired, horizontal mounting prefered
Ambient temperature		[°C]	-20...+80
$MTTF_D$ value		[years]	150
Weight		[kg]	4.5
Hydraulic			
Max. operating pressure		[bar]	Ports A and X 350, B and Y depressurized
Pilot			Internal / internal
Adjustment pressure		[bar]	See ordering code
Nominal flow		[l/min]	See ordering code
Fluid			Hydraulic oil according to DIN 51524 ... 525
Viscosity,	recommended	[cSt] / [mm²/s]	30 ... 50
	permitted	[cSt] / [mm²/s]	12 ... 230
Fluid temperature		[°C]	-5 ... +70
Filtration			ISO 4406 (1999), 18/16/13

Ordering code



Code	Seals
omit	NBR
V	FPM

Type Code 578 P20 Q_{max} [l/min] depending. on opening pressure	Pressure stage	Opening pressure ranges [bar]
220	B	50 - 75
240 265	E	76 - 125 126 - 175
300 320	G	176 - 200 201 - 250
345 370	K	251 - 300 301 - 350

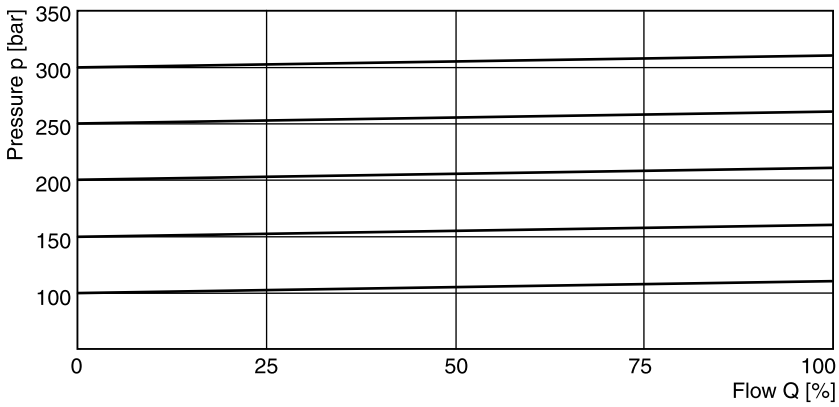
4

Ordering Examples

DSDU 578 P20E - 120bar matches Q_{max} 240 l/min, opening pressure 120bar

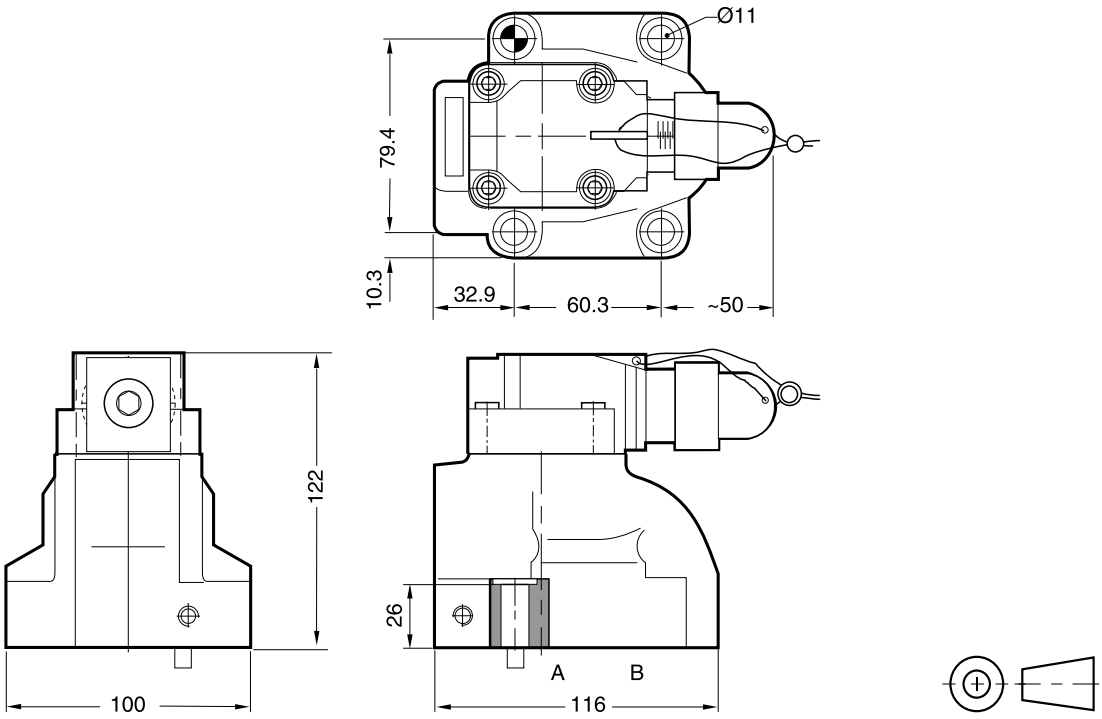
DSDU 578 P20E - 150bar matches Q_{max} 265 l/min, opening pressure 150bar

p/Q curve



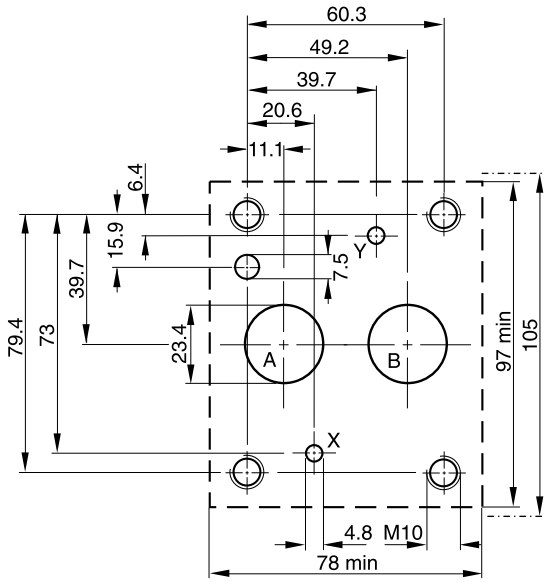
All characteristic curves measured with HLP46 at 50°C.

DSDU*P20



Size	Bolt kit			Kit NBR	Kit FPM
P20	BK 388	4x M10 x 40 DIN 912 12.9	63 Nm ±15%	SK-DSDU5P20	SK-DSDU5P20V

Mounting pattern ISO 6264-08-11-*-97



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

Notes

Pressure relief valves of the series RE06M*W are direct operated proportional valves typically used as remote control valves for flow rates of below 3 l/min.

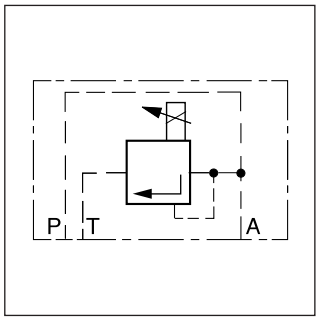
Function

When the pressure in port P or A exeeds the pressure setting at the solenoid, the cone opens to port T and limits the pressure in port P to the adjusted level.
The optimum performance can be achieved in combination with the digital amplifier module PCD00A-400.

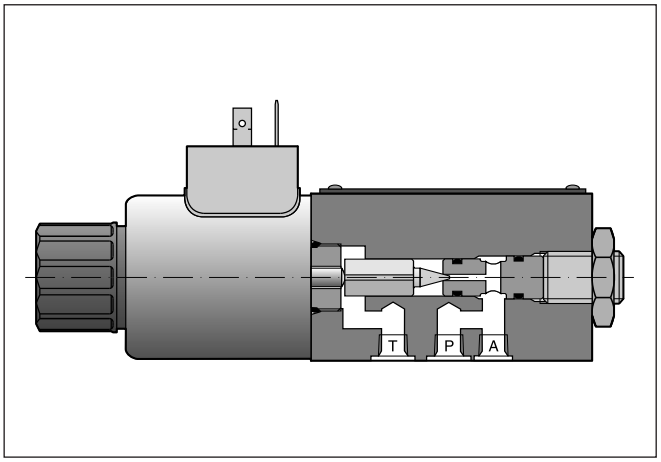
Features

- Direct operated by proportional solenoid
- Very low pressure adjustment of p_{min}
- 2 pressure ports, A and P
- Subplate mounting according to ISO 6264
- 4 pressure stages

RE06M*W



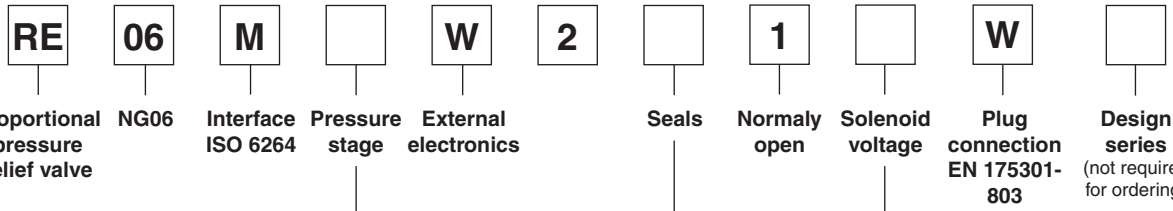
RE06M*W



4

Technical data

General		
Nominal size		DIN NG06 / CETOP03 / NFPA D03
Interface		Subplate mounting according to ISO 6264
Mounting position		as desired, horizontale mounting prefered
Ambient temperature	[°C]	-20 ... +70
$MTTF_D$ value	[years]	150
Weight	[kg]	1.8
Hydraulic		
Max. operating pressure	[bar]	Ports P and A up to 350; port T depressurized
Pressure stages	[bar]	105, 175, 250, 350
Nominal flow	[l/min]	See p/Q curves
Fluid		Hydraulic oil as per DIN 51524 ... 525
Viscosity, recommended	[cSt] / [mm²/s]	30 ... 80
permitted	[cSt] / [mm²/s]	12 ... 380
Fluid temperature	[°C]	-20 ... +60
Filtration		ISO 4406 (1999), 18/16/13
Linearity	[%]	±2.8
Repeatability	[%]	<±1
Hysteresis	[%]	±1.5 of p_{max}
Electrical		
Duty ratio	[%]	100 ED
Protection class		IP 65 in accordance with EN 60529 (plugged and mounted)
Nominal voltage	[V]	12 (2.3 A max. current), 16 (1.3 A max. current)
Coil resistance	[Ohm]	4 at 20°C
Solenoid connection		Connector as per EN 175301-803
Power amplifier, recommended		PCD00A-400



Code	Pressure stage
10	up to 105 bar
17	**up to 175 bar**
25	up to 250 bar
35	**up to 350 bar**

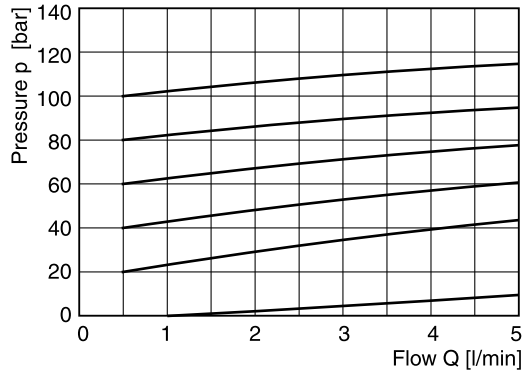
Code	Solenoid voltage
K	**12 V, 2.3 A**
X	16 V, 1.3 A

Code	Seals
N	NBR
V	FPM

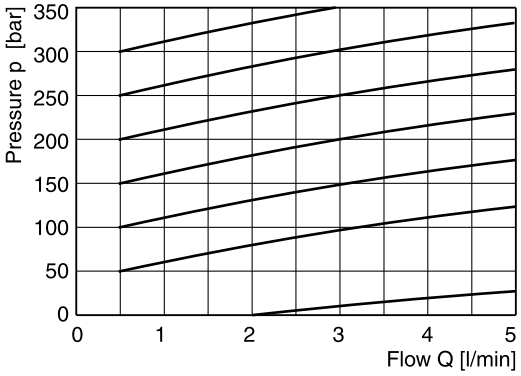
Bold letters =
Short-term availability

p/Q curves

Pressure stage 105bar

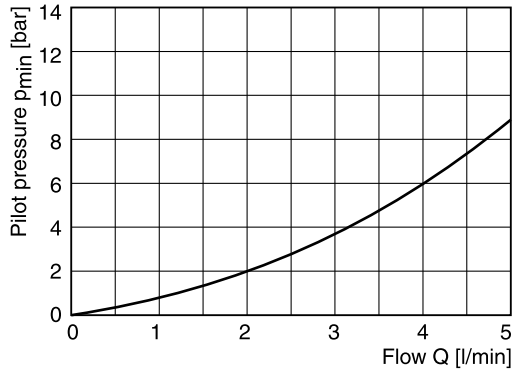


Pressure stage 350bar

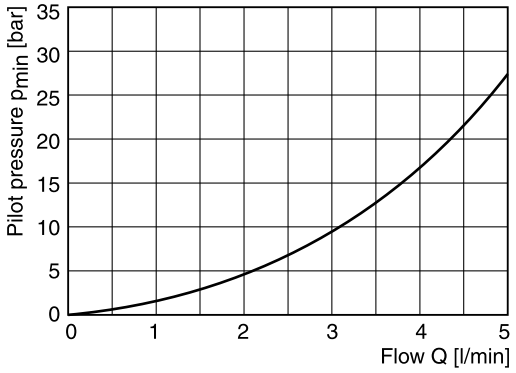


Min. adjusted pressure

Pressure stage 105bar

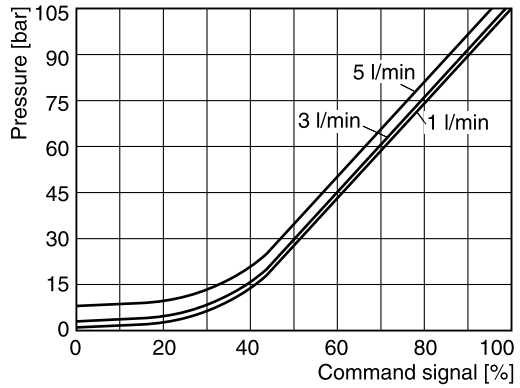


Pressure stage 350bar

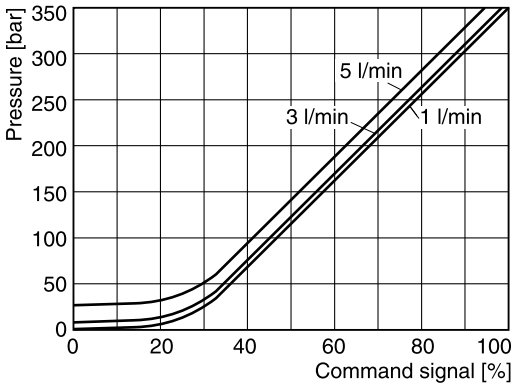


Pressure/signal curve

Pressure stage 105bar



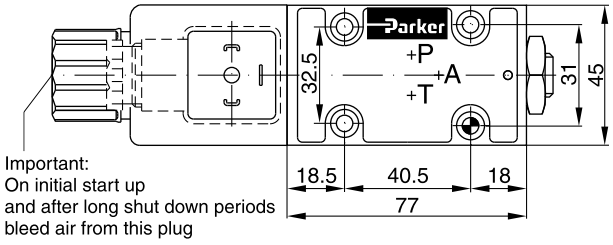
Pressure stage 350bar

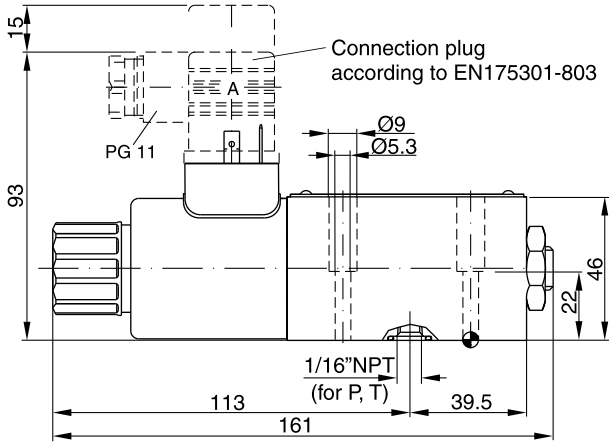


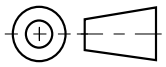
All characteristic curves measured with HLP46 at 50°C.

4

RE06M*W

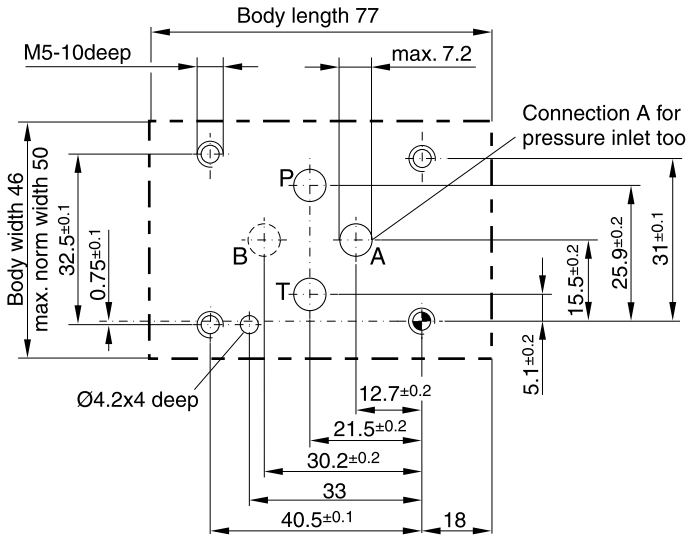






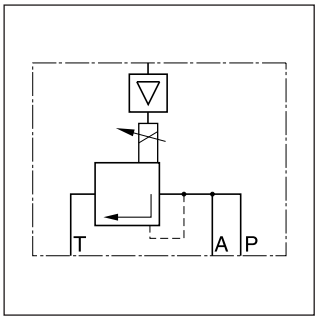
Surface finish	Bolt kit			Kit NBR	Kit FPM
R_{max}6.3 ⏥ 0.01/100	BK 375	4x M5x30 DIN 912 12.9	7.6 Nm ±15%	SK-RE06MNW	SK-RE06MVW

Mounting pattern ISO 6264-03-04-*-97

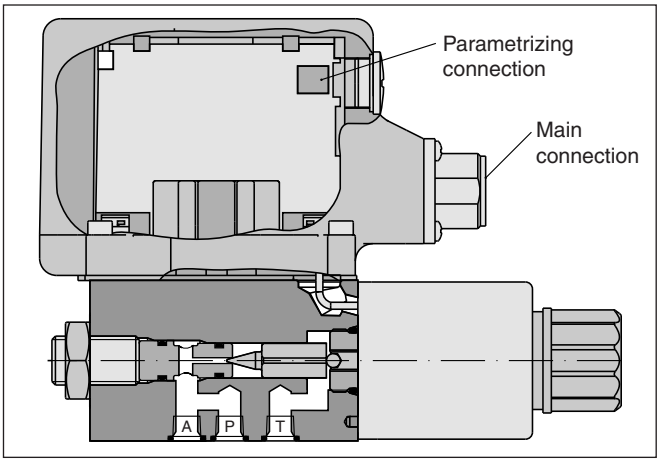


Port B: O-ring recess diameter on valve body.

The proportional pressure relief valve series RE06M*T (NG06) with onboard electronics is based on the functionality of the digital amplifier PCD00.
The digital onboard electronic is situated in a robust metal housing and can be used in rough environments. The nominal values of the valves are factory set. Additionally the ProPxD software permits the editing of all parameters. The software is also used for the digital electronic modules. The cable for connection to a serial RS232C interface is available as accessory.



The electrical connection is available in 2 options:
Code F: 6 + PE central connection
+/- 10V command signal (preset)
+10V reference voltage output
Code R: 6 + PE central connection
4…20mA command signal (preset)



Function

When the pressure in port P or A exeeds the pressure setting at the solenoid, the cone opens to port T and limits the inlet pressure to the adjusted level.

The pressure adjustment is effected by applying current to the solenoid. The control signal is modulated to the solenoid current by the electronics.

Features

- Direct operated pressure relief valve
- Onboard electronics
- Very low pressure adjustment of p_{min}
- Subplate mounting acc. to ISO 6264
- 6 pressure stages
- 2 pressure inlet ports A and P

Ordering code

RE	06	M		T	2		1		0	
Proportional pressure relief valve	**NG06**	**Interface ISO 6264**	**Pressure stages**	**Onboard electronics**		**Seals**	**Normaly open**	**Command signal**	**Electronic attachment**	**Design series** (not required for ordering)

Code	Pressure stages
05	50 bar
10	105 bar
17	**175 bar**
21	**210 bar**
25	250 bar
35	**350 bar**

Code	Command signal
F	**Voltage input 0...+10V with reference output +10V**
R	Current input 4...20mA

Code	Seals
N	NBR
V	FPM

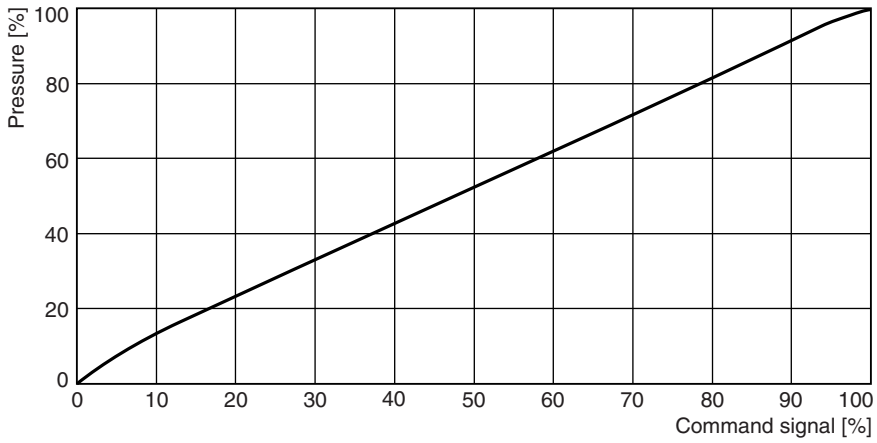
Bold letters =
Short-term availability

Please order plugs separately, see chapter 4, accessories.

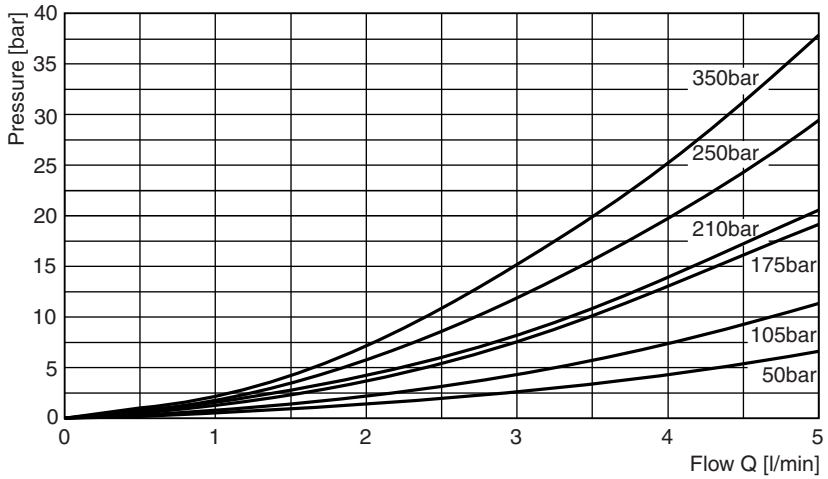
Parametrizing cable OBE → RS232
Item no. 40982923

General			
Nominal size			DIN NG06 / CETOP03 / NFPA D03
Interface			Subplate mounting according to ISO 6264
Mounting position			as desired, horizontal mounting prefered
Ambient temperature		[°C]	-20...+60
$MTTF_D$ value		[years]	75
Weight		[kg]	2.2
Vibration strength		[g]	10 sinus 5...2000 Hz acc. to IEC 68-2-6 30 noise 20...2000 Hz acc. to IEC 68-2-36 15 shock acc. to IEC 68-2-27
Hydraulic			
Max. operating pressure		[bar]	Ports A and P 350, connection T depressurized
Pressure stages		[bar]	50, 105, 175, 210, 250, 350
Nominal flow		[l/min]	See p/Q curves
Fluid			Hydraulic oil according to DIN 51524 ... 525
Viscosity,			
recommended		[cSt] / [mm²/s]	30 ... 80
permitted		[cSt] / [mm²/s]	12 ... 380
Fluid temperature		[°C]	-20 ... +60
Filtration			ISO 4406 (1999), 18/16/13
Linearity		[%]	See curve
Repeatability		[%]	<±1
Hysteresis		[%]	±1.5 of p_{max}
Elektrical			
Duty ratio ED		[%]	100
Supply voltage		[VDC]	18...30, ripple < 5% eff., surge free
Current consumption max.		[A]	2.0
Pre-fusing		[A]	2.5 medium lag
Potentiometer supply		[V]	+10 / ±5% max. 10mA
Command signal		[V]	0...+10, ripple < 0.01 % eff., surge free, Ri = 100 kOhm
Code F voltage		[mA]	4...20, ripple < 0.01 % eff., surge free, Ri = 200 Ohm
Code R current			< 3.6 mA = enable off, > 3.8 mA = enable on (acc. NAMUR NE43)
Differential input voltage max.		[V]	30 for terminal D and E against PE (terminal G)
		[V]	11 for terminal D and E against 0V (terminal B)
Adjustment ranges	Min current	[%]	0...50
	Max current	[%]	50...100
	Ramp	[s]	0...32.5
Interface			RS 232C, parametrizing connection 5polig
EMC			EN 61000-6-2, EN 61000-6-4
Central connection			6 + PE acc. EN 175201-804
Cable specification		[mm²]	7 x 1.0 overall braid shield
Cable length max.		[m]	50

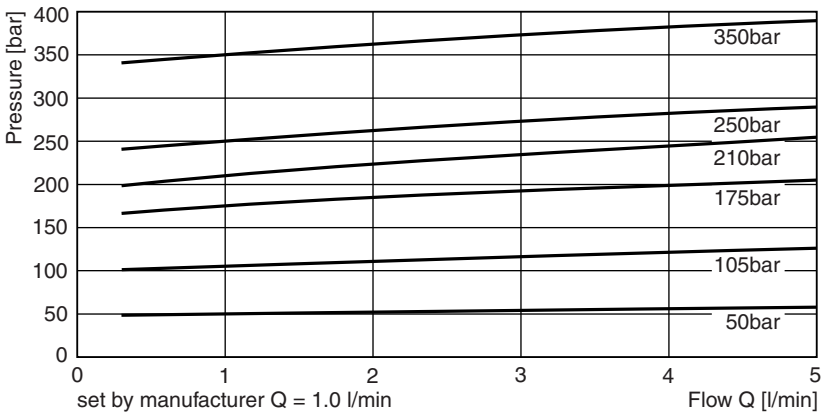
Signal/pressure curve



Min. adjusted pressure



p/Q curve



All characteristic curves measured with HLP46 bei 50°C.

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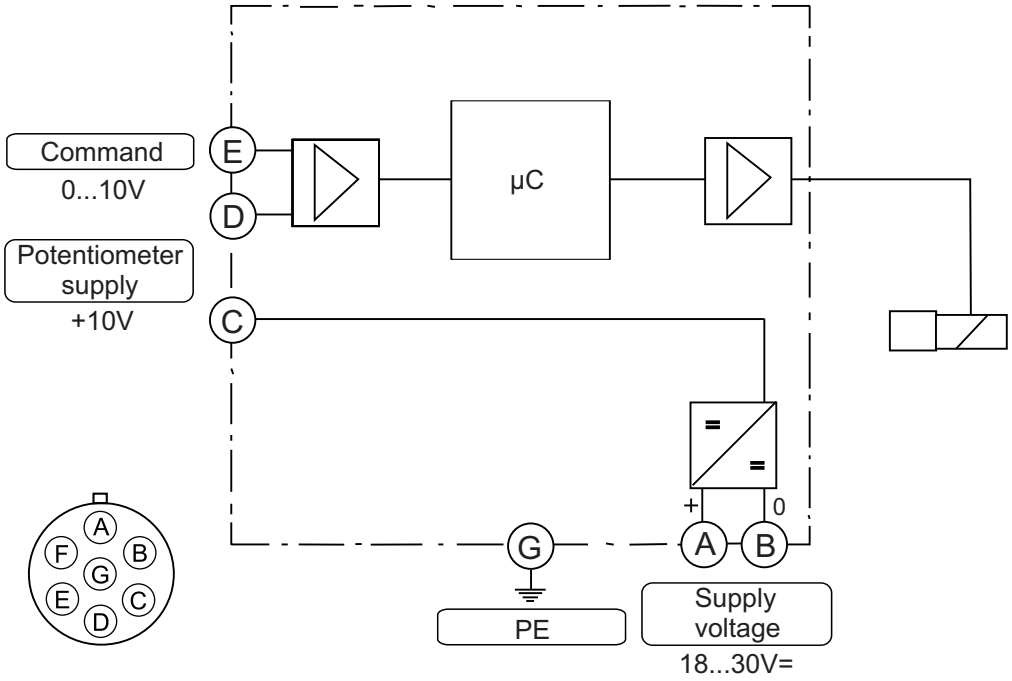
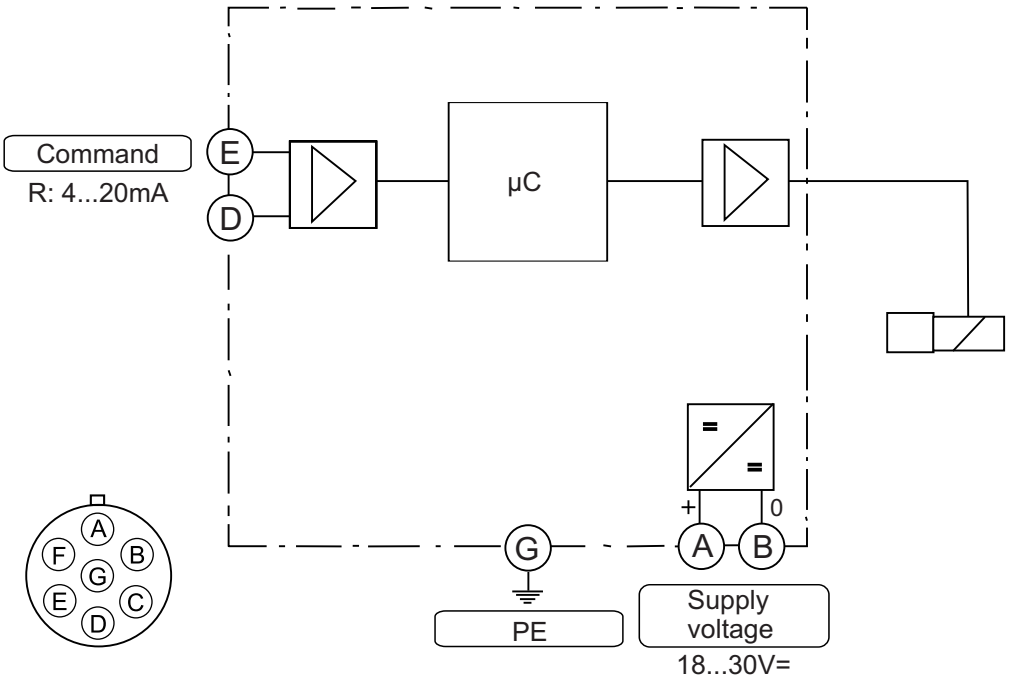
Block diagram

Code F
6 + PE acc. EN 175201-804



Code R
6 + PE acc. EN 175201-804



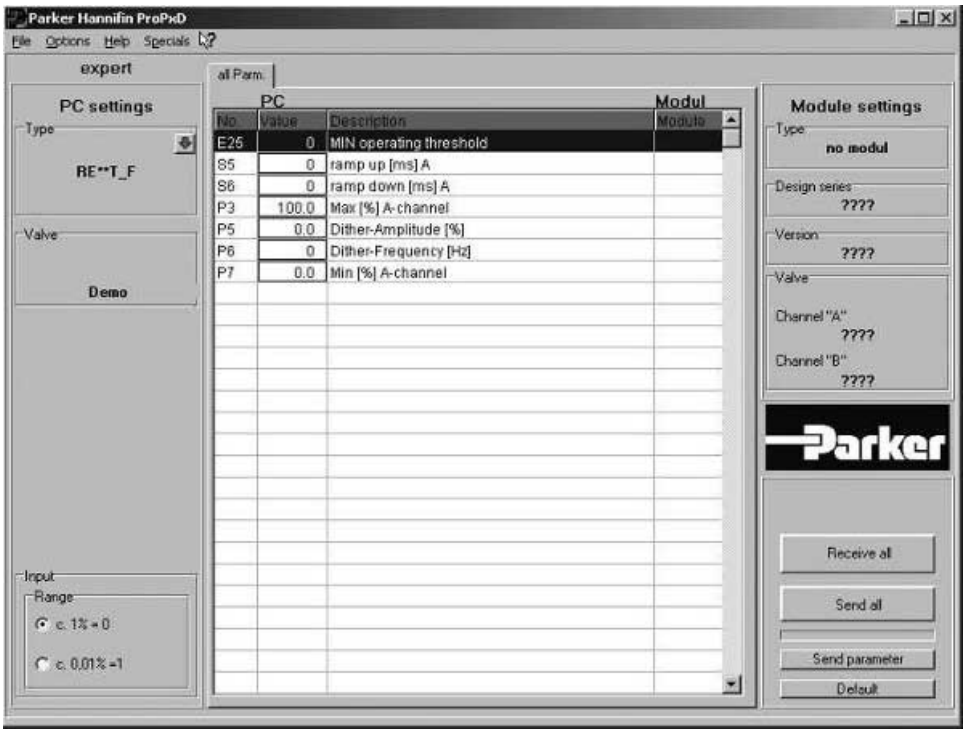
ProPxD interface program

The new ProPxD software permits comfortable parameter setting for the electronic module series PCD, PWD, PZD, PID and PWDXX.

Via the clearly arranged entry mask the parameters can be displayed and modified. Storage of complete parameter sets is possible as well as print-out or record as text file for further documentation. Stored parameter sets may be loaded anytime and transmitted to the electronic module in the same manner as the basic parameters which are available for all usable valve series. Inside the electronic a nonvolatile memory stores the data with the option for recalling or modification.

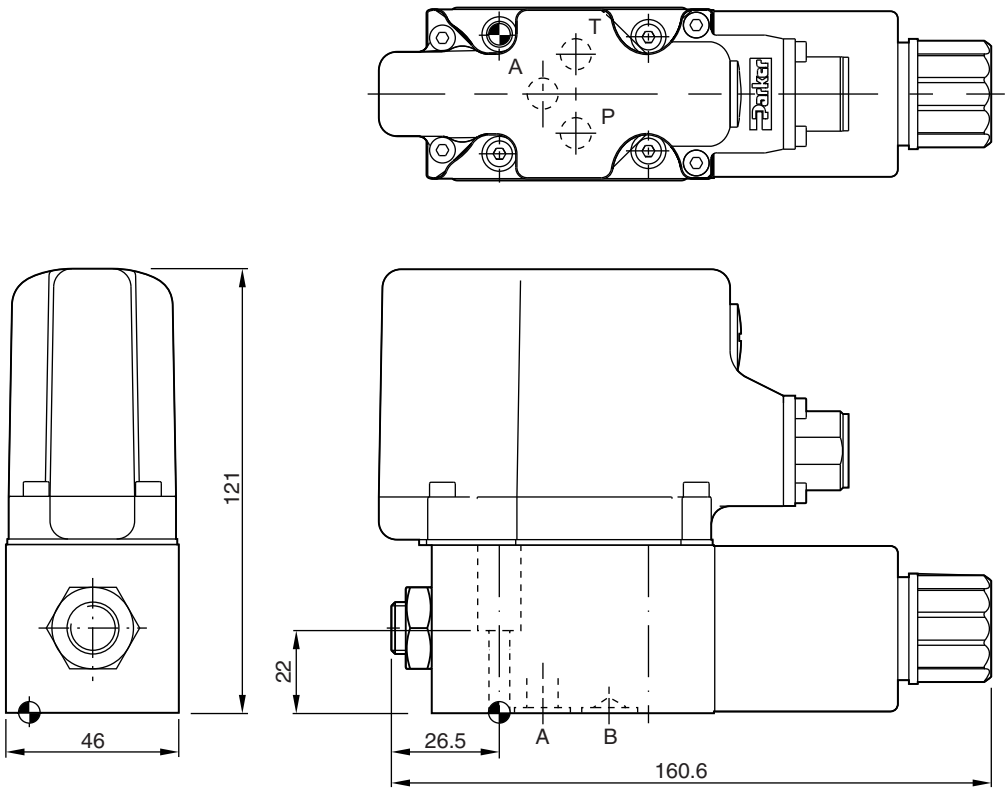
Features

- Comfortable editing of all parameters
- Depiction and documentation of parameter sets
- Storage and loading of optimized parameter adjustments
- Executable with all actual Windows® operating systems from Windows® 95 upwards
- Plain communication between PC and electronic via serial interface RS-323 and null modem cable
- Comfortable PC user software, free of charge: www.parker.com/euro_hcd - see “Software Downloads“



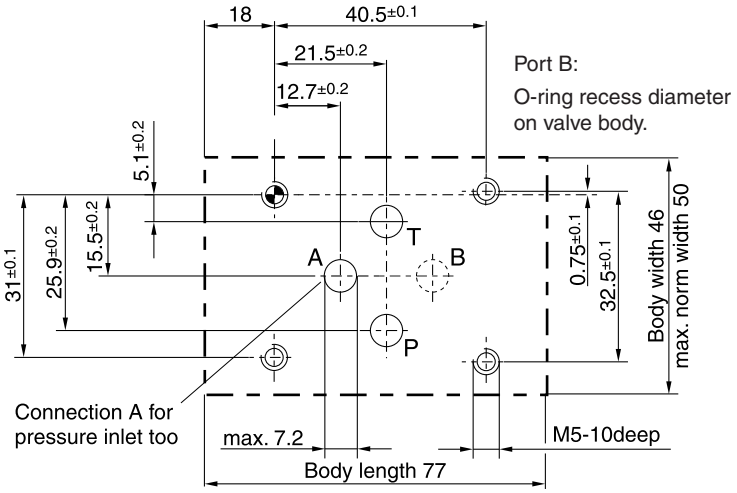
The parametrizing cable may be ordered under item no. 40982923.

4



Surface finish	Bolt kit			Kit NBR	Kit FPM
R_{max}6.3 ⏥ 0.01/100	BK 375	4x M5x30 DIN 912 12.9	7.6 Nm ±15%	SK-RE06MNT	SK-RE06MVT

Mounting pattern ISO 6264-03-04-*-97



RE06MT_UK.INDD CM_17.12.2009

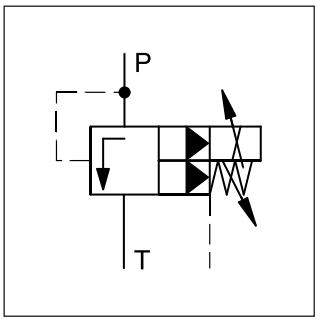
Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

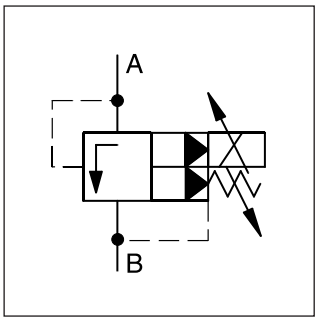
Pilot operated pressure relief valves series R4V (DIN 24340 Form D) and R6V (DIN 24340 Form E) consist of a proportionally adjusted pilot stage and a seated type main stage.

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

R6V06

R4V06

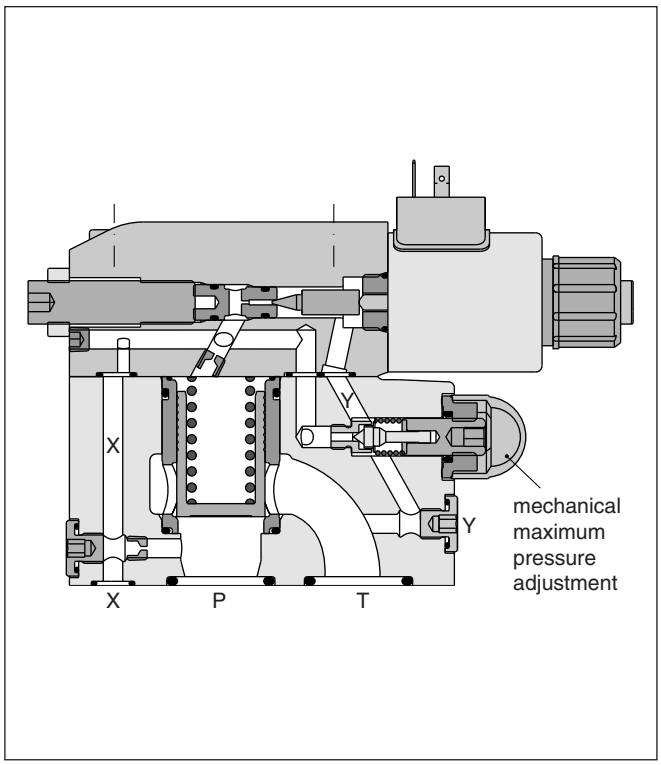




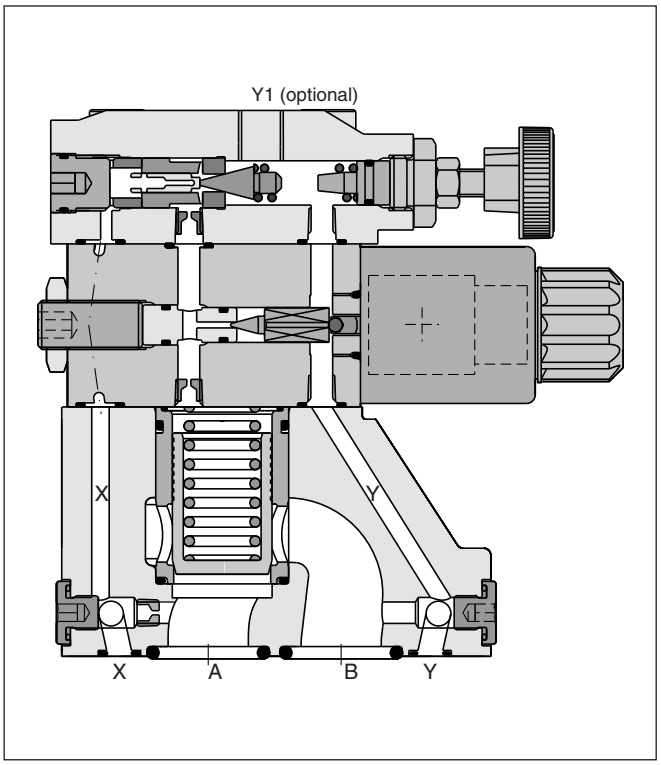
Features

- Pilot operated with proportional solenoid
- Continuous adjustment by proportional solenoid
- 2 interfaces
  - R4V Subplate ISO 6264 (DIN 24340 Form D)
  - R6V Subplate ISO 6264 (DIN 24340 Form E)
- 3 pressure stages
- Optional mechanical maximum pressure adjustment (for R6V)

R6V06

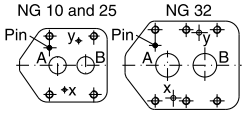
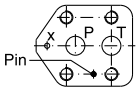


R4V06



R		V		-	5						G0R			
Pressure valve	Interface	Relief function	Nominal size		Max. Pressure (350 bar)	Drain port	Pressure stages	Mechanical adjustment	Pilot oil	Options	Solenoid voltage 12V/2.3A	Design series	Seals	Modifi-cations

4

Code	Interface	
4	Subplate mounting ISO 6264	NG 10 and 25 / NG 32 
6		

Code	Seals
1	NBR
5	FPM

Code	Design
A	R4V
B	R6V

Code	Nominal size
03	NG10
06	NG25
10	NG32

Code	Options
P2	With mech. max. adjustment
PS [4]	w/o mech. max. adjustment

[4] not for R4V

Code	Interface	Drain port
3	R4V	Y port in mounting pattern
9	R6V	Y-port = G 1/8“

Pilot oil	
Code	Drain line
0	internal
1 [2]	external from subplate
2 [3]	external from valve body (Y-port)

[2] R4V only
[3] R6V only

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Other pressure stages on request.

Code	Interface	Mechanical adjustment
P [1]	R6V	Hexagon screw with lock nut
1	R4V	Hand knob
3	R4V	Acorn nut with lead seal

[1] Use code P also for valve w/o mechanical adjustment

NEW Master Code - supplied under Parker brand name

RE*W

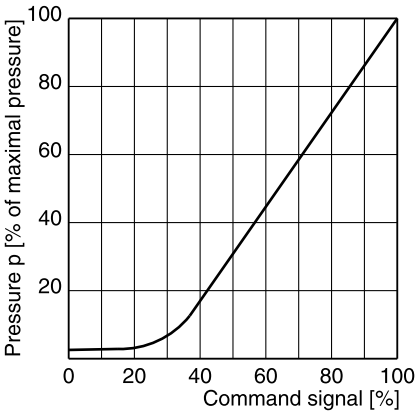
General					
Nominal size			**10**	**25**	**32**
Interface			Subplate mounting acc. ISO 6264		
Mounting position			as desired, horizontal mounting prefered		
Ambient temperature		[°C]	-20...+80		
$MTTF_D$ value		[years]	75		
Weight	Series R6V	[kg]	5.2	6.4	8.3
	Series R4V	[kg]	4.5	6.3	7.8
Hydraulic					
Max. operating pressure		[bar]	Ports P (or A) and X up to 350, port T (or B) and Y 30		
Pressure stages		[bar]	105, 210, 350		
Nominal flow	Series R6V	[l/min]	250	500	650
	Series R4V	[l/min]	150	350	650
Fluid			Hydraulic oil according to DIN 51524 ... 525		
Viscosity, recommended		[cSt] / [mm²/s]	30 ... 50		
permitted		[cSt] / [mm²/s]	20 ... 380		
Fluid temperature		[°C]	-20 ... +70		
Filtration			ISO 4406 (1999); 18/16/13		
Electrical (prop. solenoid)					
Duty ratio		[%]	100 ED		
Protection class			IP65 in accordance with EN 60529 (plugged and mounted)		
Nominal voltage		[V]	12 (max. current 2.3A), 16 (max. current 1.3A)		
Coil resistance		[Ohm]	4 at 20°C		
Solenoid connectors			Connector as per EN 175301-803		
Power amplifier, recommended			PCD00A-400		

4

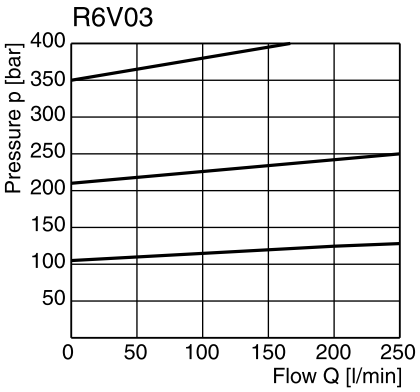
4

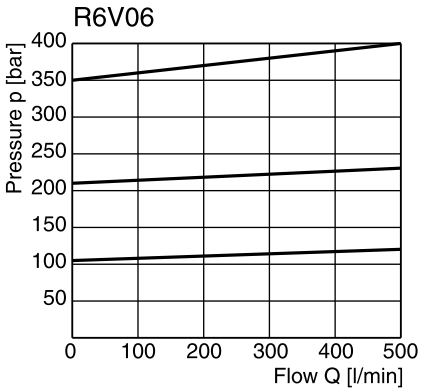
R6V

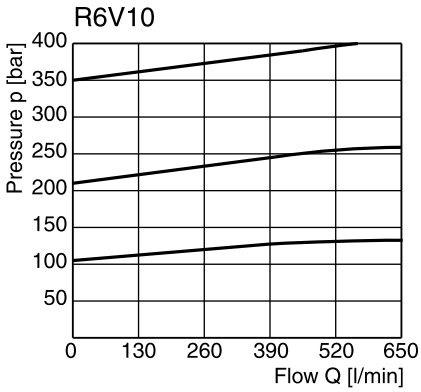
Signal/pressure curve



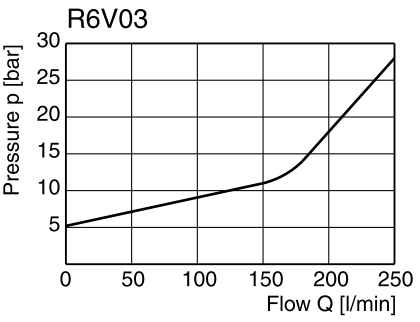
p/Q performance curves [1)]

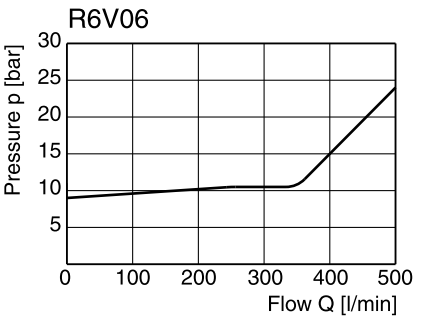


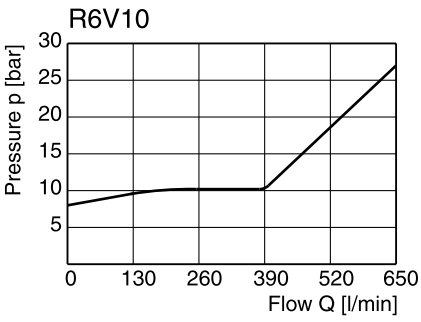




Minimum pressure curves [1)]





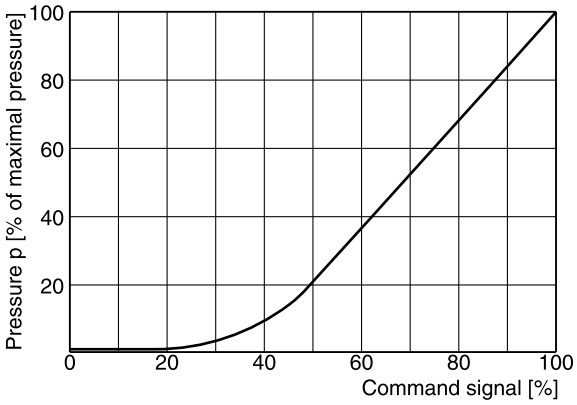


[1)] The performance curves are measured with external drain.
For internal drain the tank pressure has to be added to curve.

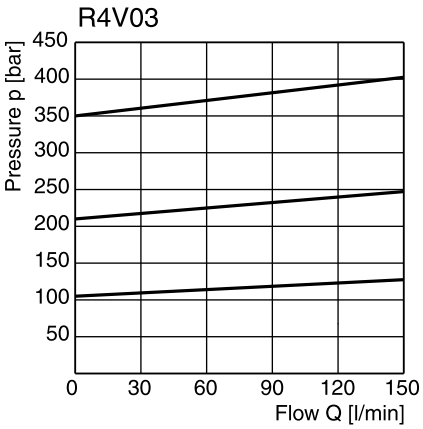
All characteristic curves measured with HLP46 at 50°C.

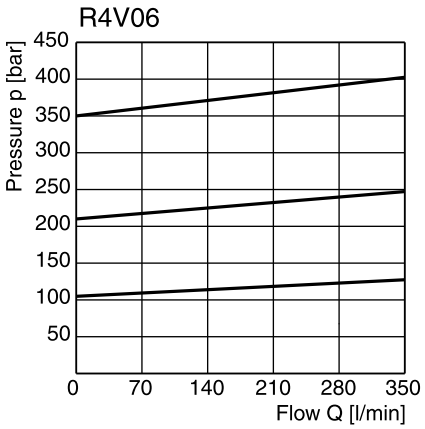
R4V

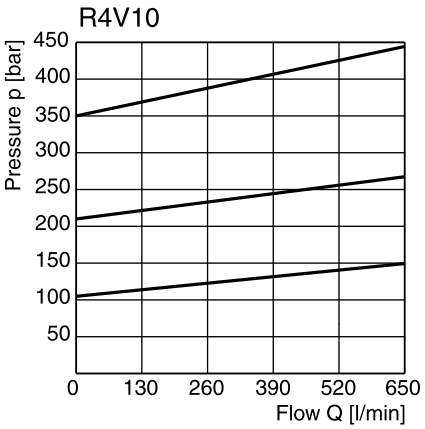
Signal/pressure curve



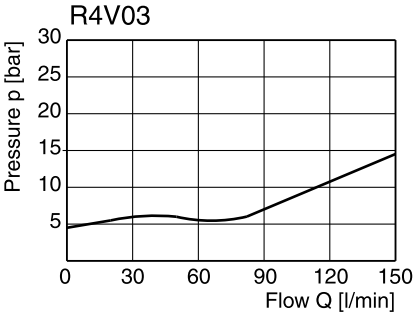
p/Q performance curves [1)]

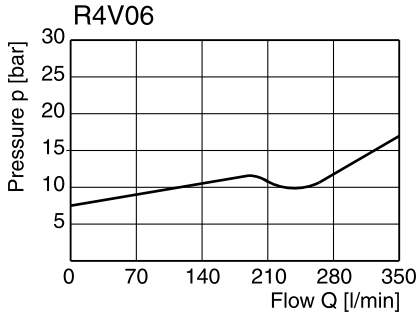


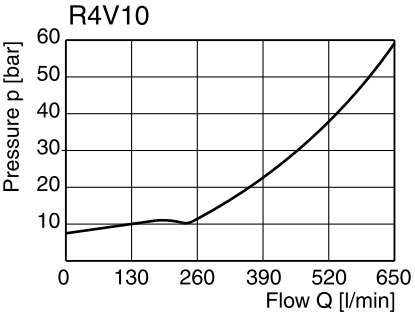




Minimum pressure curves [1)]



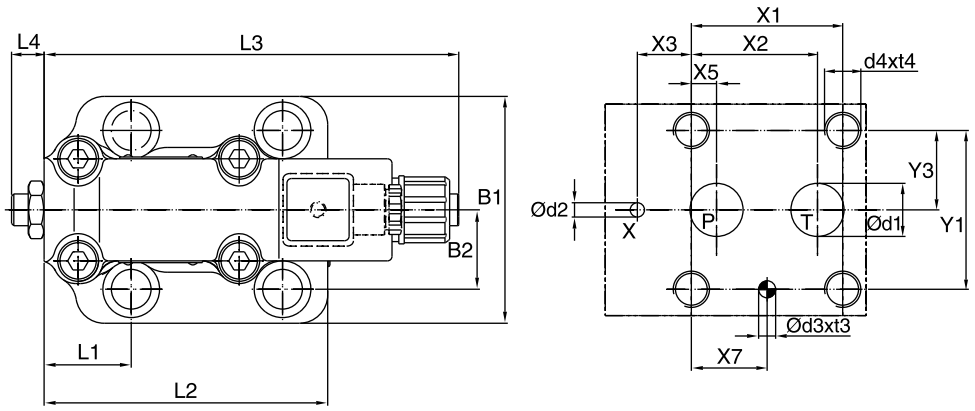


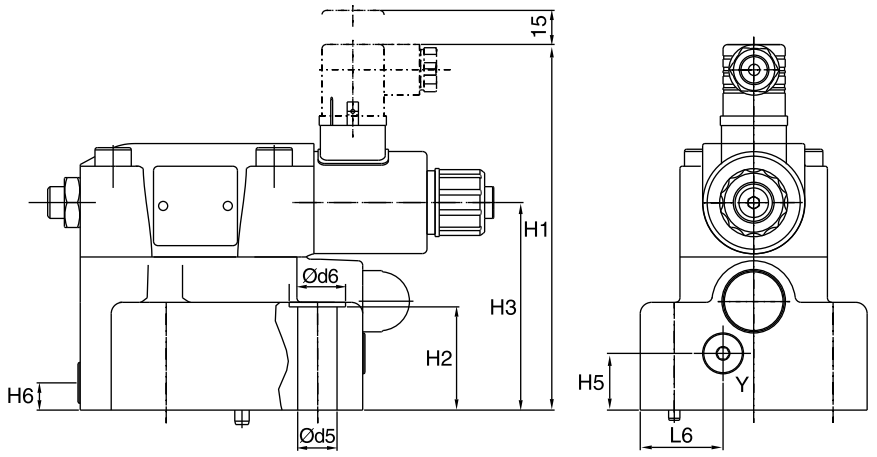


[1)] The performance curves are measured with external drain.
For internal drain the tank pressure has to be added to curve.

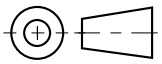
All characteristic curves measured with HLP46 at 50°C.

R6V





Y: external drain port G 1/8“



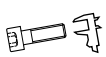
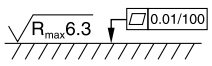
NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-09-*-97	53.8	47.5	0	–	22.1	–	22.1	53.8	–	26.9	–	–	–
25	6264-08-13-*-97	66.7	55.6	23.8	–	11.1	–	33.4	70	–	35	–	–	–
32	6264-10-17-*-97	88.9	76.2	31.8	–	12.7	–	44.5	82.6	–	41.3	–	–	–

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

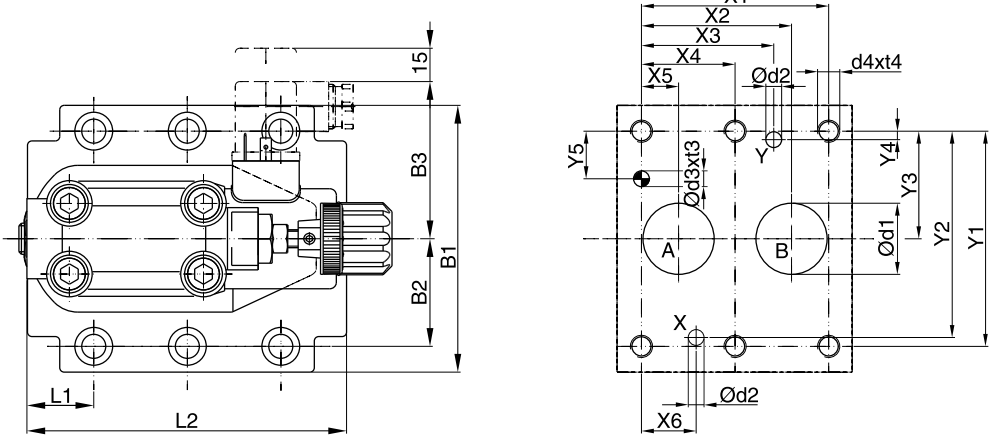
NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-09-*-97	80	26.9	158.7	27	88	–	20.5	25	52.5	118.5	182.3	14.4		29.5
25	6264-08-13-*-97	100	35	161.2	45.5	91.5	–	25	12	37.9	124.5	182.3	14.4	–	36.5
32	6264-10-17-*-97	120	41.3	166.7	52	97	–	26.5	13.5	45	153	182.3	14.4		46.5

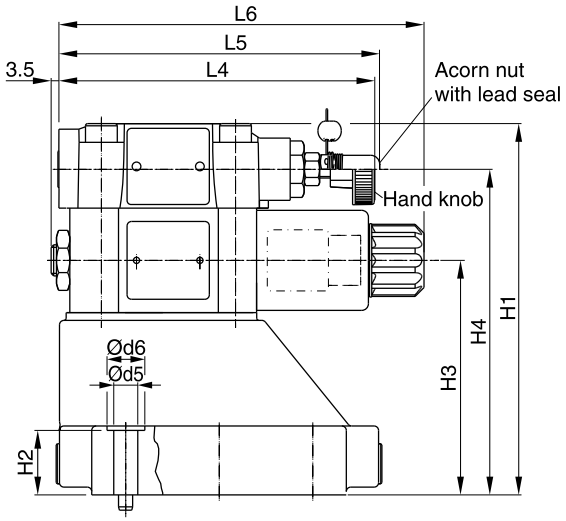
NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	6264-06-09-*-97	14.7	4.8	7.5	10	M12	20	13.5	20	SPP 3R6B 910
25	6264-08-13-*-97	23.4	6.3	7.5	10	M16	27	17.5	25	SPP 6R10B 910
32	6264-10-17-*-97	32	6.3	7.5	10	M18	28	20	30	SPP 10R12B 910

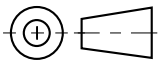
[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit NBR	Kit FPM	Surface finish
10	6264-06-09-*-97	BK 494	4x M12 x 45 DIN 912 12.9	108 Nm ±15%	S26-96396-0	S26-96396-5	
25	6264-08-13-*-97	BK 366	4x M16 x 70 DIN 912 12.9	264 Nm ±15%	S26-98589-0	S26-98589-5	
32	6264-10-17-*-97	BK 507	4x M18 x 75 DIN 912 12.9	398 Nm ±15%	S26-96392-0	S26-96392-5	

R4V







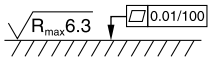
NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-07-*-97	42.9	35.8	21.5	–	7.2	21.5	0	66.7	58.8	33.4	7.9	14.3	–
25	6264-08-11-*-97	60.3	49.2	39.7	–	11.1	20.6	0	79.4	73	39.7	6.4	15.9	–
32	6264-10-15-*-97	84.2	67.5	59.5	42.1	16.7	24.6	0	96.8	92.8	48.4	3.8	21.4	–

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

NG	ISO-code	B1	B2	B3	H1	H2	H3	H4	H6	L1	L2	L3	L4	L5	L6
10	6264-06-07-*-97	87.3	33.35	71	130	21	68.5	109.5	–	29	94.8	–	143	144.8	164.8
25	6264-08-11-*-97	105	39.7	71	156.5	29	95	136	–	34.7	126.8	–	143	144.8	164.8
32	6264-10-15-*-97	120	48.4	71	167	29	105.5	146.5	–	30.6	144.3	–	143	144.8	164.8

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	6264-06-07-*-97	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	6264-08-11-*-97	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	6264-10-15-*-97	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit NBR	Kit FPM	Surface finish
10	6264-06-07-*-97	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0*	S26-58507-5*	
25	6264-08-11-*-97	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0*	S26-58475-5*	
32	6264-10-15-*-97	BK 506	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0*	S26-58508-5*	
Prop. section P2					S26-58473-0	S26-58473-5	

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

R4V-R6V prop_UK.INDD CM_13.04.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

Notes

The onboard electronics of the proportional pressure relief valves is based on the functionality of the digital amplifier PCD00.
The digital onboard electronic is situated in a robust metal housing and can be used in rough environments.

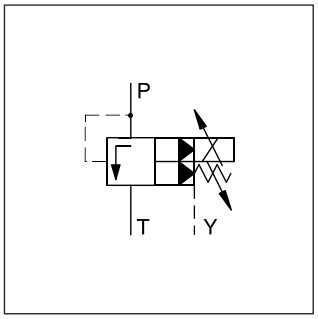
The nominal values of the valves are factory set. Additionally the ProPxD software permits the editing of all parameters. The software is also used for the digital electronic modules. The cable for connection to a serial RS232C interface is available as accessory.

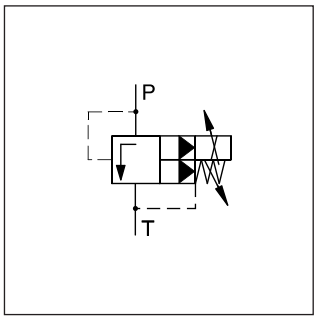
The electrical connection is available in 2 options:

Code 10V: 6 + PE central connection
0...+10V command signal (preset)
+10V reference voltage output

Code 4MA: 6 + PE central connection
4…20mA command signal (preset)

The proportional solenoid operated pilot stage with integrated electronics controls a seated type main stage. The valves are optional available with a mechanical maximum pressure adjustment.



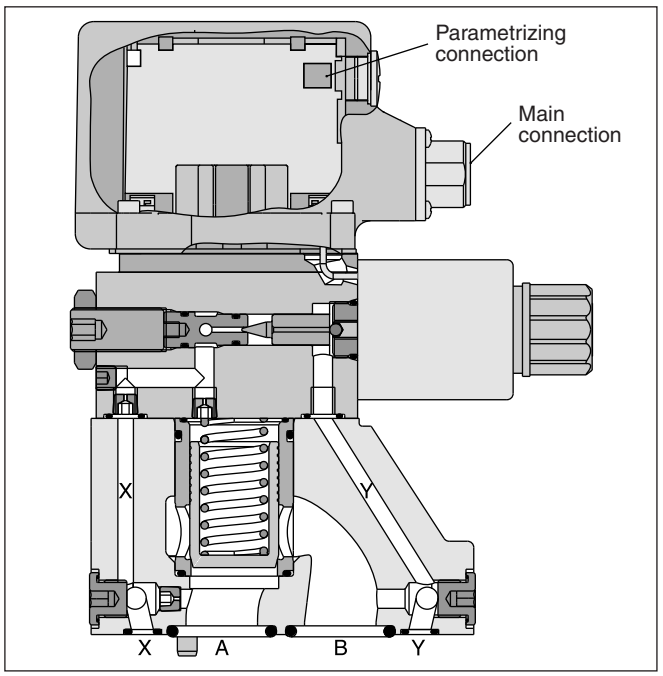


4

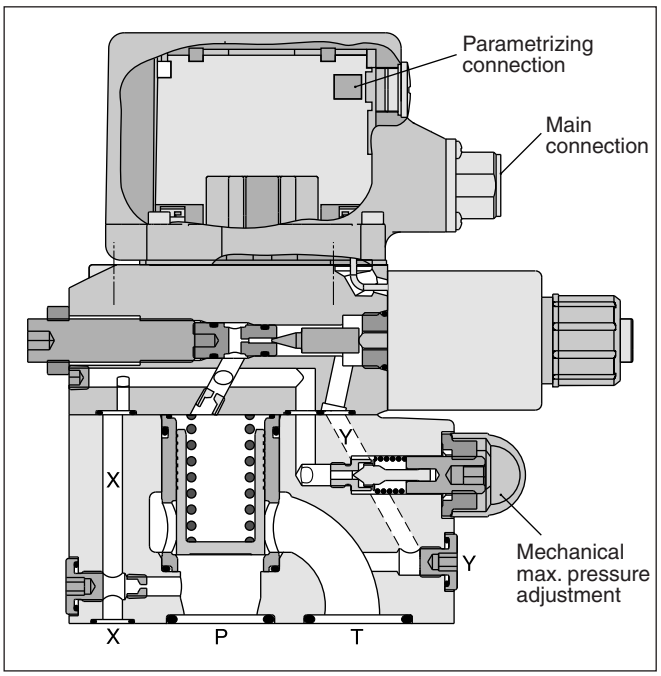
Features

- Pilot operated pressure relief valve
- Onboard electronics
- Factory set
- Ramp time adjustment
- Linearized characteristics
- 3 pressure stages
- 2 interfaces
  - R4V Subplate ISO 6264 (DIN 24340 Form D)
  - R6V Subplate ISO 6264 (DIN 24340 Form E)
- Optional mechanical maximum pressure adjustment

R4V06



R6V06

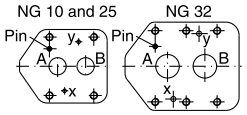
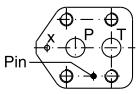


R4V_R6V onboard_UK.INDD CM_13.04.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

R		V		-	5			P						
Pressure valve	Interface	Relief function	Nominal size		Max. Pressure (350 bar)	Drain port	Pressure setting range	Proportional operation	Pilot oil	Options	Command signal	Design series	Seals	Modifi-cations

4

Code	Interface	
4	Subplate mounting ISO 6264	NG 10 and 25 / NG 32 
6 [1]		

[1] external drain with pipe only

Code	Nominal size
03	NG10
06	NG25
10	NG32

Code	Interface	Drain port
3	R4V	Y from subplate
9	R6V	Y-port = G 1/8“

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Other pressure stages on request.

Code	Seals
1	NBR
5	FPM

Code	Design series
A	R4V
B	R6V

Code	Command signal
10V	0...10V (ref. output +10V)
4MA	4...20mA

Code	Options
PN	w/o mech. max. adjustment
PM [4]	With mech. max. adjustment

[4] R4V: Adjustment with acorn nut

Pilot oil	
Code	Drain line
0	internal
1 [2]	external from subplate
2 [3]	external Y-port

[2] R4V only
[3] R6V only

Please order plugs separately,
see chapter 4, accessories.

Parametrizing cable OBE → RS232
Item no. 40982923

NEW Master Code - supplied under Parker brand name

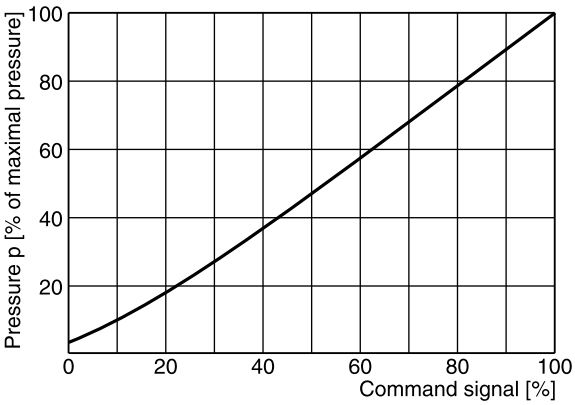
RE*R/M/E*T

General					
Nominal size			**10**	**25**	**32**
Interface			Subplate mounting acc. ISO 6264		
Mounting position			as desired, horizontal mounting prefered		
Ambient temperature		[°C]	-20...+60		
$MTTF_D$ value		[years]	50		
Weight	Series R6V	[kg]	5.4	6.6	8.6
	Series R4V	[kg]	4.5	6.3	7.8
Vibration strength		[g]	10 sinus 5...2000 Hz acc. to IEC 68-2-6 30 noise 20...2000 Hz acc. to IEC 68-2-36 15 shock acc. to IEC 68-2-27		
Hydraulic					
Max. operating pressure		[bar]	Ports P (or A) and X up to 350, port T (or B) and Y 30		
Pressure stages		[bar]	105, 210, 350		
Nominal flow	Series R6V	[l/min]	250	500	650
	Series R4V	[l/min]	150	350	650
Fluid			Hydraulic oil according to DIN 51524 ... 525		
Viscosity, recommended		[cSt] / [mm²/s]	30 ... 50		
permitted		[cSt] / [mm²/s]	20 ... 380		
Fluid temperature		[°C]	-20 ... +60		
Filtration			ISO 4406 (1999); 18/16/13		
Hysteresis		[%]	< 1.5		
Electrical					
Duty ratio ED		[%]	100		
Supply voltage		VDC	18...30, ripple < 5% eff., surge free		
Current consumption max.		[A]	2.0		
Pre-fusing		[A]	2.5 medium lag		
Potentiometer supply		[V]	+10 / ±5% max. 10mA		
Command signal					
Code 10V voltage		[V]	0...+10, ripple < 0.01 % eff., surge free, Ri = 100 kOhm		
Code 4MA current		[mA]	4...20, ripple < 0.01 % eff., surge free, Ri = 200 Ohm < 3.6 mA = enable off, > 3.8 mA = enable on (acc. NAMUR NE43)		
Differential input voltage max.		[V]	30 for terminal D and E against PE (terminal G)		
		[V]	11 for terminal D and E against 0V (terminal B)		
Adjustment ranges	Min current	[%]	0...50		
	Max current	[%]	50...100		
	Ramp	[s]	0...32.5		
Interface			RS 232C, parametrizing connection 5polig		
EMC			EN 61000-6-2, EN 61000-6-4		
Central connection			6 + PE acc. EN 175201-804		
Cable specification		[mm²]	7 x 1.0 overall braid shield		
Cable length max.		[m]	50		

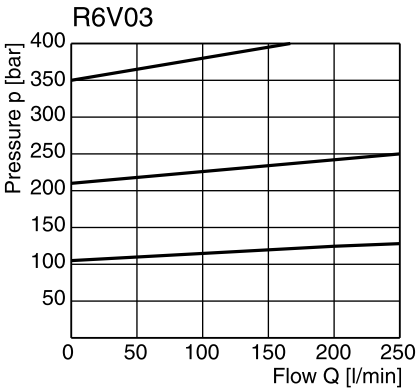
4

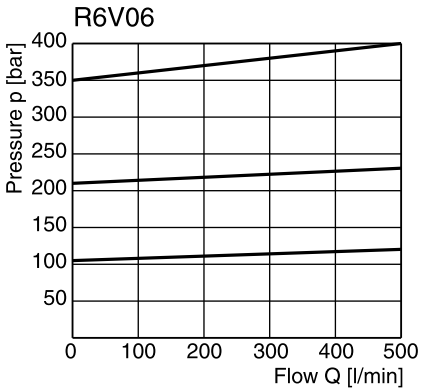
R6V

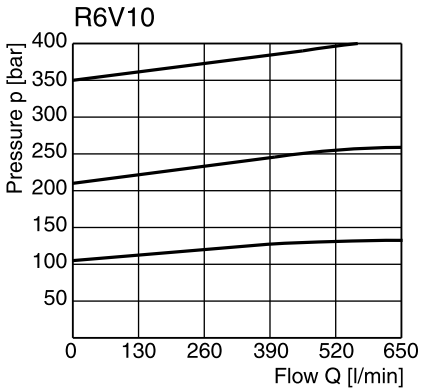
Command/pressure curve



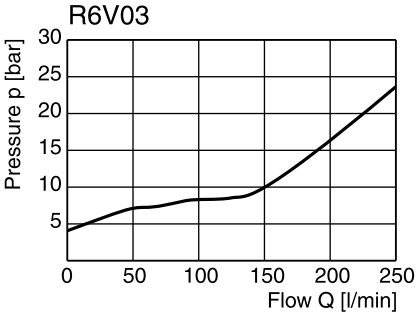
p/Q performance curves [1)]

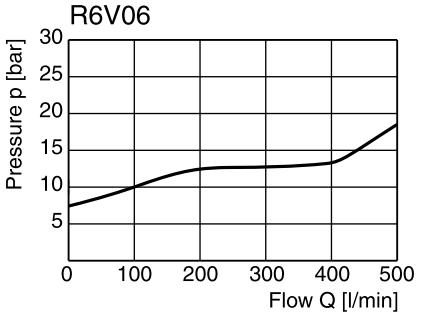


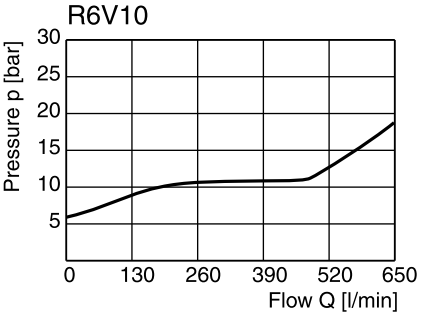




Minimum pressure curves [1)]





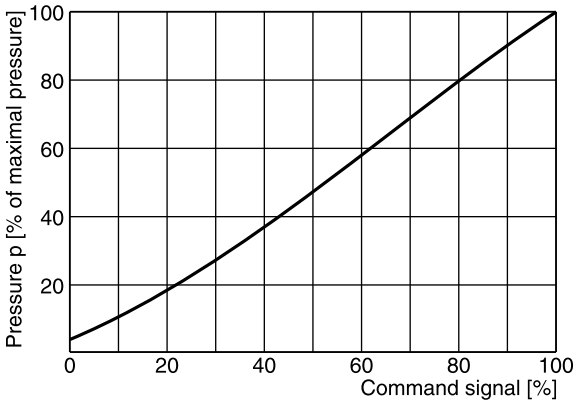


[1)] The performance curves are measured with external drain.
For internal drain the tank pressure has to be added to curve.

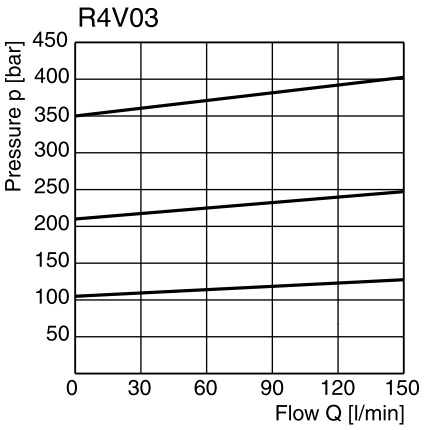
All characteristic curves measured with HLP46 bei 50°C.

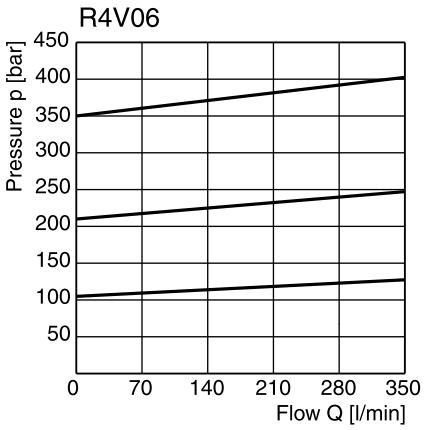
R4V

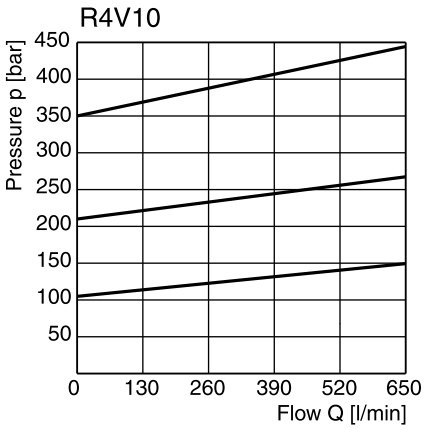
Command/pressure curve



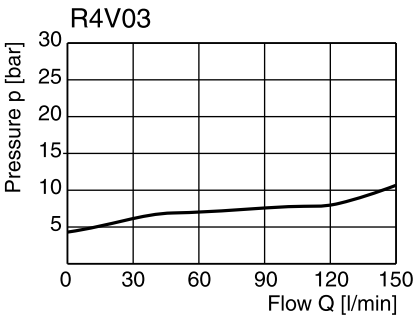
p/Q performance curves [1)]

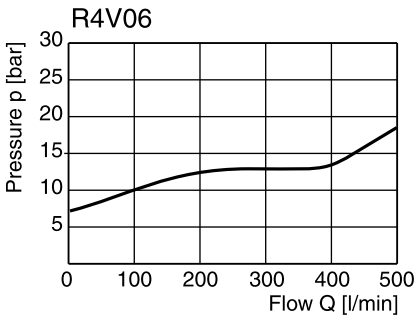


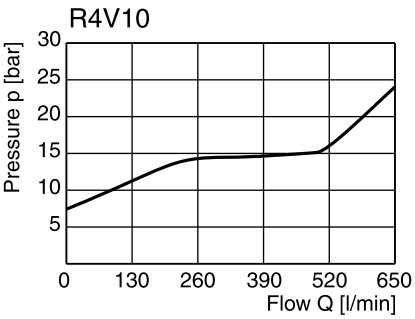




Minimum pressure curves [1)]







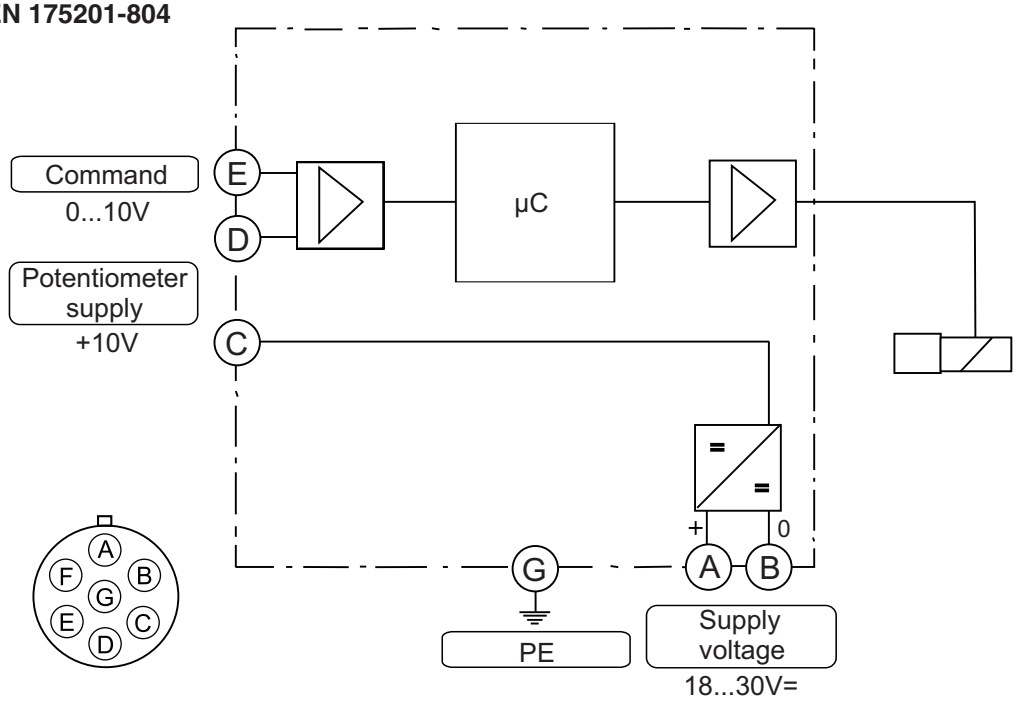
[1)] The performance curves are measured with external drain.
For internal drain the tank pressure has to be added to curve.

All characteristic curves measured with HLP46 bei 50°C.

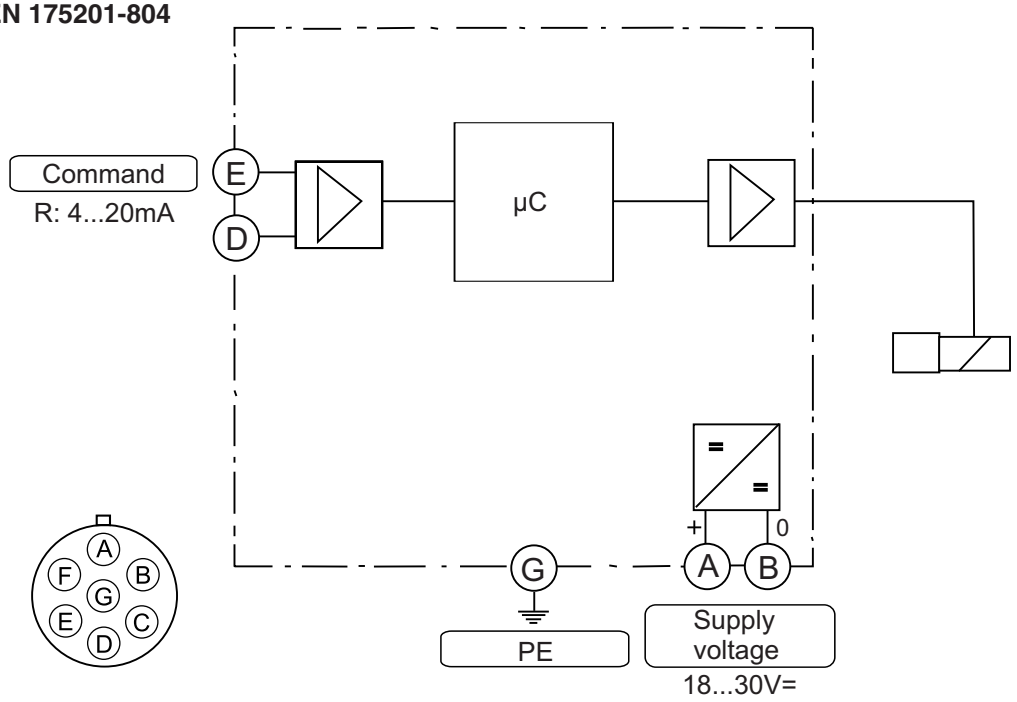
Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

Block diagram

Code 10V
6 + PE acc. EN 175201-804



Code 4MA
6 + PE acc. EN 175201-804



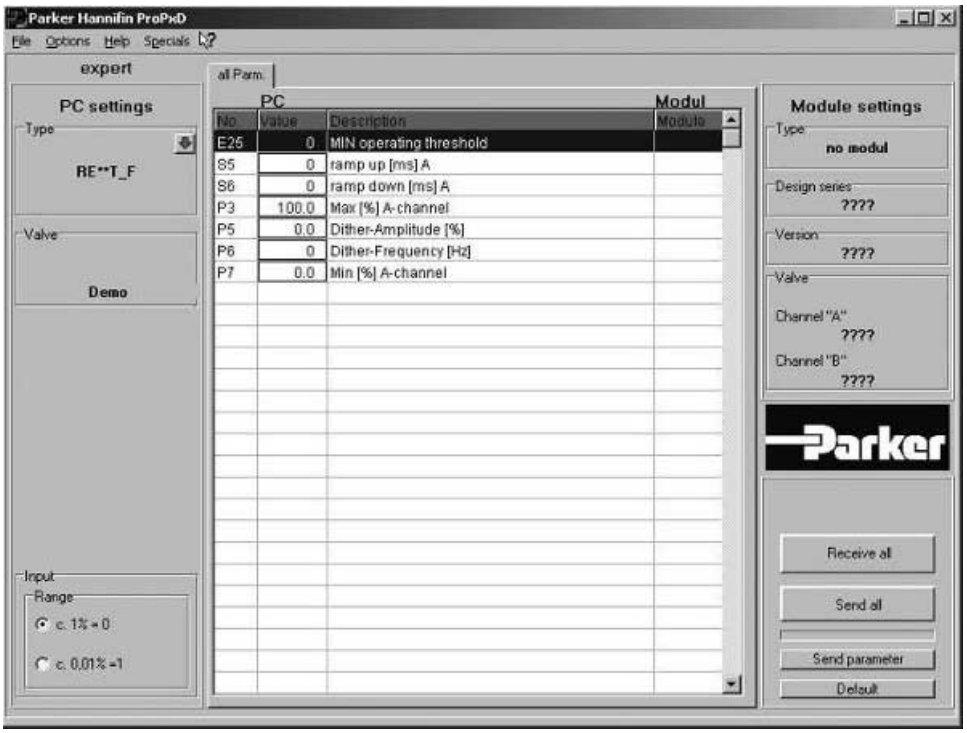
ProPxD interface program

The new ProPxD software permits comfortable parameter setting for the electronic module series PCD, PWD, PZD, PID and PWDXX.

Via the clearly arranged entry mask the parameters can be displayed and modified. Storage of complete parameter sets is possible as well as print-out or record as text file for further documentation. Stored parameter sets may be loaded anytime and transmitted to the electronic module in the same manner as the basic parameters which are available for all usable valve series. Inside the electronic a nonvolatile memory stores the data with the option for recalling or modification.

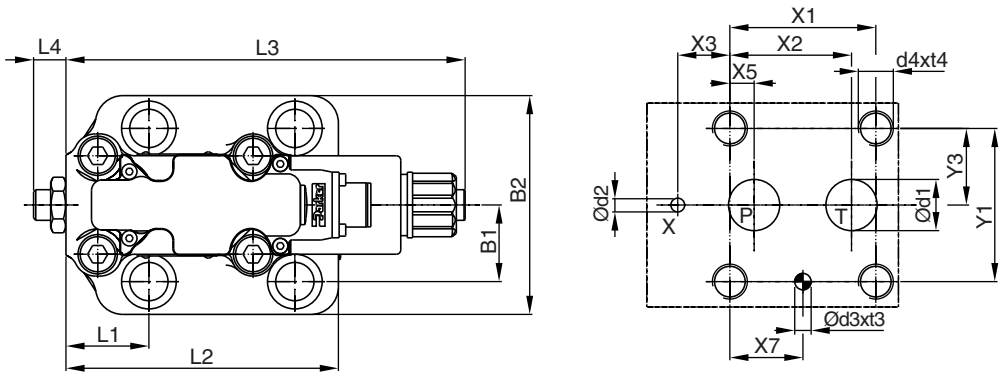
Features

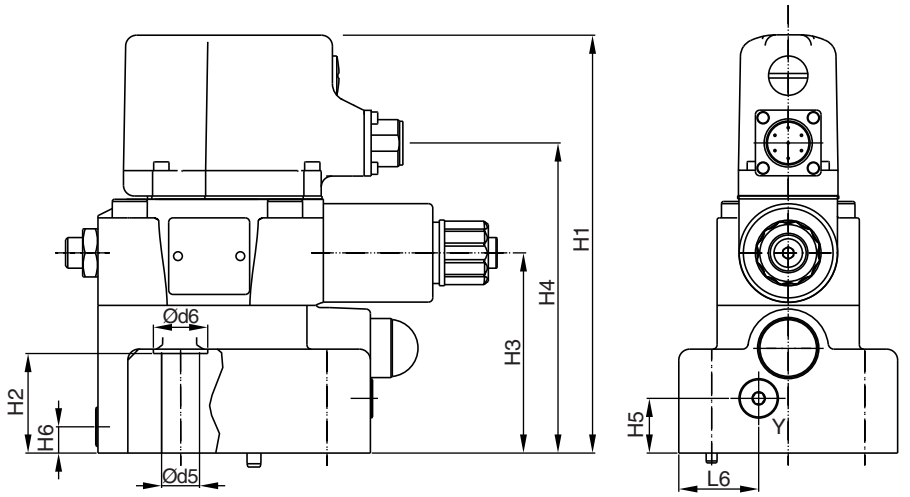
- Comfortable editing of all parameters
- Depiction and documentation of parameter sets
- Storage and loading of optimized parameter adjustments
- Executable with all actual Windows® operating systems from Windows® 95 upwards
- Plain communication between PC and electronic via serial interface RS-323 and null modem cable
- Comfortable PC user software, free of charge: www.parker.com/euro_hcd - see “Software Downloads“



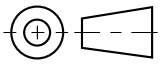
The parametrizing cable may be ordered under item no. 40982923.

R6V





Y: external drain port G 1/8“



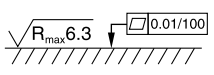
NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-09-*-97	53.8	47.5	0	–	22.1	–	22.1	53.8	–	26.9	–	–	–
25	6264-08-13-*-97	66.7	55.6	23.8	–	11.1	–	33.4	70	–	35	–	–	–
32	6264-10-17-*-97	88.9	76.2	31.8	–	12.7	–	44.5	82.6	–	41.3	–	–	–

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

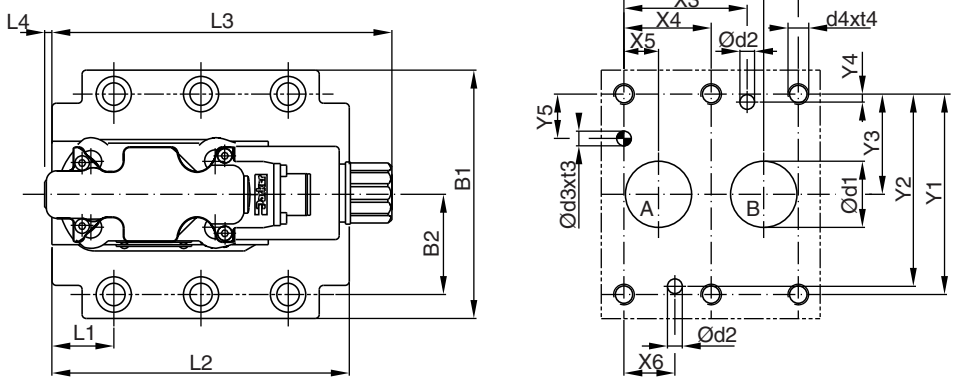
NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-09-*-97	80	26.9	185.1	27	88	135.8	20.5	25	52.5	118.5	182.3	14.4	–	29.5
25	6264-08-13-*-97	100	35	188.6	45.5	91.5	139.8	25	12	37.9	124.5	182.3	14.4	–	36.5
32	6264-10-17-*-97	120	41.3	194.1	52	97	144.8	26.5	13.5	45	153	182.3	14.4	–	46.5

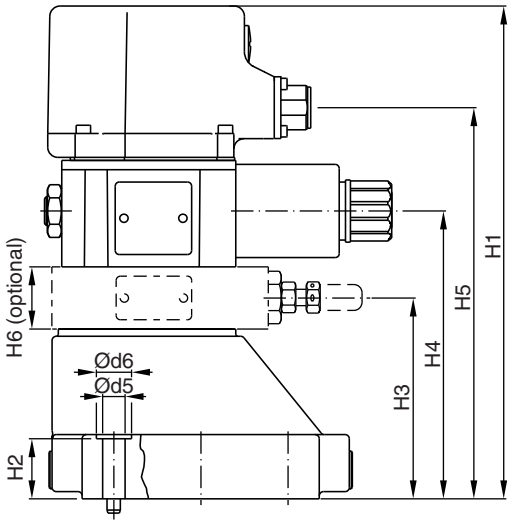
NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	6264-06-09-*-97	14.7	4.8	7.5	10	M12	20	13.5	20	SPP 3R6B 910
25	6264-08-13-*-97	23.4	6.3	7.5	10	M16	27	17.5	25	SPP 6R10B 910
32	6264-10-17-*-97	32	6.3	7.5	10	M18	28	20	30	SPP 10R12B 910

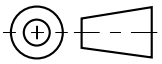
[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit - DIN912 12.9		Kit		Surface finish
				NBR	FPM	
10	6264-06-09-*-97	BK-M12 x 45-4pcs	108 Nm ±15%	S26-96396-0	S26-96396-5	
25	6264-08-13-*-97	BK-M16 x 70-4pcs	264 Nm ±15%	S26-98589-0	S26-98589-5	
32	6264-10-17-*-97	BK-M18 x 75-4pcs	398 Nm ±15%	S26-96392-0	S26-96392-5	

R4V







NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-07-*-97	42.9	35.8	21.5	–	7.2	21.5	0	66.7	58.8	33.4	7.9	14.3	–
25	6264-08-11-*-97	60.3	49.2	39.7	–	11.1	20.6	0	79.4	73	39.7	6.4	15.9	–
32	6264-10-15-*-97	84.2	67.5	59.5	42.1	16.7	24.6	0	96.8	92.8	48.4	3.8	21.4	–

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

NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-07-*-97	87.3	33.35	200.3	21	60	102	151	30	28.3	94.1	164.2	4.5	–	–
25	6264-08-11-*-97	105	39.7	226.8	29	86.5	128.5	184	30	34	126.1	164.2	4.5	–	–
32	6264-10-15-*-97	120	48.4	237.3	29	97	139	194.5	30	29.9	143.6	164.2	4.5	–	–

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	6264-06-07-*-97	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	6264-08-11-*-97	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	6264-10-15-*-97	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit - DIN912 12.9		Kit NBR	Kit FPM	Surface finish
10	6264-06-07-*-97	BK-M10 x 35-4pcs	63 Nm ±15%	S26-58507-0*	S26-58507-5*	R_{max}6.3 ⏥ 0.01/100
25	6264-08-11-*-97	BK-M10 x 45-4pcs	63 Nm ±15%	S26-58475-0*	S26-58475-5*	
32	6264-10-15-*-97	BK-M10 x 45-6pcs	63 Nm ±15%	S26-58508-0*	S26-58508-5*	
Prop. section P2				S26-58473-0	S26-58473-5	

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

R4V_R6V onboard_UK.INDD CM_13.04.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

Notes

Pilot operated relief valve with proportional adjustment. Series VBY*K is a pilot operated pressure valve with external drain. The external drain allows an application as sequence and as pressure relief valve. For use as pressure relief valve observe hydraulic connection.

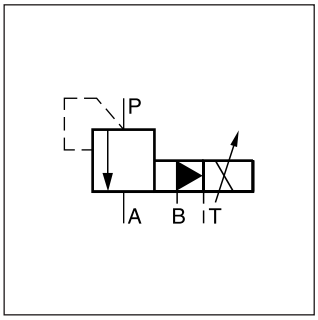
The optimum performance can be achieved in combination with the digital amplifier module PCD00A-400.

Features

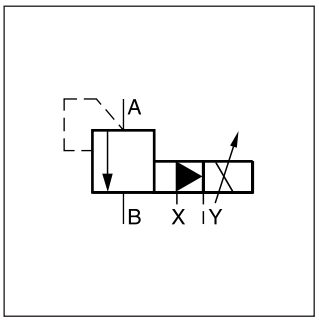
- Proportional adjustment
- Subplate mounting acc. to ISO 5781
- External drain
- Main stage spool type valve
- Pilot stage seated type valve

VBY*K06

VBY*K10

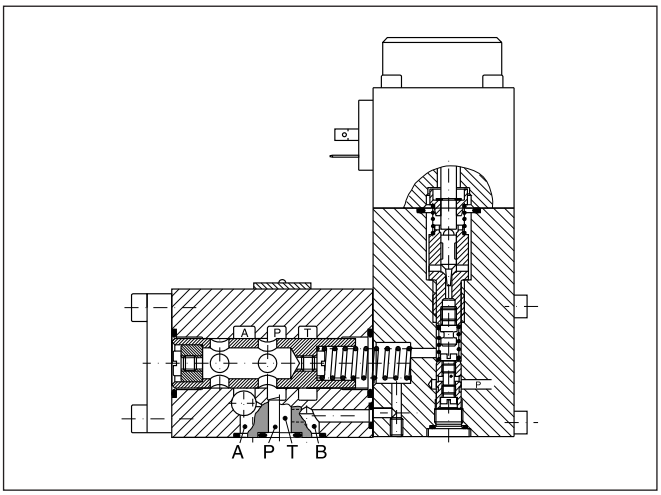


VBY*K06

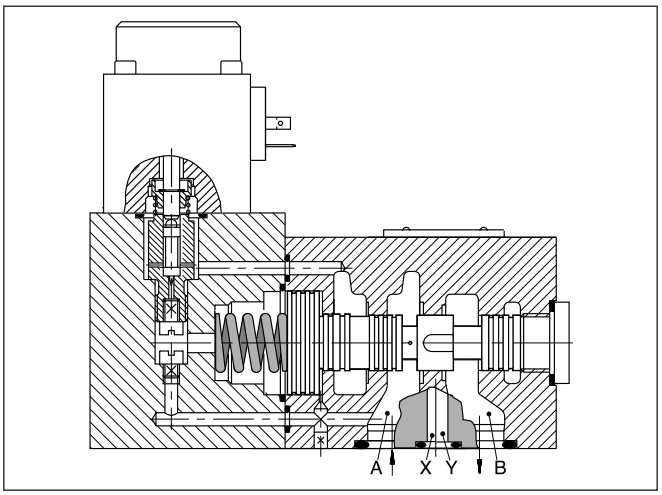


VBY*K10

VBY*K06



VBY*K10



Ordering code

VBY		K			
Sequence valve	**Max. setting range**	**Proportional solenoid 9 VDC/2.5A**	**Nominal size**	**Seals**	**Design series** (not required for ordering)

Code	Max. setting range
064	**64 bar**
100	100 bar
160	**160 bar**
210	210 bar
315	315 bar

Code	Seals
N	**NBR**
V	FPM

Code	Nominal size
06	**NG06**
10	**NG10**

Bold letters =
Short-term availability

VBYK_UK.INDD CM_04.05.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

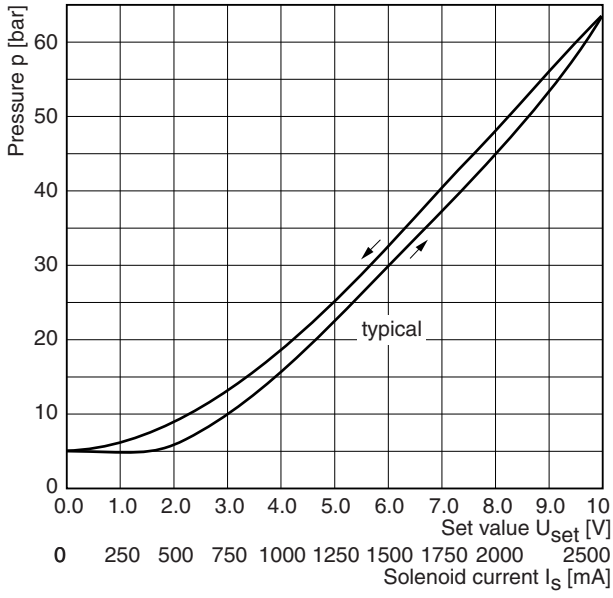
Technical data

General				
Design			Proportional pressure relief valve	
Nominal size			**NG06**	**NG10**
Interface			Subplate mounting according to ISO 5781	
Actuation			Proportional solenoid	
Mounting position			unrestricted	
Ambient temperature		[°C]	-20 ... +70	
$MTTF_D$ value		[years]	75	
Weight		[kg]	2.4	4.5
Hydraulics				
Max. operating pressure		[bar]	Ports P and A 315; Port T depressurized	Ports A and B 315; Port Y depressurized
Nominal flow		[l/min]	40	160
Adjustment range		[bar]	up to 64, 100, 160, 210, 315	
Fluid			Hydraulic oil as per DIN 51 524 ... 525	
Viscosity	recommended	[cSt] / [mm²/s]	30 ... 50	
	maximum	[cSt] / [mm²/s]	20 ... 380	
Pressure medium temperature				
	recommended	[°C]	30 ... 50	
	maximum	[°C]	-20 ... +70	
Permitted contamination			ISO 4406 (1999); 18/16/13	
Linearity		[%]	±3.5 at > 15% pnom.	
Repeatability		[%]	<±2	
Hysteresis		[%]	<3	
Response time		[ms]	<150	<200
Electrical				
Duty ratio		[%]	100 ED	
Protection class			IP65 at EN 60529 (plugged and mounted)	
Nominal voltage		[VDC]	9	
Max. current		[A]	2.7	
Nom. current		[A]	2.5	
Ambient temperature		[°C]	-20...+70	
Coil resistance		[Ohm]	21 at 20°C	
Solenoid connection			Connector as per EN 175301-803	
Power amplifier			PCD00A-400	

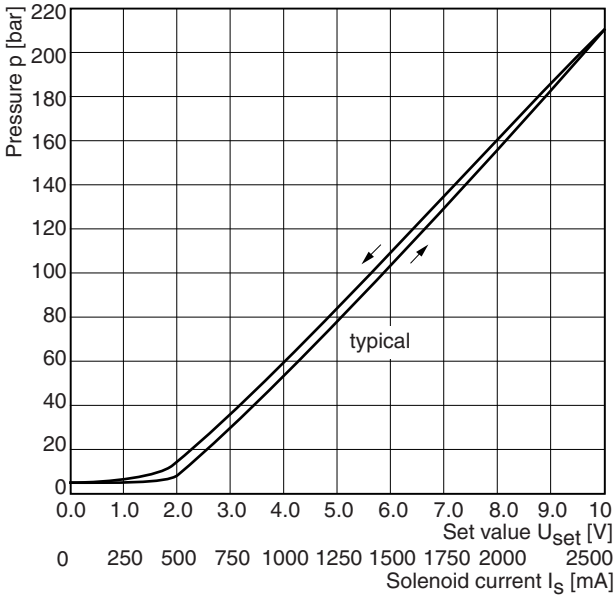
4

Characteristic pressure curves for NG06 p = f (U_{set})

Setting range max. 64 bar



Setting range max. 210 bar

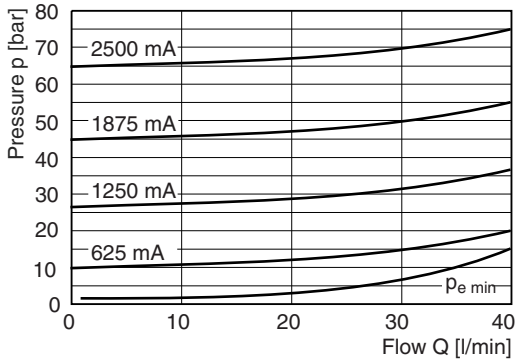


All characteristic curves measured with HLP46 bei 50°C.

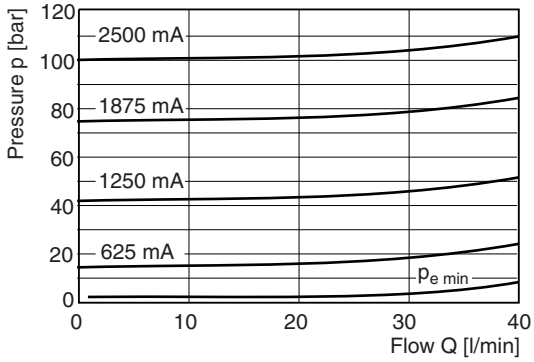
p/Q characteristics

NG06

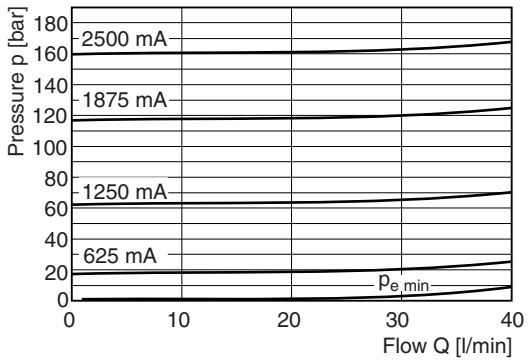
Setting range max. 64 bar



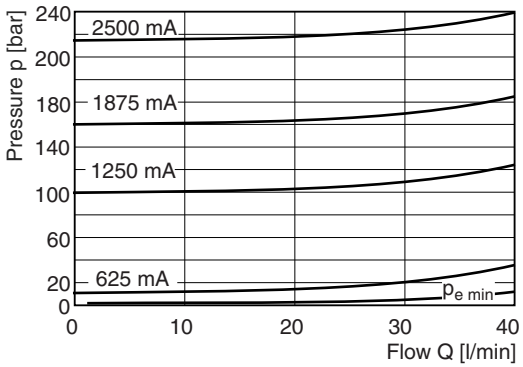
Setting range max. 100 bar



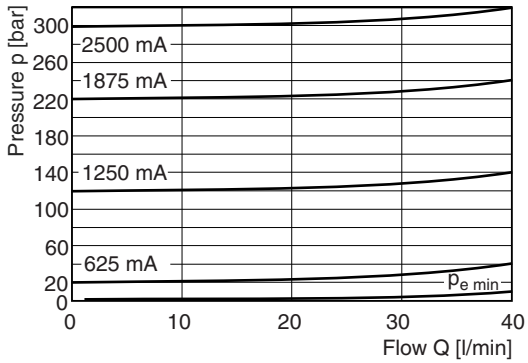
Setting range max. 160 bar



Setting range max. 210 bar



Setting range max. 315 bar



All characteristic curves measured with HLP46 bei 50°C.

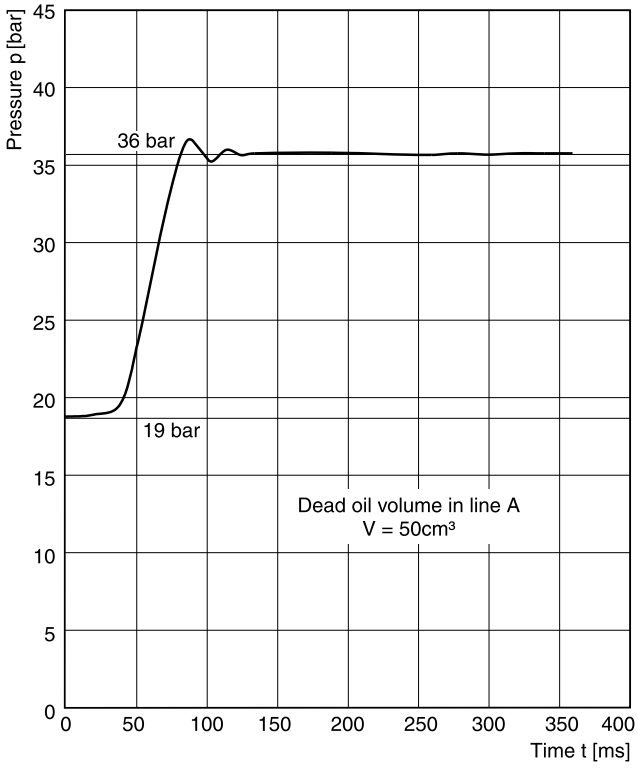
4

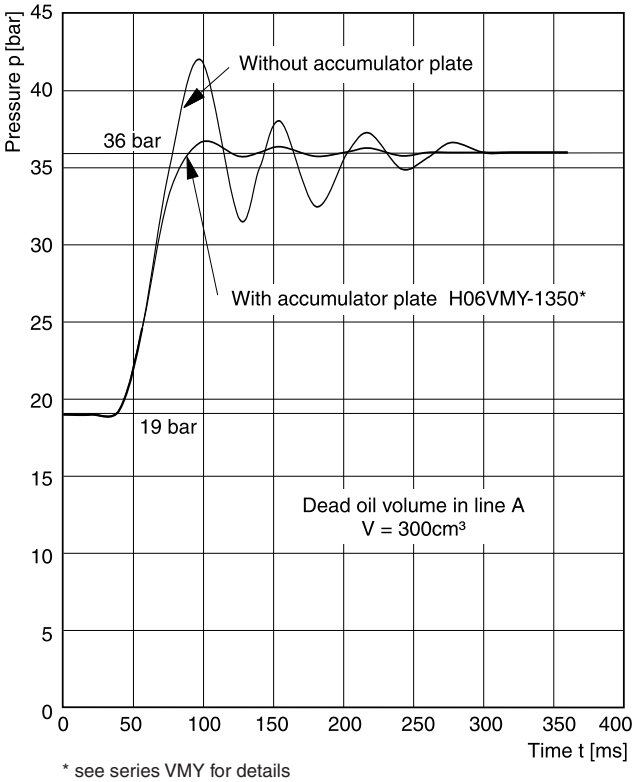
4

Step response signal

NG06

Setting range max. 210 bar



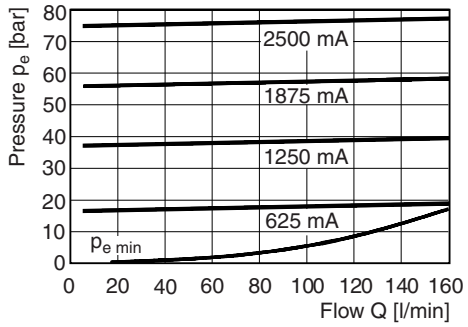


* see series VMY for details

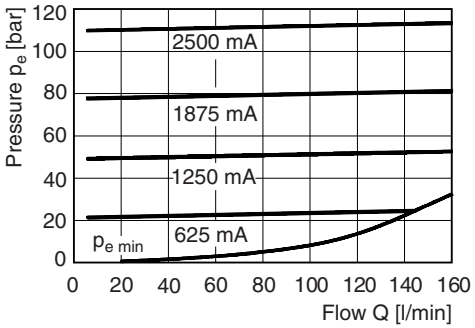
p/Q characteristics

NG10

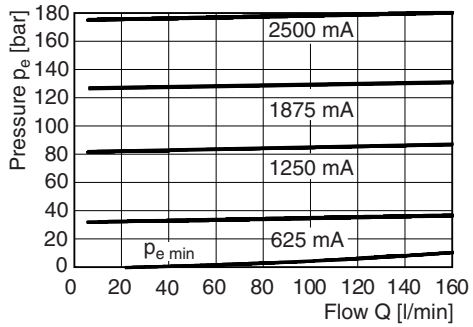
Setting range max. 64 bar



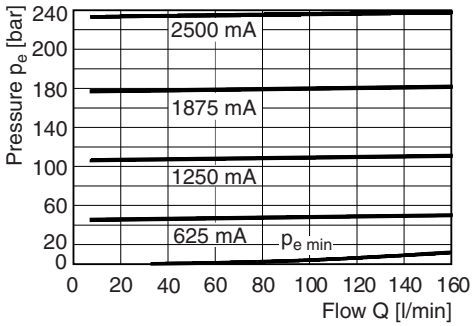
Setting range max. 100 bar



Setting range max. 160 bar

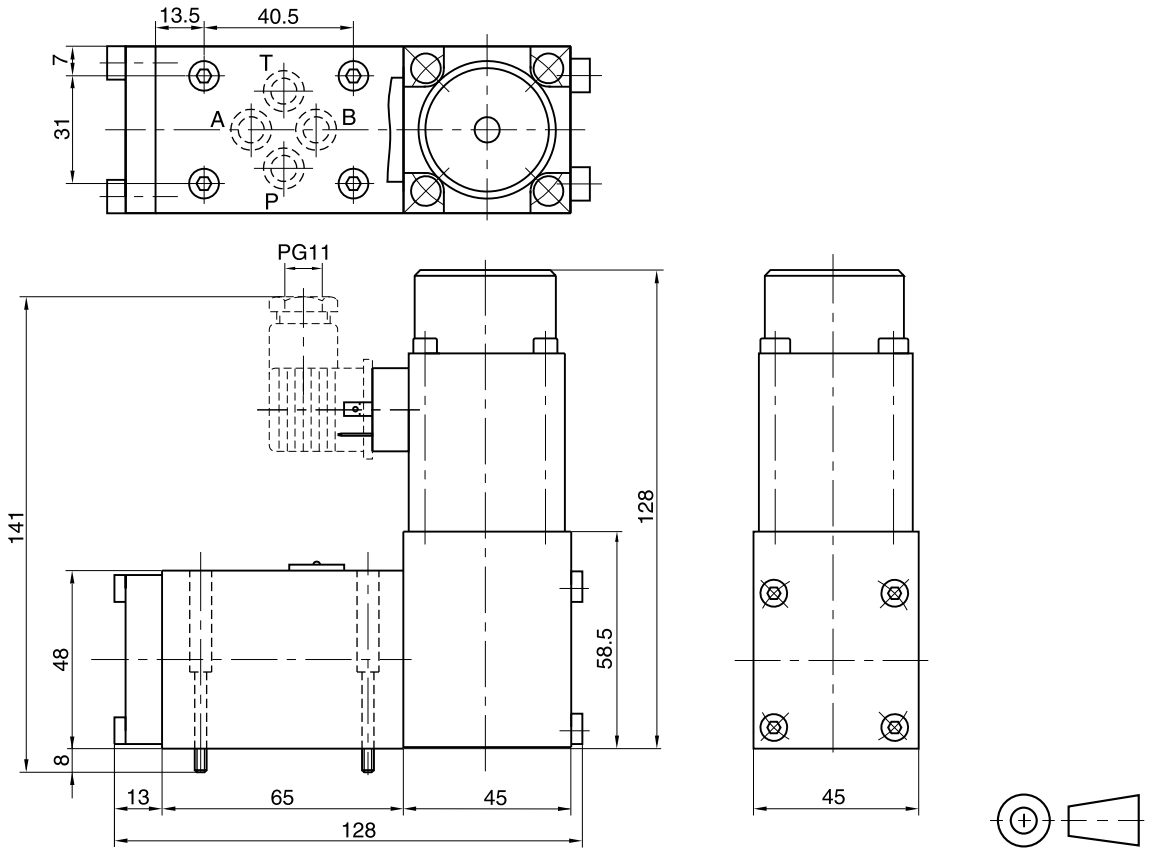


Setting range max. 210 bar



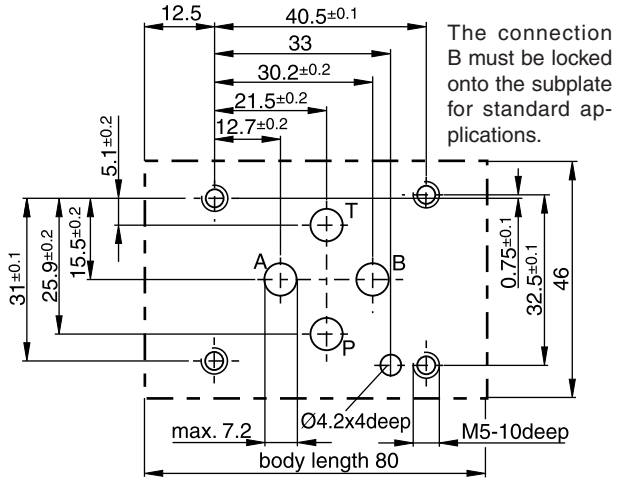
All characteristic curves measured with HLP46 bei 50°C.

NG06



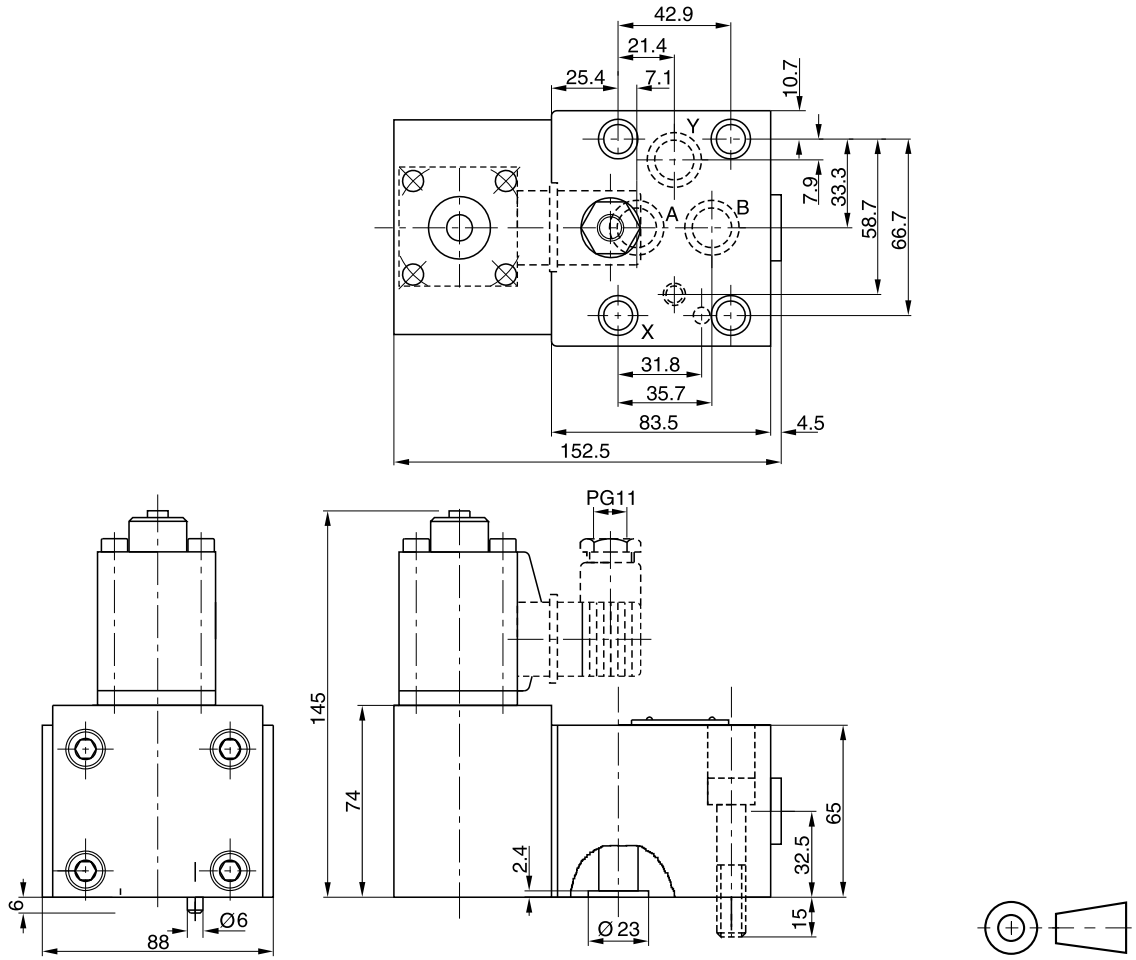
Surface finish	Bolt kit			Kit NBR	Kit FPM
$\sqrt{R_{max}6.3}$ 0.01/100	BK 375	4x M5x30 DIN 912 12.9	7.6 Nm ±15%	SK-VMY-L06-N	SK-VMY-L06-V

Mounting pattern ISO 5781-03-04-0-00



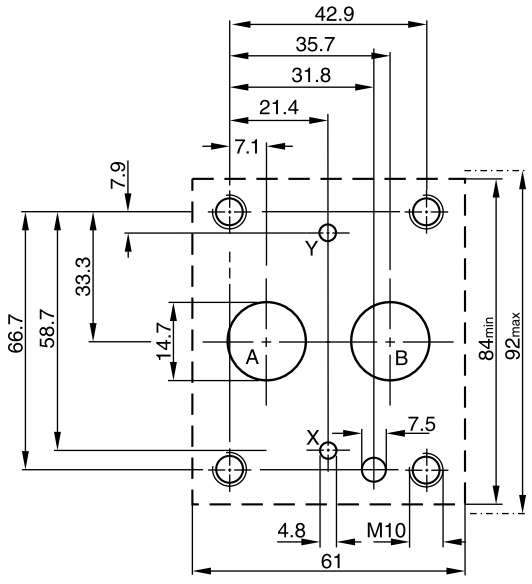
The connection B must be locked onto the subplate for standard applications.

NG10



Surface finish	Bolt kit			Kit FPM
R_{max}6.3 ▱ 0.01/100	BK 389	4x M10x50 DIN 912 12.9	63 Nm ±15%	SK-VB/VM-A10V

Mounting pattern ISO 5781-06-07-0-00



Subplate mounted unloading valves series R4U are used to unload a circuit at low pressure. The mechanically adjustable pressure signal to unload the main stage has to be applied to port X. The pressure differential between opening and closing is nominal 15 or 28 % of the setting pressure.

28 % for pressure stages bar 105, 210

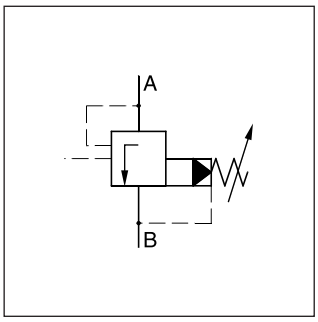
15 % for pressure stages bar 350

Typical applications are unloading of pumps in an accumulator circuit or unloading of the low pressure stage of a double pump.

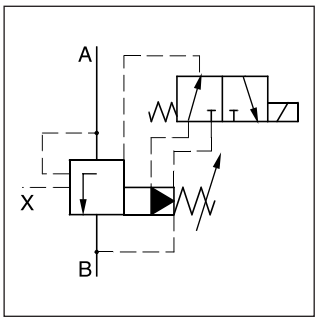
The R4U is available with an electrical vent valve for unpressurized circulation.

Features

- Pilot operated unloading valve
- Interface
  - subplate mounting to ISO 5781
- 3 pressure stages
- 2 vent valve functions
- 3 adjustment modes
  - hand knob
  - acorn nut with lead seal
  - Key lock

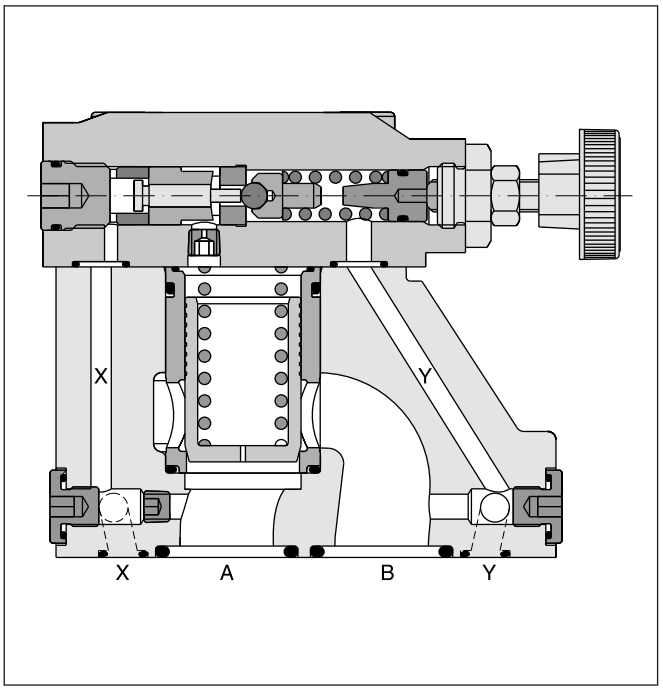


R4U

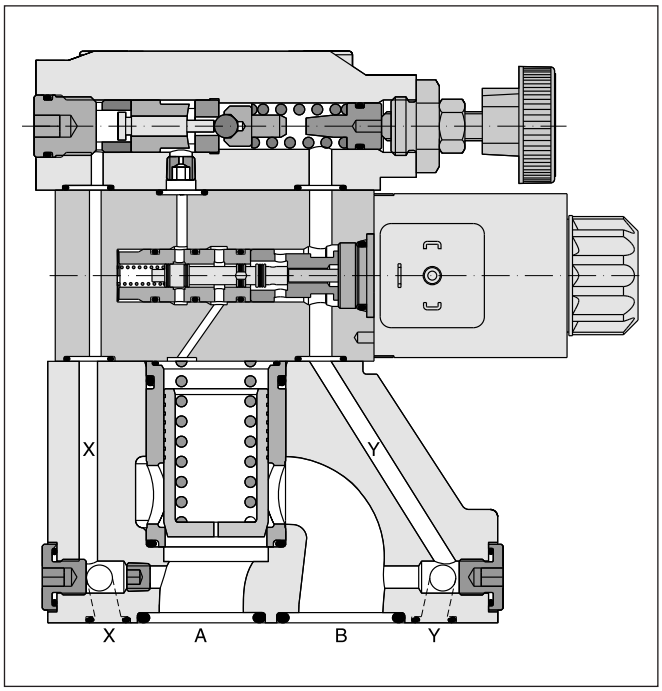


R4U with vent function

R4U06

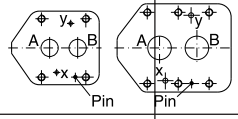


R4U06 with vent function



R	4	U		-	5	3				A		
Pressure valve	Interface	Unloading function	Nominal size		Max. pressure (350 bar)	Body design	Pressure stages	Adjust-ment	Pilot oil	Design series	Seals	Modifi-cations

4

Code	Interface	
4	Subplate mounting ISO 5781	NG 10 and 25 / NG 32 

Code	Seals
1	NBR
5	FPM

Pilot oil	
Code	Drain line
0	Internal
1	External from subplate

Code	Adjustment
1	Hand knob 32mm dia. (Standard)
3	Acorn nut with lead seal
4	Key lock

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Code	Nominal size
03	NG10
06	NG25
10	NG32

NEW Master Code - supplied under Parker brand name

R	4	U		-	5	3							A		
Pressure valve	Interface	Relief function	Nominal size		Max. pressure (350 bar)	Body design	Pressure stages	Adjust-ment	Pilot oil	Vent valve function	Solenoid voltage	Design series	Seals	Modifi-cations

Code	Seals
1	NBR
5	FPM

Code	Voltage
G0R	12V =
G0Q	24V =
GAR	98V =
GAG	205V =
W30	110V / 50Hz 120V / 60Hz
W31	230V / 50Hz 240V / 60Hz

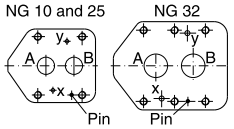
Code	Vent valve
09	Solenoid not activ. unpress. circulation
11	Solenoid activated unpress. circulation

Pilot oil	
Code	Drain line
0	internal
1	external from subplate

Code	Adjustment
1	Hand knob (Standard)
3	Acorn nut with lead seal
4	Key lock

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Code	Nominal size
03	NG10
06	NG25
10	NG32

Code	Interface	
4	Subplate mounting ISO 5781	NG 10 and 25 / NG 32 

NEW Master Code - supplied under Parker brand name

R4U_UK.INDD CM_22.06.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

R4U

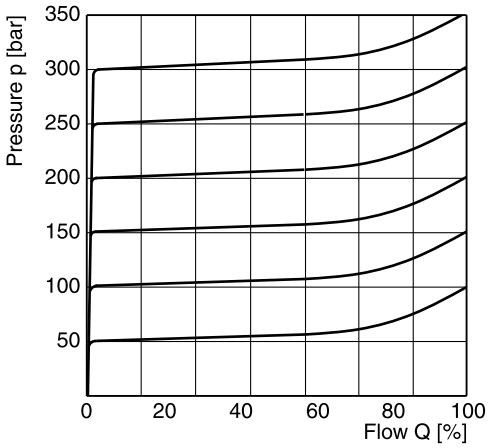
General				
Nominal size		**10**	**25**	**32**
Interface		Subplate mounting acc. ISO 5781		
Mounting position		as desired, horizontal mounting prefered		
Ambient temperature	[°C]	-20...+80		
$MTTF_D$ value	[years]	75		
Weight	[kg]	2.7	4.5	6.0
Hydraulic				
Max. operating pressure	[bar]	Ports A and X 350, Ports B and Y depressurized		
Pressure stages	[bar]	105, 210, 350		
Pressure differential		28 % (for pressure stages 105 bar and 210 bar); 15% (for pressure stages 350 bar)		
Nominal flow	[l/min]	150	350	650
Fluid		Hydraulic oil according to DIN 51524 ... 525		
Viscosity,				
recommended	[cSt] / [mm²/s]	30 ... 50		
permitted	[cSt] / [mm²/s]	20...380		
	[mm²/s]	20 ... 380		
Fluid temperature	[°C]	-20 ... +70		
Filtration		ISO 4406 (1999); 18/16/13		

R4U with vent function

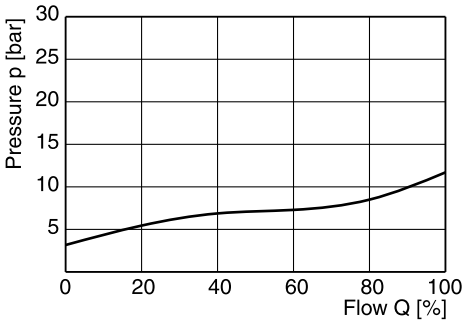
General							
Nominal size		**10**		**25**		**32**	
Interface		Subplate mounting acc. ISO 5781					
Mounting position		as desired, horizontal mounting prefered					
Ambient temperature	[°C]	-20...+80					
$MTTF_D$ value	[years]	75					
Weight	[kg]	4.4		6.2		7.7	
Hydraulic							
Max. operating pressure	[bar]	Ports A and X 350, Ports B and Y depressurized					
Pressure stages	[bar]	105, 210, 350					
Pressure differential		28 % (for pressure stages 105 bar and 210 bar); 15% (for pressure stages 350 bar)					
Nominal flow	[l/min]	150		350		650	
Fluid		Hydraulic oil according to DIN 51524 ... 525					
Viscosity,							
recommended	[cSt] / [mm²/s]	30 ... 50					
permitted	[cSt] / [mm²/s]	20...380					
Fluid temperature	[°C]	-20 ... +70					
Filtration		ISO 4406 (1999); 18/16/13					
Electrical (solenoid)							
Duty ratio	[%]	100 ED; CAUTION: coil temperature up to 180 °C possible					
Max. switching frequency		160000 (DC), 7200 (AC)					
Protection class		IP65 in according with EN 60529 (plugged and mounted)					
	Code	G0R	G0Q	GAR	GAG	W30	W31
Supply voltage	[V]	12V =	24V =	98V =	205V =	110V/50Hz 120V/60Hz	230V/50Hz 240V/60Hz
Tolerance supply voltage	[%]	+5...-10	+5...-10	+5...-10	+5...-10	+5...-10	+5...-10
Power consumption hold	[W]	31	31	31	31	78	78
in rush	[W]	31	31	31	31	264	264
Solenoid connection		Connector as per EN 175301-803					
Wiring min.	[mm²]	3 x 1.5 recommended					
Wiring length max.	[m]	50 recommended					

p/Q performance curve

UR/US [1)]



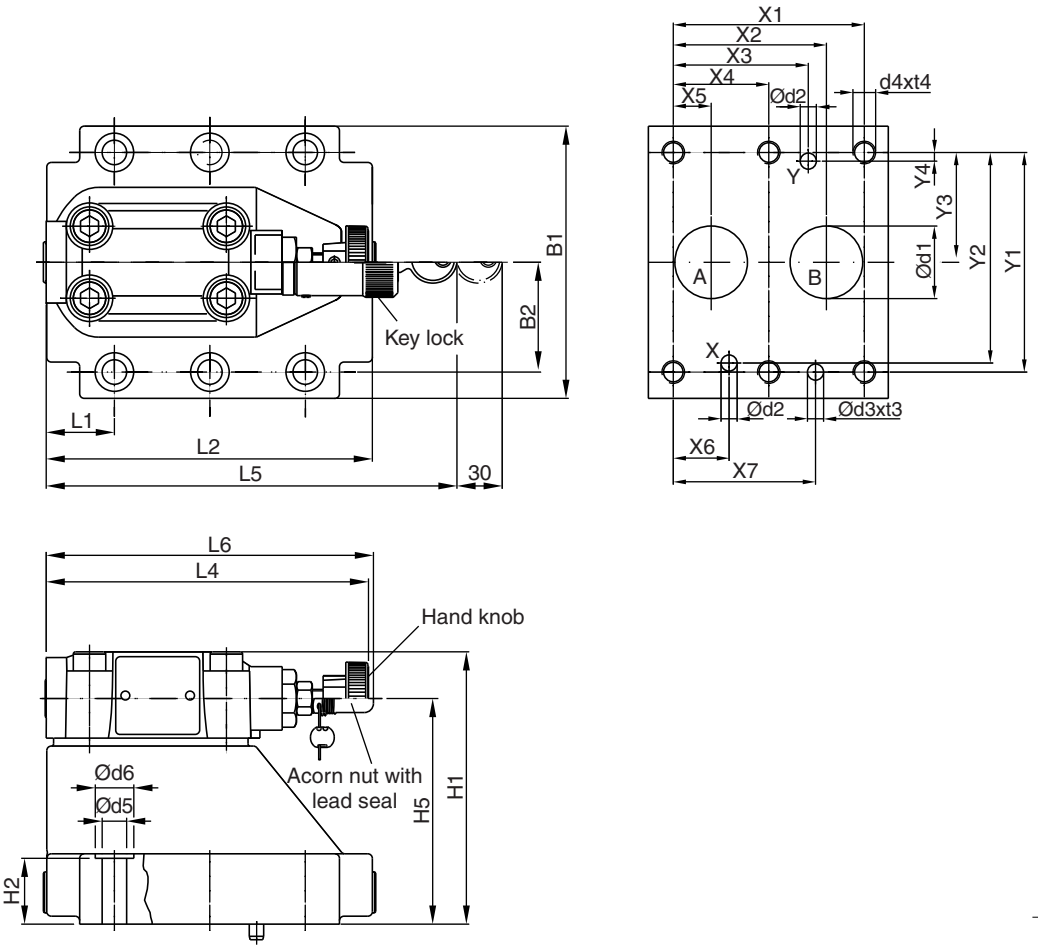
Minimum pressure curve



[1)] The performance curves are measured with external drain.
For internal drain the tank pressure has to be added to curve.

All characteristic curves measured with HLP46 bei 50°C.

R4U



NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	5781-06-07-0-00	42.9	35.8	21.5	–	7.2	21.5	31.8	66.7	58.8	33.4	7.9	–	–
25	5781-08-10-0-00	60.3	49.2	39.7	–	11.1	20.6	44.5	79.4	73	39.7	6.4	–	–
32	5781-10-13-0-00	84.2	67.5	59.5	42.1	16.7	24.6	62.7	96.8	92.8	48.4	3.8	–	–

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

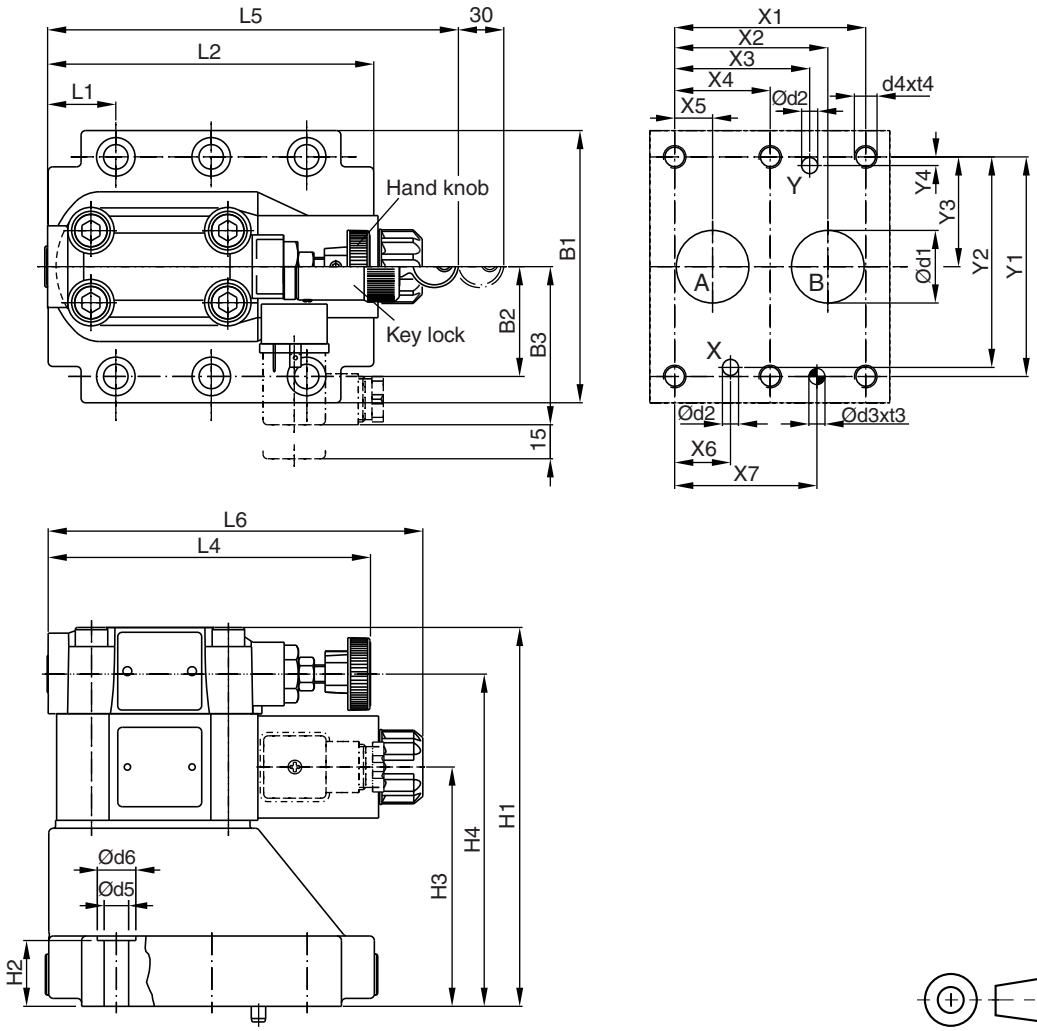
NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	5781-06-07-0-00	87.3	33.35	83	21	62.5	–	–	–	29	94.8	–	143	181	144.8
25	5781-08-10-0-00	105	39.7	109.5	29	89	–	–	–	34.7	126.8	–	143	181	144.8
32	5781-10-13-0-00	120	48.4	120	29	99.5	–	–	–	30.6	144.3	–	143	181	144.8

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	5781-06-07-0-00	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	5781-08-10-0-00	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	5781-10-13-0-00	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit NBR	Kit FPM	Surface finish
10	5781-06-07-0-00	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0	S26-58507-5	R_{max}6.3 ▱ 0.01/100
25	5781-08-10-0-00	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0	S26-58475-5	
32	5781-10-13-0-00	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0	S26-58508-5	

R4U
with vent function



NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	5781-06-07-0-00	42.9	35.8	21.5	–	7.2	21.5	31.8	66.7	58.8	33.4	7.9	–	–
25	5781-08-10-0-00	60.3	49.2	39.7	–	11.1	20.6	44.5	79.4	73	39.7	6.4	–	–
32	5781-10-13-0-00	84.2	67.5	59.5	42.1	16.7	24.6	62.7	96.8	92.8	48.4	3.8	–	–

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

NG	ISO-code	B1	B2	B3	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	5781-06-07-0-00	87.3	33.35	70	130	21	68.5	109.5	–	–	29	94.8	–	143	181	165.6
25	5781-08-10-0-00	105	39.7	70	156.5	29	95	136	–	–	34.7	126.8	–	143	181	165.6
32	5781-10-13-0-00	120	48.4	70	167	29	105.5	146.5	–	–	30.6	144.3	–	143	181	165.6

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	5781-06-07-0-00	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	5781-08-10-0-00	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	5781-10-13-0-00	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit NBR	Kit FPM	Surface finish
10	5781-06-07-0-00	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0*	S26-58507-5*	
25	5781-08-10-0-00	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0*	S26-58475-5*	
32	5781-10-13-0-00	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0*	S26-58508-5*	
VV01					S56-40609-0	S56-40609-5	

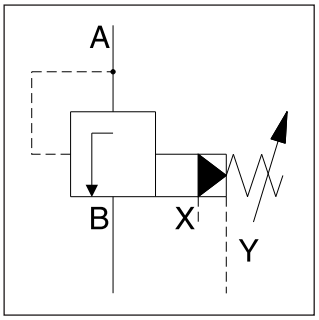
* Please combine seal kit of one size with seal kit of VV01 DC / AC solenoid for complete seal kit

R4U_UK.INDD CM_22.06.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

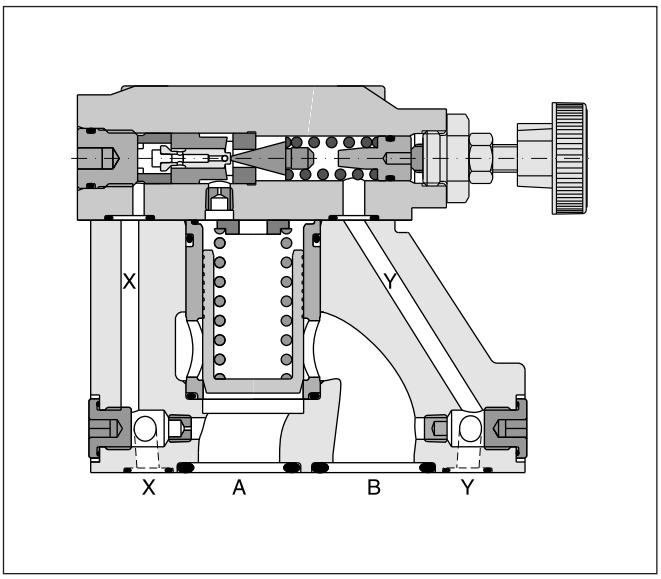
Notes

Subplate mounted sequence valves series R4S enable a hydraulic system to operate in a pressure sequence. When the system pressure reaches the setting pressure the valve opens and permits flow to the secondary sub-system.



Features

- Pilot operated sequence valve
- Subplate mounting acc. to ISO 5781
- 3 pressure stages
- 3 adjustment modes
  - hand knob
  - acorn nut with lead seal
  - Key knob

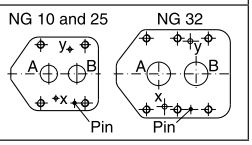


4

Technical data R4S

General				
Nominal size		**10**	**25**	**32**
Interface		Subplate mounting acc. ISO 5781		
Mounting position		as desired, horizontal mounting prefered		
Ambient temperature	[°C]	-20...+80		
$MTTF_D$ value	[years]	75		
Weight Series R4S	[kg]	2.7	4.5	6.0
Hydraulic				
Max. operating pressure	[bar]	Ports A, B and X 350, port Y depressurized		
Pressure stages	[bar]	105, 210, 350		
Nominal flow	[l/min]	150	350	650
Fluid		Hydraulic oil according to DIN 51524 ... 525		
Viscosity, recommended	[cSt] / [mm²/s]	30 ... 50		
permitted	[cSt] / [mm²/s]	20 ... 380		
Fluid temperature	[°C]	-20 ... +70		
Filtration		ISO 4406 (1999); 18/16/13		

R	4	S		–	5	3			1	A	
Pressure valve	Interface	Relief function	Nominal size		Max. pressure (350 bar)	Plain cap	Pressure stages	Adjust-ment	External drain from subplate	Design series	Seals

Code	Interface	
4	Subplate mounting ISO 5781	NG 10 and 25 / NG 32 

Code	Nominal size
03	NG10
06	NG25
10	NG32

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Code	Seals
1	NBR
5	FPM

Code	Adjustment
1	Hand knob 32mm dia. (Standard)
3	Acorn nut with lead seal
4	key lock

NEW Master Code - supplied under Parker brand name

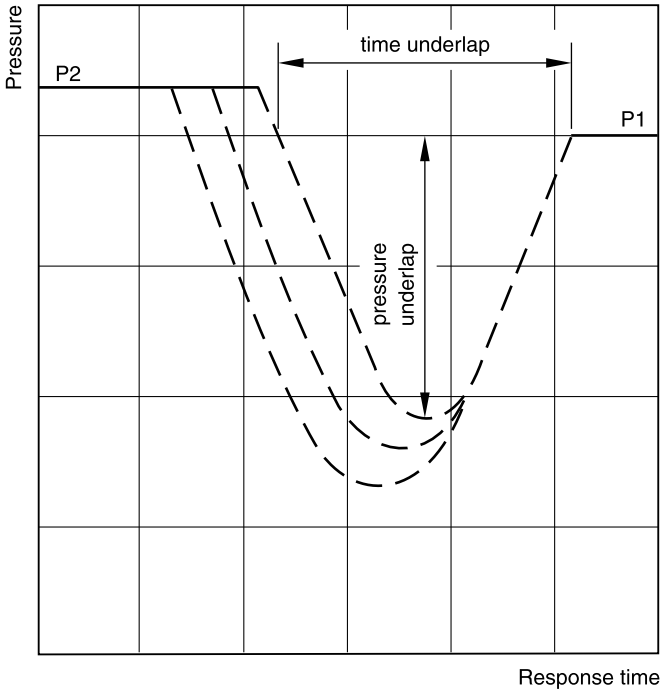
4

Characteristics Curve

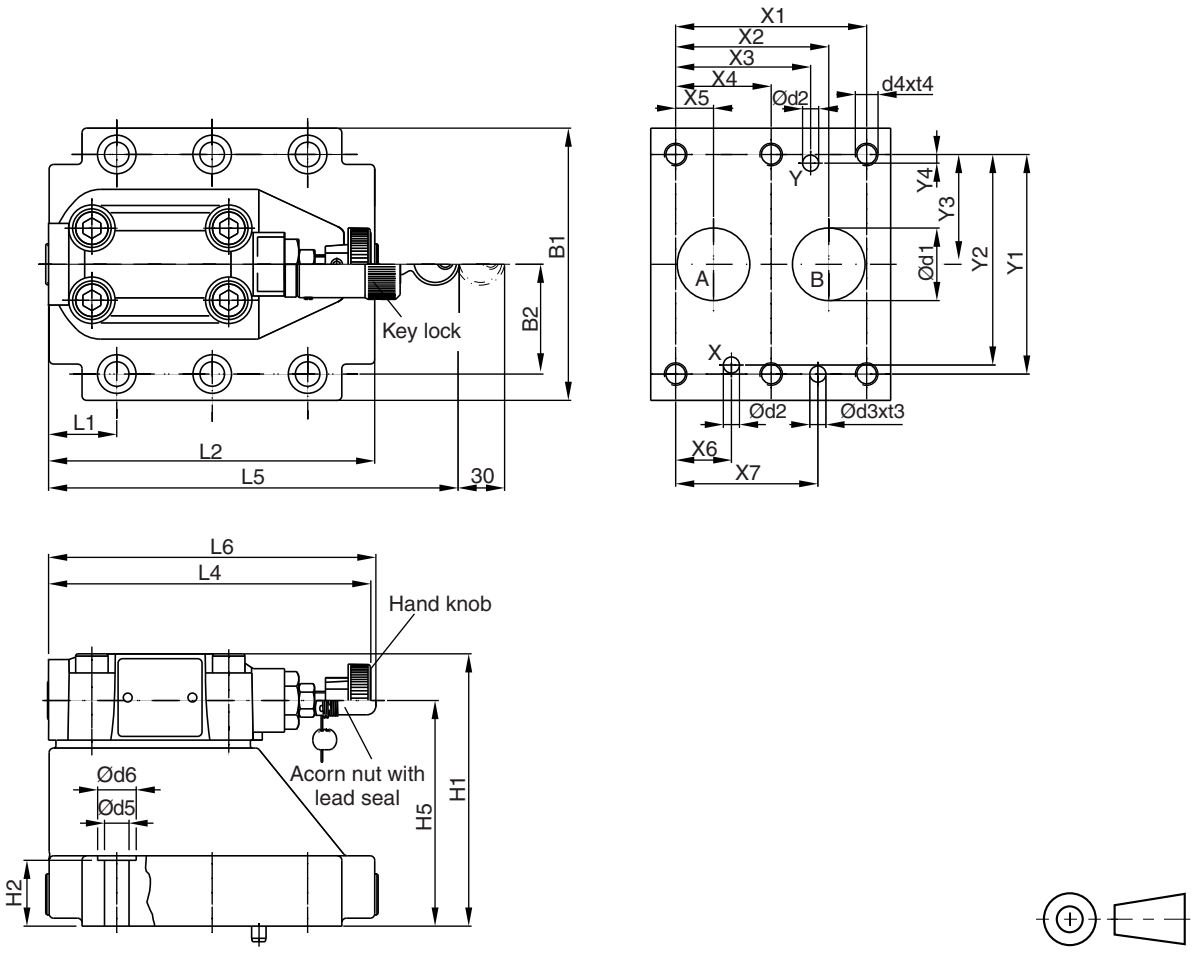
Typical pressure characteristics at closing point

P1 = setting pressure

P2 = operating pressure



Time and pressure underlap depend on the characteristics of the specific system.



NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	5781-06-07-0-00	42.9	35.8	21.5	–	7.2	21.5	31.8	66.7	58.8	33.4	7.9	–	–
25	5781-08-10-0-00	60.3	49.2	39.7	–	11.1	20.6	44.5	79.4	73	39.7	6.4	–	–
32	5781-10-13-0-00	84.2	67.5	59.5	42.1	16.7	24.6	62.7	96.8	92.8	48.4	3.8	–	–

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

NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	5781-06-07-0-00	87.3	33.35	83	21	62.5	–	–	–	29	94.8	–	143	181	144.8
25	5781-08-10-0-00	105	39.7	109.5	29	89	–	–	–	34.7	126.8	–	143	181	144.8
32	5781-10-13-0-00	120	48.4	120	29	99.5	–	–	–	30.6	144.3	–	143	181	144.8

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	5781-06-07-0-00	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	5781-08-10-0-00	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	5781-10-13-0-00	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	5781-06-07-0-00	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0	S26-58507-5	
25	5781-08-10-0-00	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0	S26-58475-5	
32	5781-10-13-0-00	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0	S26-58508-5	

Notes

Direct operated pressure reducing valve with manual adjustment. Series VM is a direct-controlled, spring loaded 3 way pressure reducing valve, that is open in neutral position. The valve closes the connection when the pre-set pressure is exceeded.

Primary port: NG06 -P, NG10 - B
Secondary port: NG06 - A, NG10 - A
Tank port: NG06 - T, NG10 - Y

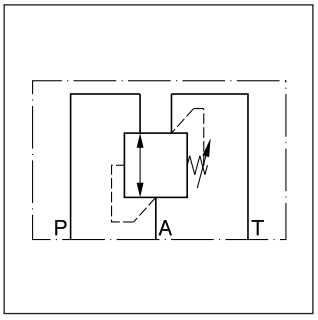
If the pressure increases due to an external influence the spool opens to port T until the pre-set pressure is reached.

Features

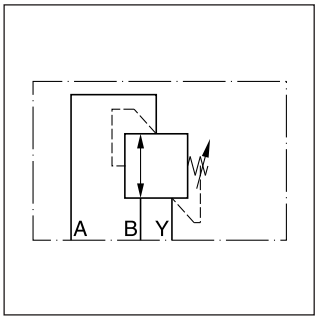
- Spool type valve
- Subplate mounting acc. to ISO 5781
- 5 pressure stages at NG06
- 3 pressure stages at NG10
- 2 adjustment modes

NG06

NG10

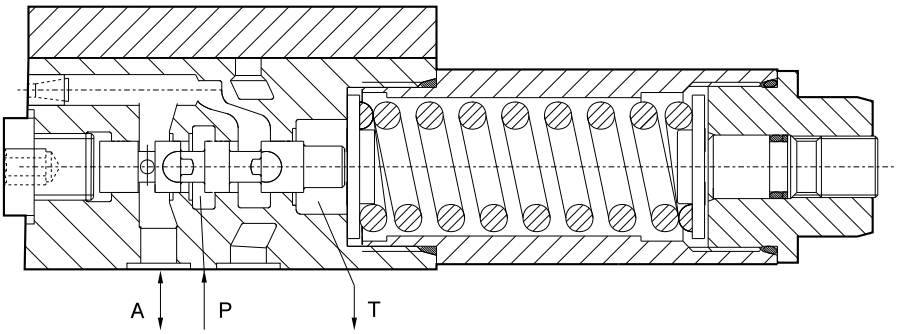


NG06

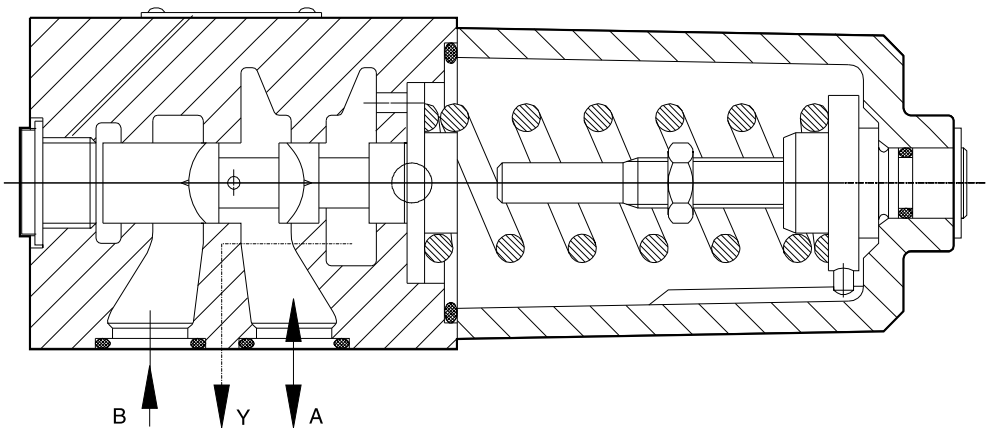


NG10

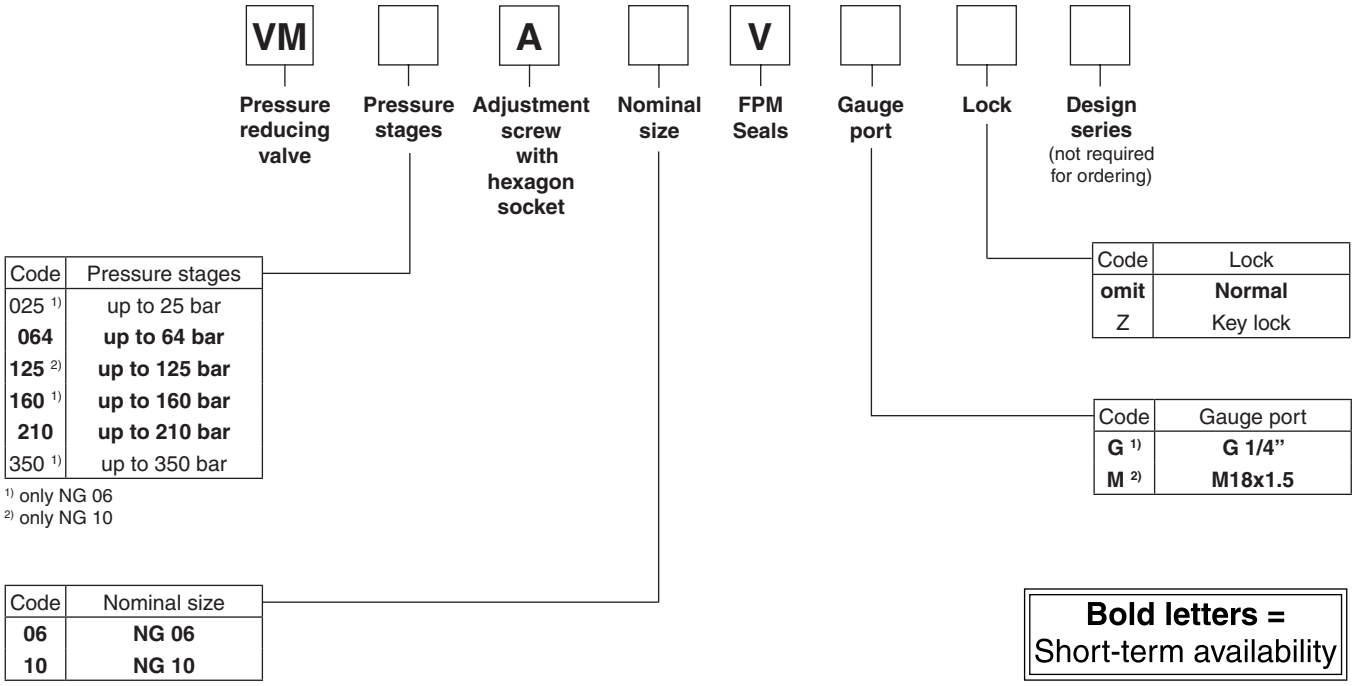
NG06



NG10



Ordering code



Code	Pressure stages
025 [1]	up to 25 bar
064	**up to 64 bar**
125 [2]	**up to 125 bar**
160 [1]	**up to 160 bar**
210	**up to 210 bar**
350 [1]	up to 350 bar

[1] only NG 06
[2] only NG 10

Code	Lock
omit	**Normal**
Z	Key lock

Code	Gauge port
G [1]	**G 1/4”**
M [2]	**M18x1.5**

Code	Nominal size
06	**NG 06**
10	**NG 10**

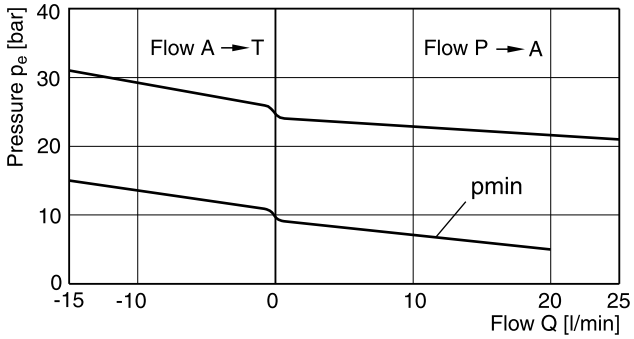
Bold letters =
Short-term availability

Technical data

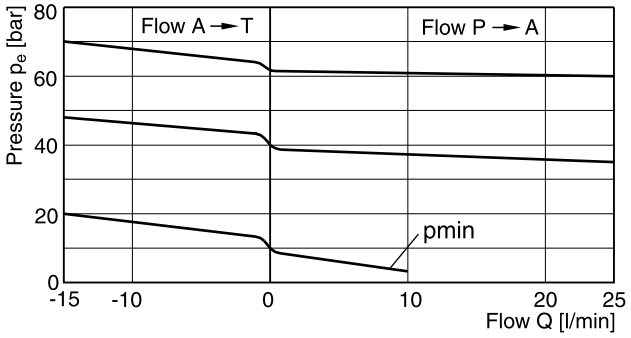
General			
Design		Pressure reducing valve, direct operated, spool type	
Nominal size		**NG 06 (CETOP 03 / NFPA D03)**	**NG 10 (CETOP 05 / NFPA D05)**
Interface		Subplate mounting according to ISO 5781	
Mounting position		unrestricted	
Ambient temperature	[°C]	-20...+80	
$MTTF_D$ value	[years]	150	
Weight	[kg]	1.3	3.7
Hydraulics			
Max. operating pressure	[bar]	Port P and A 350 Port T depressurized	Port A and B 210 Port Y depressurized
Pressure stages	[bar]	25; 64; 160; 210; 350	64; 125; 210
Nominal flow	[l/min]	25	60
Fluid		Hydraulic oil according to DIN 51524...525	
Fluid temperature	[°C]	-20...+70	
Viscosity recommended	[cSt] / [mm²/s]	30...50	
permitted	[cSt] / [mm²/s]	20...380	
Filtration		ISO 4406 (1999); 18/16/13	

NG06

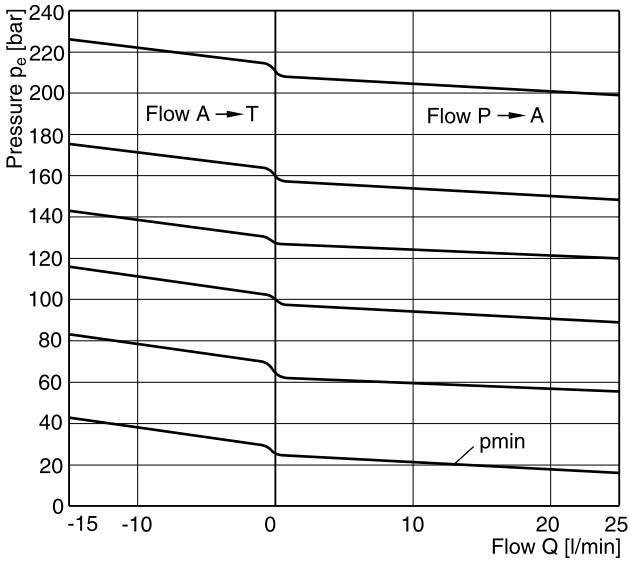
Setting pressure max. 25 bar



Setting pressure max. 64 bar

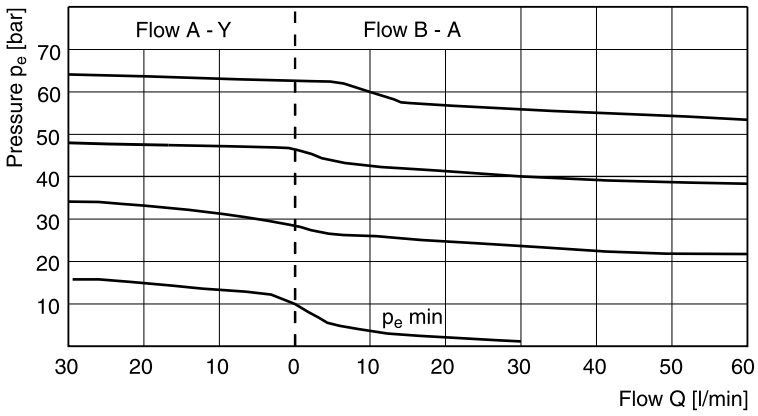


Setting pressure max. 160 or 210 bar

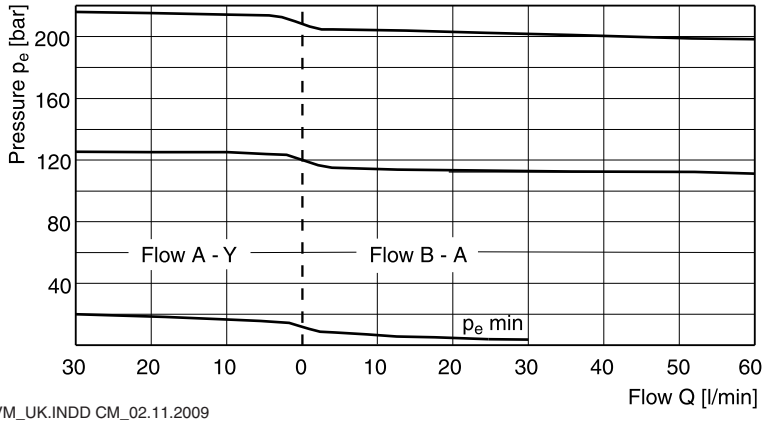


NG10

Setting pressure max. 64 bar

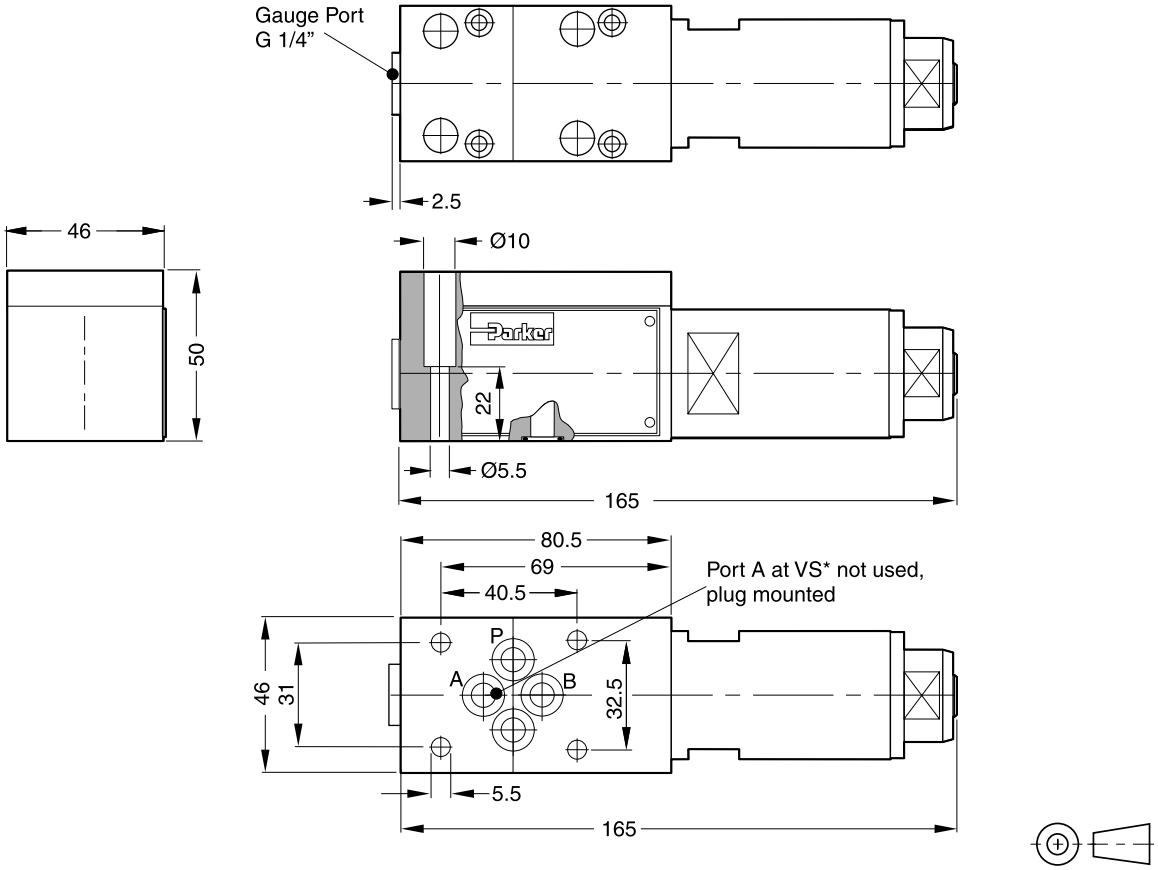


Setting pressure max. 210 bar



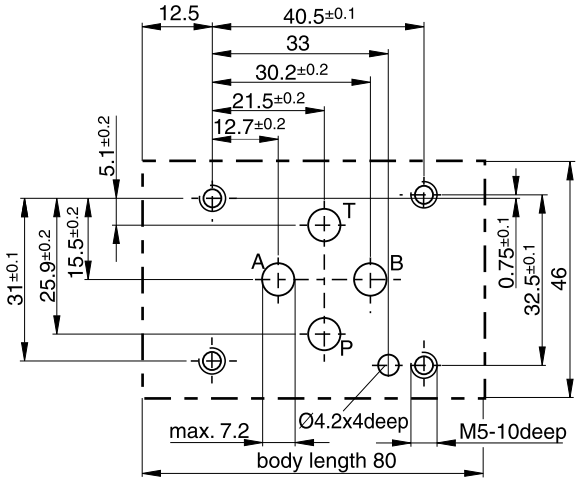
All characteristic curves measured with HLP46 bei 50°C.

NG06

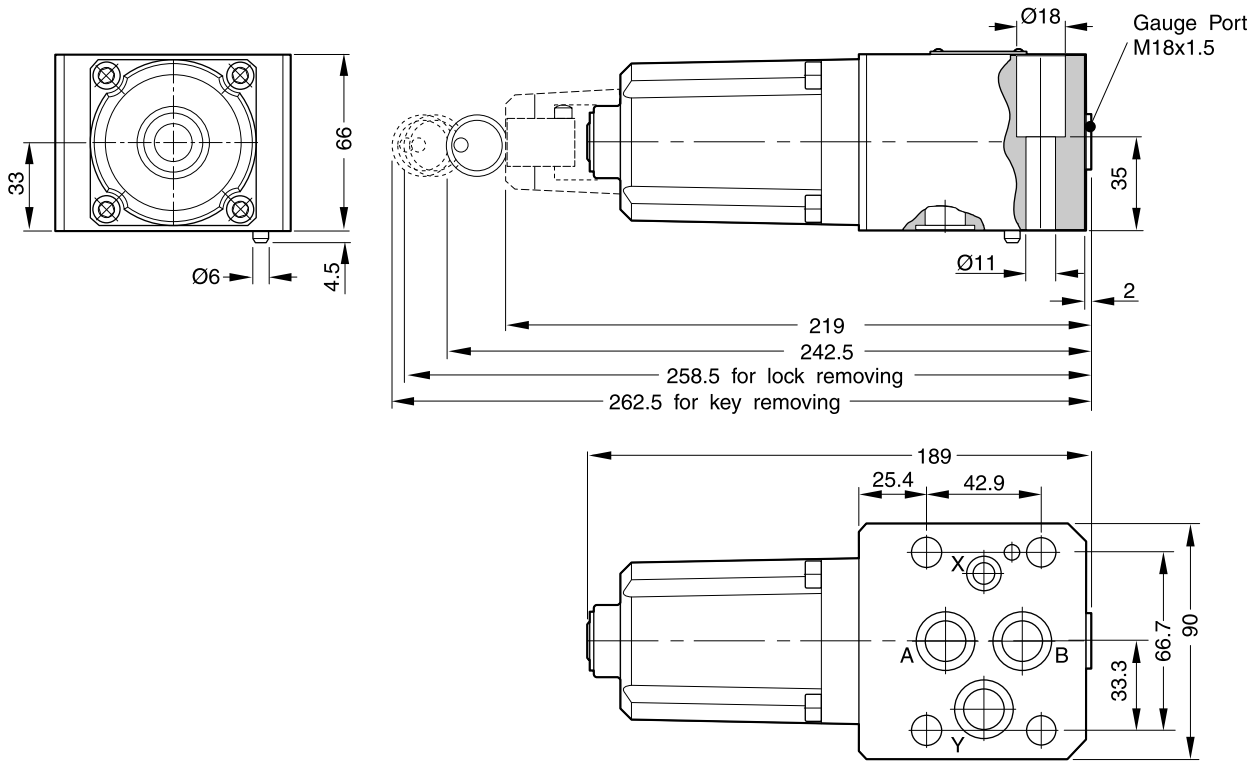


Surface finish	Bolt kit			Kit FPM
R_{max}6.3 ⏥ 0.01/100	BK 375	4x M5x30 DIN 912 12.9	7.6 Nm ±15%	SK-VB/VM/VS-A06V

Mounting pattern ISO 5781-03-04-0-00

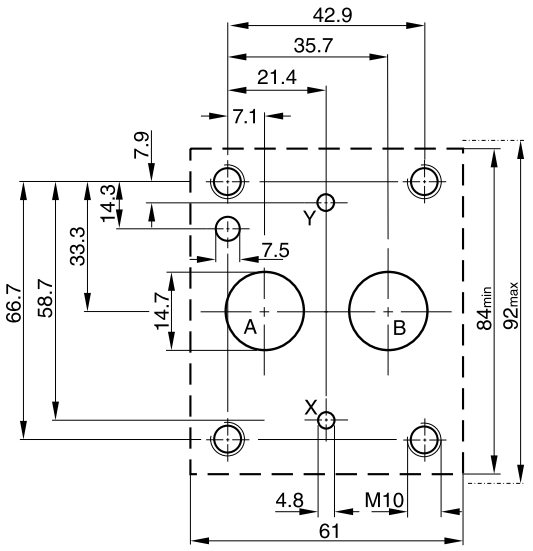


NG10



Surface finish	Bolt kit			Kit FPM
R_{max}6.3 ⏥ 0.01/100	BK 389	4x M10x50 DIN 912 12.9	63 Nm ±15%	SK-VB/VM-A10V

Mounting pattern ISO 5781-06-07-0-00



VM_UK.INDD CM_02.11.2009

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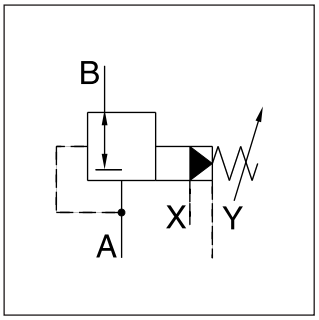
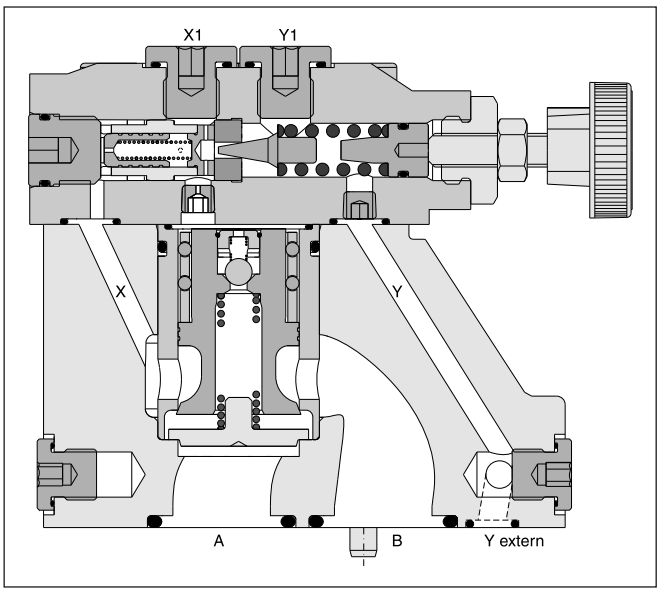
Hydraulic Controls Division
Kaarst, Germany

Notes

Subplate mounted pressure reducing valves series R4R are used to control the pressure in the secondary part of the hydraulic system. Independent of the primary pressure the secondary pressure is reduced to the pressure setting. In order to avoid undesired motion the valves are normally closed.





Features

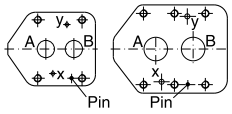
- Pilot operated with manual adjustment
- Subplate mounting acc. to ISO 5781
- Normally closed to avoid unintended motion
- 3 pressure stages
- 3 adjustment modes
  - hand knob
  - acorn nut with lead seal
  - Key lock

4

Technical data

General				
Nominal size		**10**	**25**	**32**
Interface		Subplate mounting acc. ISO 5781		
Mounting position		as desired, horizontal mounting prefered		
Ambient temperature	[°C]	-20...+80		
$MTTF_D$ value	[years]	75		
Weight	[kg]	4.8	7.2	13.5
Hydraulic				
Max. operating pressure	[bar]	Ports A, B and X 350, port Y depressurized		
Pressure stages	[bar]	105, 210, 350		
Nominal flow	[l/min]	150	350	500
Fluid		Hydraulic oil according to DIN 51524 ... 525		
Viscosity, recommended	[cSt] / [mm²/s]	30 ... 50		
permitted	[cSt] / [mm²/s]	20 ... 380		
Fluid temperature	[°C]	-20 ... +70		
Filtration		ISO 4406 (1999); 18/16/13		

R	4	R		–	5	9				B		
Pressure valve	Interface	Reducing function	Nominal size		Max. pressure (350 bar)	Pilot ports G1/4“	Pressure stages	Adjust-ment	Pilot oil	Design series	Seals	Modifi-cations

Code	Interface	
4	Subplate mounting ISO 5781	NG 10 and 25 / NG 32 

Code	Seals
1	NBR
5	FPM

Code	Nominal size
03	NG10
06	NG25
10	NG32

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

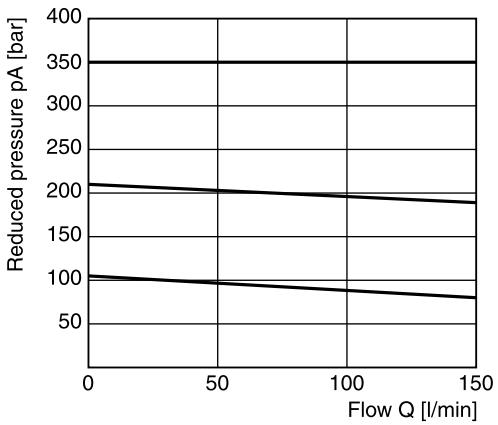
Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Code	Adjustment
1	Hand knob 32mm dia. (Standard)
3	Acorn nut with lead seal
4	Key lock

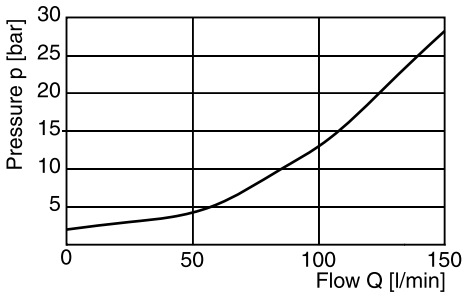
Other pressure stages on request.

NEW Master Code - supplied under Parker brand name

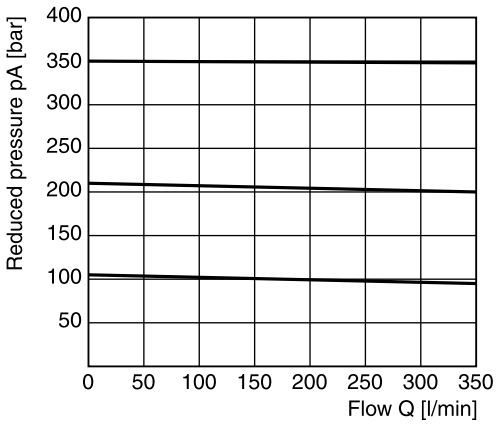
Reduced pressure pA versus flow Q
R4R03 [1)]



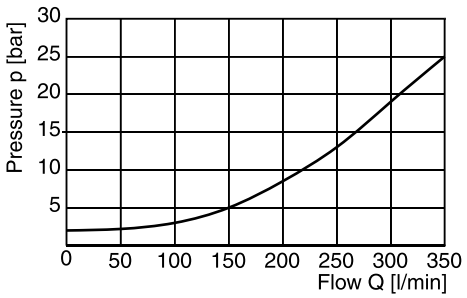
Minimum pressure curve



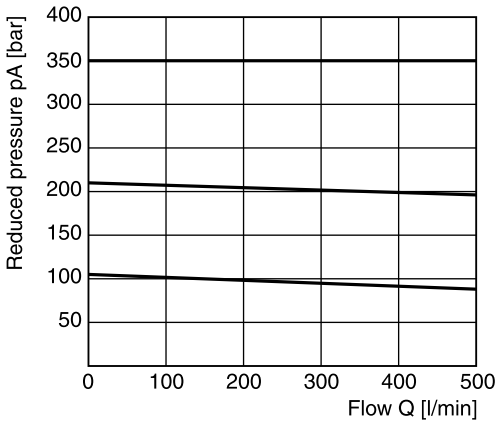
Reduced pressure pA versus flow Q
R4R06 [1)]



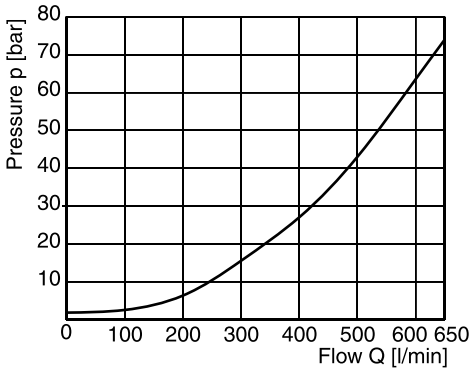
Minimum pressure curve



Reduced pressure pA versus flow Q
R4R10 [1)]



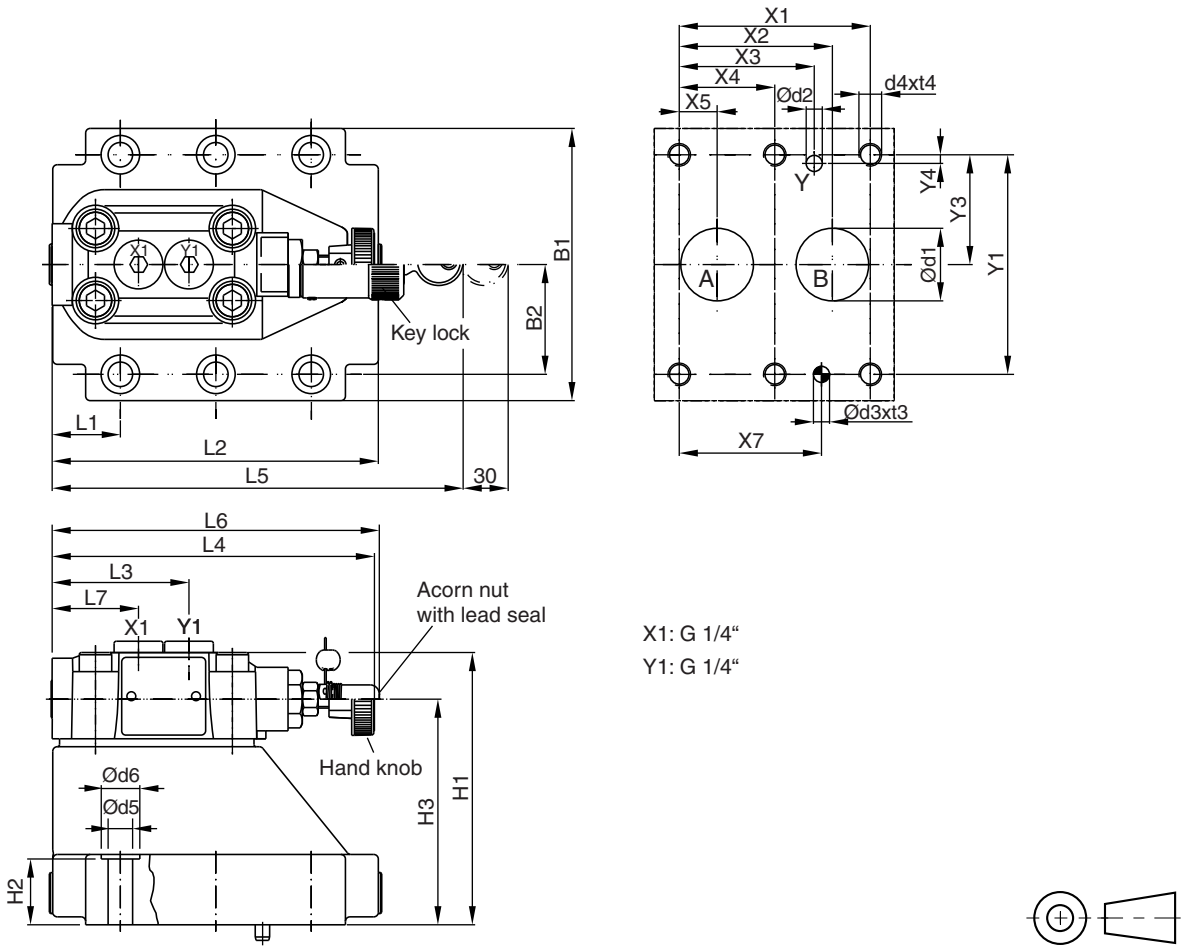
Minimum pressure curve



[1)] Measured at 350 bar primary pressure pB.

All characteristic curves measured with HLP46 bei 50°C.

4



X1: G 1/4“
Y1: G 1/4“

NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	5781-06-07-0-00	42.9	35.8	21.5	–	7.2	–	31.8	66.7	–	33.4	7.9	–	–
25	5781-08-10-0-00	60.3	49.2	39.7	–	11.1	–	44.5	79.4	–	39.7	6.4	–	–
32	5781-10-13-0-00	84.2	67.5	59.5	42.1	16.7	–	62.7	96.8	–	48.4	3.8	–	–

Tolerance for all dimensions ±0.2

NG	ISO-code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6	L7
10	5781-06-07-0-00	87.3	33.35	83	21	62.5	–	–	–	29	94.8	60.8	143	181	144.8	38.6
25	5781-08-10-0-00	105	39.7	109.5	29	89	–	–	–	34.7	126.8	60.8	143	181	144.8	38.6
32	5781-10-13-0-00	120	48.4	120	29	99.5	–	–	–	30.6	144.3	60.8	143	181	144.8	38.6

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	5781-06-07-0-00	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	5781-08-10-0-00	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	5781-10-13-0-00	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

[1] Details see chapter 12, series SPP

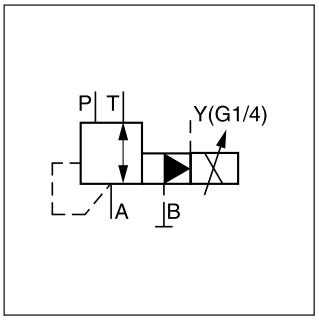
NG	ISO-code	Bolt kit			Kit		Surface finish
					NBR	FPM	
10	5781-06-07-0-00	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0	S26-58507-5	R_{max}6.3 ▱ 0.01/100
25	5781-08-10-0-00	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0	S26-58475-5	
32	5781-10-13-0-00	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0	S26-58508-5	

Proportional pressure reducing valves of the series VMY allow the variable adjustment of the reduced pressure from 0 bar up to the nominal pressure.

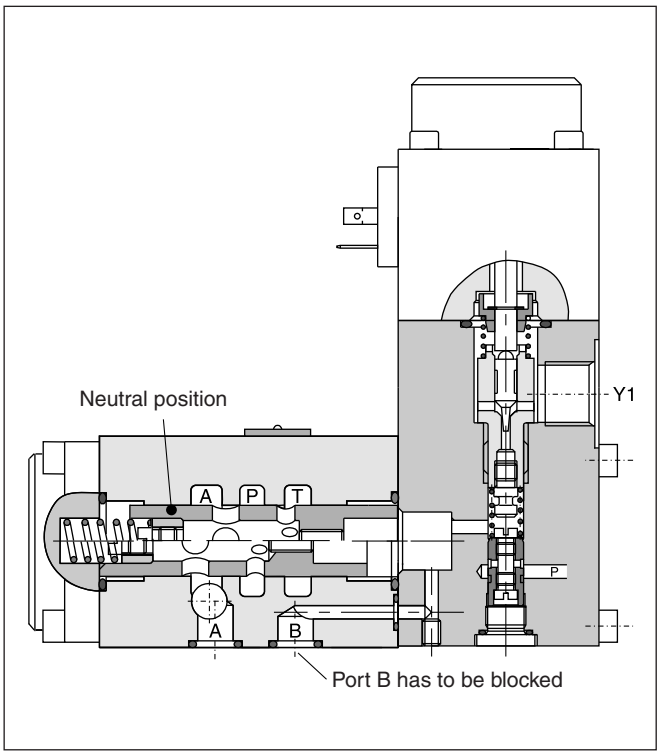
The valve consists of a spool type main stage and a proportionally operated pilot stage. The desired pressure can be variably set corresponding to the command signal specified on the amplifier. The proportional solenoid converts the current of the amplifier into force on the valve poppet of the pilot stage.

Typical applications are pressure systems, test equipment, or counterweight systems.

The optimum performance can be achieved in combination with the digital amplifier module PCD00A-400 for open loop systems or with PWDXXA-40* for closed loop systems.



VMY*K06



VMY*K06N

Function

With the proportional solenoids de-energized the main spring forces the main spool into the neutral position. Port A is connected to port T. Thus the reduced pressure only depends on the back pressure in the external drain pipe and/or the tank pressure and can accordingly be reduced down to 0 bar. The pressure present in the P line delivers the pilot oil to the pilot stage via a flow control valve.

When the proportional solenoid is energized, the pilot pressure is increased in the pilot pressure area, and the main spool moves against the spring until the connection P - A opens. The regulation of the reduced pressure on connection A takes place by the constant comparison of the actual pressure and the reference pressure of the pilot stage.

Ordering code

VMY		K					P
Reducing valve	**Pressure stages**	**Proportional solenoid 9V/2.5A**	**Nominal size**	**Pilot**	**Seals**	**Design series** (not required for ordering)	**High pressure channel**

Code	Pressure stages
064	**up to 64 bar**
100	**up to 100 bar**
160	**up to 160 bar**
210	**up to 210 bar**
315	up to 315 bar

Code	Seals
N [3]	**NBR**
V	FPM

[3] not for NG06

Code	Nominal size
06	**NG06**
10	**NG10**

Pilot oil			
Code	Size	Pilot	Drain
omit	10	Internal	Internal
N [1]	06	Internal	External [2]
T	06	Internal	Internal

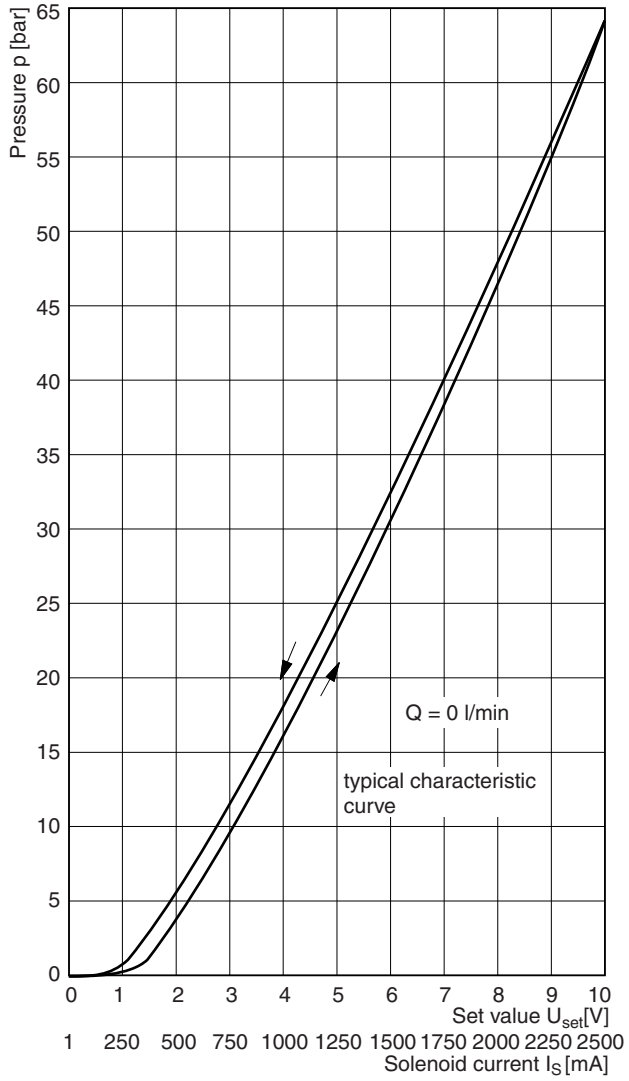
[1] connection on port Y
[2] pmin = 0 bar possible

Bold letters =
Short-term availability

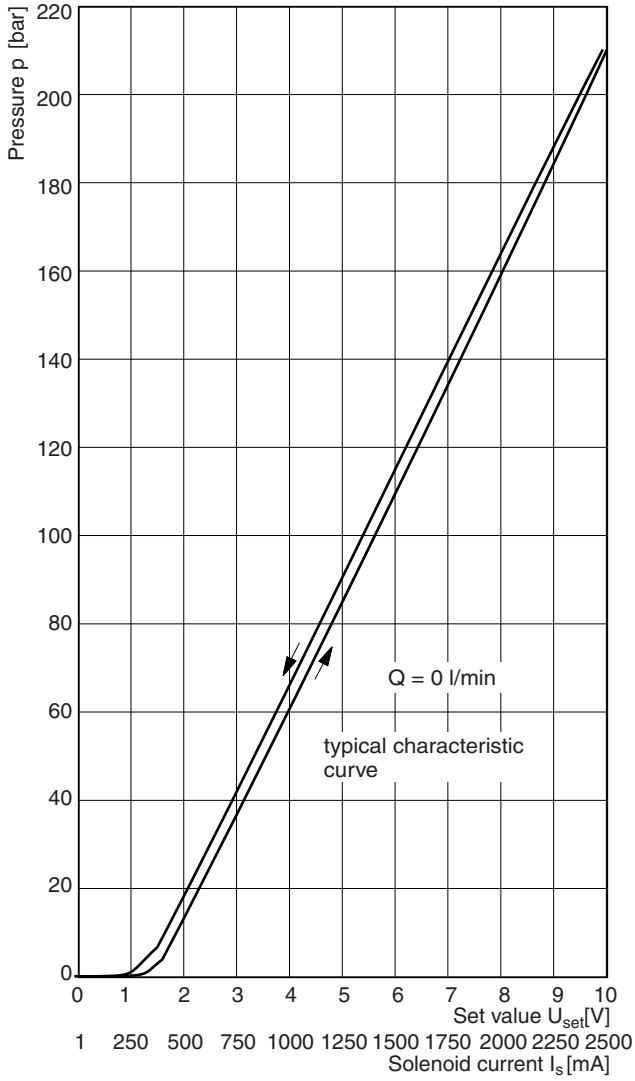
General			
Design		3 way proportional reducing valve, pilot operated, spool design	
Nominal size		**06 (DIN NG06/CETOP03/NFPA D03)**	**10 (DIN NG10/CETOP05/NFPA D05)**
Interface		Subplate mounting according to ISO 5781	
Actuation		Proportional solenoid	
Mounting position		unrestricted	
Ambient temperature	[°C]	-20 ... +80	
$MTTF_D$ value	[years]	75	
Weight	[kg]	2.8	5
Hydraulics			
Max. operating pressure	[bar]	Ports P, A 315; Port T, Y depressurized; port B has to be blocked	
Pressure stages	[bar]	64, 100, 160, 210, 315	
Nominal flow	[l/min]	40 (NG06)	160 (NG10)
Fluid		Hydraulic oil as per DIN 51 524 ... 535	
Viscosity recommended	[cSt] / [mm²/s]	30 ... 50	
permitted	[cSt] / [mm²/s]	20 ... 380	
Fluid temperature	[°C]	-20 ... +70	
Filtration		ISO 4406 (1999); 18/16/13	
Linearity	[%]	See characteristic pressure curves	±3.5 at > 15% $p_{nom.}$
Repeatability	[%]	<±2	
Hysteresis	[%]	<3	
Response time	[ms]	<150	<200
Electrical			
Duty ratio	[%]	100 ED	
Protection class		IP65 in accordance with EN 60529 (plugged and mounted)	
Nominal voltage	[VDC]	9	
Max. current	[A]	2.7	
Nom. current	[A]	2.5	
Ambient temperature	[°C]	-20...+70	
Coil resistance	[Ohm]	-2.1 (at 20°C)	
Solenoid connection		Connector as per EN 175301-803	
Power amplifier, recommended		PCD00A-400	

NG06
Characteristic pressure lines p = f (U_{set})

Setting range max. 64 bar

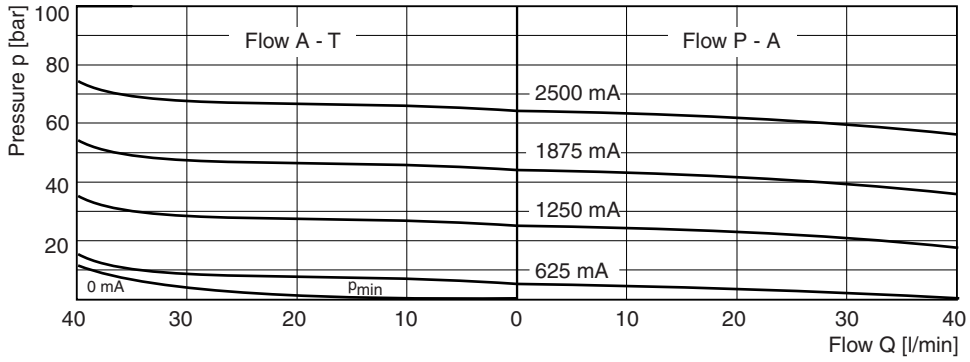


Setting range max. 210 bar



NG06
p/Q characteristics

Setting range max. 64 bar

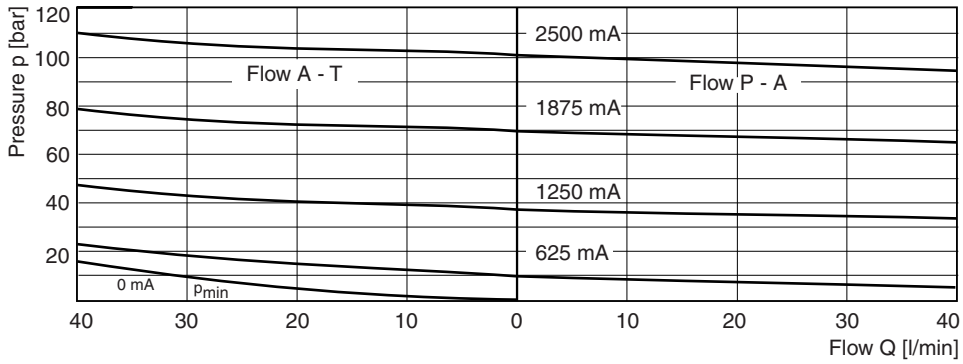


All characteristic curves measured with HLP46 bei 50°C.

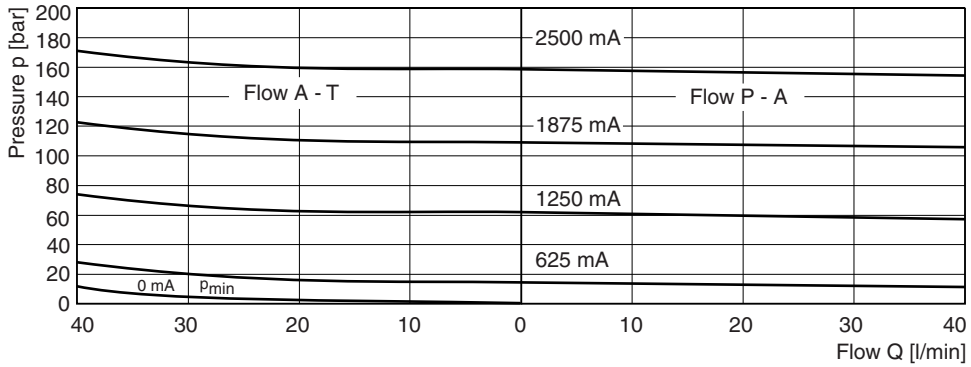
4

NG06
p/Q characteristics

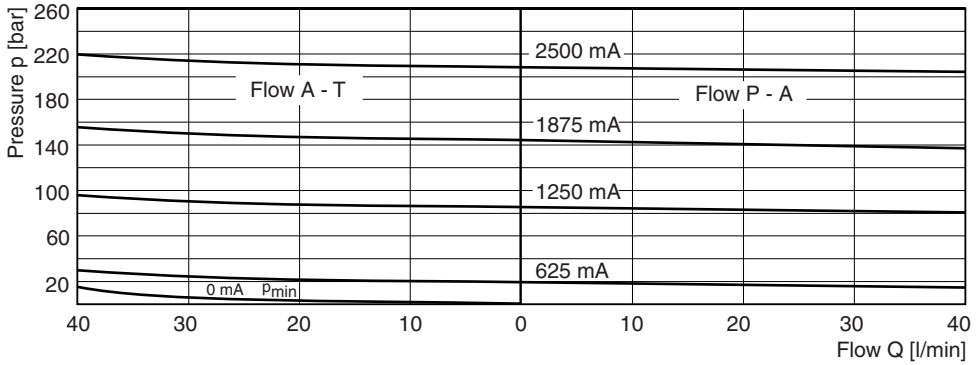
Setting range max. 100 bar



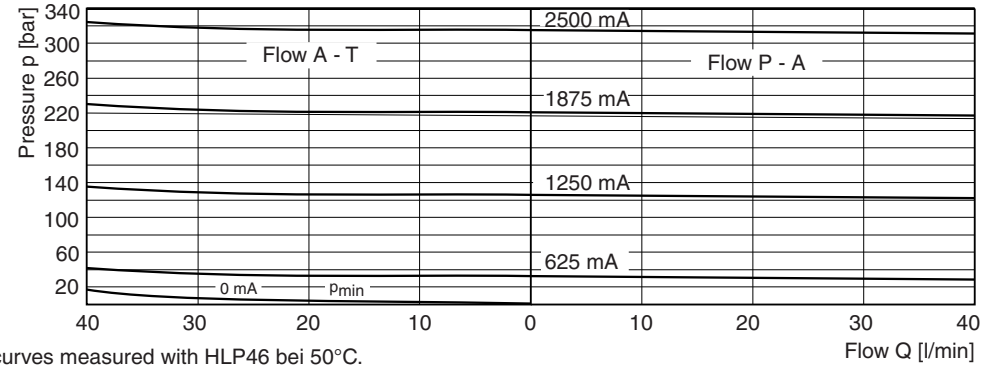
Setting range max. 160 bar



Setting range max. 210 bar



Setting range max. 315 bar



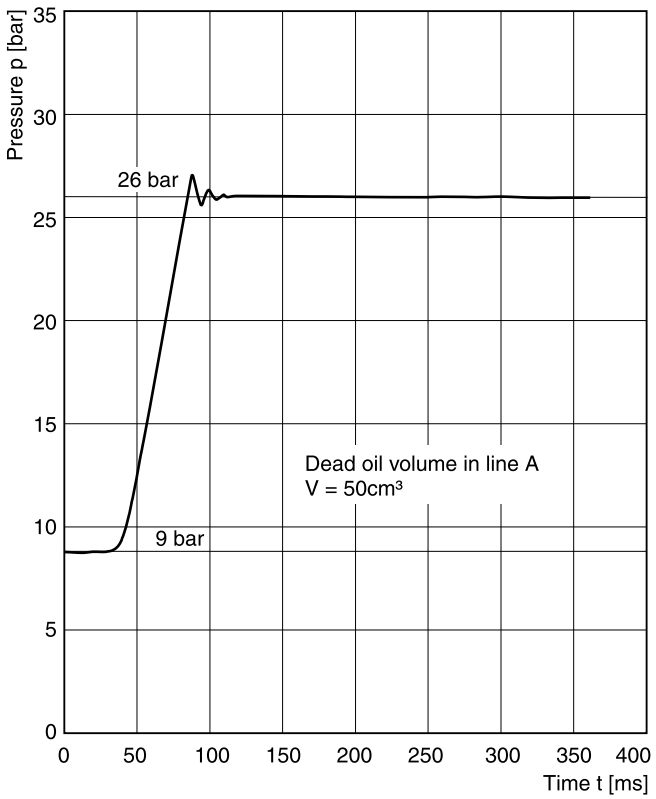
All characteristic curves measured with HLP46 bei 50°C.

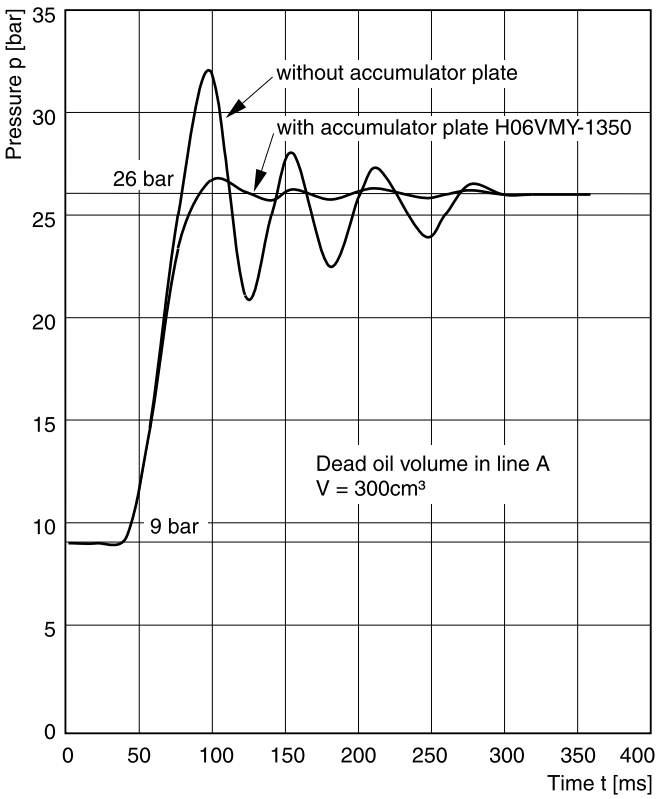
VMY_UK.INDD CM_13.04.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

Step response

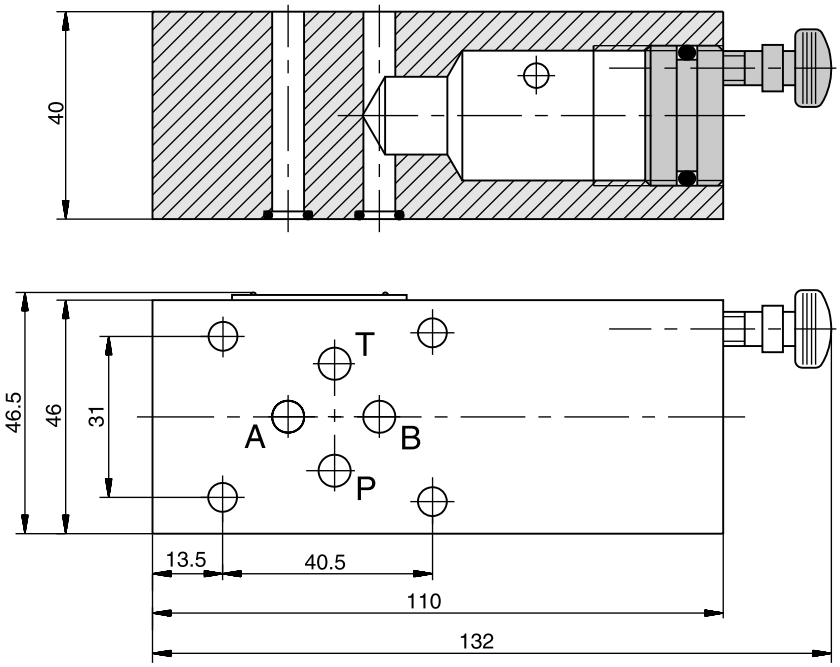
Typical curve

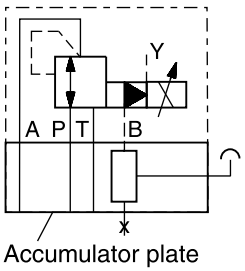




All characteristic curves measured with HLP46 bei 50°C.

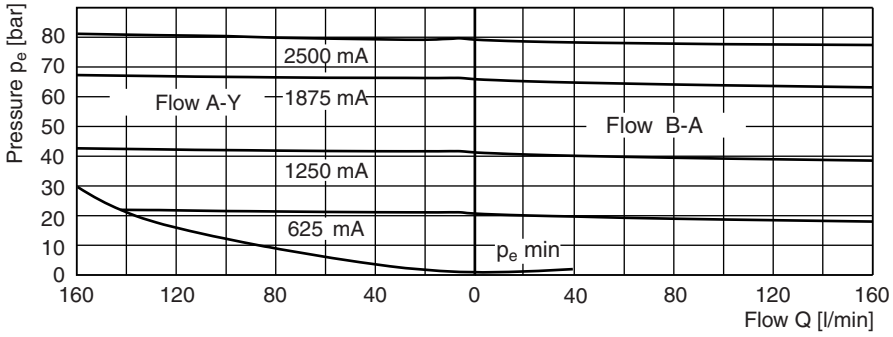
Accumulator plate H06VMY-1350



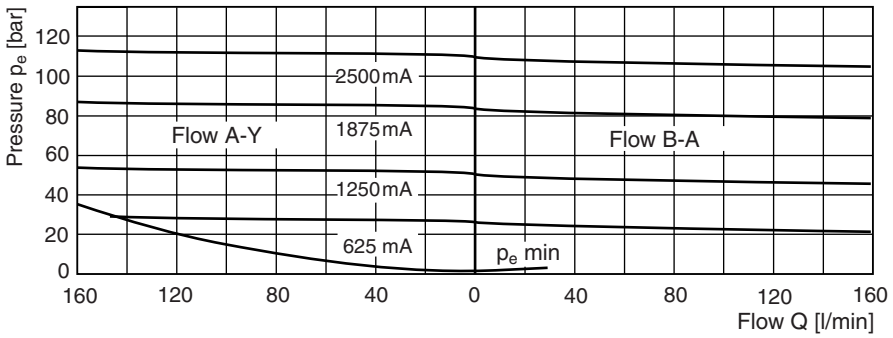


NG10
p/Q characteristics
for pilot oil supply from high pressure channel P, measured with HLP46 at 50°C.

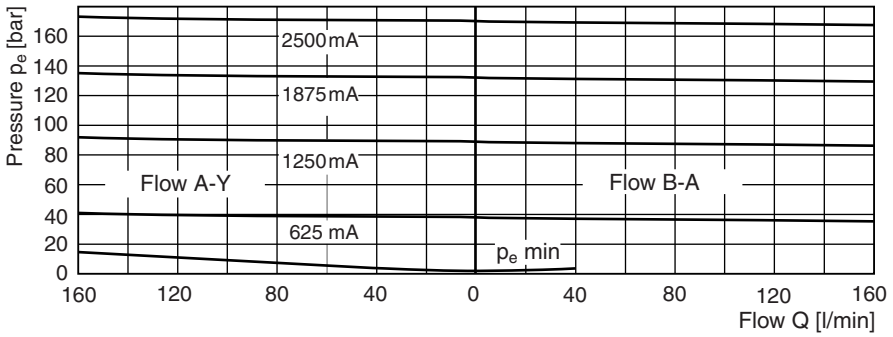
Setting range max. 64 bar



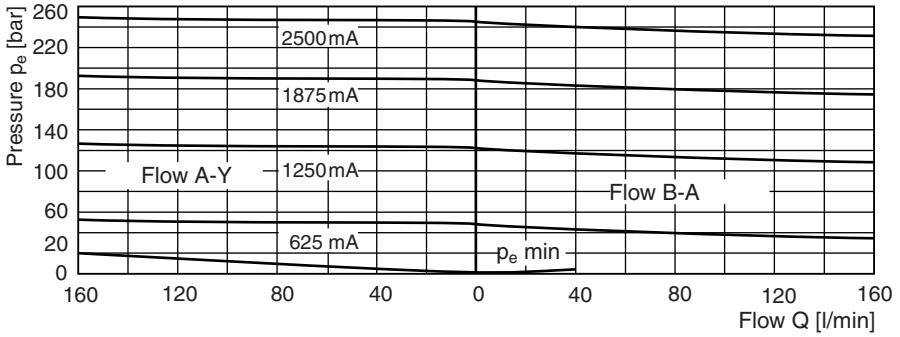
Setting range max. 100 bar



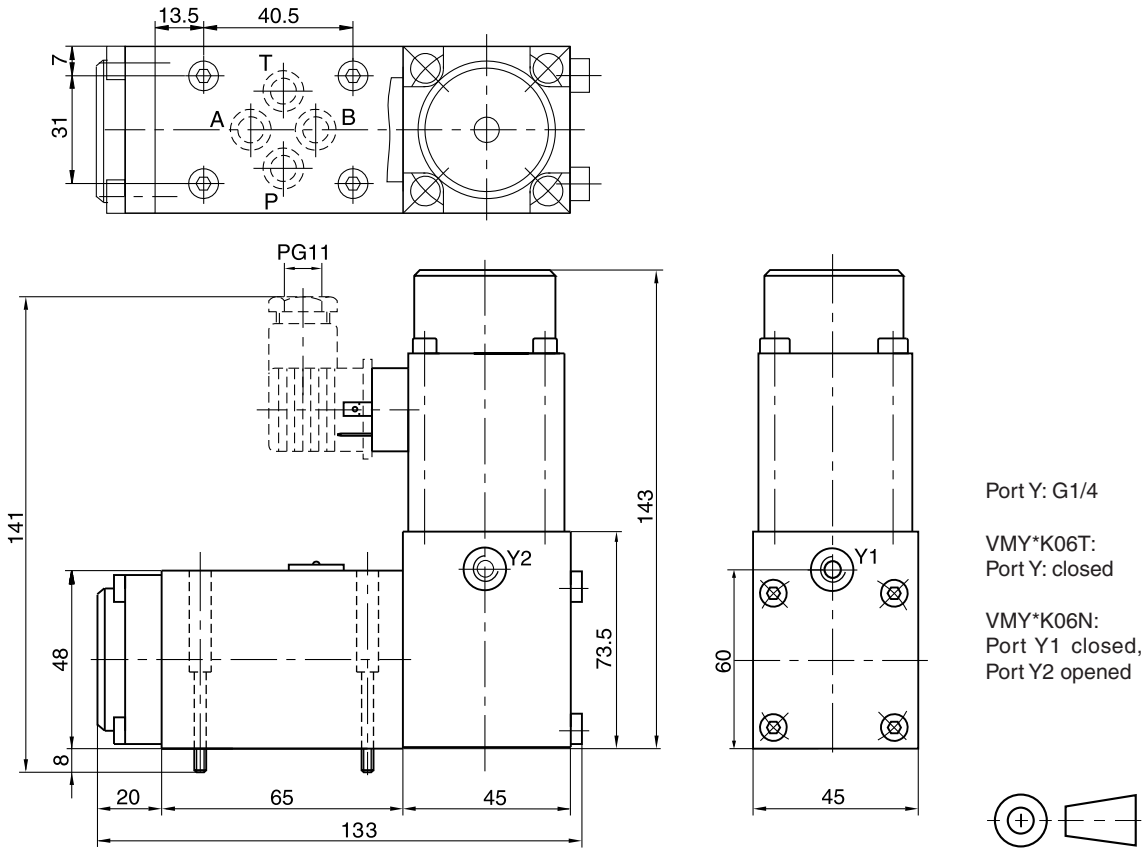
Setting range max. 160 bar



Setting range max. 210 bar



NG06



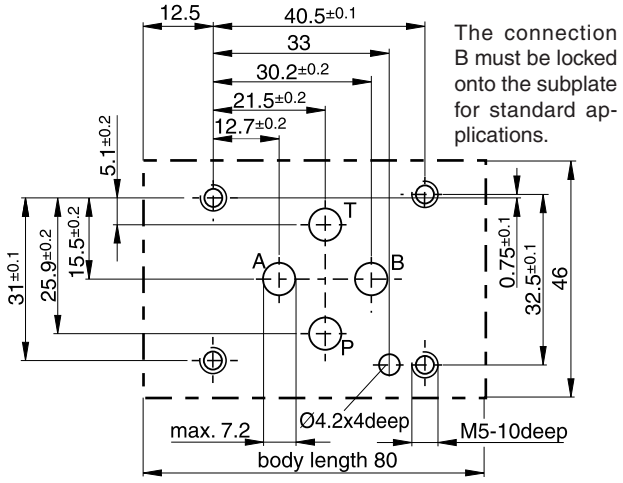
Port Y: G1/4

VMY*K06T:
Port Y: closed

VMY*K06N:
Port Y1 closed,
Port Y2 opened

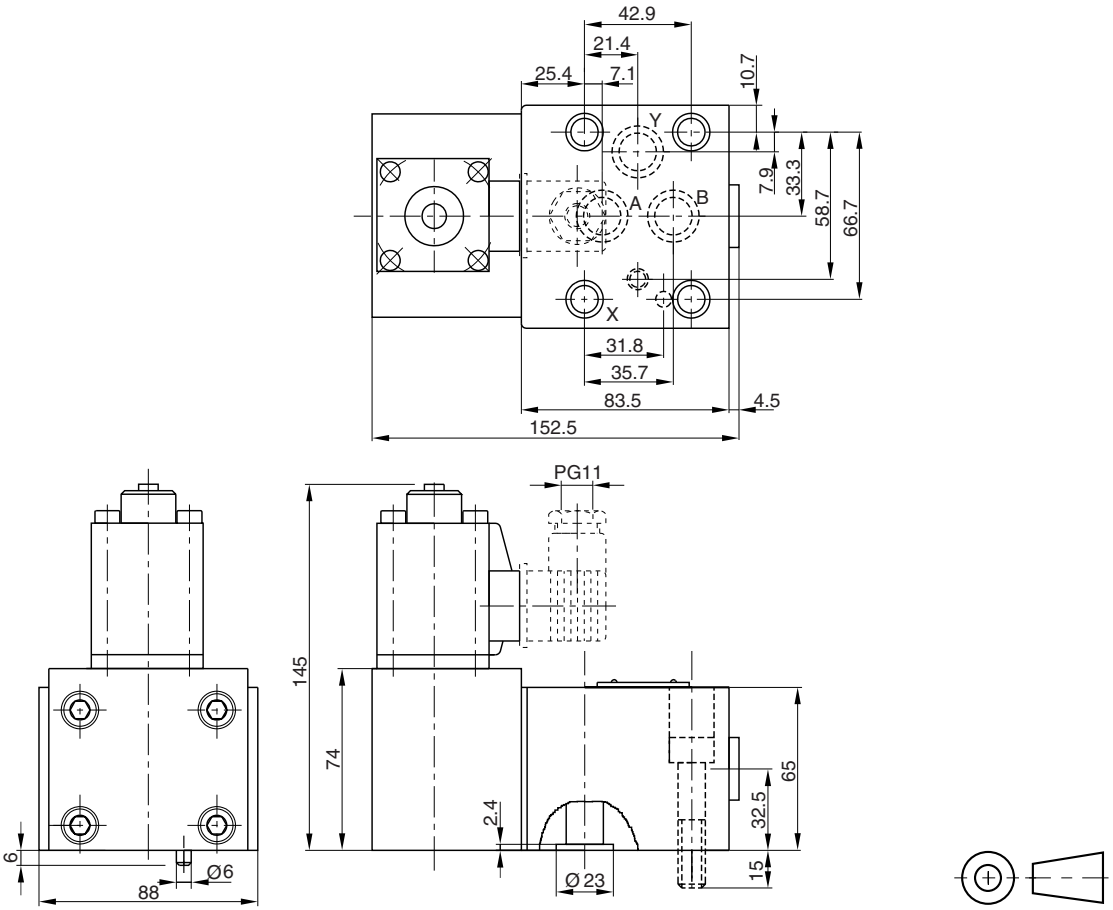
Surface finish	Bolt kit			Kit FPM
R_{max}6.3 ⏥ 0.01/100	BK 375	4x M5x30 DIN 912 12.9	7.6 Nm ±15%	SK-VMY-L06-V

Mounting pattern ISO 5781-03-04-0-00



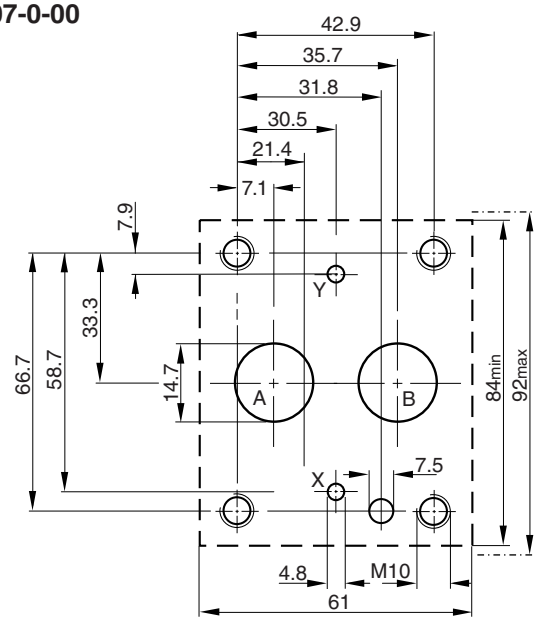
The connection B must be locked onto the subplate for standard applications.

NG10



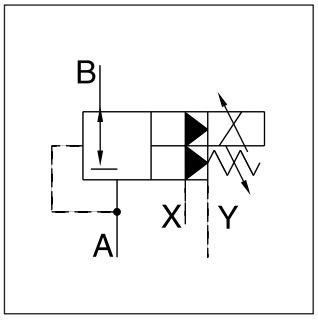
Surface finish	Bolt kit			Kit FPM
R_{max}6.3 ▱ 0.01/100	BK 389	4x M10x50 DIN 912 12.9	63 Nm ±15%	SK-VB/VM-A10V

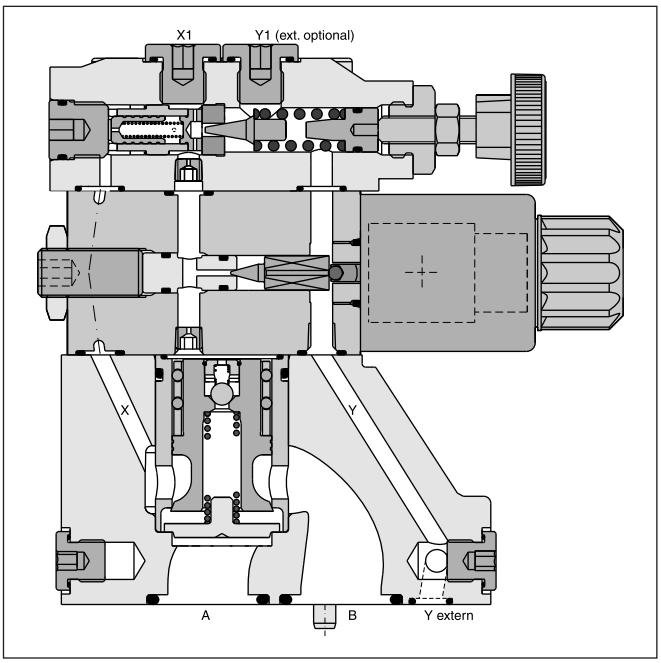
Mounting pattern ISO 5781-06-07-0-00



Subplate mounted proportional pressure reducing valves series R4R have a proportional solenoid operated pilot stage and a cartridge main stage.

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





Features

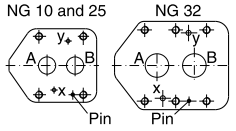
- Pilot operated with proportional solenoid
- Continuous adjustment by proportional solenoid
- Subplate mounting according to ISO 5781
- 3 pressure stages
- Mechanical maximum pressure adjustment

4

Technical data

General				
Nominal size		**10**	**25**	**32**
Interface		Subplate mounting acc. ISO 5781		
Mounting position		as desired, horizontal mounting prefered		
Ambient temperature	[°C]	-20...+80		
$MTTF_D$ value	[years]	75		
Weight	[kg]	2.7	4.5	6.0
Hydraulic				
Max. operating pressure	[bar]	Ports A, B and X 350, port Y depressurized		
Pressure stages	[bar]	105, 250, 350		
Nominal flow	[l/min]	150	350	500
Fluid		Hydraulic oil according to DIN 51524 ... 525		
Viscosity recommended	[cSt] / [mm²/s]	30 ... 50		
permitted	[cSt] / [mm²/s]	20 ... 380		
Fluid temperature	[°C]	-20 ... +70		
Filtration		ISO 4406 (1999); 18/16/13		
Electrical				
Duty ratio	[%]	100 ED		
Protection class		IP65 in accordance with EN 60529 (plugged and mounted)		
Nominal voltage	[V]	12		
Max. current	[A]	2.3		
Coil resistance	[Ohm]	4 at 20°C		
Solenoid connection		Connector as per EN 175301-803		
Power amplifier, recommended		PCD00A-400		

R	4	R		–	5	9				P2	G0R	B		
Pressure valve	Interface	Reducing function	Nominal size		Max. pressure 350 bar	Pilot ports G1/4“	Pressure stages	Adjustment	Pilot oil	Prop. operation	Solenoid voltage 12V, 2.3A	Design series	Seals	Modifi-cations

Code	Interface	
4	Subplate mounting ISO 5781	NG 10 and 25 / NG 32 

Code	Seals
1	NBR
5	FPM

Code	Nominal size
03	NG10
06	NG25
10	NG32

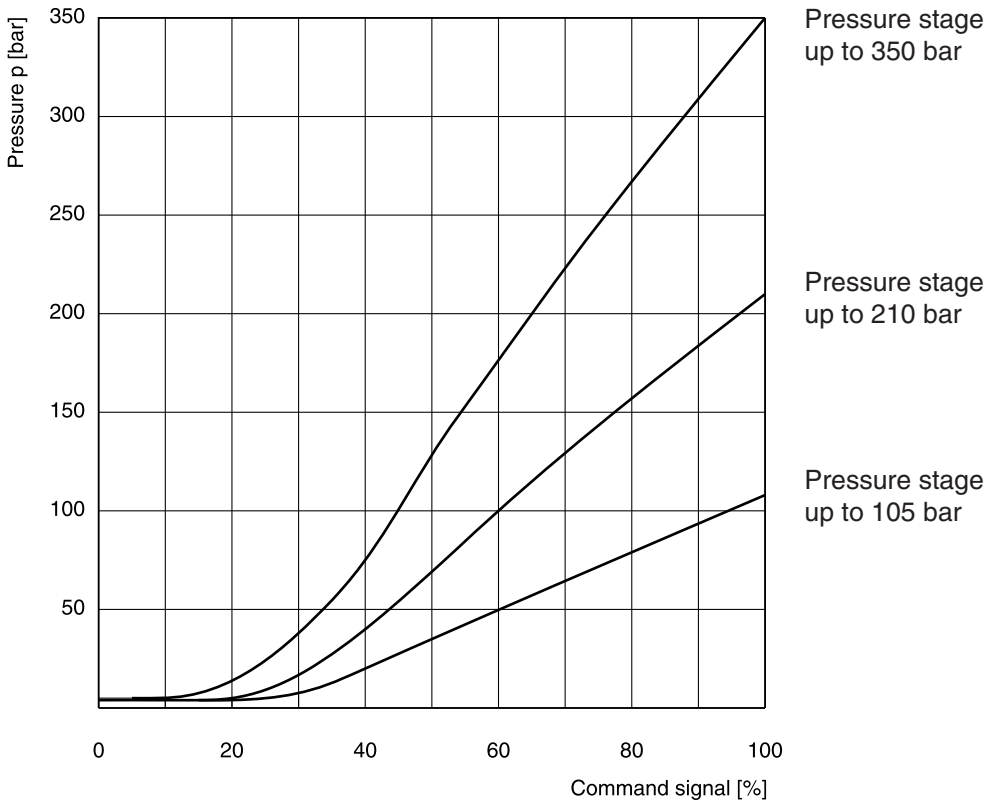
Pilot oil		
Code	Pilot	Drain
1	Internal	External from Y
2	Internal	External from Y1

Code	Pressure stages
1	up to 105 bar
3	up to 210 bar
5	up to 350 bar

Code	Adjustment
1	Hand knob 32mm dia. (Standard)
3	Acorn nut with lead seal

NEW Master Code - supplied under Parker brand name

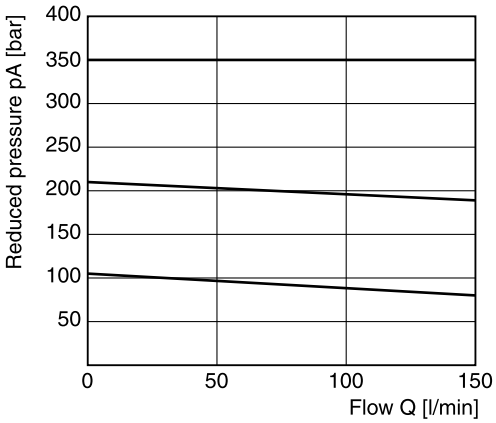
Command/pressure curves



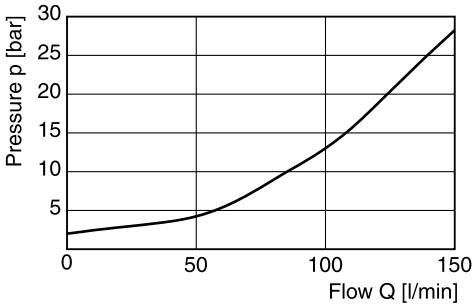
All characteristic curves measured with HLP46 bei 50°C.

4

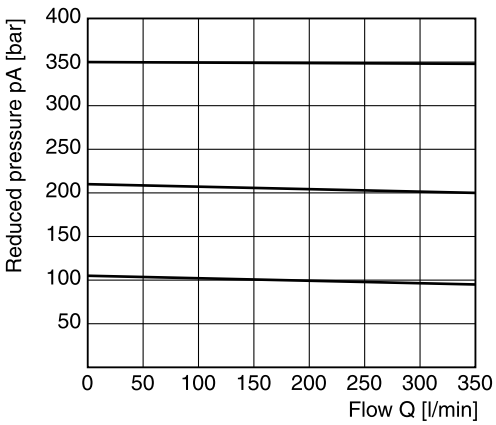
Reduced pressure pA versus flow Q
R4R03 [1)]



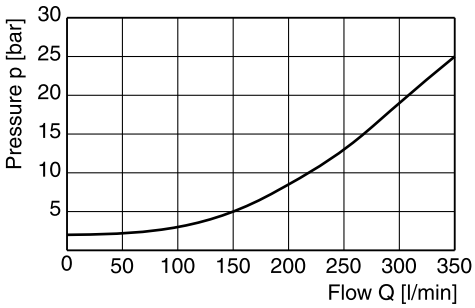
Minimum pressure curve



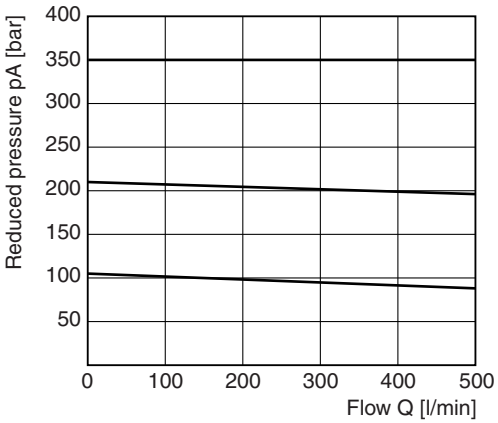
Reduced pressure pA versus flow Q
R4R06 [1)]



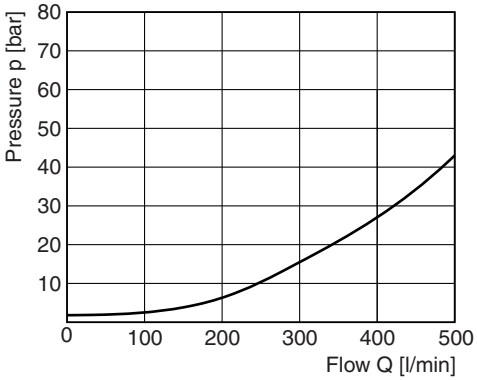
Minimum pressure curve



Reduced pressure pA versus flow Q
R4R10 [1)]

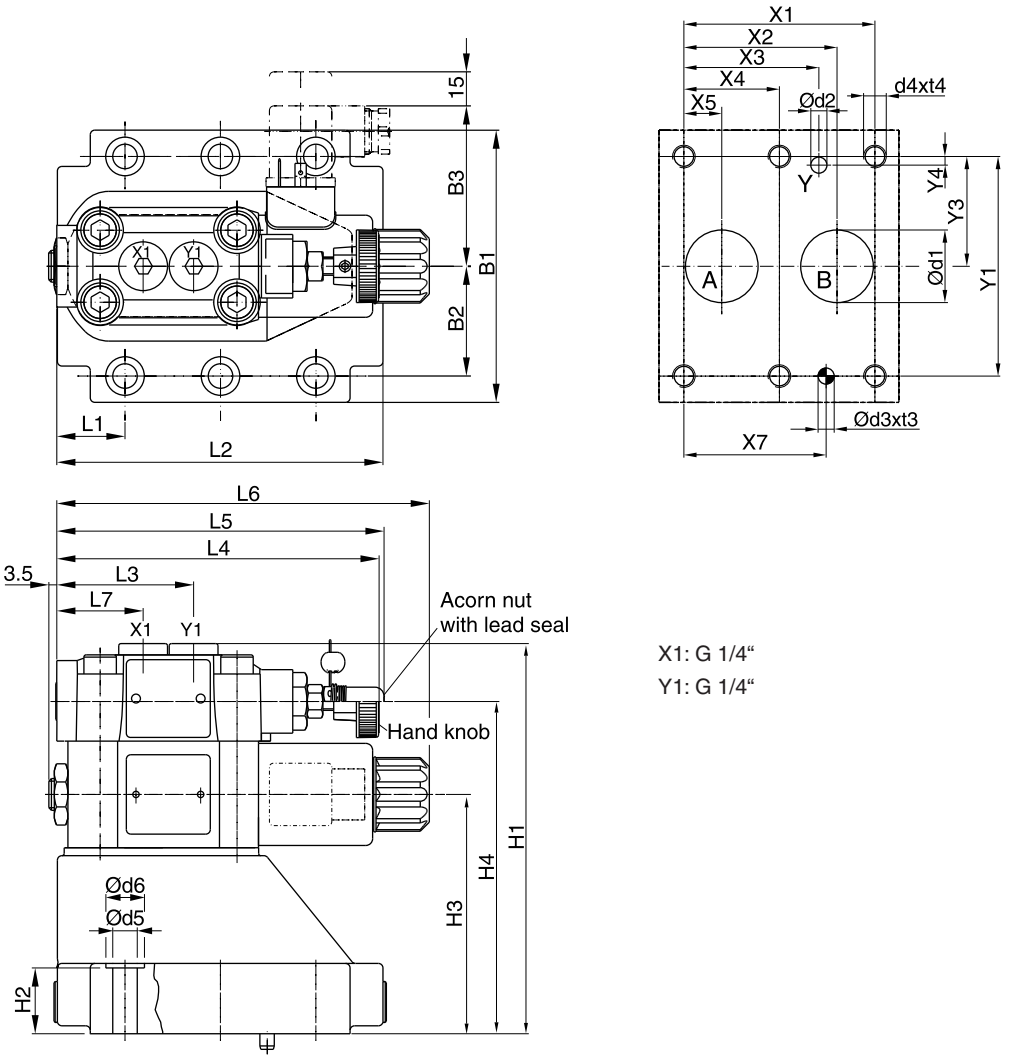


Minimum pressure curve



[1)] Measured at 350 bar primary pressure pB.

All characteristic curves measured with HLP46 bei 50°C.



X1: G 1/4“
Y1: G 1/4“

NG	ISO-code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	5781-06-07-0-00	42.9	35.8	21.5	–	7.2	–	31.8	66.7	–	33.4	7.9	–	–
25	5781-08-10-0-00	60.3	49.2	39.7	–	11.1	–	44.5	79.4	–	39.7	6.4	–	–
32	5781-10-13-0-00	84.2	67.5	59.5	42.1	16.7	–	62.7	96.8	–	48.4	3.8	–	–

Tolerance for all dimensions ±0.2

NG	ISO-code	B1	B2	B3	H1	H2	H3	H4	L1	L2	L3	L4	L5	L6	L7
10	5781-06-07-0-00	87.3	33.35	71	134	21	68.5	109.5	29	94.8	60.8	143	144.8	164.8	38.6
25	5781-08-10-0-00	105	39.7	71	160.5	29	95	136	34.7	126.8	60.8	143	144.8	164.8	38.6
32	5781-10-13-0-00	120	48.4	71	171	29	105.5	146.5	30.6	144.3	60.8	143	144.8	164.8	38.6

NG	ISO-code	d1max	d2max	d3	t3	d4	t4	d5	d6	Subplate [1]
10	5781-06-07-0-00	15	7	7.1	8	M10	16	10.8	17	SPP 3M6B 910
25	5781-08-10-0-00	23.4	7.1	7.1	8	M10	18	10.8	17	SPP 6M8B 910
32	5781-10-13-0-00	32	7.1	7.1	8	M10	20	10.8	17	SPP 10M12B 910

[1] Details see chapter 12, series SPP

NG	ISO-code	Bolt kit			Kit NBR	Kit FPM	Surface finish
10	5781-06-07-0-00	BK 505	4x M10 x 35 DIN 912 12.9	63 Nm ±15%	S26-58507-0*	S26-58507-5*	R_{max}6.3 / 0.01/100
25	5781-08-10-0-00	BK 485	4x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58475-0*	S26-58475-5*	
32	5781-10-13-0-00	BK 506	6x M10 x 45 DIN 912 12.9	63 Nm ±15%	S26-58508-0*	S26-58508-5*	
Prop. section P2					S26-58473-0	S26-58473-5	

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

R4R prop_UK.INDD CM_22.06.2010

Parker Hannifin GmbH
Hydraulic Controls Division
Kaarst, Germany

Notes

Description	Threaded cable joint	Body colour coding	Figures switching	Order no.
Plug DIN 43650, design type AF, protection class IP 65 Voltages up to 250 V	PG 9	black, B grey, A	Fig. 1	**5001710** **5001711**
	PG11	black, B grey, A	Fig. 1	**5001716*** **5001717***
Plug with LED insert 24 V	PG11	black, B grey, A	Fig.1 and Fig. 3	**5001571** **5001572**
Plug with lamp insert 110 V	PG11	black, B grey, A	Fig.1 and Fig. 4	**5001573** **5001574**
Plug with lamp insert 220 V	PG11	black, B grey, A	Fig.1 and Fig. 4	**5001575** **5001576**
Plug with LED insert 24V and suppressing circuitry	PG11	black, B grey, A	Fig.1 and Fig. 5	**5001708** **5001709**
Plug with rectifier. Rectifier with 4 silicon diodes in bridge circuit. Varistor in alternating current side to protect the diodes against power peaks	PG11	black, B grey, A	Fig.1 and Fig. 6	**5001737** **5001738**
Plug with pull relief and translucent cover	PG11	black, B grey, A	Fig. 2	**5001723** **5001724**
Application with bridge rectifier suitable for 5001723 and 5001724	—	—	Fig. 2 and Fig. 7	**5001727**
Application with bridge rectifier and lamp suitable for 5001723 and 5001724	—	—	Fig. 2 and Fig. 8	**5001734**

* If not ordered otherwise, valves with code P are supplied with these connectors.

Fig. 1

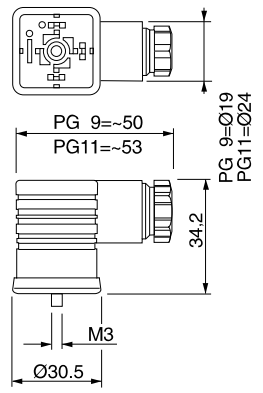


Fig. 3

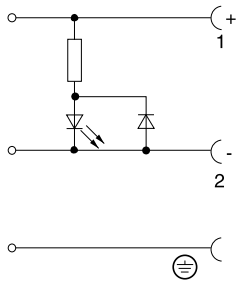


Fig. 5

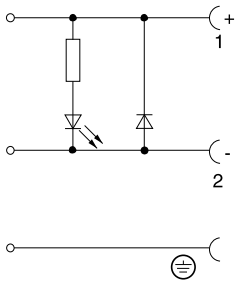


Fig. 7

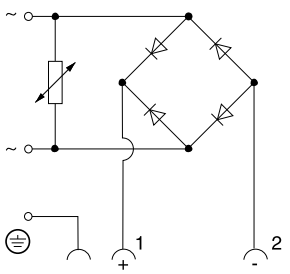


Fig. 2

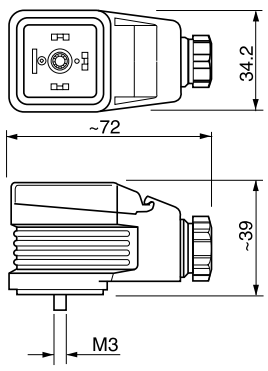


Fig. 4

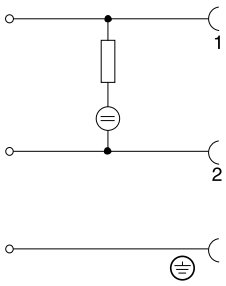


Fig. 6

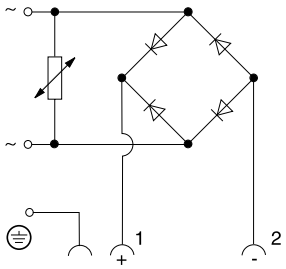
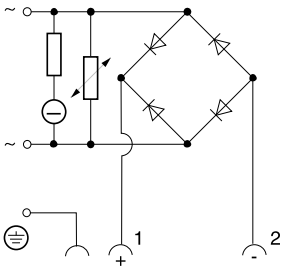
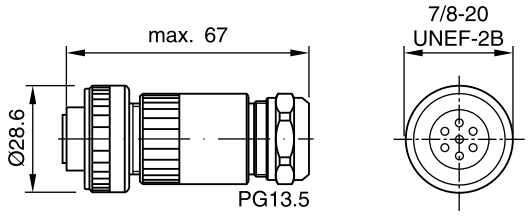


Fig. 8



Input voltage
max. 240 V~
Output voltage
max. 213 V=

Central connector



Description	Order No.
DIN 43563 6+PE	5004072

4