

Pilot operated pressure reducing valves for in-line mounting series R4R have a similar design to the subplate mounted R4R series. For single functions – where no manifold blocks are used – the valves can be directly placed in the pipework.

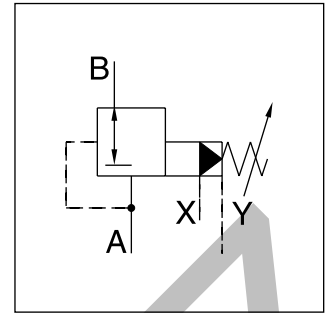
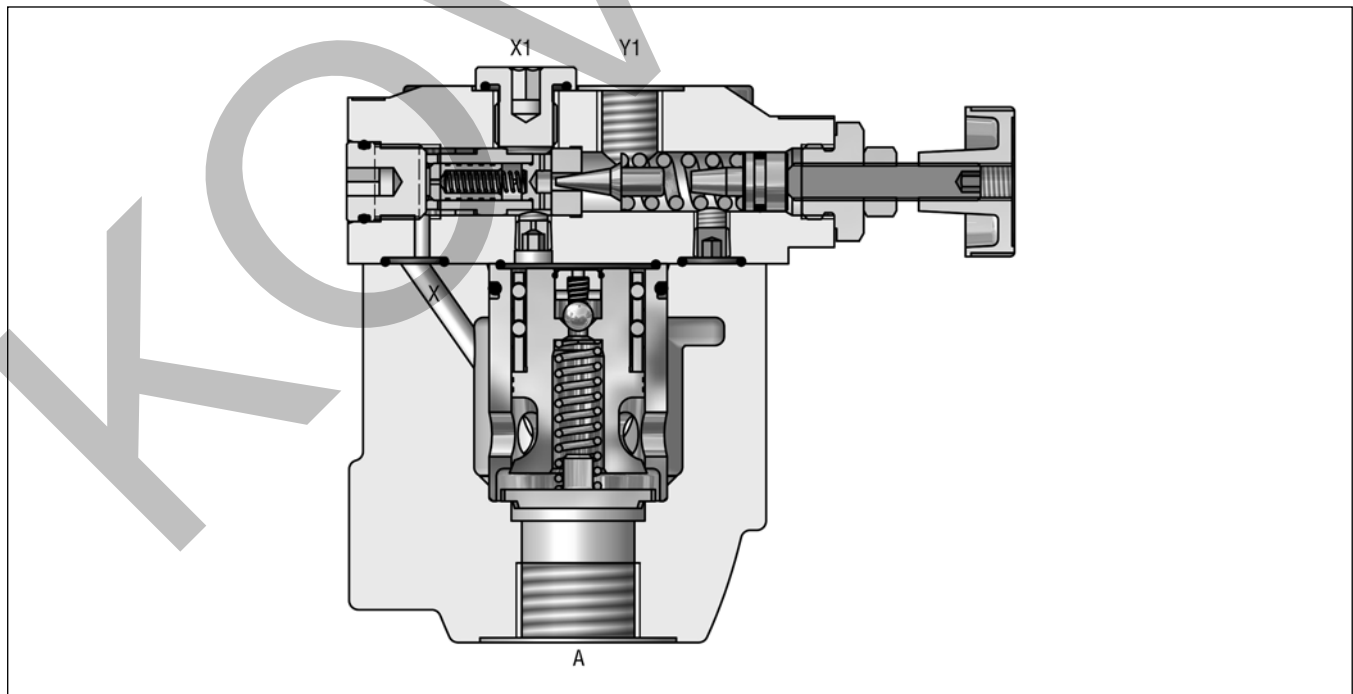
The valves are available with 2 ports (L-body) or with 3 ports (T-body).

Features

- Pilot operated with manual adjustment
- Normally closed to avoid undesired motion
- 2 interfaces
 - L-body (R4R06-G $\frac{3}{4}$ ", R4R10-G1 $\frac{1}{4}$ ")
 - T-body (R4R03-G $\frac{1}{2}$ ", R4R06-G1")
- 3 pressure stages
- 3 adjustment modes
 - Hand knob
 - Acorn nut with lead seal
 - Cylinder lock
- With optional vent function



R4R10 L-body

**R4R06 L-body**

Ordering Code

Pilot Operated Pressure Reducing Valve
Series R4R

R4R		5				2			B		
Pressure reducing valve	Nominal size	Max. pressure 350 bar	Body	Pressure stages	Adjustment	Drain line ext. from pilot head (Y1)	Switching type	Solenoid voltage	Design series	Seal	Options

Code	Nominal size
03	NG10 (G½")
06	NG25 (G1" - T-body, G¾" - L-body)
10	NG32 (G1¼")

Code	Body
6	R4R03 T-body R4R06 T-body
D	R4R06 L-body R4R10 L-body

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

Code	Adjustment
1	Hand knob
3	Acorn nut with lead seal
4	Cylinder lock

Code	Seal
1	NBR
5	FPM

Code	Solenoid voltage
omit	Standard w/o vent function
G0R	12 V=
G0Q	24 V=
GAR ¹⁾	98 V=
GAG ¹⁾	205 V=
W30	110 V / 50 Hz 120 V / 60 Hz
W31	230 V / 50 Hz 240 V / 60 Hz

Code	Switching type
omit	Standard w/o vent function
09	Solenoid not activated, pressure reducer non-active
11	Solenoid activated pressure reducer non-active

¹⁾ To be used in combination with rectifier plugs at 120 VAC / 230 VAC power supply.

R4R

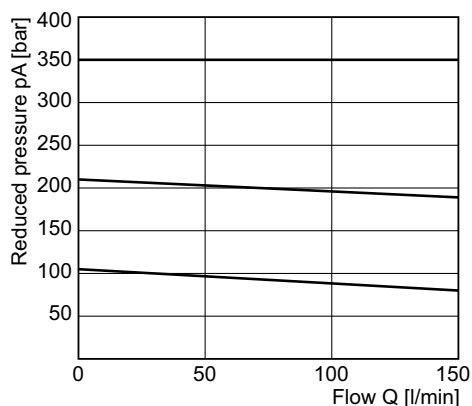
General				
Design		T-body		L-body
Size		03 (½")	06 (1")	06 (¾") 10 (1¼")
Mounting		Threaded body		
Mounting position		unrestricted		
Ambient temperature	[°C]	-20...+60		
MTTF _D value	[years]	75		
Weight	[kg]	3.2	3.3	5.6 6.6
Hydraulic				
Max. operating pressure	[bar]	Ports A, B and X: 350; Port Y depressurized		
Pressure stages	[bar]	105, 210, 350		
Nominal flow	[l/min]	60	200	200 450
Fluid		Hydraulic oil according to DIN 51524		
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)		
Viscosity permitted	[cSt]/[mm²/s]	20...400		
Viscosity recommended	[cSt]/[mm²/s]	30...80		
Filtration		ISO 4406 (1999); 18/16/13		

R4R with vent function

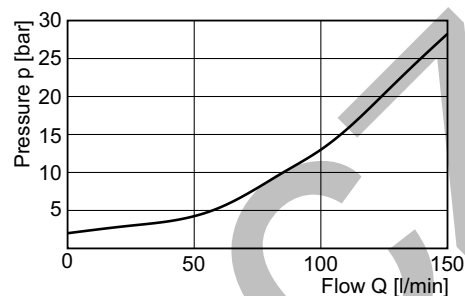
General									
Design		T-body			L-body				
Size		03 (½")	06 (¾")	06 (1")	10 (1¼")				
Mounting		Threaded body							
Mounting position		unrestricted							
Ambient temperature		[°C]	-20...+60						
MTTF _D value		[years]	75						
Weight		[kg]	4.9	5.0	7.3	8.3			
Hydraulic									
Max. operating pressure		[bar]	Ports A and X up to 350; Ports B and Y depressurized						
Pressure stages		[bar]	105, 210, 350						
Nominal flow		[l/min]	60	200	200	450			
Fluid		Hydraulic oil according to DIN 51524							
Fluid temperature		[°C]	-20...+70 (NBR: -25...+70)						
Viscosity permitted		[cSt] / [mm²/s]	20...400						
Viscosity recommended		[cSt] / [mm²/s]	30...80						
Filtration		ISO 4406 (1999); 18/16/13							
Electrical (solenoid)									
Duty ratio		100 % ED; CAUTION: coil temperature up to 150 °C possible							
Protection class		IP65 in accordance with EN 60529 (with correctly mounted plug-in connector)							
		Code	G0R	G0Q	GAR	GAG	W30	W31	
Supply voltage		[V] [V]	12 V =	24 V =	98 V =	205 V =	110 at 50 Hz 120 at 60 Hz	230 at 50 Hz 240 at 60 Hz	
Tolerance supply voltage		[%]	±10	±10	±10	±10	±5	±5	
Current consumption		hold	[A]	2.72	1.29	0.33	0.13	0.6 / 0.55	0.3 / 0.27
		in rush	[A]	2.72	1.29	0.33	0.13	2.5 / 2.4	1.25 / 1.2
Power consumption		hold	[W]	32.7	31	31.9	28.2	70 / 70 VA	70 / 70 VA
		in rush	[W]	32.7	31	31.9	28.2	280 / 290 VA	280 / 290 VA
Solenoid connection		Connector as per EN175301-803, solenoid identification as per ISO 9461							
Wiring min.		[mm²]	3 x 1.5 recommended						
Wiring length max.		[m]	50 recommended						

Reduced pressure pA versus flow Q

R4R03 ¹⁾

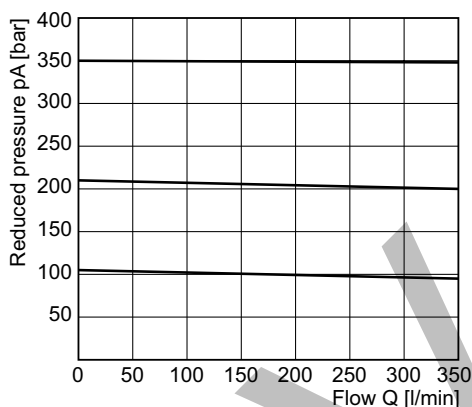


Minimum pressure curve

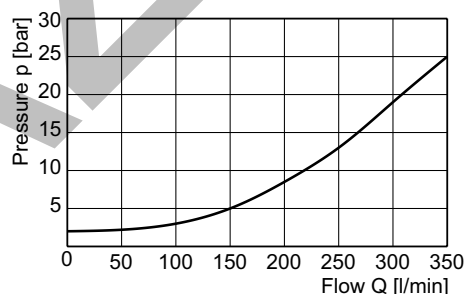


Reduced pressure pA versus flow Q

R4R06 ¹⁾

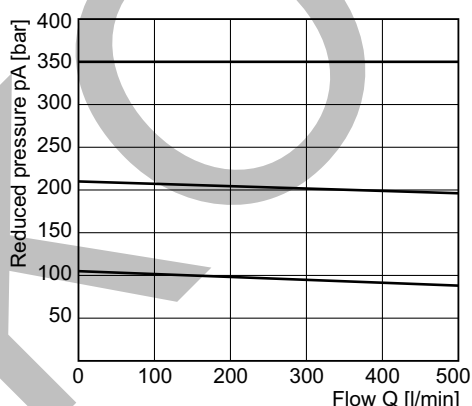


Minimum pressure curve

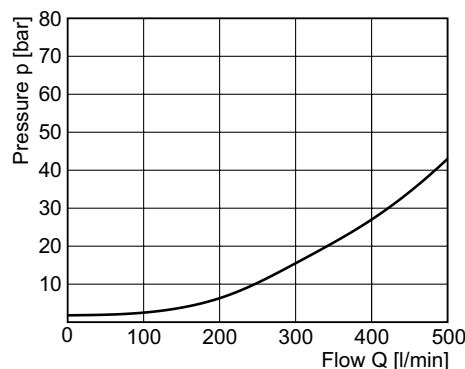


Reduced pressure pA versus flow Q

R4R10 ¹⁾



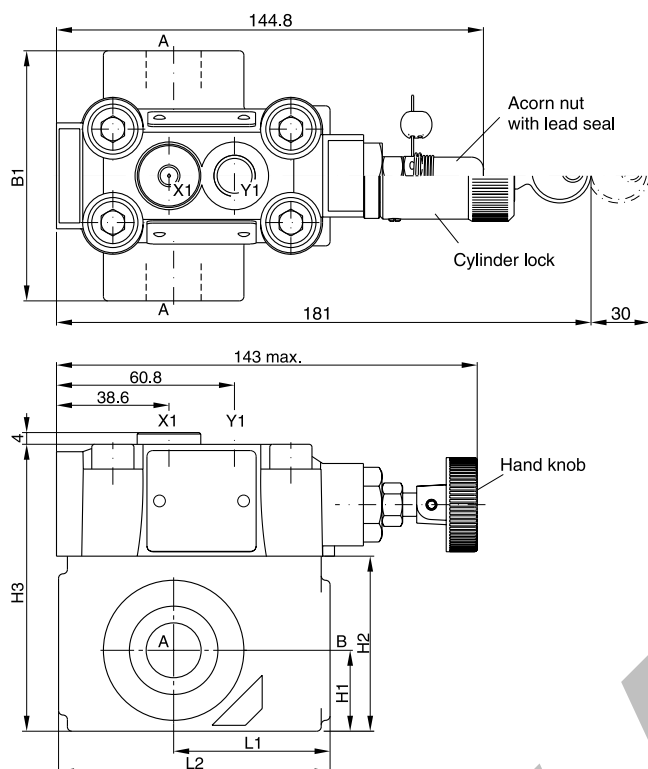
Minimum pressure curve



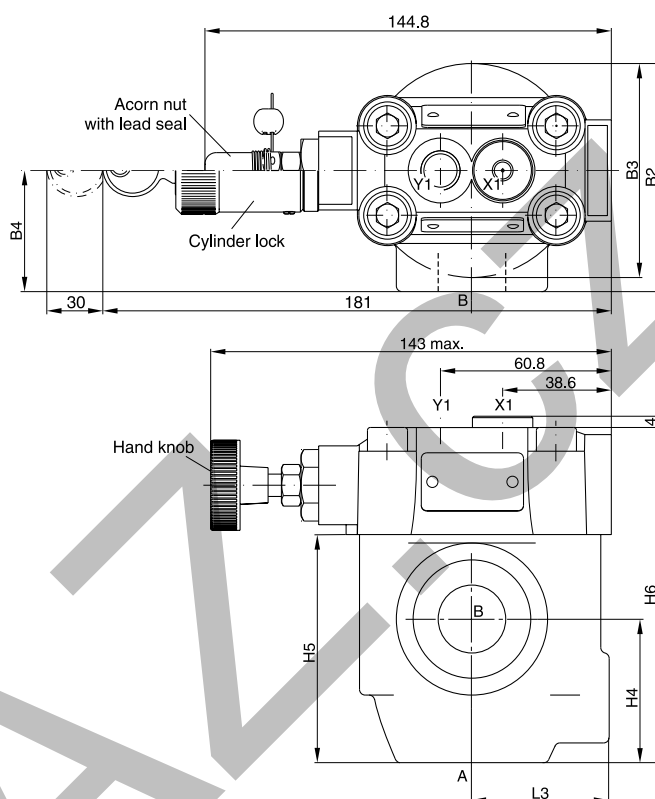
All characteristic curves measured with HLP46 at 50 °C.

¹⁾ Measured at 350 bar primary pressure pB.

T-body



L-body



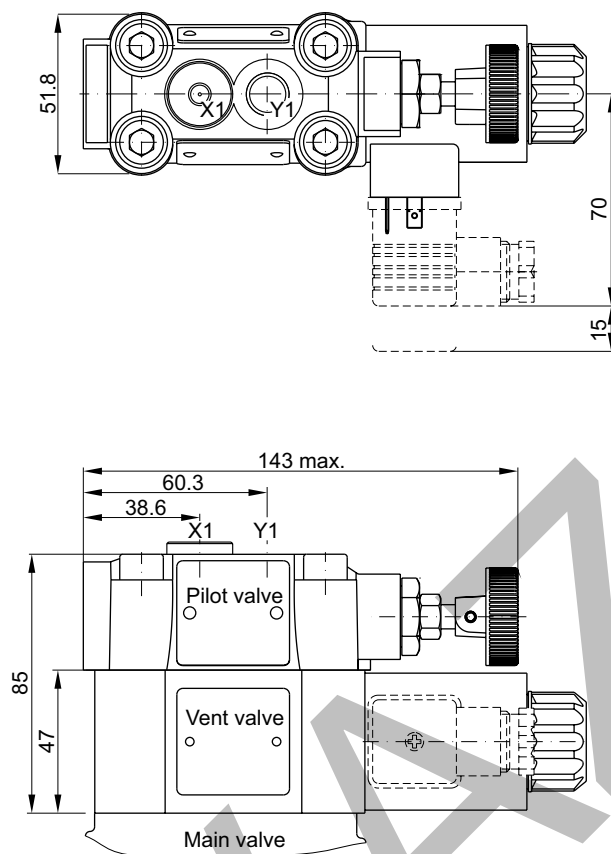
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Seal kits		
NG	NBR	FPM
03	S26-58507-0	S26-58507-5
06	S26-58475-0	S26-58475-5
10	S26-58508-0	S26-58508-5

NG	Body	B1	B2	B3	B4	H1	H2	H3	H4	H5	H6	L1	L2	L3
03	T-body	85	—	—	—	27.5	59.5	97.5	—	—	—	53	92	—
06	T-body	136	—	—	—	38	93	131	—	—	—	66.5	117.5	—
06	L-body	—	81	76	43	—	—	—	51	81	119	—	—	49
10	L-body	—	120.7	85.8	77.8	—	—	—	50.8	96	134	—	—	49.8

Ports	Function	Port size			
		R4V03 T-body	R4V06 L-body	R4V06 T-body	R4V10 L-body
B	pressure (inlet)	G½ "	G¾ "	G1 "	G1¼ "
A	pressure (outlet)	G½ "	G¾ "	G1 "	G1¼ "
X1	external remote control or vent connection	G¼ "	G¼ "	G¼ "	G¼ "
Y1	external drain	G¼ "	G¼ "	G¼ "	G¼ "

R4R with vent function



Seal kits	
NBR	FPM
DC solenoid	
S56-40609-0	S56-40609-5
AC solenoid	
S26-35237-0	S26-35237-5

Code	External drain
11	
09	