

Parker Series R RSE Pilot Operated Pressure Relief Valves Service Manual

The pressure relief valve series R consists of a manual adjustment pilot stage and a cartridge main stage.

The pressure relief valve series RS consists of a manual adjusted pilot stage with a directional valve for an electrically controlled vent function and a cartridge main part.

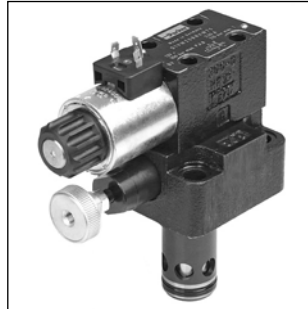
The R/RS*E model codes embrace the pilot valves, covers and cartridges that are also offered as separate items. See combination examples for details.

Features

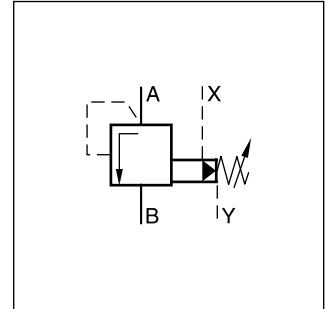
- Pilot operated with manual adjustment
- Cavity and mounting pattern according to ISO 7368
- 6 pressure stages
- 2 switching types (series RS*E)
- 3 adjustment modes
 - Hand knob
 - Acorn nut with lead seal
 - Cylinder lock
- 6 sizes, NG16 to NG63

Note

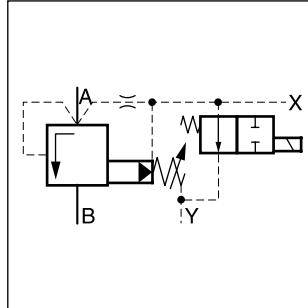
Port X only usable for remote control.



RS*E

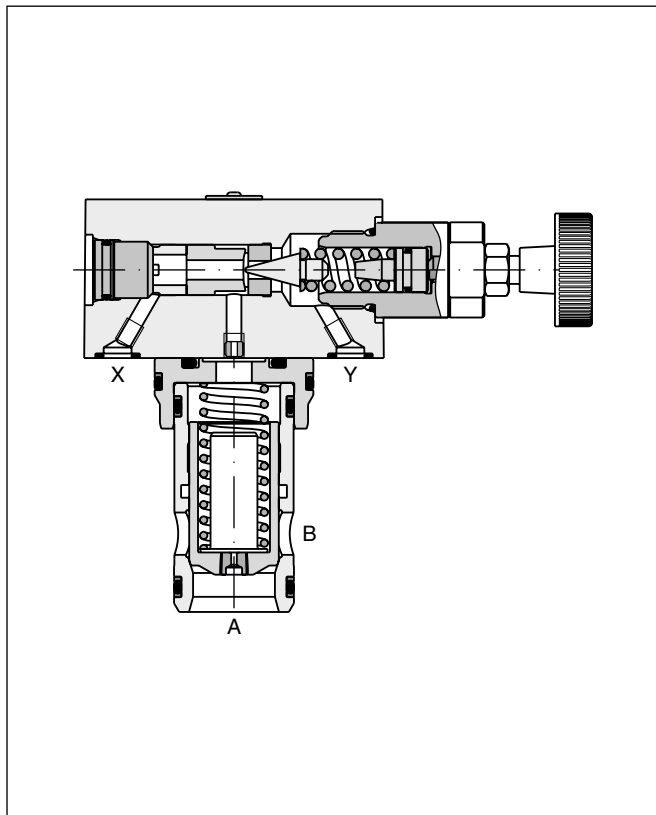


R*E

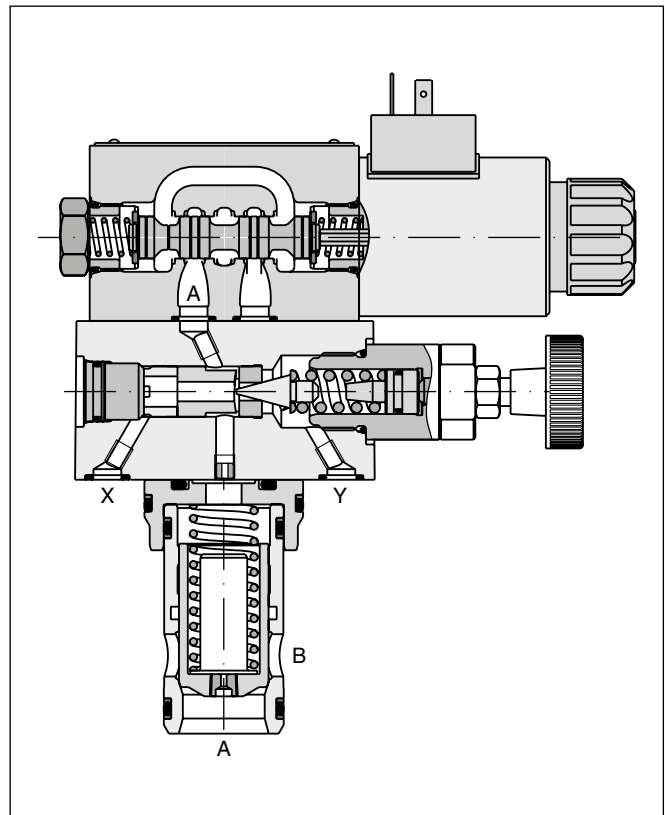


RS*E (simplified symbol)

R25E

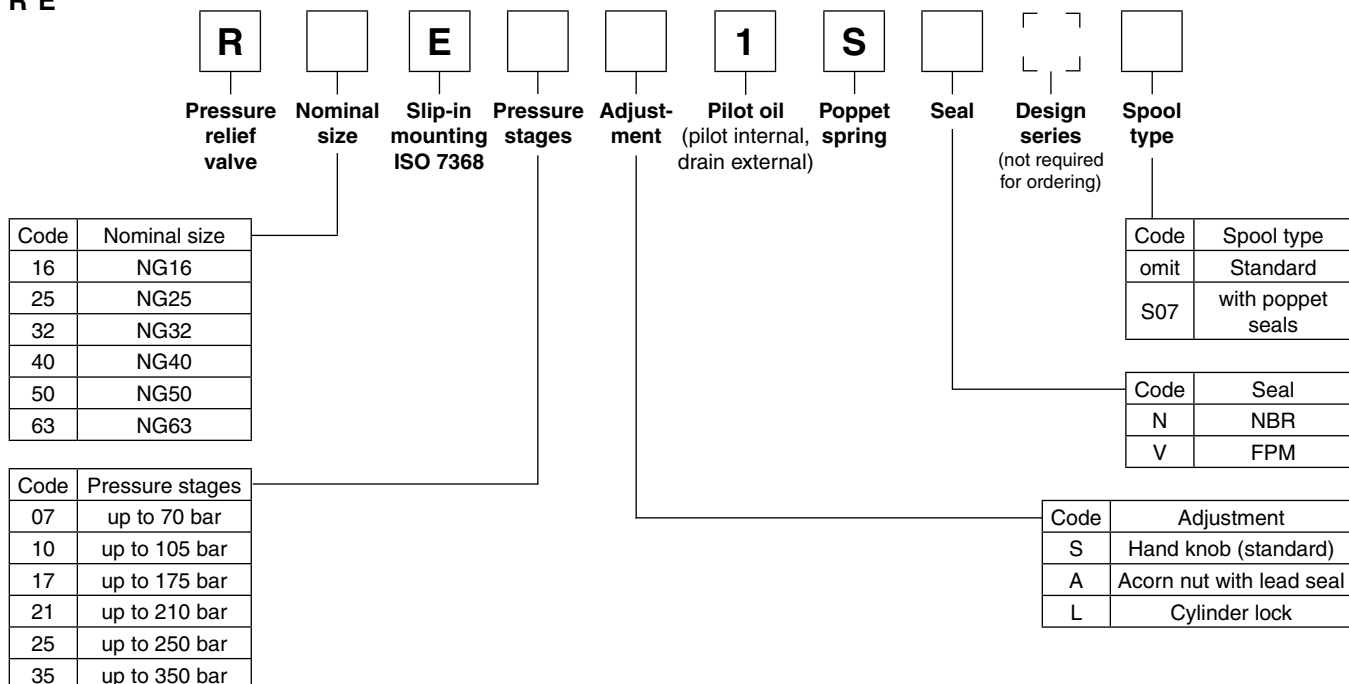


RS25E

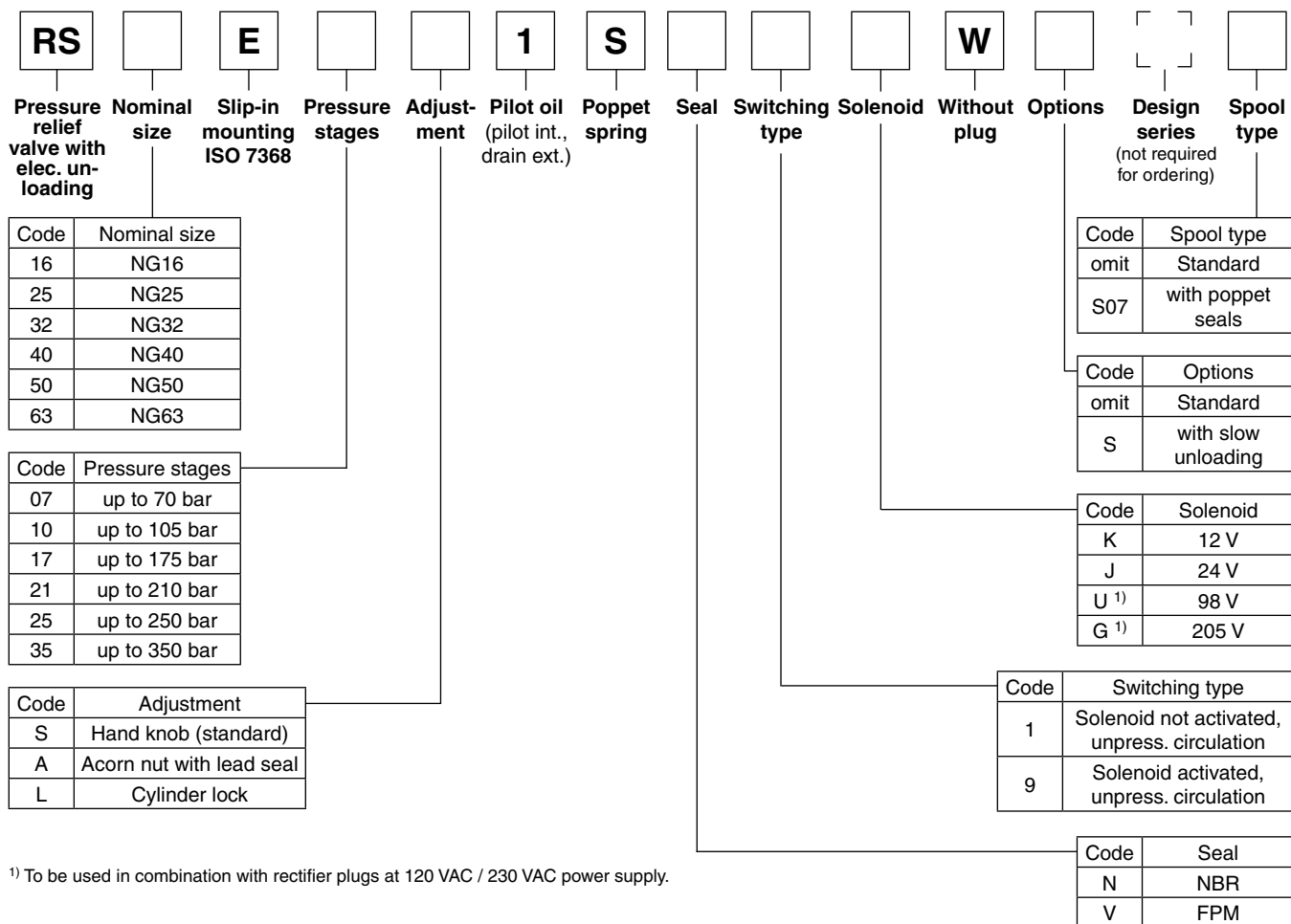


Ordering Code

R*E



RS*E



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

Technical Data

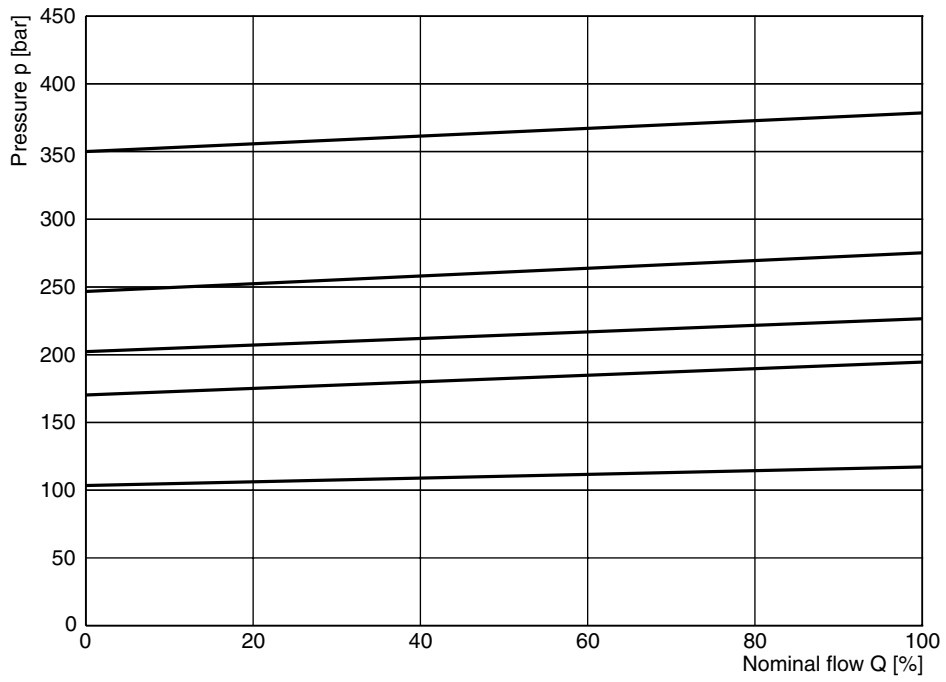
R*E

General							
Nominal size		NG16	NG25	NG32	NG40	NG50	NG63
Interface		Slip-in mounting acc. ISO 7368					
Mounting position		as desired, horizontal mounting preferred					
Ambient temperature	[°C]	-20...+60					
MTTF _D value	[years]	75					
Weight	[kg]	2.2	3.5	4.9	8.0	13.7	22.8
Hydraulic							
Max. operating pressure	[bar]	Ports A and X up to 350, Ports B and Y 30					
Pressure stages	[bar]	75, 105, 175, 210, 250, 350					
Nominal flow	[l/min]	220	500	950	1400	2300	4000
Fluid		Hydraulic oil according to DIN 51524					
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)					
Viscosity, permitted	[cSt] / [mm ² /s]	20...400					
recommended	[cSt] / [mm ² /s]	30...80					
Filtration		ISO 4406 (1999); 18/16/13					

RS*E

General							
Nominal size		NG16	NG25	NG32	NG40	NG50	NG63
Interface		Slip-in mounting acc. ISO 7368					
Mounting position		as desired, horizontal mounting preferred					
Ambient temperature	[°C]	-20...+60					
MTTF _D value	[years]	75					
Weight	[kg]	2.7	5.2	6.4	9.5	15.2	24.3
Hydraulic							
Max. operating pressure	[bar]	Ports A and X 350, ports B and Y 30					
Pressure stages	[bar]	75, 105, 175, 210, 250, 350					
Nominal flow	[l/min]	220	500	950	1400	2300	4000
Fluid		Hydraulic oil according to DIN 51524					
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)					
Viscosity, permitted	[cSt] / [mm ² /s]	20...400					
recommended	[cSt] / [mm ² /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	K	J	U	G		
Supply voltage	[V]	12 V =	24 V =	98 V =	205 V =		
Tolerance supply voltage	[%]	±10	±10	±10	±10		
Current consumption	[A]	2.72	1.29	0.33	0.13		
Power consumption	[W]	32.7	31	31.9	28.2		
Solenoid connection		Connector as per EN175301-803, solenoid identification as per ISO 9461					
Wiring min.	[mm ²]	3 x 1.5 recommended					
Wiring length max.	[m]	50 recommended					

p/Q performance curve ¹⁾



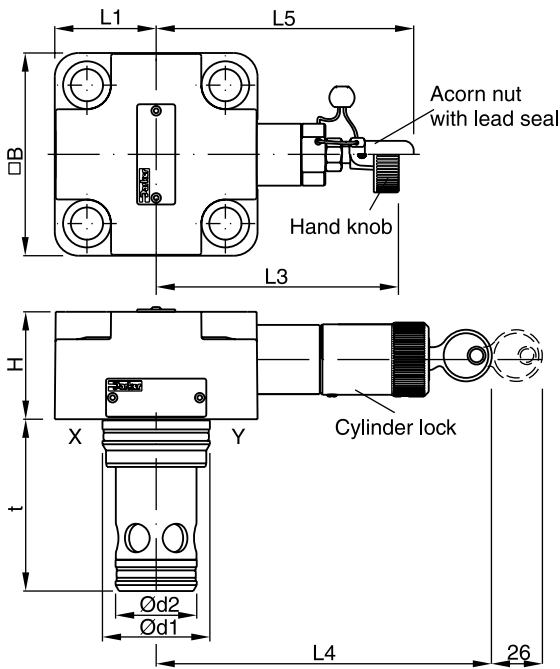
All characteristic curves measured with HLP46 at 50 °C.

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

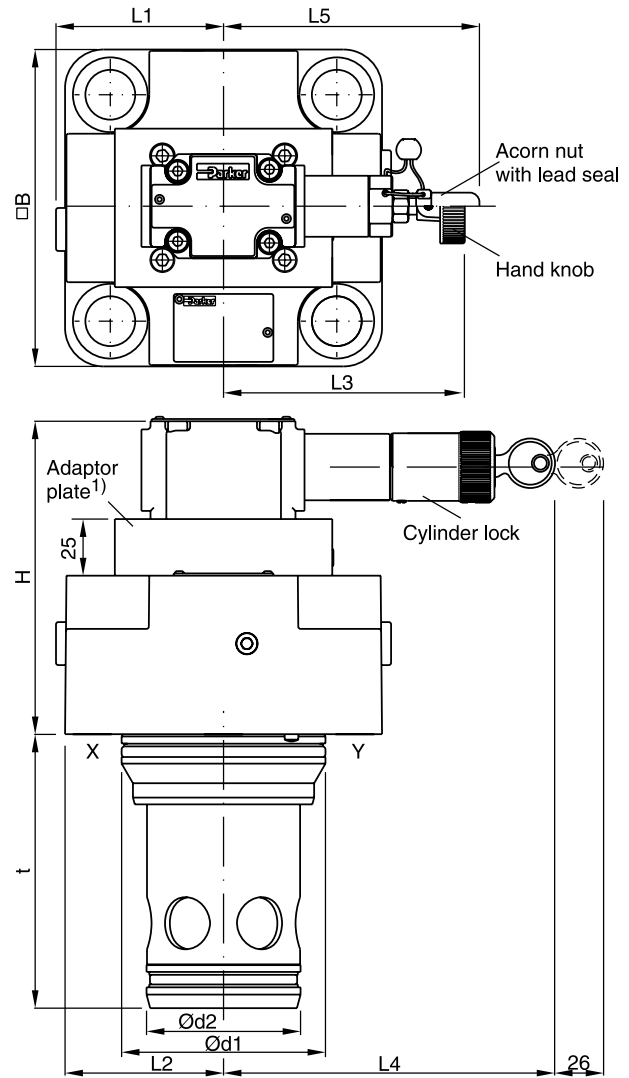
Dimensions

Dimensions R*E

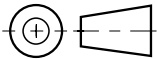
NG16 - NG32



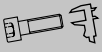


NG40 - NG63 ¹⁾



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Size	H	B	L1	L2	L3	L4	L5	d1	d2	t
NG16	40	65 ²⁾	32.5	–	114	125.5	117	32	25	56
NG25	47	85	42.5	–	102	114	105	45	34	71
NG32	50	102	51	–	95	106	97.5	60	45	85
NG40	106	125	62.5	66.5	106	144	110.5	75	55	105
NG50	141	140	70	74	106	144	110.5	90	68	121
NG63	155	180	90	94	106	144	110.5	120	90	155

NG	Kit	 ISO 4762-12.9	 [Nm]	 Kit	
				NBR	FPM
16	BK414	4 x M8x40	31.8	SK-R16EN	SK-R16EV
25	BK391	4 x M12x50	108	SK-R25EN	SK-R25EV
32	BK415	4 x M16x55	264	SK-R32EN	SK-R32EV
40	BK416	4 x M20x70	517	SK-R40EN	SK-R40EV
50	BK417	4 x M20x75	517	SK-R50EN	SK-R50EV
63	BK418	4 x M30x100	1775	SK-R63EN	SK-R63EV

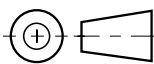
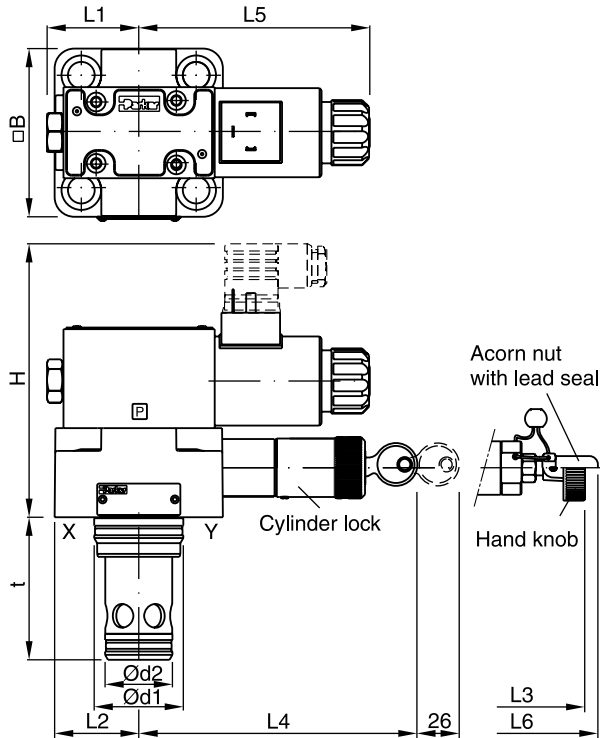
¹⁾ NG40 without adaptor plate.

²⁾ Width 79 mm.

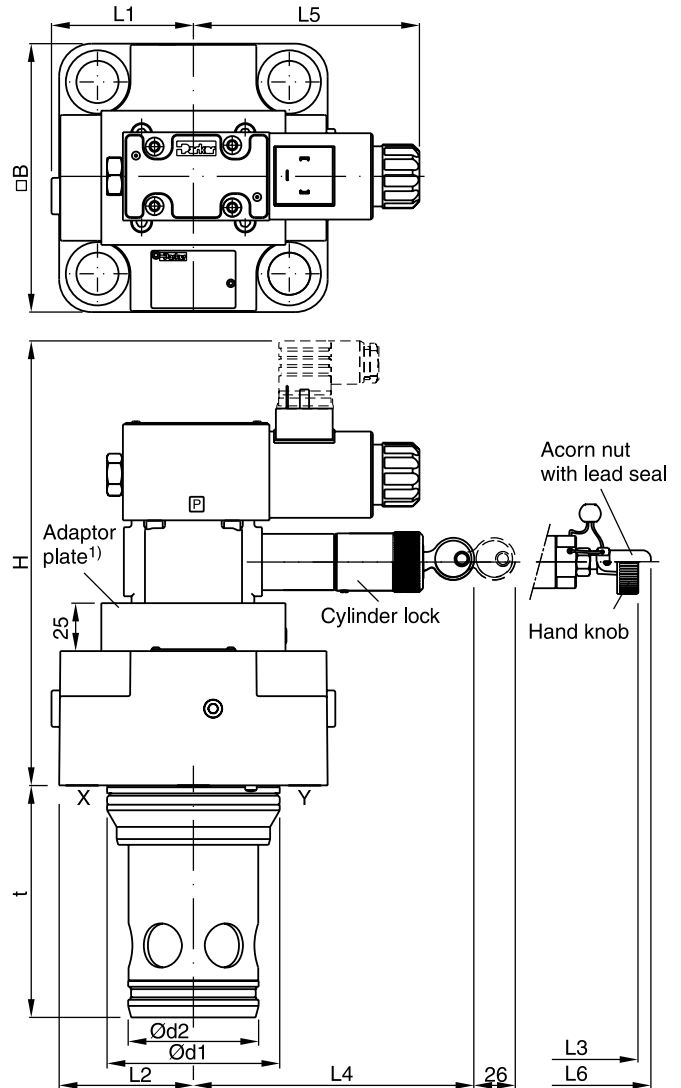
Dimensions

Dimensions RS*E

NG16 - NG32



NG40 - NG63 ¹⁾



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Size	H	B	L1	L2	L3	L4	L5	L6	d1	d2	t
NG16	133	65 ²⁾	32.5	–	114	125.5	117	117	32	25	56
NG25	137	85	42.5	–	102	114	117	105	45	34	71
NG32	143	102	51	–	95	106	117	97.5	60	45	85
NG40	196	125	62.5	66.5	106	144	117	110.5	75	55	105
NG50	231	140	70	74	106	144	117	110.5	90	68	121
NG63	246	180	90	94	106	144	117	110.5	120	90	155

NG	Kit	ISO 4762-12.9	[Nm]	Kit	
				NBR	FPM
16	BK414	4 x M8x40	31.8	SK-RS16EN	SK-RS16EV
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50	BK417	4 x M20x75	517	SK-RS50EN	SK-RS50EV
63	BK418	4 x M30x100	1775	SK-RS63EN	SK-RS63EV

¹⁾ NG40 without adaptor plate.

²⁾ Width 79 mm.