

**General Description**

Series R pressure relief valves consist of a manual adjusted pilot stage and a cartridge main stage.

Series RS\*E 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.

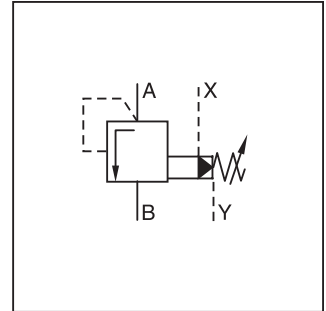
**Features**

- Pilot operated with manual adjustment.
- Cavity and mounting pattern according to ISO 7368.
- 4 pressure ranges.
- 2 switching types (series RS\*E).
- 2 adjustment modes:
  - Hand knob
  - Key lock
- Remote control via port X.
- 6 sizes, NG16 to NG63.

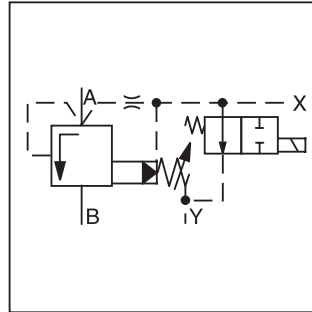
**Note:** Port X only usable for remote vent function



RS\*E

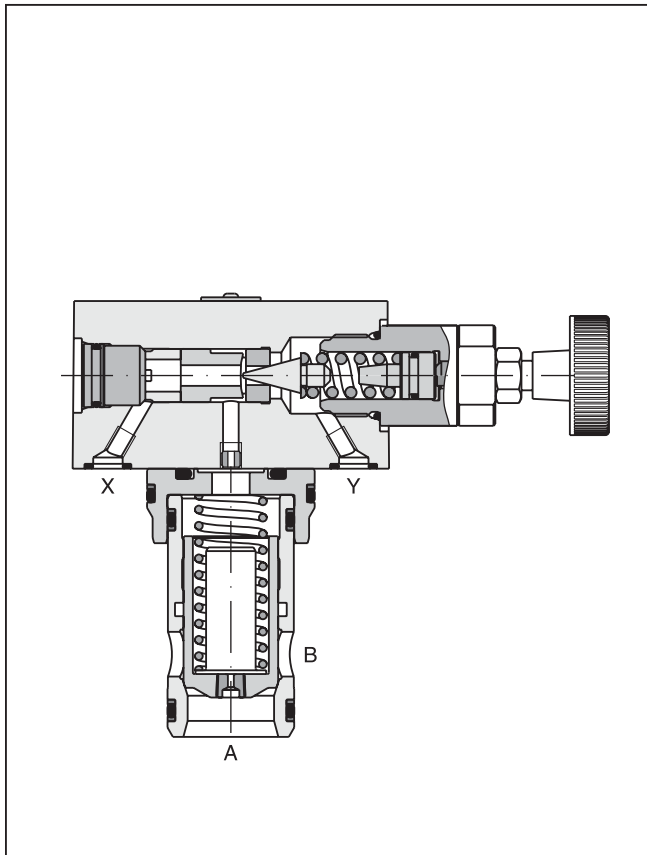


R\*E

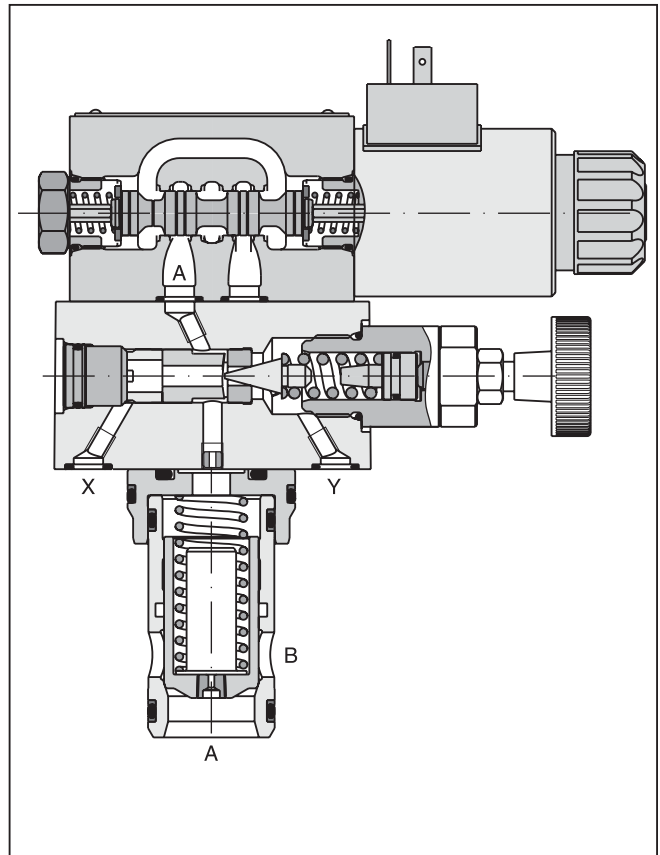


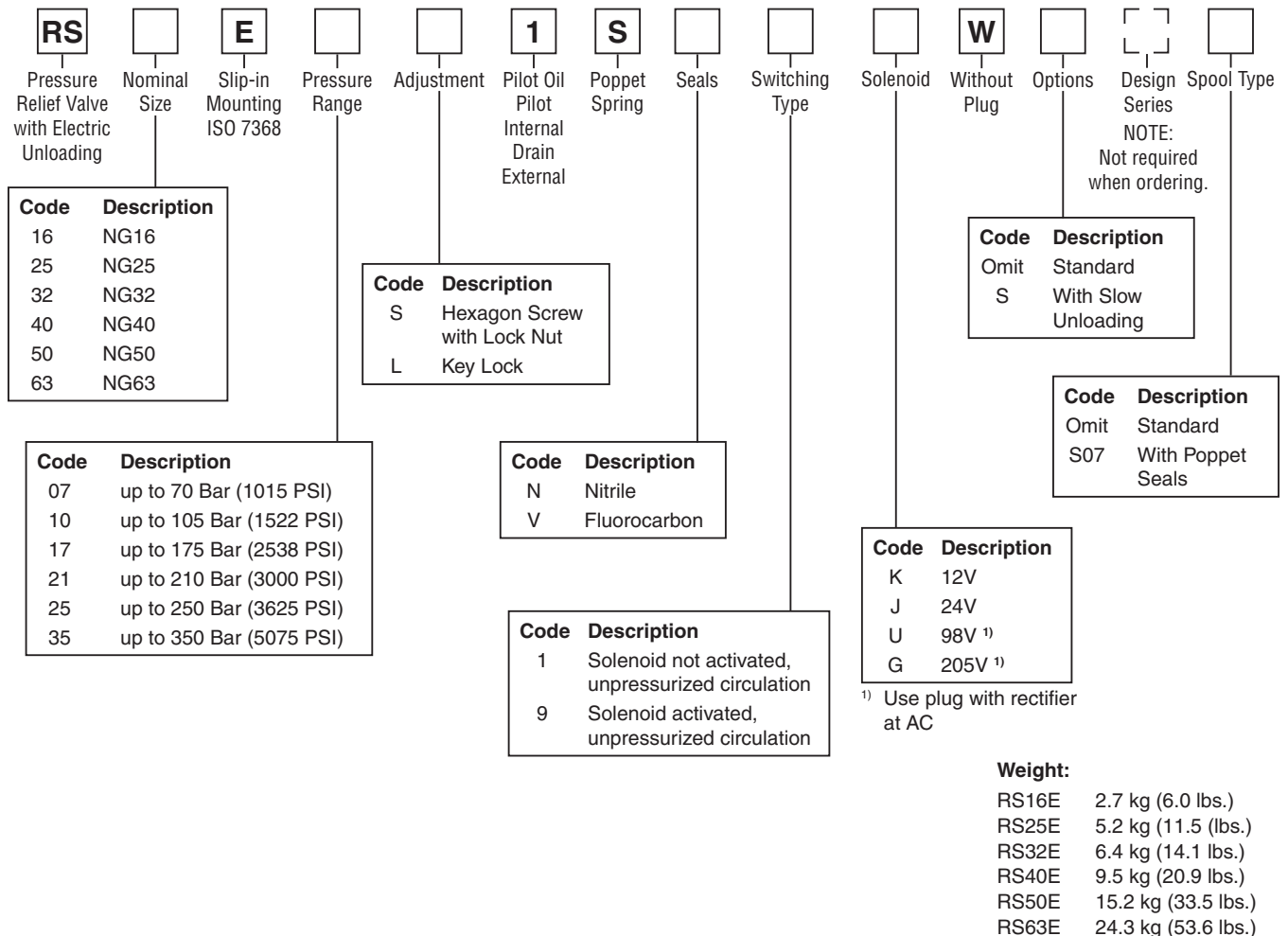
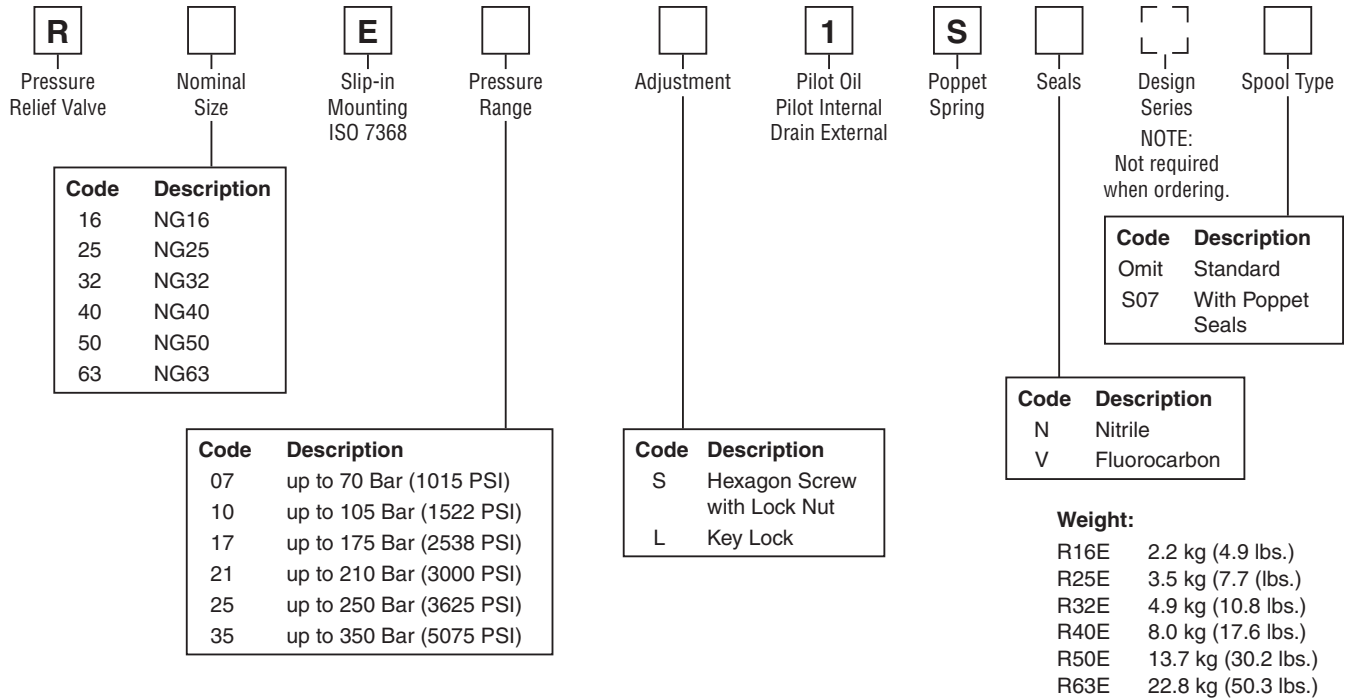
RS\*E (simplified symbol)

**R\*E**



**RS\*E**





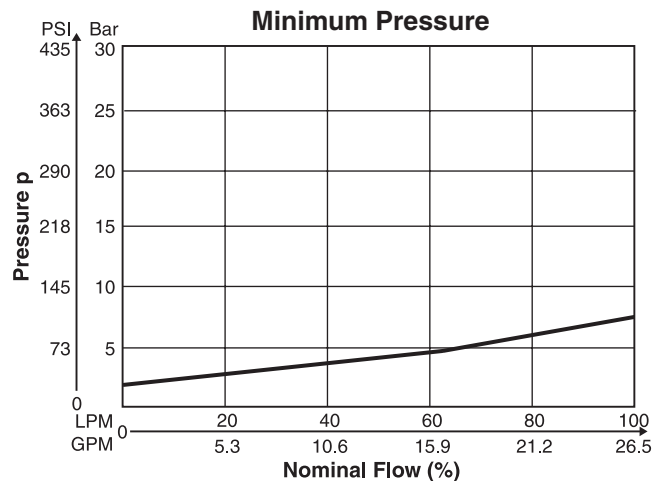
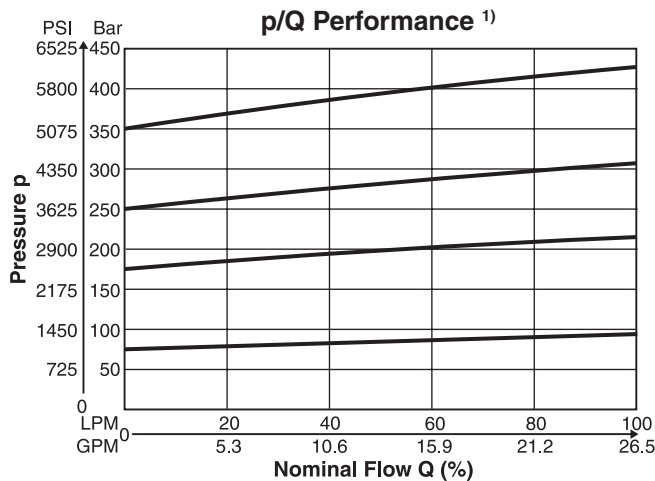
**Specifications — R\*E, RS\*E**

General						
<b>Size</b>	<b>NG16</b>	<b>NG25</b>	<b>NG32</b>	<b>NG40</b>	<b>NG50</b>	<b>NG63</b>
<b>Interface</b>	Slip-in mounting according to ISO 7368					
<b>Mounting Position</b>	As desired, horizontal mounting preferred					
<b>Ambient Temperature</b>	-20°C to +80°C (-4°F to +176°F)					
Hydraulic						
<b>Maximum Operating Pressure</b>	Ports A and X up to 350 Bar (5075 PSI), Ports B and Y depressurized					
<b>Pressure Range</b>	70, 175, 250, 350 Bar (1015, 2538, 3625, 5075 PSI)					
<b>Nominal Flow</b>	220 LPM (58 GPM)	500 LPM (132 GPM)	950 LPM (251 GPM)	1400 LPM (370 GPM)	2300 LPM (609 GPM)	4000 LPM (1058 GPM)
<b>Fluid</b>	Hydraulic oil according to DIN 51524 ... 525					
<b>Viscosity Recommended</b>	30 to 50 cSt (mm <sup>2</sup> s)					
<b>Viscosity Permitted</b>	20 to 380 cSt (mm <sup>2</sup> s)					
<b>Fluid Temperature</b>	-20°C to +70°C (-4°F to +158°F)					
<b>Filtration</b>	ISO 4406 (1999); 18/16/13 (meet NAS 1638:7)					

**Specifications — RS\*E**

Electrical (Solenoid)					
<b>Duty Ratio</b>	100% ED; CAUTION: coil temperature up to 180°C (356°F) possible				
<b>Maximum Switching Frequency</b>	16000 switchings per hour				
<b>Protection Class</b>	IP65 in accordance with EN 60529 (plugged and mounted)				
<b>Direct Current</b>	<b>Code</b>	<b>K</b>	<b>J</b>	<b>U</b>	<b>G</b>
<b>Supply Voltage</b>		12 VDC	24 VDC	98 VDC	205 VDC
<b>Power</b>		31 W	31 W	31 W	31 W
<b>Current</b>		2.5 amps	1.25 amps	0.31 amps	0.15 amps
<b>Solenoid Connection</b>	Connector as per EN 175301-803				
<b>Wiring Minimum</b>	3 x 1.5 mm <sup>2</sup> recommended				
<b>Wiring Length Maximum</b>	50m (164 ft.) recommended				

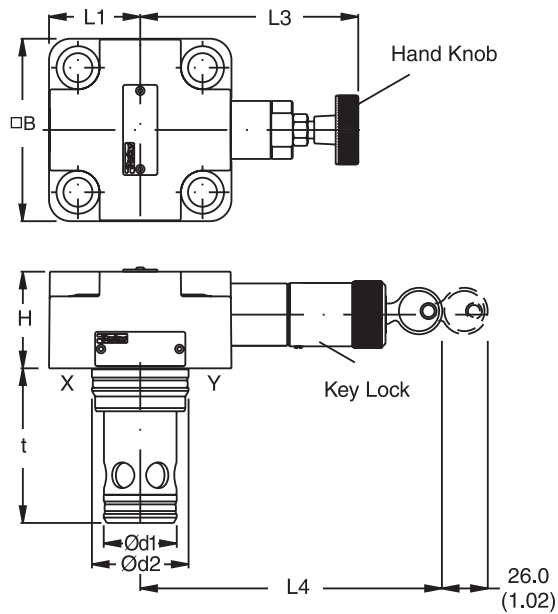
**Performance Curves**



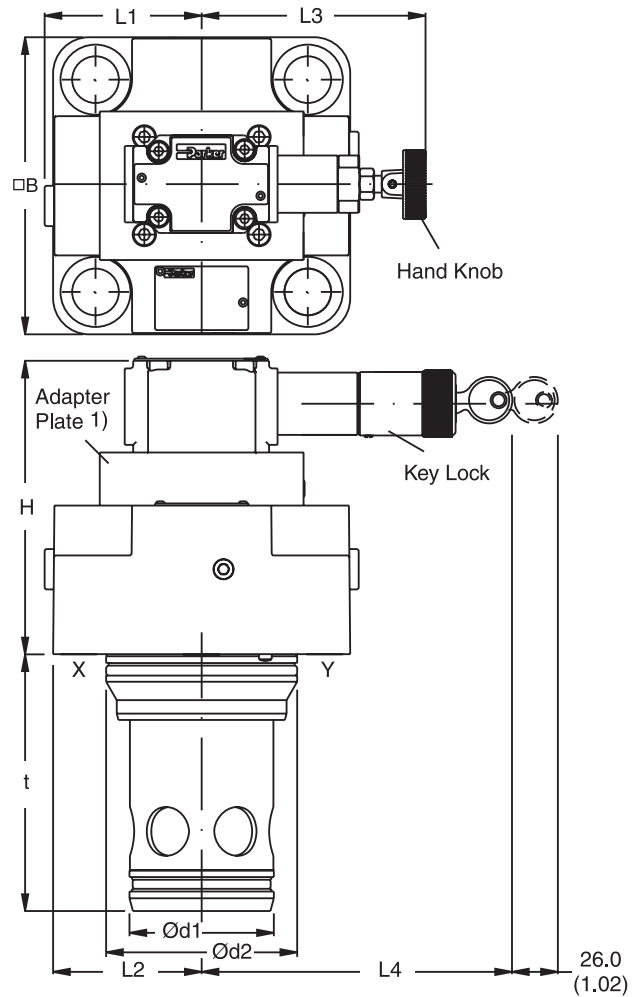
<sup>1)</sup> The performance curves are measured with external drain.  
 For internal drain the tank pressure has to be added to curve.

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

**NG16 - NG32**



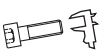


**NG40 - NG63 <sup>1)</sup>**



Size	H	B	L1	L2	L3	L4	d1	d2	t
NG16	40.0 (1.57)	65.0 <sup>2)</sup> (2.56)	32.5 (1.28)	—	114.0 (4.49)	125.5 (4.94)	32.0 (1.26)	25.0 (0.98)	56.0 (2.20)
NG25	47.0 (1.85)	85.0 (3.35)	42.5 (1.67)	—	102.0 (4.02)	114.0 (4.49)	45.0 (1.77)	34.0 (1.34)	71.0 (2.80)
NG32	50.0 (1.97)	102.0 (4.02)	51.0 (2.01)	—	95.0 (3.74)	106.0 (4.17)	60.0 (2.36)	45.0 (1.77)	85.0 (3.35)
NG40 <sup>1)</sup>	106.0 (4.17)	125.0 (4.92)	62.5 (2.46)	66.5 (2.62)	106.0 (4.17)	144.0 (5.67)	75.0 (2.95)	55.0 (2.17)	105.0 (4.13)
NG50	141.0 (5.55)	140.0 (5.51)	70.0 (2.76)	74.0 (2.91)	106.0 (4.17)	144.0 (5.67)	90.0 (3.54)	68.0 (2.68)	121.0 (4.76)
NG63	155.0 (6.10)	180.0 (7.09)	90.0 (3.54)	94.0 (3.70)	106.0 (4.17)	144.0 (5.67)	120.0 (4.72)	90.0 (3.54)	155.0 (6.10)

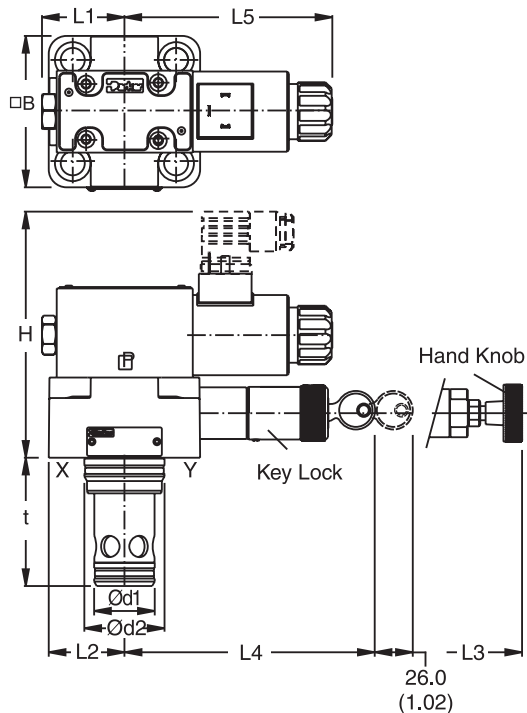
<sup>1)</sup> NG40 without adapter plate

<sup>2)</sup> Width 79mm (3.11 in.)

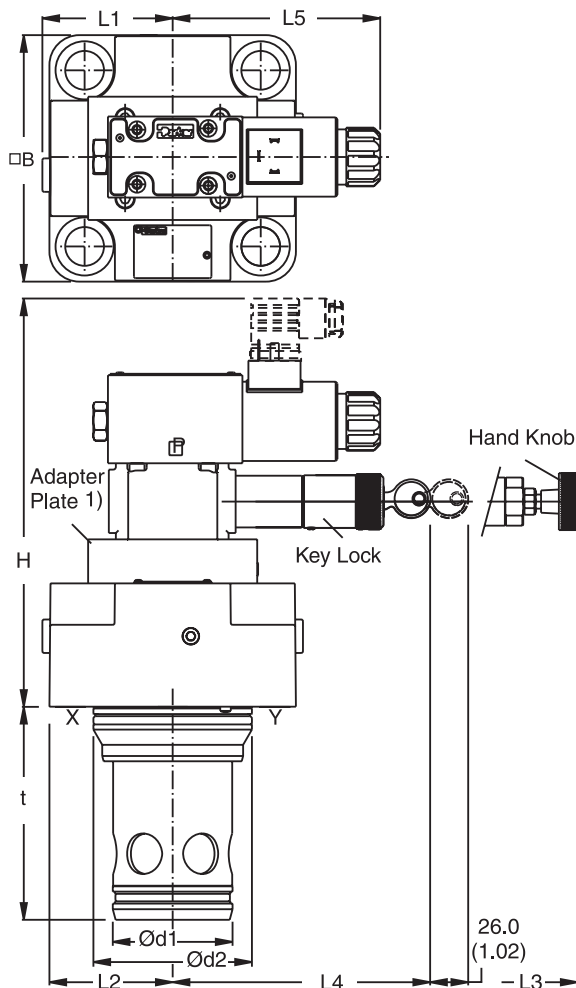
NG	Bolt Kit	 DIN912 12.9		 Kit	
				Nitrile	Fluorocarbon
16	BK414 (BK84)	4 x M8x40	33 Nm (24.3 lb.-ft.)	SK-R16E25	SK-R16EV25
25	BK391 (BK77)	4 x M12x50	115 Nm (84.8 lb.-ft.)	SK-R25E25	SK-R25EV25
32	BK415 (BK85)	4 x M16x55	281 Nm (207.2 lb.-ft.)	SK-R32E25	SK-R32EV25
40	BK416 (BK86)	4 x M20x70	553 Nm (407.8 lb.-ft.)	SK-R40E25	SK-R40EV25
50	BK417 (BK87)	4 x M20x75	553 Nm (407.8 lb.-ft.)	SK-R50E25	SK-R50EV25
63	BK418 (BK88)	4 x M30x100	1910 Nm (1408.6 lb.-ft.)	SK-R63E25	SK-R63EV25

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

**NG16 - NG32**



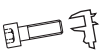


**NG40 - NG63 <sup>1)</sup>**



Size	H	B	L1	L2	L3	L4	L5	d1	d2	t
NG16	133.0 (5.24)	65.0 <sup>2)</sup> (2.56)	32.5 (1.28)	-	114.0 (4.49)	125.5 (4.94)	117.0 (4.61)	32.0 (1.26)	25.0 (0.98)	56.0 (2.20)
NG25	137.0 (5.39)	85.0 (3.35)	42.5 (1.67)	-	102.0 (4.02)	114.0 (4.49)	117.0 (4.61)	45.0 (1.77)	34.0 (1.34)	71.0 (2.80)
NG32	143.0 (5.63)	102.0 (4.02)	51.0 (2.01)	-	95.0 (3.74)	106.0 (4.17)	117.0 (4.61)	60.0 (2.36)	45.0 (1.77)	85.0 (3.35)
NG40 <sup>1)</sup>	196.0 (7.72)	125.0 (4.92)	62.5 (2.46)	66.5 (2.62)	106.0 (4.17)	144.0 (5.67)	117.0 (4.61)	75.0 (2.95)	55.0 (2.17)	105.0 (4.13)
NG50	231.0 (9.09)	140.0 (5.51)	70.0 (2.76)	74.0 (2.91)	106.0 (4.17)	144.0 (5.67)	117.0 (4.61)	90.0 (3.54)	68.0 (2.68)	121.0 (4.76)
NG63	246.0 (9.69)	180.0 (7.09)	90.0 (3.54)	94.0 (3.70)	106.0 (4.17)	144.0 (5.67)	117.0 (4.61)	120.0 (4.72)	90.0 (3.54)	155.0 (6.10)

<sup>1)</sup> NG40 without adapter plate

<sup>2)</sup> Width 79mm (3.11 in.)

NG	Bolt Kit	 DIN912 12.9		 Kit	
				Nitrile	Fluorocarbon
16	BK414 (BK84)	4 x M8x40	33 Nm (24.3 lb.-ft.)	SK-RS16E25	SK-RS16EV25
25	BK391 (BK77)	4 x M12x50	115 Nm (84.8 lb.-ft.)	SK-RS25E25	SK-RS25EV25
32	BK415 (BK85)	4 x M16x55	281 Nm (207.2 lb.-ft.)	SK-RS32E25	SK-RS32EV25
40	BK416 (BK86)	4 x M20x70	553 Nm (407.8 lb.-ft.)	SK-RS40E25	SK-Rs40EV25
50	BK417 (BK87)	4 x M20x75	553 Nm (407.8 lb.-ft.)	SK-RS50E25	SK-RS50EV25
63	BK418 (BK88)	4 x M30x100	1910 Nm (1408.6 lb.-ft.)	SK-RS63E25	SK-RS63EV25

