

**General Description**

Series UR\*E unloading valves consist of a mechanical pilot stage and a slip-in cartridge main stage. These valves 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 15%.

In addition, Series US\*E is vented by electrical operation. The UR\*E/US\*E model codes embrace the pilot valves, covers and cartridges that are also offered as separate items. See combination examples for details.

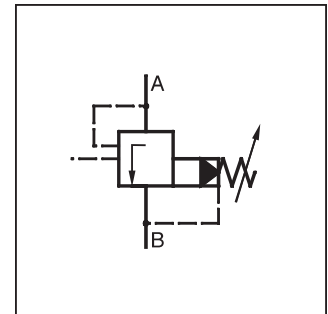
**Features**

- Pilot operated unloading valve.
- Cavity and mounting pattern according to ISO 7368.
- 4 pressure ranges.
- 2 adjustment modes:
  - Hand knob
  - Key lock
- 6 sizes, NG16 to NG63.

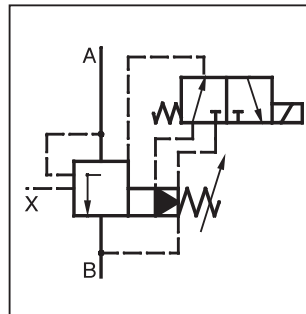
**Note:** Port X only usable for remote vent function.



US25E

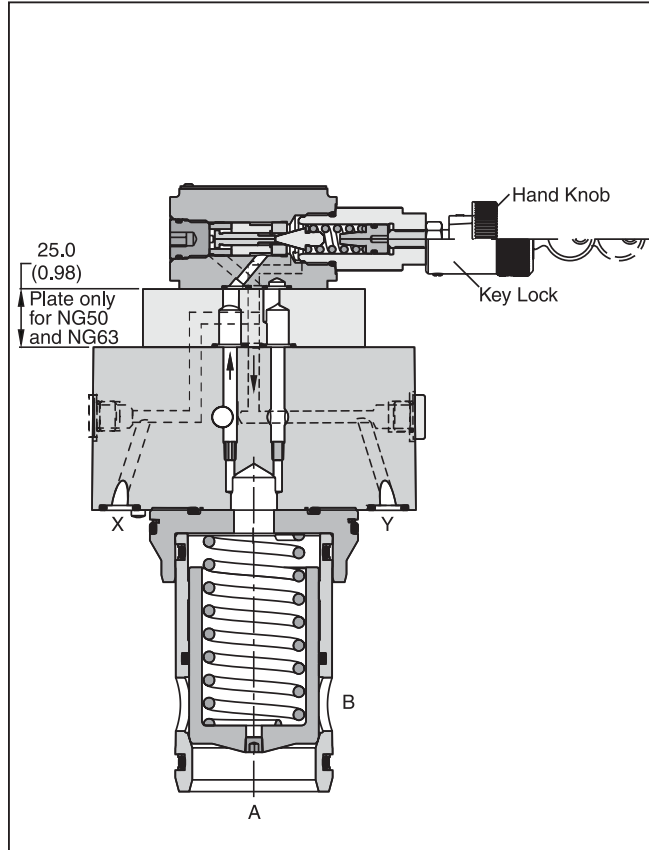


UR\*E

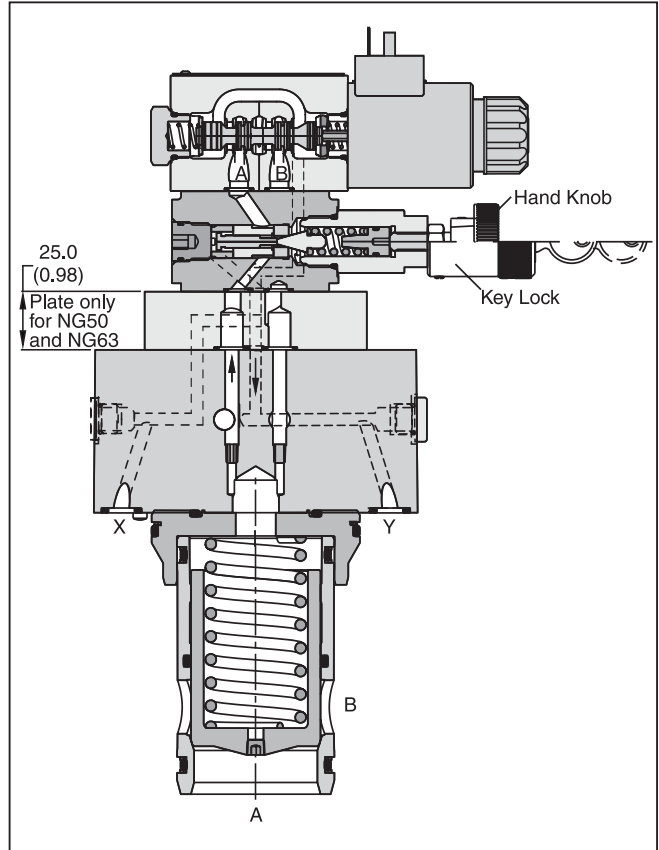


US\*E

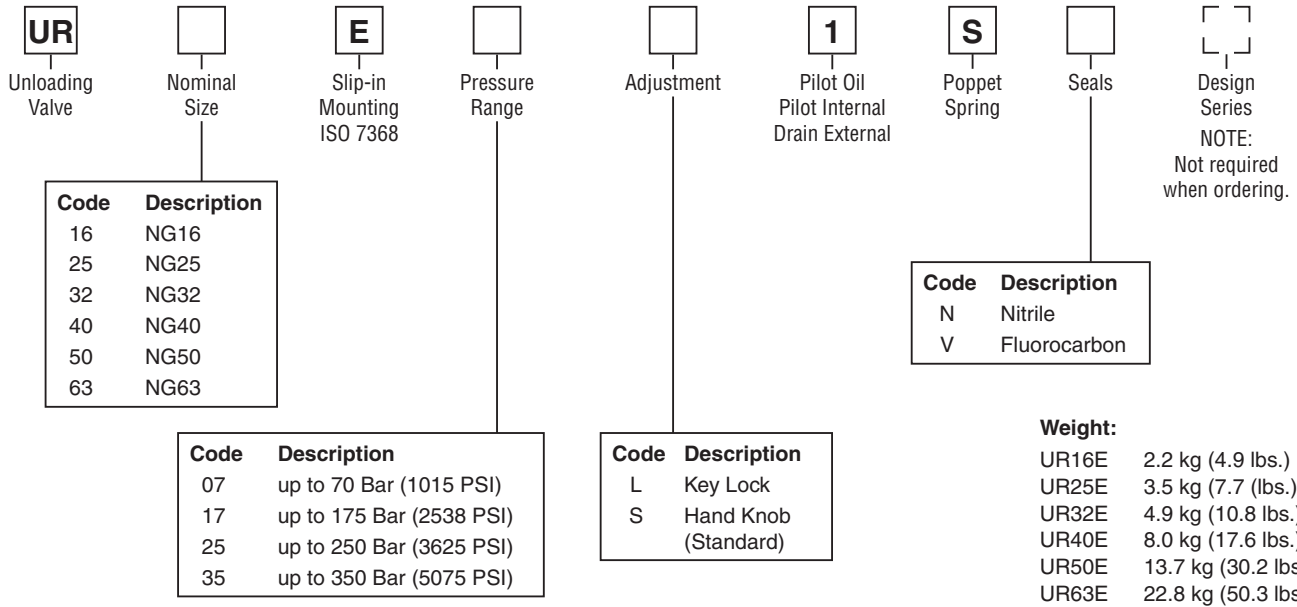
**UR\*E**



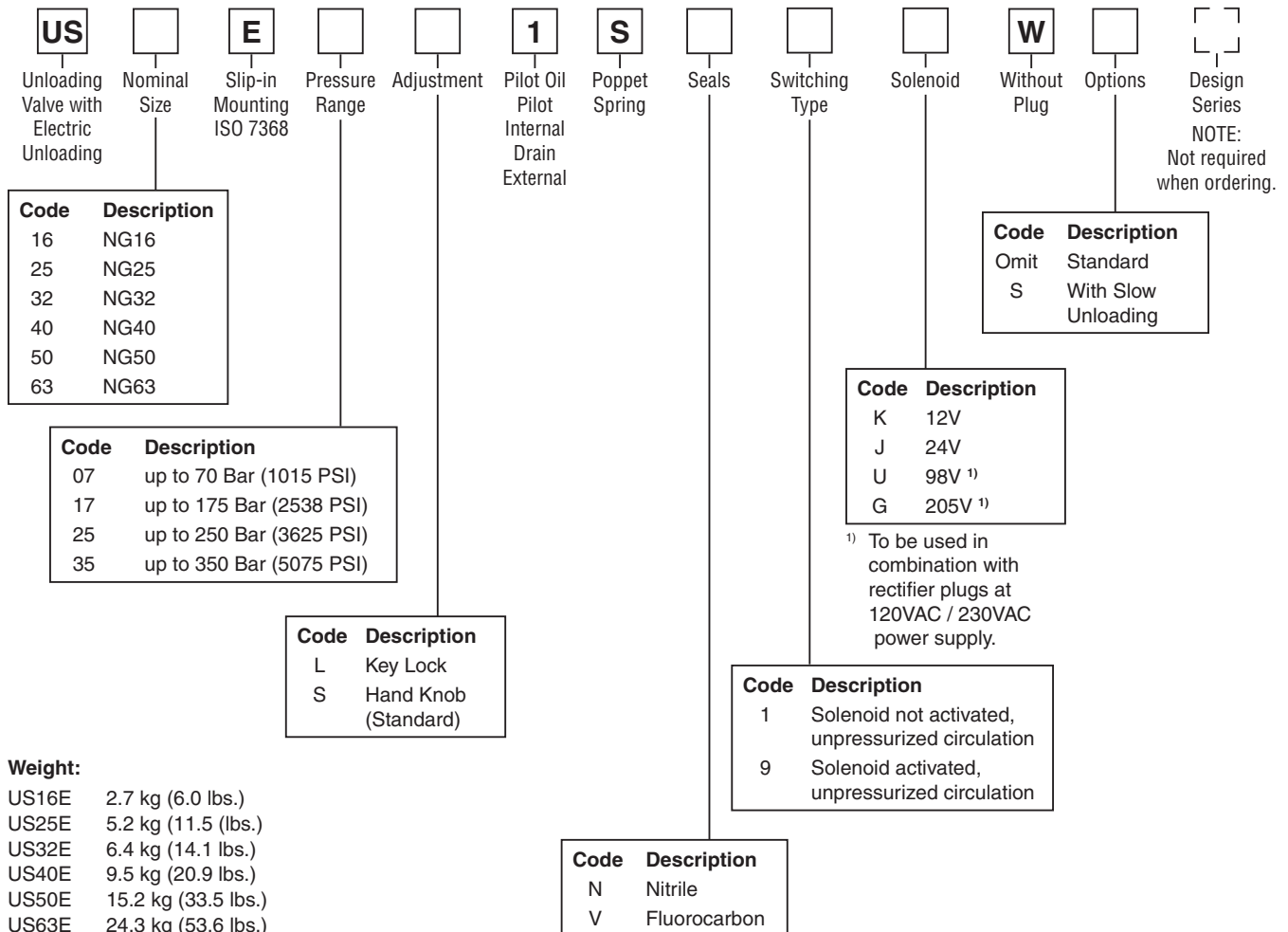
**US\*E**



**UR\*E**



**US\*E**



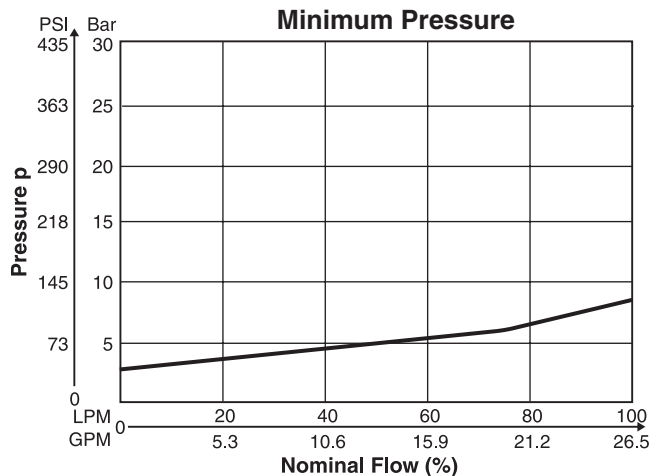
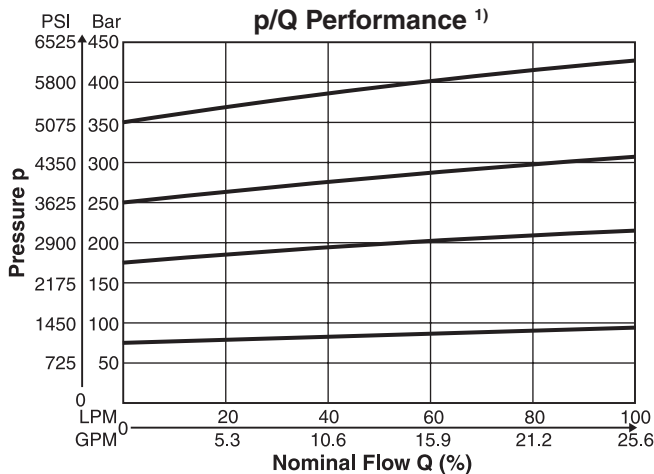
**Specifications — UR\*E / US\*E**

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>Pressure Differential</b>	15%					
<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 — US\*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>		12V	24V	98V	205V
<b>Power</b>		31W	31W	31W	31W
<b>Current</b>		2.5A	1.25A	0.31A	0.15A
<b>Solenoid Connection</b>	Connector as per EN 175301-803				
<b>Wiring</b>	3 x 1.5 mm <sup>2</sup> minimum, recommended				
<b>Wiring Length</b>	50m (164 ft.) maximum, recommended				

**Performance Curves**

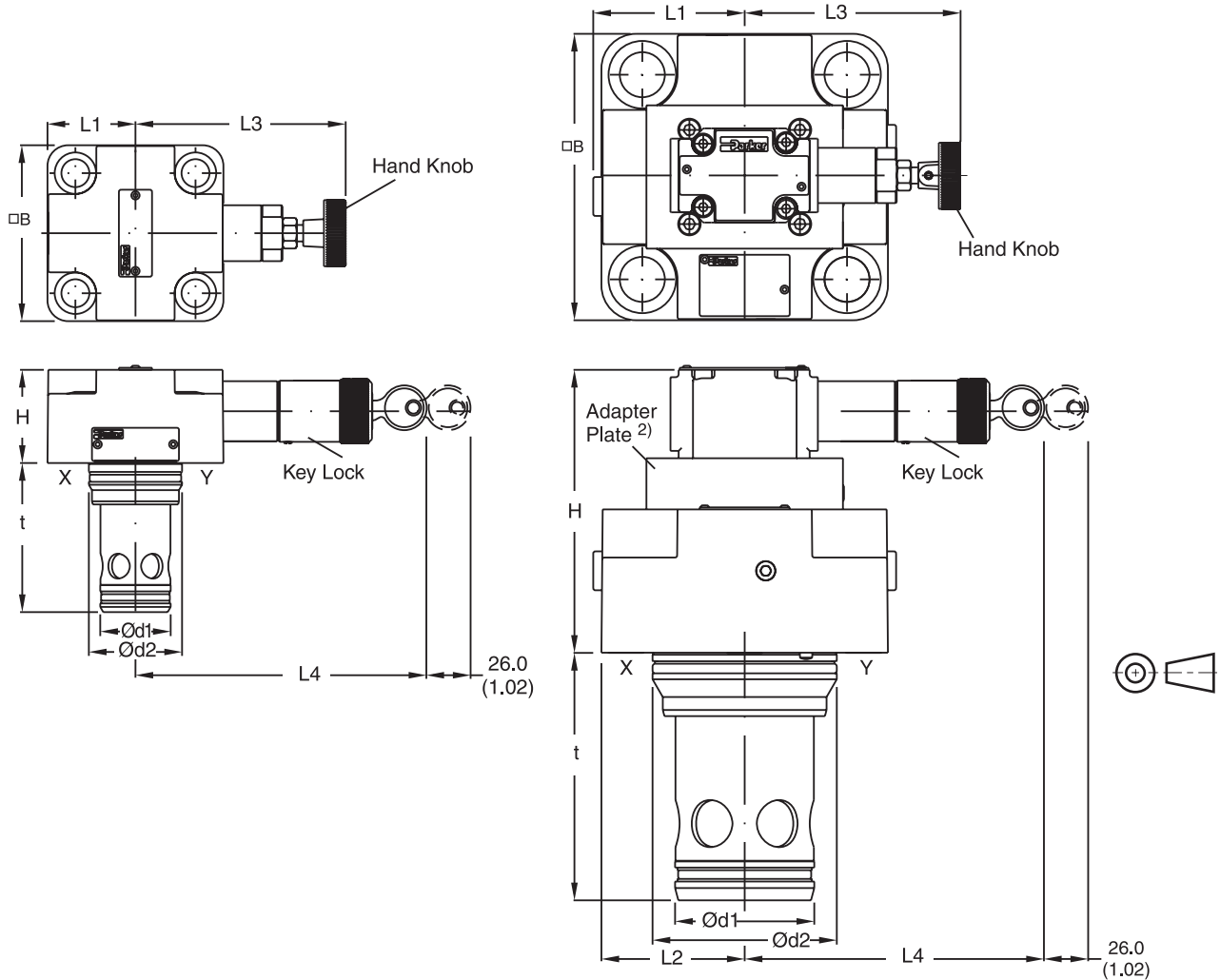


<sup>1)</sup> The performance curves are measured with external drain.  
 For internal drain, the tank pressure has to be added to curve.

**Dimensions**

**Pressure Unloading Valves  
Series UR\*E**

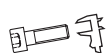


Inch equivalents for millimeter dimensions are shown in (\*\*)



Size	H	B	L1	L2	L3	L4	d1	d2	t
NG16	40.0 (1.57)	65.0 <sup>1)</sup> (2.56)	36.5 (1.44)	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 (33.5)	46.5 (1.83)	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)	55.0 (2.17)	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>2)</sup>	106.0 (4.17)	125.0 (4.92)	66.5 (2.62)	62.5 (2.46)	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)	74.0 (2.91)	70.0 (2.76)	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)	94.0 (3.70)	90.0 (3.54)	106.0 (4.17)	144.0 (5.67)	120.0 (4.72)	90.0 (3.54)	155.0 (6.10)

<sup>1)</sup> Width 79mm (3.11 in.)

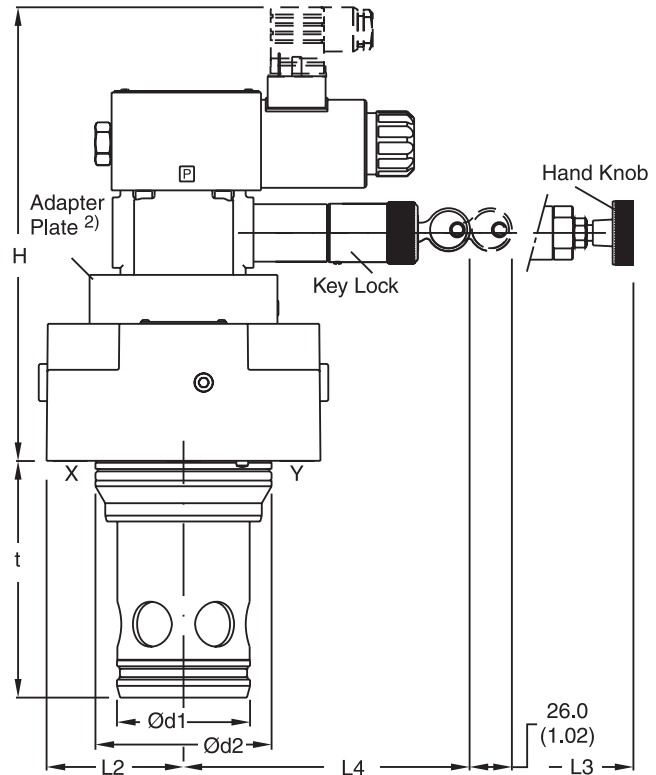
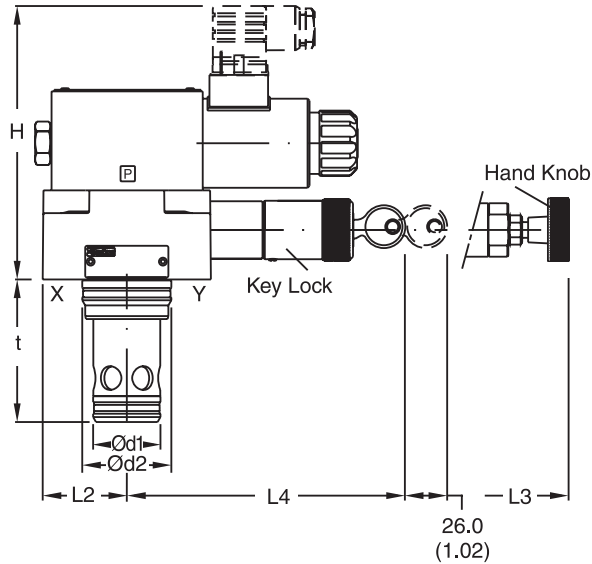
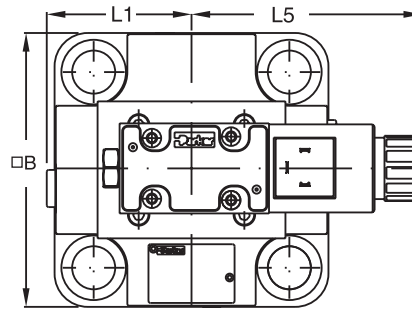
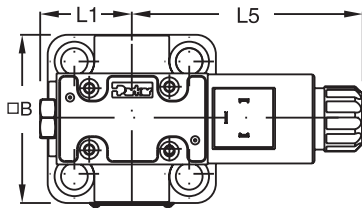
<sup>2)</sup> NG40 without adapter plate

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

**Dimensions**

**Pressure Unloading Valves  
Series US\*E**




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



Size	H	B	L1	L2	L3	L4	d1	d2	t
NG16	40.0 (1.57)	65.0 <sup>1)</sup> (2.56)	36.5 (1.44)	32.5 (1.28)	114.0 (4.49)	125.5 (4.94)	32.0 (1.26)	25.0 (0.98)	56.0 (2.20)
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<sup>1)</sup> Width 79mm (3.11 in.)

<sup>2)</sup> NG40 without adapter plate

NG	Bolt Kit - 		Kit 	
			Nitrile	Fluorocarbon
16	BK414 (BK84)	33 Nm (24.3 lb.-ft.)	SK-RS16E25	SK-RS16EV25
25	BK391 (BK77)	115 Nm (84.8 lb.-ft.)	SK-RS25E25	SK-RS25EV25
32	BK415 (BK85)	281 Nm (207.2 lb.-ft.)	SK-RS32E25	SK-RS32EV25
40	BK416 (BK86)	553 Nm (407.8 lb.-ft.)	SK-RS40E25	SK-RS40EV25
50	BK417 (BK87)	553 Nm (407.8 lb.-ft.)	SK-RS50E25	SK-RS50EV25
63	BK418 (BK88)	1910 Nm (1408.6 lb.-ft.)	SK-RS63E25	SK-RS63EV25