

E Type Series Relief Valve (for Pump Relief)

for **Pump Only**

E Type series pump relief valves are specially designed for pump. Their construction prevent hunting or water hammer even in the case of continuous relief.



SL-38E, 40E Type

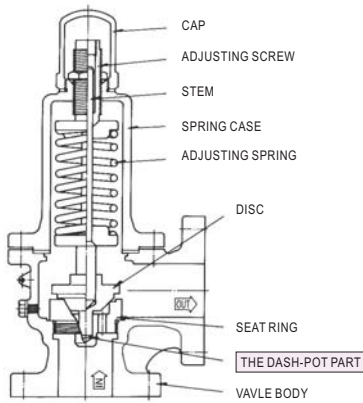


SL-40EF Type

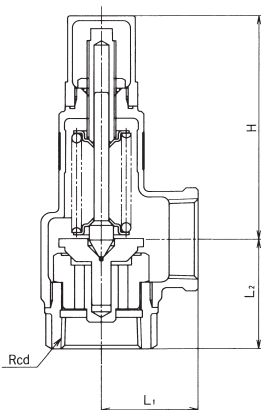


SL-24E Type

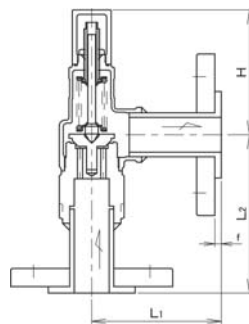
THE DASH-POT PART CONSTRUCTION



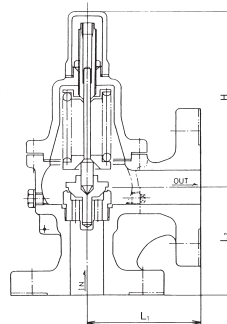
CONSTRUCTION



SL-38E, 40E Type



SL-40EF Type



SL-24E Type

【 DASH-POT TYPE 】

FEATURES

- The dash-pot structure of the disc can inhibit drastic movement of the disc caused by pulsating pressure or fluctuating of pressure.
- It maintains the discharge pressure of pump constantly to relieve increased by change of load of the pump.

SCREWED TYPE

SPECIFICATIONS

Model name	SL-38E		SL-40E	
Code name	SL38E-D □		SL40E-D □	
	※ Code No. of pressure division is required in □. (Refer to page 77)			
Applicable fluid	Water, oil & liquids*			
Size	15~50(½"~2")	15~25(½"~1")	15~50(½"~2")	15~25(½"~1")
Set pressure range	0.035~1.0MPa	1.0~1.6MPa	0.035~1.0MPa	1.0~1.6MPa
Applicable temperature	5~80°C(Available up to 150°C upon request)			
End connection	Screwed JIS Rc			
Materials	Body	Stainless steel(Spring case:Cast bronze)		Stainless steel(Spring case:Stainless steel)
	Disc & seat ring	Stainless steel		
Valve body pressure test	2 times of rated pressure. (Hydraulic)			

*Contact our local agent for gasoline, kerosene and solvent medium use.

FLANGE TYPE

SPECIFICATIONS

Model name	SL-40EF		SL-24E	
Code name	SL40EF-D □		SL24E-B □	SL24E-G □
	※ Code No. of pressure division is required in □. (Refer to page 77)			
Applicable fluid	Water, oil & liquids*		Water, oil & liquids	
Set pressure range	0.035~1.0MPa			
Applicable temperature	5~80°C(Available up to 150°C upon request)			
End connection	Flanged JIS 10K(Loose type)		Flanged JIS 10KFF	
Materials	Body	Stainless steel(Spring case:Stainless steel)		Cast iron
	Disc & seat ring	Stainless steel		Brass / Stainless steel
Valve body pressure test	2 times of rated pressure. (Hydraulic)		1.5 times of rated pressure. (Hydraulic)	

*Contact our local agent for gasoline, kerosene and solvent medium use.

DIMENSIONS

● SL-38E, 40E TYPE (Screwed Type) (mm)

Size	d	L ₁	L ₂	H	Mass(kg)
15(½")	½"	30	36	85	0.5
20(¾")	¾"	35	40	89	0.6
25(1")	1"	40	46	93	0.8
32(1¼")	1¼"	50	54	115	1.4
40(1½")	1½"	55	60	120	1.9
50(2")	2"	65	73	152	3.4

● SL-40EF TYPE (Flange Type) (mm)

Size	L ₁	L ₂	H	f	Mass(kg)
15(½")	90	110	85	5	2.1
20(¾")	95	115	89	5	2.5
25(1")	100	124	93	5	4
32(1¼")	110	138	115	5	5.5
40(1½")	125	154	120	5	6.5
50(2")	135	164	152	5	9

Flange code JIS 10K

● SL-24E TYPE (Flange Type) (mm)

Size	L ₁	L ₂	H	Mass(kg)
15(½")	70	70	116	3
20(¾")	75	75	120	4
25(1")	85	85	129	5.6
40(1½")	100	95	226	12
50(2")	110	105	255	15
65(2½")	135	115	291	22
80(3")	145	125	371	30

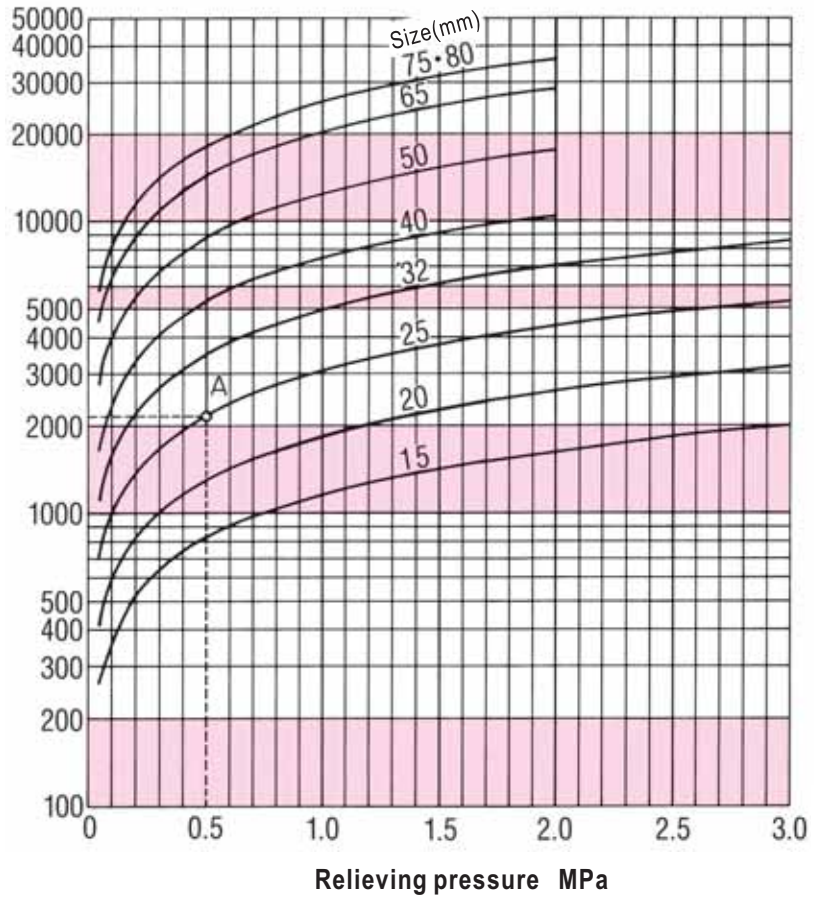
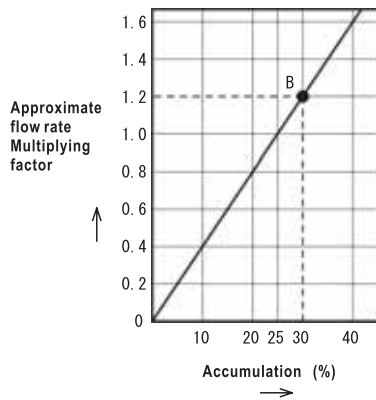
Flange code JIS 10KFF

DATA/E, ED Type Series Relief Valve

Fig 1. FLOW CHARACTERISTICS CHART

Applicable models:

- SL-38E, SL-40E
- SL-40EF, SL-24E
- SL-6ED, SL-8ED, SL-10ED

 Flow
kg/h

Fig 2. APPROXIMATE FLOW RATE

● HOW TO USE THE CHART

1. Use Fig.1 when accumulation is 25%.
2. Use Fig.1 and Fig.2 when accumulation is not 25%.

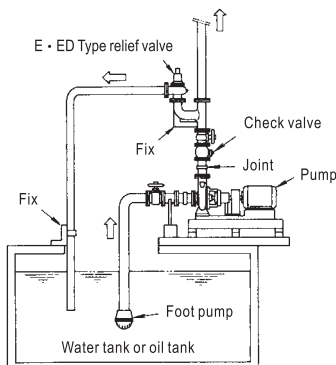
● EXAMPLE

1. Conditions: size 25mm, relieving pressure 0.5MPa, accumulation 25%. From point A (the point where 0.5MPa relieving pressure line intersects with size 25mm curve) in Fig.1, the flow will be 2189kg/h.
2. When accumulation is 30% and other conditions are the same as above, since the approximate flow rate multiplying factor is 1.2, which can be acquired using point B in Fig.2, the flow will be $2180 \times 1.2 = 2616 \text{ kg/h}$.

● kg/h → l/min conversion (for reference only)

Since the weight of 1l water is about 1kg

$$l/min = \frac{\text{value in the above chart (kg/h=l/h)}}{60}$$

■ PIPING EXAMPLE


PRESSURE CLASSIFICATION TABLE

● E TYPE SERIES RELIEF VALVE

【DASH POT TYPE】 for PUMP

SL-38E, 40E TYPES (Screwed Type)

(MPa)

Code No.	SL38E-D □, SL40E-D □
1	0.035~0.2
2	Over 0.2~0.5
3	Over 0.5~1.0
4	Over 1.0~1.6

* Code No. of pressure division is required in □.

SL-40EF TYPE (Flange Type)

(MPa)

Code No.	SL40EF-D □
1	0.035~0.2
2	Over 0.2~0.5
3	Over 0.5~1.0

* Code No. of pressure division is required in □.

SL-24E TYPE (Flange Type)

(MPa)

Code No.	SL24E-B □, SL24E-G □	
	Size 15~65mm	Size 80mm
1	0.035~0.2	0.035~0.2
2	Over 0.2~0.7	Over 0.2~0.5
3	Over 0.7~1.0	Over 0.5~0.8
4		Over 0.8~1.0

* Code No. of pressure division is required in □.

● ED TYPE SERIES RELIEF VALVE

【DAMPER TYPE】 for PUMP AND THERMAL RELIEF PURPOSE

SL-8ED TYPE (Screwed Type)

SL-10ED TYPE (Flange Type)

(Max. 3.0MPa)

■ FORGED STEEL

(MPa)

Code No.	SL8ED-N □, SL10ED-N □		
	Size 15~20mm	Size 25mm	Size 32mm
1	0.035~0.15	0.035~0.3	0.035~0.15
2	Over 0.15~0.4	Over 0.3~0.5	Over 0.15~0.3
3	Over 0.4~0.8	Over 0.5~1.0	Over 0.3~0.6
4	Over 0.8~1.5	Over 1.0~2.0	Over 0.6~1.1
5	Over 1.5~2.5	Over 2.0~3.0	Over 1.1~1.6
6	Over 2.5~3.0		Over 1.6~2.4
7			Over 2.4~3.0

* Code No. of pressure division is required in □.

■ STAINLESS STEEL

(MPa)

Code No.	SL8ED-D □, SL10ED-D □		
	Size 15~20mm	Size 25mm	Size 32mm
1	0.035~0.15	0.035~0.3	0.035~0.15
2	Over 0.15~0.4	Over 0.3~0.45	Over 0.15~0.3
3	Over 0.4~0.8	Over 0.45~1.0	Over 0.3~0.6
4	Over 0.8~1.5	Over 1.0~2.0	Over 0.6~1.0
5	Over 1.5~2.5	Over 2.0~3.0	Over 1.0~1.5
6			Over 1.5~2.0
7			Over 2.0~3.0

* Code No. of pressure division is required in □.

SL-6ED TYPE (Flange Type) (Max. 2.0MPa)

(MPa)

Code No.	SL6ED-G □, SL6ED-C □
1	0.035~0.1
2	Over 0.1~0.2
3	Over 0.2~0.4
4	Over 0.4~0.6
5	Over 0.6~0.85
6	Over 0.85~1.5
7	Over 1.5~2.0

* Code No. of pressure division is required in □.