

EBS/ECS-1W Type, EBF/ECF-1W Type Emergency Shut off Solenoid Valve

Diaphragm type

It can rapidly close and shut off fluid using electrical signal when emergency occurs. To restart, the operator must confirm safety first and then operate the lever manually. This allows safer operation.

EBS/ECS-1W, EBF/ECF-1W Type series are diaphragm type emergency shut off valves with different shapes, operations, connection methods and are made of different materials.

FEATURES

- Compact, light weight.
- Wide range of working pressure.

- A variety of models available for meeting different demands.

SPECIFICATIONS

Model name	EBS-1W	ECS-1W	EBF-1W	ECF-1W
Code name	EBS1W-F	ECS1W-F	EBF1W-F	ECF1W-F
Size	10~50(3/8"~2")		15~50(1/2"~2")	
End connection	Screwed JIS Rc		Flanged JIS 10KFF	
Operation	Deenergized close	Energized close	Deenergized close	Energized close
Applicable fluid	Water, air & inert gases			
Fluid temperature	5~60°C			
Applicable pressure	0~1.0MPa			
Fluid viscosity	50cSt or less			
Rated voltage	Exclusive use: AC100V 50/60Hz or AC200V 50/60Hz			
Rated Current	AC100V:0.3A, AC200V:0.15A			
Starting Current	AC100V:1.0A, AC200V:0.5A			
Ambient temperature	5~40°C			
Protection	Dust proof (Insulated in the E class) · Indoor use*1.			
Materials	Body(Cast bronze*), Diaphragm(Synthetic rubber)			
Valve body pressure test	Hydraulic 1.5MPa			

* 1. For outdoor use, protect the valve with a cover.

* 2. Stainless steel body valve is available upon your request.

DIMENSIONS(EBS-1W, ECS-1W Type)

(mm)

Size	d	Ls	Gs	H	S	Cv value	Mass(kg)
10(3/8")	3/8"	63	15	176	70	3	2.6
15(1/2")	1/2"	63	15	176	70	4	2.6
20(3/4")	3/4"	80	18	178	70	7	2.7
25(1")	1"	90	22	183	70	9	3.1
32(1 1/4")	1 1/4"	106	27	190	70	15	3.7
40(1 1/2")	1 1/2"	118	30	193	70	18	4.7
50(2")	2"	140	37	207	70	25	6.3

DIMENSIONS(EBF-1W, ECF-1W Type)

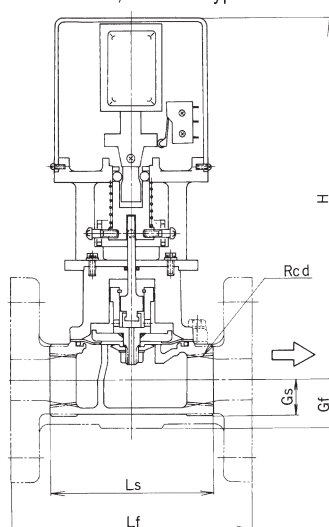
(mm)

Size	Lf	Gf	H	S	Cv value	Mass(kg)
15(1/2")	112	21	176	70	4	4.1
20(3/4")	118	24	178	70	7	4.7
25(1")	140	27	183	70	9	6.3
32(1 1/4")	150	32	190	70	15	7.6
40(1 1/2")	160	35	193	70	18	9
50(2")	190	41	207	70	25	11.5

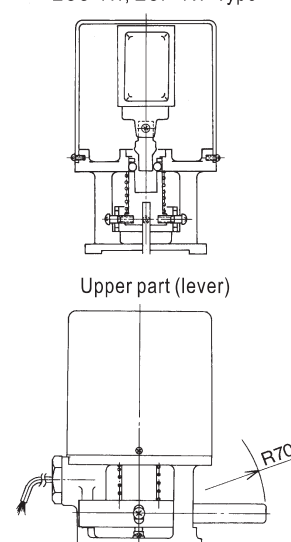
Flange code JIS 10KFF

CONSTRUCTION

EBS-1W, EBF-1W Type



ECS-1W, ECF-1W Type


EBS-1W Type
ECS-1W Type

EBF-1W Type
ECF-1W Type

DATA/Emergency Shut off Valve

Fig.1 Piping example

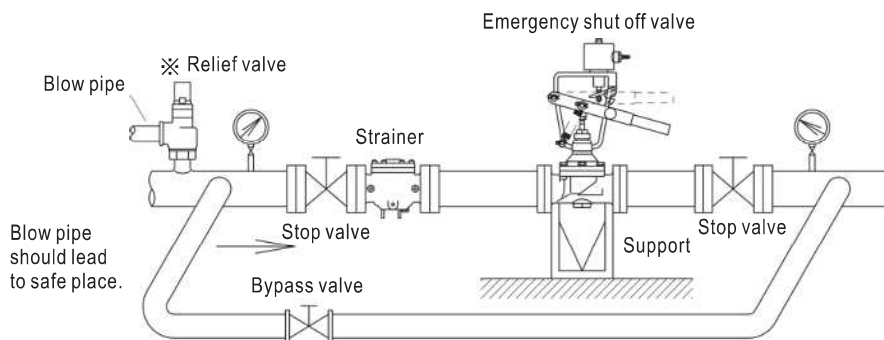
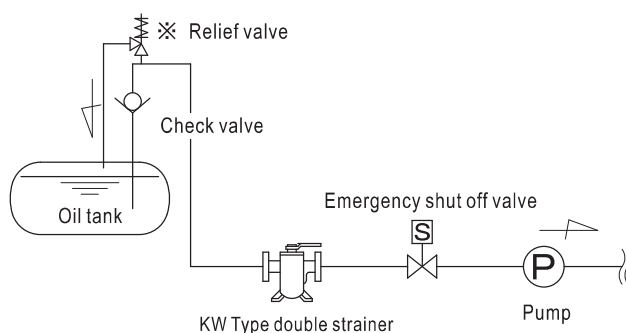


Fig.2 Piping example



※ In the case of liquid application, install relief valve if water hammer or thermal expansion of fluid due to change of ambient temperature is anticipated.

SELECTION AND INSTALLATION

1. In general, strainer should be installed on the primary side of emergency shut off valve (see Fig.1).
2. Install a bypass pipe (with stop valve) between the primary and secondary sides of emergency shut off valve if the operation of equipment cannot be stopped (see Fig.1).
3. The drive unit of the valve should stand upright above to horizontal pipe (see Fig.1).
4. Back flow may occur when the secondary pressure is larger than the primary pressure. To prevent back flow, install check valve on the secondary side.
5. When used for liquid, the pressure inside the piping may increase due to water hammer which occurs when valve is closed or due to the expansion caused by ambient temperature increase. In this case, it is recommended to install relief valve to protect equipment (see Fig.1, 2).
6. The valve cannot open or close when pressure exceeds rated pressure. And the valve cannot operate under vacuum pressure.
7. Use explosion proof model if there is explosive gas accumulated in the atmosphere.
8. See specifications of product for suitable ambient temperature.
9. For outdoor installation, cover the valve to avoid exposure to rain or direct sunlight.
10. Connect coil properly using 0.75mm² or above wire. Install fuse to protect electric circuit.
11. To avoid malfunction caused by vibration, install shock absorber for places with excessive vibration.
12. Make sure the arrow mark on emergency shut off valve match with the direction of flow of fluid.
13. Leave sufficient space for maintenance purpose.
14. Fix and support piping properly to prevent the valve from being damaged due to weight of piping, excessively large stress, bending force or vibration.
15. Discharge drain or apply thermal insulation if there is risk of freezing.
However, the coil should not be applied with any thermal insulation.