

EIE-FS, FP Type Pressure Resistance and Explosion Proof Emergency Shut off Solenoid Valve

d2G4 pressure resistant and
explosion proof structure

Pressure resistant and explosion proof solenoid valve is ideal for piping of fuel storage tank system and other important lines. It can close and shut off fluid flow by electric signal (such as one sent out by vibration sensor) when earthquake, fire or other accident occurs, and prevent secondary disasters. Manual restarting requires operator to confirm safety and resume electric signal before operating the restart lever. For size 100mm (and below) valves, it is easy to switch between power-off closing and power-on closing by changing the position of stopper hole.

■ SPECIFICATIONS

Model name	EIE-FS			EIE-FP
Code name	EIEFS-RB	EIEFS-HB	EIEFS-BB	EIEFP-RB
Use	Liquids	Gases	Steam	High differential pressure
Size	15~200(1/2"~8")			32~200(1/4"~8")
Applicable fluid	Fuel oils ^{*1} , water & oils	Fuel gases, air	Steam	Fuel oils ^{*1} , water, air & oils
Fluid temperature	5~100°C	5~60°C	Max. 180°C	5~100°C
Fluid viscosity	900cSt or less	—	—	900cSt or less
Rated Pressure	1.0MPa	1.0MPa ^{*2}	1.0MPa	1.0MPa ^{*2}
Applicable press. differential limit	According to table for applicable press. differential limit			
Leakage allowance	Nil (Confirm at pressure gauge.)		0.01% or less of rated flow	Nil (Confirm at pressure gauge.)
Operation	De-energized close type, reset to open manually when energized ^{*3} .			
Rated voltage	AC100V 50Hz, AC100V 60Hz, AC200V 50Hz, AC200V 60Hz			
Ambient temperature	-10~40°C			
Protection	Pressure resistance and explosion proof (d2G4 Insulated in the B class) · indoor use ^{*4} .			
End connection	Flanged JIS 10KFF			
Materials	Body	Body(Cast iron ^{*1,*5}), Disc & seat(Cast bronze)		
	Disc	Teflon	Synthetic rubber	Teflon
Valve body pressure test	Hydraulic 1.5MPa			

* 1. If there is any local regulation for fuel oils or diesel oil, confirm the body materials according to the regulation.

* 2. In case of fuel gases use, rated pressure is up to 0.2MPa. Rated pressure 1.0MPa with cast steel valve body is available upon your request.

* 3. Energized close type is available upon your request.

* 4. Use rain cover and terminal box for outdoor installation.

* 5. For products with cast bronze (size 50~100mm), cast steel, or stainless steel body, please contact our agent in your area.

* 6. Item with an explosion proof limit switch to confirm operation is available upon your request.

■ CURRENT VALUES

(A)

Voltage division		AC100V 50Hz	AC100V 60Hz	AC200V 50Hz	AC200V 60Hz
Current value	Rated	0.65	0.65	0.30	0.30
	Starting	5.7	6.2	2.7	3.1

■ DIMENSIONS

(mm)

Size	15(1/2")	20(3/4")	25(1")	32(1 1/4")	40(1 1/2")	50(2")	65(2 1/2")	80(3")	100(4")	125(5")	150(6")	200(8")
L	112	125	140	160	180	200	270	290	350	360	410	500
G	52	57	62	67	72	82	120	141	160	190	214	240
H	454	456	461	464 (468)	482 (486)	492 (496)	510 (502)	530 (524)	549 (543)	681 (681)	705 (705)	731 (731)
S(Reference)	233	233	233	233	363	363	363	363	363	530	530	530
Cv value	3.6	6.4	10	16	25	40	67	102	160	250	360	640
Mass(kg)	10.2	10.7	12.5	13.8	15.4	18.6	34.6	39.3	60.3	107	132	192

* Figures in () are the dimensions for EIE-FP Type.

Flange code JIS 10KFF

■ APPLICABLE PRESS. DIFFERENTIAL LIMIT

(MPa)

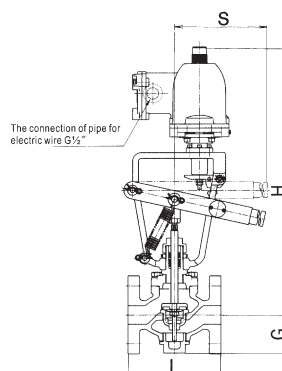
Size	15(1/2")	20(3/4")	25(1")	32(1 1/4")	40(1 1/2")	50(2")	65(2 1/2")	80(3")	100(4")	125(5")	150(6")	200(8")
EIE-FS Type	1.0	1.0	1.0	0.7	0.7 (0.4)	0.5 (0.3)	0.3 (0.15)	0.2 (0.1)	0.1 (0.05)	0.06	0.04	0.02
EIE-FP Type	—	—	—	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5

* Figures in () are in case of 233mm for S in dimension table.

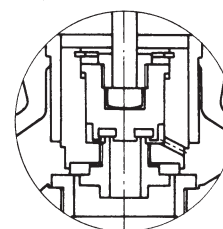
■ CONSTRUCTION



EIE-FS Type



Disc structure of EIE-FP Type



Depending on size, the structure may vary.

DATA/Emergency Shut off Valve

Fig.1 Piping example

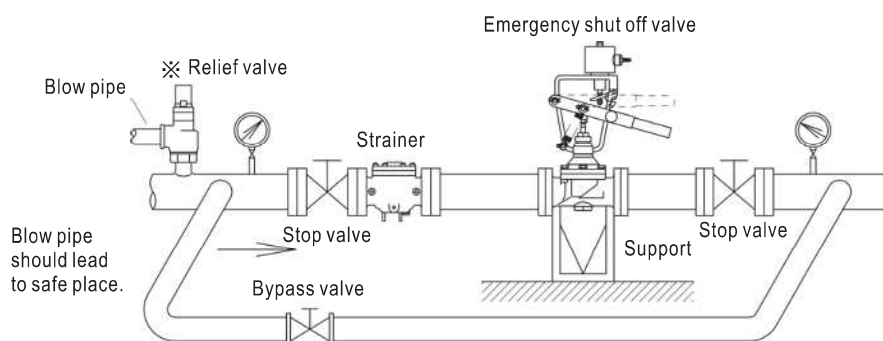
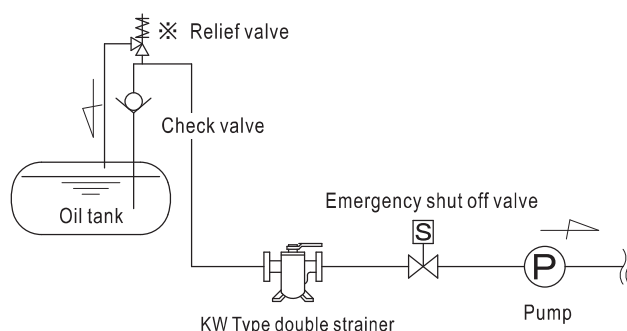


Fig.2 Piping example



※ 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.