

SAGInoMIYA

SOLENOID VALVES SERIES












SAGINOMIYA PRODUCT CATALOG

● Solenoid Valves

Contents










2-WAY VALVES

	Type	Applications	Connection	
			Style	Connection size
SEV 	SOLENOID VALVES FOR REFRIGERANT Versatile product lineup	<ul style="list-style-type: none"> Condensing units Cooling units Chillers Dehumidifiers Air conditioning systems 	Flare	1/4"~3/4"
			Solder	1/4"~7/8"
RPV 	HIGH PRESSURE SOLENOID VALVES FOR REFRIGERANT High Pressure Available Energy Saving Coil	<ul style="list-style-type: none"> Condensing units Cooling units Chillers Dehumidifiers Air conditioning systems 	Flare	1/4"~3/4"
			Solder	1/4"~7/8"
REV 	SOLENOID VALVES FOR REFRIGERANT Large Port Size Available Explosion-Proof Type Available	<ul style="list-style-type: none"> Condensing units Chillers Air conditioning systems 	Flare	3/8"~3/4"
			Rc	3/8"~3/4"
			Solder	3/8"~1-5/8"
			Square Flange	20A~80A
UEV 	SOLENOID VALVES FOR REFRIGERANT Normally Opened	<ul style="list-style-type: none"> Condensing units Chillers Air conditioning systems 	Flare	1/2"~3/4"
			Rc	3/8"~1"
			Solder	1/2"~1-1/8"
JEV 	SOLENOID VALVES FOR REFRIGERANT Built-In Strainer	<ul style="list-style-type: none"> Condensing units Chillers Air conditioning systems 	Square Flange	10A~32A
HEV 	SMALL SIZED SOLENOID VALVES FOR WATER	<ul style="list-style-type: none"> Hot water boilers Water heaters Electric water heaters 	Rc	1/2"
WEV 	SOLENOID VALVES FOR WATER / BRINE	<ul style="list-style-type: none"> Cooling / Heating equipment Air conditioning systems Various industrial equipment 	Rc	1/2"~2"
			Flange (Round Type)	15A~80A
AMV 	SOLENOID VALVES FOR GENERAL PURPOSE Water Steam Air Oil	<ul style="list-style-type: none"> Heating and cooling equipment Sterilizers Humidifiers Oiling equipment 	Rc	1/2"~1"
GMV 	SOLENOID VALVES FOR OIL Both Normally Closed and Normally Opened types available	<ul style="list-style-type: none"> Water boilers Air heaters Fuel oil supply devices 	Rc	3/8"~1/2"

Refrigerant	Available fluids					Normal operation		Strainer	Max. working pressure (MPa)	Page
	Air	Water	Steam	Oil	Inert gases	Normally Closed	Normally Opened			
✓	✓				✓	✓		✓ part	4.2	7
✓						✓			4.3	13
✓	✓				✓	✓			4.2 (Y) 2.94 (X)	17
									2.94	
✓	✓				✓				2.94	23
✓	✓				✓	✓		✓	2.94	27
			✓			✓			0.10 (Direct operated) 0.29 (Pilot operated)	31
			✓			✓			0.98	33
	✓	✓	✓	✓		✓			0.98	37
					✓	✓		✓	2.06	39

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2-WAY VALVES


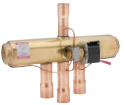
	Type	Applications	Connection	
			Style	Connection size
GEV	 <p>SMALL SIZED SOLENOID VALVES FOR OIL</p> <p>Both Normally Closed and Normally Opened types available</p>	<ul style="list-style-type: none"> Water boilers Air heaters General industrial equipment 	Rc	1/8"~3/8"
HMV	 <p>SOLENOID VALVES FOR AMMONIA REFRIGERANT</p>	<ul style="list-style-type: none"> Refrigerator / Freezers 	Rc	1/4"~3/4"
			Oval Flange	20A~25A
			Square Flange	32A~50A
TEV-S OEM	 <p>SMALL SIZED SOLENOID VALVES FOR REFRIGERANT</p>	<ul style="list-style-type: none"> Room air conditioners Packaged air conditioners Heat pump water heaters Bottle coolers Dehumidifiers Ice makers 	Solder	1/4"
VPV OEM	 <p>SMALL SIZED SOLENOID VALVES FOR REFRIGERANT</p>	<ul style="list-style-type: none"> Room air conditioners Packaged air conditioners Heat pump water heaters Bottle coolers Dehumidifiers Ice makers 	Solder	1/4"~1/2"
BPV OEM	 <p>BI-FLOW SOLENOID VALVES</p> <p>Bi-flow control</p>	<ul style="list-style-type: none"> Packaged air conditioners VRF 	Solder	3/8"~3/4"
EPV OEM	 <p>HIGHLY DURABLE SOLENOID VALVES FOR SHOWCASES</p> <p>high durability</p> <p>Functions as both a liquid supply solenoid valve and an expansion valve</p>	<ul style="list-style-type: none"> Display cases 	Solder	3/8"
MHV OEM	 <p>BI-FLOW 2-WAY VALVE FOR REFRIGERANT</p> <p>High flow rate</p> <p>Low pressure drop</p>	<ul style="list-style-type: none"> Packaged air conditioners VRF 	Solder	1/2" 3/4"
HPV OEM	 <p>SOLENOID VALVES FOR CO₂ REFRIGERANT</p> <p>Ultra-high pressure</p>	<ul style="list-style-type: none"> CO₂ Condensing units CO₂ Display cases CO₂ Bottle coolers CO₂ Refrigerator / Freezers CO₂ Heat pump water heaters 	Solder	1/4" 5/16"
HPV-E OEM	 <p>ELECTRIC EXPANSION VALVE FOR CO₂ REFRIGERANT</p> <p>high durability</p> <p>Functions as both a liquid supply solenoid valve and an expansion valve</p>	<ul style="list-style-type: none"> CO₂ Display cases 	Solder	1/4"

High Volume OEM Item ⇒ OEM


Refrigerant	Available fluids					Normal operation		Strainer	Max. working pressure (MPa)	Page
	Air	Water	Steam	Oil	Inert gases	Normally Closed	Normally Opened			
				✓		✓	✓		2.06	41
✓ NH ₃						✓			2.55	43
✓						✓			4.3	47
✓						✓	✓ part		4.3	47
✓						✓		✓ part	4.2	51
✓						✓		✓ part	4.2	53
✓						✓	✓		4.15	55
✓ CO ₂						✓			13.0~15.0	57
✓ CO ₂						✓		✓	8.0	59

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3-WAY VALVES

	Type	Applications	Connection	
			Style	Connection size
IEV 	3-WAY VALVES FOR REFRIGERANT Heat recovery systems Hot gas defrosting systems	<ul style="list-style-type: none"> Condensing units Refrigerator / Freezers 	Solder	5/8" ~ 1-3/8"
STF-C 	3-WAY VALVES FOR REFRIGERANT High flow rate	<ul style="list-style-type: none"> Cooling units Packaged air conditioners VRF Chillers 	Solder	1/2", 3/4" 3/4", 7/8" (High pressure, Low pressure)

4-WAY VALVES

	Type	Applications	Connection	
			Style	Connection size
STF 	4-WAY REVERSING VALVES FOR REFRIGERANT	<ul style="list-style-type: none"> Room air conditioners Packaged air conditioners VRF Heat pump water heaters Chillers 	Solder	5/16" ~ 2-5/8"

High Volume OEM Item ⇒ **OEM**

Refrigerant	Available fluids					Strainer	Max. working pressure (MPa)	Page
	Air	Water	Steam	Oil	Inert gases			
✓							2.94	61
✓							4.2	65

High Volume OEM Item ⇒ **OEM**

Refrigerant	Available fluids					Strainer	Max. working pressure (MPa)	Page
	Air	Water	Steam	Oil	Inert gases			
✓							4.15 (G) 4.2 (H)	67

2) Temperature difference conversion table (°C ↔ °F)

This table is a comparison table of temperature difference. For example, a 9° F difference (77°F – 68°F) corresponds to a 5°C difference (25°C – 20°C).

°C	↓	°F
0.056	0.1	0.18
0.111	0.2	0.36
0.278	0.5	0.90
0.56	1	1.8
1.11	2	3.6
1.67	3	5.4
2.22	4	7.2
2.78	5	9.0
3.33	6	10.8
3.89	7	12.6
4.44	8	14.4
5.00	9	16.2
5.56	10	18.0
6.11	11	19.8
6.67	12	21.6
8.33	15	27.0

3) Pressure conversion table (kgf/cm² ↔ MPa)

The figures in the center column show the pressure to be converted. The figures on the right show conversion from MPa to kgf/cm² and the figures on the left from kgf/cm² to MPa.

Example : 1 MPa = 10.1972 kgf/cm², 1 kgf/cm² = 0.09807 MPa

MPa	↓	kgf/cm²	MPa	↓	kgf/cm²	MPa	↓	kgf/cm²
0.000000	0.0	0.00000	0.0980665	1	10.1972	1.961330	20	203.944
0.0098067	0.1	1.01972	0.1961330	2	20.3944	2.941995	30	305.916
0.0196113	0.2	2.03944	0.2941995	3	30.5916	3.922660	40	407.888
0.0294200	0.3	3.05916	0.3922660	4	40.7888	4.903325	50	509.860
0.0392266	0.4	4.07888	0.4903325	5	50.9860	5.883990	60	611.832
0.0490333	0.5	5.09860	0.5883990	6	61.1832	6.864655	70	713.804
0.0588399	0.6	6.11832	0.6864655	7	71.3804	7.845320	80	815.776
0.0686466	0.7	7.13804	0.7845320	8	81.5776	8.825985	90	917.748
0.0784532	0.8	8.15776	0.8825985	9	91.7748	9.806650	100	1019.72
0.0882599	0.9	9.17748	0.9806650	10	101.972			

4) Pressure conversion table (MPa ↔ psi)

Example : 1 MPa = 145.052 psi, 1 psi = 0.006895 MPa

MPa	↓	psi	MPa	↓	psi	MPa	↓	psi
0.000000	0	0.00000	0.006895	1	145.052	0.137900	20	2901.04
0.000690	0.1	14.5052	0.013790	2	290.104	0.206850	30	4351.56
0.001379	0.2	29.0104	0.020685	3	435.156	0.275800	40	5802.08
0.002069	0.3	43.5156	0.027580	4	580.208	0.344750	50	7252.60
0.002758	0.4	58.0208	0.034475	5	725.260	0.413700	60	8703.12
0.003448	0.5	72.5260	0.041370	6	870.312	0.482650	70	10153.6
0.004137	0.6	87.0312	0.048265	7	1015.36	0.551600	80	11604.2
0.004827	0.7	101.536	0.055160	8	1160.42	0.620550	90	13054.7
0.005516	0.8	116.042	0.062055	9	1305.47	0.689500	100	14505.2
0.006206	0.9	130.547	0.068950	10	1450.52			

5) Capacity conversion table (kW ↔ kcal/h)

Example : 1 kW ↔ 860 kcal/h

kW	↓	1000 kcal/h	kW	↓	1000 kcal/h	kW	↓	1000 kcal/h	kW	↓	1000 kcal/h
0.166	0.1	0.86	1.162	1	0.86	11.62	10	8.6	116.2	100	86
0.232	0.2	1.72	2.325	2	1.72	23.25	20	17.2	232.5	200	172
0.348	0.3	2.58	3.488	3	2.58	34.88	30	25.8	348.8	300	258
0.465	0.4	3.44	4.651	4	3.44	46.51	40	34.4	465.1	400	344
0.581	0.5	4.30	5.813	5	4.33	58.13	50	43.3	581.3	500	433
0.697	0.6	5.16	6.976	6	5.16	69.76	60	51.6	697.6	600	516
0.813	0.7	6.02	8.139	7	6.02	81.39	70	60.2	813.9	700	602
0.930	0.8	6.88	9.302	8	6.88	93.02	80	68.8	930.2	800	688
1.046	0.9	7.74	10.46	9	7.74	104.6	90	77.4	104.6	900	774

6) Length conversion table (in ↔ mm)

in	mm	in	mm	in	mm	in	mm
1/8	3.18	1/32	0.79	1/64	0.40	33/64	13.10
1/4	6.35	3/32	2.38	3/64	1.19	35/64	13.89
3/8	9.53	5/32	3.97	5/64	1.98	37/64	14.68
1/2	12.70	7/32	5.56	7/64	2.78	39/64	15.48
5/8	15.88	9/32	7.14	9/64	3.57	41/64	16.27
3/4	19.05	11/32	8.73	11/64	4.39	43/64	17.07
7/8	22.23	13/32	10.32	13/64	5.16	45/64	17.86
1	25.40	15/32	11.91	15/64	5.95	47/64	18.65
1/16	1.59	17/32	13.49	17/64	6.75	49/64	19.45
3/16	4.76	19/32	15.08	19/64	7.54	51/64	20.24
5/16	7.94	21/32	16.67	21/64	8.33	53/64	21.04
7/16	11.11	23/32	18.26	23/64	9.13	55/64	21.83
9/16	14.29	25/32	19.84	25/64	9.92	57/64	22.62
11/16	17.46	27/32	21.43	27/64	10.72	59/64	23.42
13/16	20.64	29/32	23.02	29/64	11.51	61/64	24.21
15/16	23.81	31/32	24.61	31/64	12.30	63/64	25.00

7) Vacuum conversion table (MPa ↔ MPa (abs) ↔ cmHgV ↔ kgf/cm² (abs))

Example : -0.0667 MPa ↔ 0.0347 MPa(abs) ↔ 50 cmHgV ↔ 0.3535 kgf/cm² (abs)

MPa	MPa (abs)	cmHg V	kgf/cm² (abs)	MPa	MPa (abs)	cmHg V	kgf/cm² (abs)	MPa	MPa (abs)	cmHg V	kgf/cm² (abs)
-0.1013	0.0000	76	0.0000	-0.0613	0.0400	46	0.4078	-0.0213	0.0800	16	0.8157
-0.0987	0.0027	74	0.0272	-0.0587	0.0427	44	0.4350	-0.0187	0.0827	14	0.8429
-0.0960	0.0053	72	0.0544	-0.0560	0.0453	42	0.4622	-0.0160	0.0853	12	0.8700
-0.0933	0.0080	70	0.0816	-0.0533	0.0480	40	0.4894	-0.0133	0.0880	10	0.8972
-0.0907	0.0107	68	0.1088	-0.0507	0.0507	38	0.5166	-0.0107	0.0907	8	0.9245
-0.0880	0.0133	66	0.1360	-0.0480	0.0533	36	0.5438	-0.0080	0.0933	6	0.9517
-0.0853	0.0160	64	0.1631	-0.0453	0.0560	34	0.5710	-0.0053	0.0960	4	0.9788
-0.0827	0.0187	62	0.1903	-0.0427	0.0587	32	0.5981	-0.0027	0.0987	2	1.0060
-0.0800	0.0213	60	0.2175	-0.0400	0.0613	30	0.6254	0	0.1013	0	1.0332
-0.0773	0.0240	58	0.2447	-0.0373	0.0640	28	0.6526				
-0.0747	0.0267	56	0.2719	-0.0347	0.0667	26	0.6798				
-0.0720	0.0293	54	0.2991	-0.0320	0.0693	24	0.7069				
-0.0693	0.0320	52	0.3263	-0.0293	0.0720	22	0.7341				
-0.0667	0.0347	50	0.3535	-0.0267	0.0747	20	0.7613				
-0.0640	0.0373	48	0.3806	-0.0240	0.0773	18	0.7885				


OVERVIEW OF EXPANSION VALVE

TERMS AND DEFINITIONS

- Catalog No. On standard products, specify the Catalog No. only.
- Port Size The inner diameter of the valve.
- Capacity Nominal capacity under standard operating conditions
- Connection (Copper tube solder)
 - ODF (Outside Diameter Female) :
"Connection size" is the outside diameter of the piping to be connected.
Insert the piping into the connection tube of the valve and braze connection.
 - ODM (Outside Diameter Male) :
"Connection size" is the outside diameter of the valve connection tube.
Cover the pipe, such as an expanded pipe, with the connection tube of the valve and braze connection.
- Operating Pressure Differential (O.P.D) The pressure difference between the inlet and outlet sides of the valve is within this range, the valve will open and close reliably.
- Max. Working Pressure The maximum usable pressure at which the valve will function without any problems under normal operating conditions.
- Fluid Temperature The temperature range of fluid that can flow inside the valve.
- Pressure indication Gauge pressure

SOLENOID VALVES FOR REFRIGERANT / Type SEV



Click or scan here for the capacity table. ⇒ 

URL : https://saginomiya.co.jp/en/auto/pdf/sev_capacity.pdf

Coil sold separately

TYPE NUMBER SELECTION

Catalog No.				Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Max. working pressure (MPa)	Strainer with / without	* 2 Wt. (kg)			
Type	Model	Fluid	Special application			Style	Connection size	Min.	Max.						
SEV	303BY	F Various refrigerants * 1	—	3	0.25	Flare	3/8"	0	2.45 (AC Coil)	4.2	with	0.3			
	502BY			5	0.51		1/4"								
	603BY			6	0.80		3/8"								
	1004BY			10	1.75		1/2"								
	1205BY			12	2.9		5/8"								
	1506BY			15	4.5	3/4"									
	303DY			3	0.25	Copper tube solder (ODF)	3/8"	0.007	1.96 (DC Coil)	4.2	without	0.15			
	502DY			5	0.53		1/4"								
	603DY			6	0.83		3/8"								
	604DY			10	2.0		1/2"								
	1004DY			10	2.0		1/2"								
	1005DY			12	3.5		5/8"								
	1205DY			12	3.5		5/8"								
	1506DY			15	5.3		3/4"								
	1507DY			15	5.3		7/8"								
	502DY	5	0.53	1/4"	0		1.96 (DC Coil)						4.2	with	0.25
	603DY	Q50	6	0.83		3/8"		0	1.96 (DC Coil)	4.2	without	0.3			
	604DY					1/2"									

* 1 R134a, R404A, R407C, R410A, R448A, R449A, R407H, R463A-J (For other refrigerants, please contact us.)

* 2 Valve only (without coil)

FEATURES

- Versatile valve body and coil lineup enable wider applications.
- Capable of handling various low GWP refrigerants (R448A, R449A, R407H, R463A-J and others)
- Strainer is installed in flare connection models. Solder connection models with strainer (type Q50) are also available for some sizes.
- Coils can be selected from various lineups. It can be used in common regardless of valve body types and connection sizes.
- Standards : CQC, CE, UKCA (Please contact us for details such as approved specifications.)

APPLICATIONS

- Condensing units
- Cooling units
- Chillers
- Dehumidifiers
- Air conditioning systems, etc.

COMMON SPECIFICATIONS

- Max. working pressure : 4.2 MPa
- Fluid Temperature : -40~125°C
- Ambient temperature : -30~50°C
- Normally Closed
- Flare type, Solder type

DESCRIPTION OF CATALOG NO. (BODY) *

SEV - 15 06 B Y F
I II III IV V VI

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Pressure class
VI	Fluid

* Coil is not included with the body. Please specify the catalog number of coil and purchase it separately.

COIL SELECTION

Description of Coil Catalog No.

SEV - A 1 W 20C
I II III IV

I	Power supply
II	Voltage
III	Coil Style
IV	Cable gland size

• IV is only when the Coil Style is "W".

Power supply / Voltage
A1 : 100V.AC
A2 : 200V.AC
A3 : 110V.AC
A4 : 220V.AC
A7 : 24V.AC
AA : 230V.AC
AB : 240V.AC
AC : 120V.AC
D6 : 12V.DC
D7 : 24V.DC

Coil Style
R : Lead Wire type
D : DIN plug (with socket)
E : DIN plug (without socket)
U : Junction box type
W : Drip-proof terminal box type

COIL SELECTION

Type	Catalog No. Model	Coil Style	Coil Wt. (kg)	Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class
							Running	Inrush		
SEV	A1R	Lead Wire type	0.1	100V. AC	50/60	± 10	15/11	45/33	7/6	Class B Molded
	A1D	DIN plug (with socket)	0.2							
	A1E	DIN plug (without socket)	0.15							
	A1U	Junction box type	0.2							
	A1W20C	Drip-proof terminal box type	0.4							
	A2R	Lead Wire type	0.1	200V. AC						
	A2D	DIN plug (with socket)	0.2							
	A2E	DIN plug (without socket)	0.15							
	A2U	Junction box type	0.2							
	A2W20C	Drip-proof terminal box type	0.4							
	A3R	Lead Wire type	0.1	110V. AC						
	A3D	DIN plug (with socket)	0.2							
	A3E	DIN plug (without socket)	0.15							
	A3U	Junction box type	0.2							
	A3W20C	Drip-proof terminal box type	0.4							
	A4R	Lead Wire type	0.1	220V. AC						
	A4D	DIN plug (with socket)	0.2							
	A4E	DIN plug (without socket)	0.15							
	A4U	Junction box type	0.2							
	A4W20C	Drip-proof terminal box type	0.4							
	A7R	Lead Wire type	0.1	24V. AC						
	A7D	DIN plug (with socket)	0.2							
	A7E	DIN plug (without socket)	0.15							
	A7U	Junction box type	0.2							
	A7W20C	Drip-proof terminal box type	0.4							
	AAR	Lead Wire type	0.1	230V. AC						
	AAD	DIN plug (with socket)	0.2							
	AAE	DIN plug (without socket)	0.15							
	AAU	Junction box type	0.2							
	AAW20C	Drip-proof terminal box type	0.4							
	ABR	Lead Wire type	0.1	240V. AC						
	ABD	DIN plug (with socket)	0.2							
	ABE	DIN plug (without socket)	0.15							
ABU	Junction box type	0.2								
ABW20C	Drip-proof terminal box type	0.4								
ACR	Lead Wire type	0.1	120V. AC							
ACU	Junction box type	0.2								
ACW20C	Drip-proof terminal box type	0.4								
D6C	Lead Wire type	0.3	12V. DC	-	-	-	-	10		
D6W20C	Drip-proof terminal box type	0.5								
D7C	Lead Wire type	0.3	24V. DC							
D7W20C	Drip-proof terminal box type	0.5								

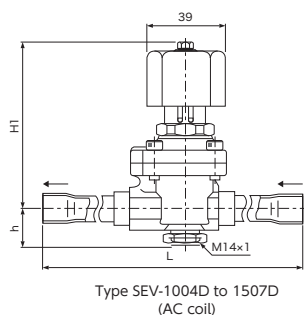
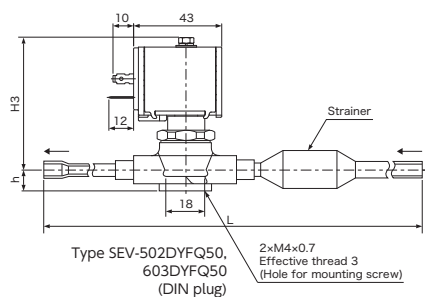
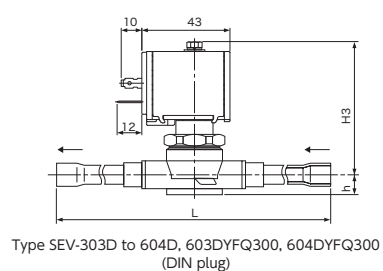
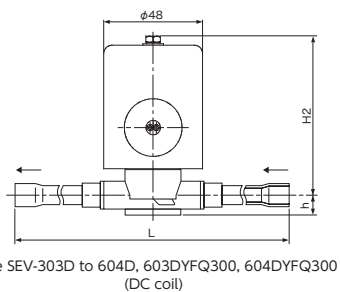
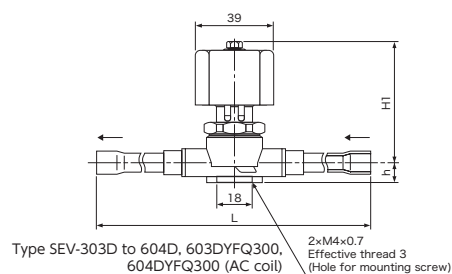
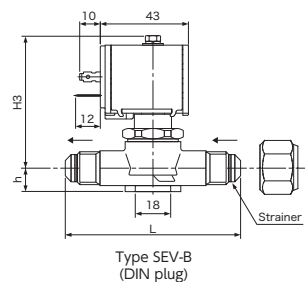
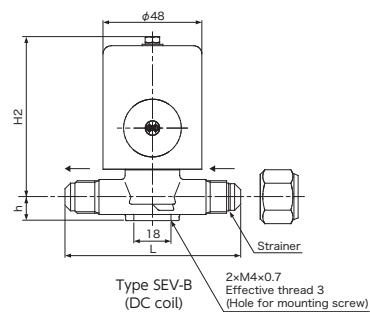
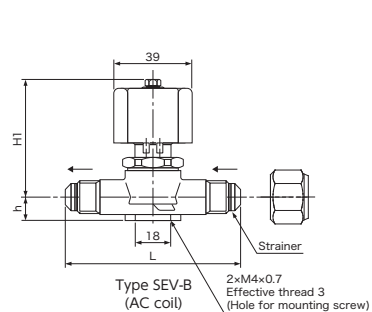
- The catalog numbers of drip-proof terminal box types are for the standard type (gland size 20c). Other gland sizes, 15a, 15b, 15c, 20a, and 20b are also available upon request.
- DIN plug socket : EN 175301-803 / ISO4400 (DIN 43650-A)
- IP Lead Wire type : IP67, DIN plug (with socket) : IP65, Drip-proof terminal box type : IP34
- Current (A) = Voltampere / Rated Voltage
- Drip-proof terminal box type can be used indoors where water drops may fall.

COIL SELECTION

Technical drawings and product images for coil types SEV-502BY:

- Lead Wire type (AC coil, IP67):** Dimensions include 300, 43, 17, 9.8, 11.5, and $\phi 26.5$.
- Lead Wire type (DC coil, IP67):** Dimensions include 265, 44, 7, 17, 9.8, 11.5, and $\phi 26.5$.
- DIN plug (without socket):** Dimensions include 38.5, 18, 17, 9.8, 11.5, and $\phi 26.5$.
- Junction box type:** Dimensions include 60, 17, 9.8, 11.5, and $\phi 26.5$.
- Drip-proof terminal box type (IP34):** Dimensions include 98, 104, 10.3, 8, and $\phi 26.5$. Gland JIS F 8801 15.20(a,b,c).

DIMENSIONS



DIMENSIONS

Catalog No.		Unit : mm					
Type	Model	L	H1	H2	H3	h	
SEV	303BY	85	58	79	64	11.5	
	502BY						
	603BY						
	1004BY	105	85	106	91	20.5	
	1205BY	115	88	109	94	22	
	1506BY	135	95	116	101	25	
	303DY	150	270	58	79	64	10.3
	502DY						
	603DY						
	604DY	160	85	106	91	20.5	
	1004DY						
	1005DY	168					
	1205DY	180	88	109	94	22	
	1506DY	190	95	116	101	25	
	1507DY	196					
	502DYFQ50	270	58	79	64	10.3	
603DYFQ50							
603DYFQ300							
604DYFQ300	138						

STANDARD ACCESSORY

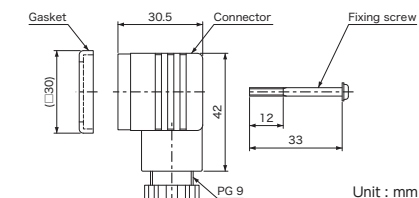
- Flare Nut (only for flare connection model)
- Mounting bracket (Optional for some model)

OPTIONAL PARTS

- DIN socket for DIN plug coil
- * Please specify necessity of the parts when ordering

Catalog No.		Unit : mm	
Type	Model	Diagram 1	Diagram 2
SEV	303BY		
	502BY		
	603BY		
	303DY		
	502DY		
	603DY		
	604DY		
	502DYFQ50		
	603DYFQ50		
	603DYFQ300		
604DYFQ300			
SEV	1004BY		
	1004DY		
	1005DY		
	1205BY *		
	1506BY *		
	1205DY *		
	1506DY *		
1507DY *			

* Available upon request



HIGH PRESSURE SOLENOID VALVES FOR REFRIGERANT / Type RPV



Type RPV-603BYF
(Lead Wire type)



Type RPV-804DYF
(DIN plug)

Click or scan here
for the capacity
table. =>



URL : https://saginomiya.co.jp/en/auto/pdf/rpv_capacity.pdf

Coil sold separately

FEATURE

- Normally Closed solenoid valve compatible with R410A and R463A-J refrigerants.
- Energy-saving model with low power consumption while supporting high voltage.
- DIN plug coils are also available.
- Standards : CQC, CE, UKCA (Please contact us for details such as approved specifications.)

APPLICATIONS

- Condensing units
- Cooling units
- Chillers
- Dehumidifiers
- Air conditioning systems, etc.

COMMON SPECIFICATION

- Max. working pressure : 4.3 MPa
- Fluid Temperature : -40 ~ 125°C
- Ambient temperature : -30 ~ 50°C
- Normally Closed
- Flare type, Solder type

DESCRIPTION OF CATALOG NO.

$$\frac{\text{RPV}}{\text{I}} - \frac{16}{\text{II}} \frac{06}{\text{III}} \frac{\text{B}}{\text{IV}} \frac{\text{Y}}{\text{V}} \frac{\text{F}}{\text{VI}}$$

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Pressure class
VI	Fluid

* Coil is not included with the body.
Please specify the catalog number
of coil and purchase it separately.

TYPE NUMBER SELECTION

Catalog No.			Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Max. working pressure (MPa)	* Wt. (kg)
Type	Model	Refrigerant			Style	Connection size	Min.	Max.		
RPV	302BY	F (R410A / R463A-J)	3	0.27	Flare	1/4"	0	0.005	4.3	0.2
	303BY			0.30						
	602BY			0.60						
	603BY		0.90							
	804BY		1.4							
	1004BY		2.4							
	1205BY		3.6							
	1606BY		5.6							
	302DY		Copper tube solder (ODF)	3	0.27	1/4"	0	0.005	4.3	0.1
	303DY				0.30					
	602DY				0.60					
	603DY			0.90						
	804DY			1.4						
	1004DY			2.4						
	1205DY			3.6						
	1606DY			5.6						
	1607DY	7/8"		0.9						

* Valve only (without coil)

COIL SELECTION

Description of Coil Catalog No.

$$\text{RPV} - \frac{\text{A}}{\text{I}} \frac{1}{\text{II}} \frac{\text{R}}{\text{III}}$$

I	Power supply
II	Voltage
III	Coil Style

Power supply / Voltage	
A1	: 100V.AC
A2	: 200V.AC
A3	: 110V.AC
A4	: 220V.AC
A7	: 24V.AC
AA	: 230V.AC
AB	: 240V.AC
AC	: 120V.AC

Coil Style	
R	: Lead Wire type
D	: DIN plug (with socket)
E	: DIN plug (without socket)

Catalog No.	Coil Style	Coil Wt. (kg)	Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	
						Running	Inrush			
RPV	A1R	Lead Wire type	0.15	100V.AC	50/60	± 10	12.5/9.5	45/44	6/4.5	Class B Molded
	A1D	DIN plug (with socket)	0.2							
	A1E	DIN plug (without socket)	0.15							
	A2R	Lead Wire type	0.15							
	A2D	DIN plug (with socket)	0.2							
	A2E	DIN plug (without socket)	0.15							
	A3R	Lead Wire type	0.15							
	A3D	DIN plug (with socket)	0.2							
	A3E	DIN plug (without socket)	0.15							
	A4R	Lead Wire type	0.15							
	A4D	DIN plug (with socket)	0.2							
	A4E	DIN plug (without socket)	0.15							
	A7R	Lead Wire type	0.15							
	A7D	DIN plug (with socket)	0.2							
	A7E	DIN plug (without socket)	0.15							
	AAR	Lead Wire type	0.15							
	AAD	DIN plug (with socket)	0.2							
	AAE	DIN plug (without socket)	0.15							
	ABR	Lead Wire type	0.15							
	ABD	DIN plug (with socket)	0.2							
ABE	DIN plug (without socket)	0.15								
ACR	Lead Wire type	0.15								

See below for * 1 to * 4

In case of the following voltage and frequency	Voltampere (VA)		Power consumption (W)
	Running		
* 1 200 ~ 208V.AC (60Hz)	9.5 to 11		4.5 to 5
* 2 220 ~ 230V.AC (60Hz)	10.5 to 12.5		5.2 to 6
* 3 220 ~ 230V.AC (50Hz)	9.5 to 11		4.5 to 5
* 4 230 ~ 240V.AC (50Hz)	10.5 to 12.5		5.2 to 6

- DIN plug socket : EN 175301-803 / ISO4400 (DIN 43650-A)
- Current (A) = Voltampere / Rated Voltage
- IP Lead Wire type : IP67, DIN plug (with socket) : IP65

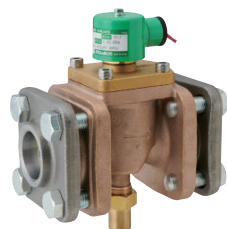
SOLENOID VALVES FOR REFRIGERANT / Type REV



Type REV-B



Type REV-D



Type REV-EX



Type REV-G

Click or scan here for the capacity table. =>



URL : https://saginomiya.co.jp/en/auto/pdf/en_rev_capacity.pdf

FEATURES

- Solenoid valves for fluorocarbon refrigerants. Also available for air.
- Various connection styles are available.
- Manual opening mechanism (Manual opening stem) is also available.
- It can also be installed on vertical piping, simplifying the piping design.
- Drip-proof types are also available.
- Standards : CE, UKCA (Please contact us for details such as approved specifications.)

COMMON SPECIFICATIONS

- Fluid Temperature : -40 ~ 125°C
- Ambient temperature : -30 ~ 40°C
- Normally Closed

APPLICATIONS

- Condensing units
- Chillers
- Air conditioning systems, etc.

DESCRIPTION OF CATALOG NO.

REV - 15 06 B X F * A 4 C
 I II III IV V VI VII VIII IX

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Pressure class
VI	Fluid
VII	Coil power supply
VIII	Coil voltage
IX	Coil Style

TYPE NUMBER SELECTION

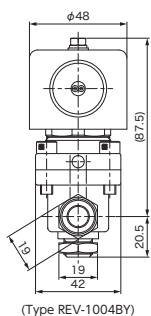
Type	Catalog No.				Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Max. working pressure (MPa)	Manual Opening Stem	* 5 Wt. (kg)																																																																								
	Model	Fluid	Power supply / Voltage	Coil Style			Style	Connection size	Min.	Max.																																																																											
REV	703BY	F (Various refrigerants) * 1			7	1.0	Flare	3/8"	0.007	2.45	4.2	-	0.4																																																																								
	1004BY				10	2.0		1/2"					0.7																																																																								
	1205BY				12	3.5		5/8"					0.9																																																																								
	1506BY				15	5.3	3/4"	1.3																																																																													
	1003GY				10	2.0	Rc	3/8"					0.8																																																																								
	1204GY				12	3.5		1/2"					1.1																																																																								
	1506GY				15	5.3		3/4"					1.5																																																																								
	703DY				A (Air)	* A1 (100V.) AC							7	1.0	Copper tube solder (ODF)	3/8"	0.007	2.45	4.2	-	0.3																																																																
	1004DY				10								2.0	1/2"		0.6																																																																					
	1205DY				12								3.5	5/8"		0.7																																																																					
	1506DY	15	5.3	3/4"	0.9																																																																																
	2007DY		* A2 (200V.) AC						20	9.0	7/8"	0.007	2.45	2.94	Option * 4	1.4																																																																					
	2010DY		* A3 (110V.) AC																		1"	0.007	2.45	2.94	Option * 4	1.4																																																											
	2011DY																													1-1/8"	0.007	2.45	2.94	Option * 4	1.4																																																		
	703BX																													* A4 (220V.) AC									3/8"	0.007	2.45	2.94	Option * 4	0.4																																									
	1004BX																																															1/2"	0.007	2.45	2.94	Option * 4	0.7																																
	1205BX																																																								5/8"	0.007	2.45	2.94	Option * 4	0.9																							
	1506BX																		3/4"	0.007																																					2.45					2.94	Option * 4	1.3																					
	1003GX																																																																			3/8"	0.007	2.45	2.94	Option * 4	0.8												
	1204GX																																																																												1/2"	0.007	2.45	2.94	Option * 4	1.1			
	1506GX																																																																																				
	703DX			* A7 (24V.) AC											7/8"																																																																						
	1004DX															1"						0.007	2.45	2.94	Option * 4																																																												
	1205DX																												1-1/8"		0.007	2.45	2.94	Option * 4																																																			
	1506DX																																					1-1/4"		0.007	2.45	2.94	Option * 4																																										
	2007DX																																														1-3/8"		0.007	2.45	2.94	Option * 4																																	
	2010DX																																																							1-1/2"		0.007	2.45	2.94	Option * 4																								
	2011DX																			1-5/8"																																				0.007	2.45					2.94	Option * 4																						
	2511DX																																																																		20A		0.007	2.45	2.94	Option * 4													
	2512DX																																																																											25A		0.007	2.45	2.94	Option * 4				
	2513DX																																																																																				32A
	3213DX																																																																																				40A
	3214DX																					50A	0.007	2.45	2.94																																																												Option * 4
	3215DX																											65A			0.007	2.45	2.94	Option * 4																																																			
	2006EX																																				80A			0.007	2.45	2.94	Option * 4																																										
	2510EX																																													20A			0.007	2.45	2.94	Option * 4																																	
	3212EX																																																						25A			0.007	2.45	2.94	Option * 4																								
	4014EX																																																						32A	0.007	2.45					2.94	Option * 4																						
	5020EX																																																																	40A			0.007	2.45	2.94	Option * 4													
	6524EX																																																																										50A			0.007	2.45	2.94	Option * 4				
6530EX																																																																																			65A	0.007	
																																																																																			80A		

- * 1 R134a, R404A, R407C, R410A, R448A, R449A, R407H, R463A-J (For other refrigerants, please contact us.)
- * 2 For available refrigerants, please contact us.
- * 3 Joint flange can be attached as an option.
- * 4 If required, please add 'M' after the catalog number. (e.g. REV-M703BYF)
- * 5 Valve only (without coil). The weight of the flange type is included the flange and a set of the tie bolt.

SPECIFICATIONS OF COILS

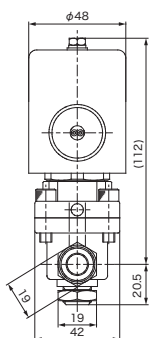
Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style	Wt. (kg)
			Running	Inrush				
24V.AC	50/60	+10 -15	17/14	43/35	8/7	Class B Molded	Lead Wire type	0.2
Drip-proof terminal box type							0.5	
100V.AC							Lead Wire type	0.2
Drip-proof terminal box type							0.5	
110V.AC							Lead Wire type	0.2
Drip-proof terminal box type							0.5	
200V.AC							Lead Wire type	0.2
Drip-proof terminal box type							0.5	
220V.AC	—	±10	—	—	10	Class B Molded	Lead Wire type	0.2
240V.AC							Drip-proof terminal box type	0.5
12V.DC							Lead Wire type	0.3
Drip-proof terminal box type							0.6	
24V.DC	—	±10	—	—	10	Class B Molded	Lead Wire type	0.3
Drip-proof terminal box type							0.6	
100V.DC	—	±10	—	—	10	Class B Molded	Lead Wire type	0.3
Drip-proof terminal box type							0.6	

- Current (A) = Voltampere / Rated Voltage
- IP Lead Wire type : IP67, Drip-proof terminal box type : IP34
- The standard specification of the coil style is the Lead wire type.
- Drip-proof terminal box type can be used indoors where water drops may fall.



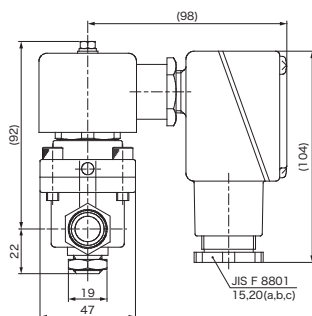
(Type REV-1004BY)

Lead Wire type
(AC Coil, IP67)



(Type REV-1004BY)

Lead Wire type
(DC Coil, IP67)

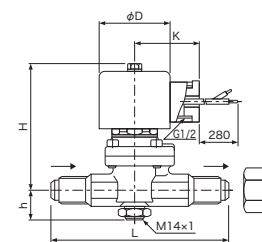


(Type REV-1205BY)

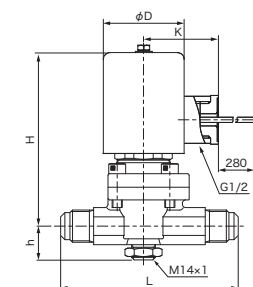
Drip-proof terminal box type
(IP34)

Unit : mm

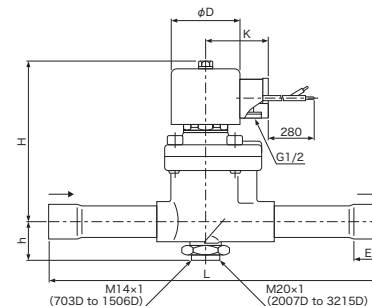
DIMENSIONS



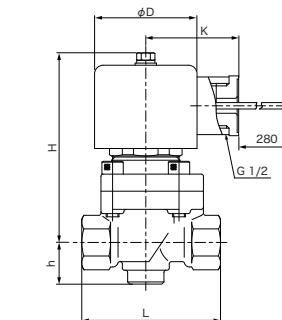
Type REV-B (AC Coil)



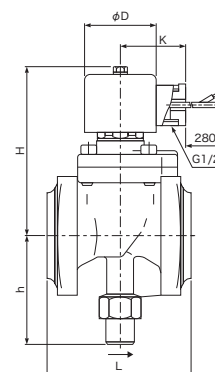
Type REV-B (DC Coil)



Type REV-D (AC Coil)



Type REV-G (AC Coil)



Type REV-EX (AC Coil)

Catalog No.		Unit : mm							
Type	Model	L	H*		h	E	phi D	K	
			AC	DC					
REV	703B	90	73	95	19	—	48	44	
	1004B	105	90	112	21				
	1205B	115	92	114	22				
	1506B	135	99	121	25				
	1003G	65	91	113	20				
	1204G	75	96	118	21				
	1506G	85	102	124	24				
	703D	150	73	95	19				10
	1004D	160	90	112	21				13
	1205D	180	92	114	22				16
	1506D	190	99	121	25	19			
	2007D	230	116	138	29	20			
	2010D								
	2011D								
	2006EX	95	112	134	76	—			
	2510EX	110	123	145	78				
	3212EX	120	126	148	87				
4014EX	130	133	155	92					
5020EX	170	149	171	115					
6524EX	200	169	191	129	—				
6530EX	210	169	191	129					

* AC" refers assembled with AC power supply coil and "DC" refers assembled with DC power supply coil.

OPTIONAL PARTS

● JOINT FLANGE

• The lower limit of operating temperature for flanges is -10°C. In case operating temperature would be below the lower limit, please contact us.

When ordering the joint flange separately, please specify the "Joint Flange Catalog Number" from the compatibility table below.

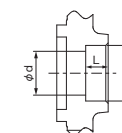
Valve Body Catalog No.		Joint flange type									* 1																																														
Type	Model	Connection		Flange type (square flange)	Pipe type	Outer diameter of connection pipe [mm]	Flange inner diameter ϕ d [mm]	Insert hole			Joint flange Catalog No.																																														
		Style	Connection size					Screw thread	Inner diameter ϕ d0 [mm]	Depth L [mm]																																															
REV	2006EX	20A	06D	Socket brazing type type RBK	Copper pipe	19.05	17.1	—	12	19.4	12	REV-06E06D																																													
						22.22	19.8			22.4	REV-06E07D																																														
						25.40	22.6			25.6	REV-06E10D																																														
						28.58	25.8			28.8	REV-06E11D																																														
						31.75	28.6			32.0	REV-06E12D																																														
						27.20	21.4			27.6	REV-06E06K																																														
		06K	Steel pipe	27.20	27.6	Rc 3/4	—	—	—	—	—	—	REV-06E06G																																												
														06S	Slip-on welding type type RSK	Steel pipe	27.20	27.6	—	—	—	—	—	REV-06E06S																																	
																									06G	Screwed type	Steel pipe	—	—	Rc 3/4	—	—	—	—	REV-06E06G																						
																																				2510EX	25A	10D	Socket brazing type type RBK	Copper pipe	25.40	22.6	—	14	25.6	14	REV-10E10D										
																																									28.58	25.8			28.8	REV-10E11D											
																																									31.75	28.6			32.0	REV-10E12D											
	34.92	31.4	35.2	REV-10E13D																																																					
	38.10	34.5	38.1	REV-10E14D																																																					
	34.00	27.2	34.5	REV-10E10K																																																					
	10K	Steel pipe	34.00	34.5	Rc 1	—	—	—	—	—	—	REV-10E10G																																													
													10S	Slip-on welding type type RSK	Steel pipe	34.00	34.5	—	—	—	—	—	REV-10E10S																																		
																								10G	Screwed type	Steel pipe	—	—	Rc 1	—	—	—	—	REV-10E10G																							
																																			3212EX	32A	12D	Socket brazing type type RBK	Copper pipe	31.75	28.6	—	16	32.0	16	REV-12E12D											
																																								34.92	31.4			35.2	REV-12E13D												
																																								38.10	34.5			38.3	REV-12E14D												
	41.28	37.3	41.5	REV-12E15D																																																					
	42.70	35.5	43.3	REV-12E12K																																																					
	48.60	41.2	49.3	REV-12E14K																																																					
	12S	Steel pipe	42.70	43.3	Rc 1-1/4	—	—	—	—	—	—	REV-12E12G																																													
													14S	Slip-on welding type type RSK	Steel pipe	48.60	49.3	Rc 1-1/2	—	—	—	—	REV-12E14G																																		
																								12G	Screwed type	Steel pipe	—	—	Rc 1-1/4	—	—	—	—	REV-12E12G																							
																																			14G	Screwed type	Steel pipe	—	—	Rc 1-1/2	—	—	—	—	REV-12E14G												
																																														4014EX	40A	14D	Socket brazing type type RBK	Copper pipe	38.10	34.5	—	16	38.3	16	REV-14E14D
																																																			41.28	37.3			41.5	REV-14E15D	
	44.45	40.8	44.7	REV-14E16D																																																					
	50.80	45.8	51.1	REV-14E20D																																																					
	48.60	41.2	49.3	REV-14E14K																																																					
	14S	Steel pipe	48.60	49.3	Rc 1-1/2	—	—	—	—	—	—	REV-14E14S																																													
													14G	Screwed type	Steel pipe	—	—	Rc 1-1/2	—	—	—	REV-14E14G																																			

OPTIONAL PARTS

Valve Body Catalog No.		Joint flange type									* 1																										
Type	Model	Style	Connection size	Flange type (square flange)	Pipe type	Outer diameter of connection pipe [mm]	Flange inner diameter ϕ d [mm]	Insert hole			Joint flange Catalog No.																										
								Screw thread	Inner diameter ϕ d0 [mm]	Depth L [mm]																											
REV	5020EX	50A	20D	Socket brazing type type RBK	Copper pipe	50.80	45.8	—	19	51.1	19	REV-20E20D																									
						53.98	49.0			54.3	REV-20E21D																										
						57.15	51.2			57.5	REV-20E22D																										
						63.50	57.5			63.8	REV-20E24D																										
						60.50	52.7			61.3	REV-20E20K																										
						60.50	61.3			61.3	REV-20E20S																										
		20K	Steel pipe	20K	Slip-on welding type type RSK	Steel pipe	60.50	61.3	Rc 2	—	—	—	—	REV-20E20G																							
															20G	Screwed type	Steel pipe	—	—	Rc 2	—	—	—	—	REV-20E20G												
																										6224EX	65A	24D	Socket brazing type type RBK	Copper pipe	63.50	57.5	—	22	63.8	22	REV-24E24D
																															66.68	60.7			67.0	REV-24E25D	
																															76.20	69.2			76.6	REV-24E30D	
																															76.30	65.9			77.2	REV-24E24K	
	76.30	77.2	77.2	REV-24E24S																																	
	24S	Slip-on welding type type RSK	Steel pipe	76.30	77.2	—	—	—	—	—	—	REV-24E24G																									
	24G	Steel pipe	24G	Screwed type	Steel pipe	—	—	Rc 2-1/2	—	—	—	—	REV-24E24G																								
														6530EX	80A	30D	Socket brazing type type RBK	Copper pipe	76.20	69.2	—	26	76.6	26	REV-30E30D												
																			79.38	71.4			79.8	REV-30E31D													
																			88.90	80.9			89.3	REV-30E34D													
																			89.10	78.1			90.2	REV-30E30K													
																			89.10	90.2			90.2	REV-30E30S													
	30G	Screwed type	Steel pipe	—	—	Rc 3	—	—	—	—	—	REV-30E30G																									

* 1 The joint flange is a set of one joint flange on one side, bolts and flange packing (* 2).
 * 2 Only the flange packing can be purchased separately. Please specify the Flange packing Catalog No. from the table below.

Connection size of Joint flange	Flange packing Catalog No.
20A	REV-1N-00003
25A	REV-1N-00004
32A	REV-1N-00005
40A	REV-1N-00006
50A	REV-1N-00007
65A	REV-1N-00008
80A	REV-1N-00009



Example of Joint flange insert hole

STANDARD ACCESSORY

- Flare Nut (only for flare connection model)

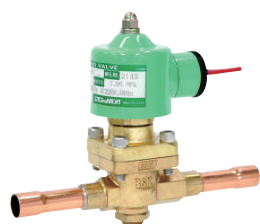
SOLENOID VALVES FOR REFRIGERANT [NORMALLY OPENED VALVE] / Type UEV



Type UEV-B



Type UEV-G



Type UEV-D

Click or scan here for the capacity table. =>



URL : https://saginomiya.co.jp/en/auto/pdf/uev_capacity.pdf

TYPE NUMBER SELECTION

Catalog No.					Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Manual Operating Stem	* 2 Wt. (kg)		
Type	Model	Fluid	Rated Voltage	Coil Style			Style	Connection size	Min.	Max.				
UEV	1004BX	F (Various refrigerants * 1)	* A1 (100V. AC)	C (Lead Wire type)	10	2.0	Flare	1/2"	0.007	1.96	without	0.7		
	1205BX				12	3.5		5/8"				0.9		
	1506BX				15	5.3		3/4"				1.3		
	1003GX				* A2 (200V. AC)	10	2.0	Rc				3/8"	0.8	
	1204GX					12	3.5					1/2"	1.1	
	1506GX				* A3 (110V. AC)	15	5.3					3/4"	1.5	
	2010GX		A (Air)			* A4 (220V. AC)	W (Drip-proof terminal box type)	20				9.0	1"	1.7
	1004DX					10		2.0				1/2"	0.6	
	1205DX		C (others)					12				3.5	5/8"	0.7
	1506DX				* A7 (24V. AC)	15		5.3				Copper tube solder (ODF)	3/4"	0.9
	2007DX				7/8"	0.7								
	2010DX		* AB (240V. AC)	20	9.0	1"		1.4						
	2011DX					1-1/8"								

* 1 R134a, R404A (For other refrigerants, please contact us.)

* 2 Valve only (without coil)

FEATURE

- Solenoid valves for fluorocarbon refrigerants. Also available for air.
- It can also be installed on vertical piping, simplifying the piping design.
- Drip-proof types are also available.

APPLICATIONS

- Condensing units
- Chillers
- Air conditioning systems, etc

COMMON SPECIFICATION

- Max. working pressure : 2.94 MPa
- Fluid Temperature : -40~120°C
- Ambient temperature : -30~40°C
- Normally Opened

DESCRIPTION OF CATALOG NO.

UEV - 15 06 B X F * A 4 C
I II III IV V VI VII VIII IX

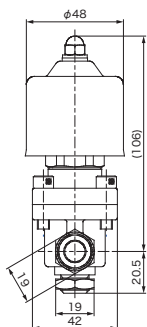
I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Pressure class
VI	Fluid
VII	Coil Power supply
VIII	Coil Voltage
IX	Coil Style

SPECIFICATIONS OF COILS

Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style	Wt. (kg)
			Running	Inrush				
24V.AC	50/60	+10 -15	17/14	45/35	8/7	Class B Molded	Lead Wire type	0.2
100V.AC							Drip-proof terminal box type	0.5
							Lead Wire type	0.2
110V.AC							Drip-proof terminal box type	0.5
							Lead Wire type	0.2
200V.AC							Drip-proof terminal box type	0.5
							Lead Wire type	0.2
220V.AC							Lead Wire type	0.2
							Drip-proof terminal box type	0.5
240V.AC							Lead Wire type	0.2
							Drip-proof terminal box type	0.5

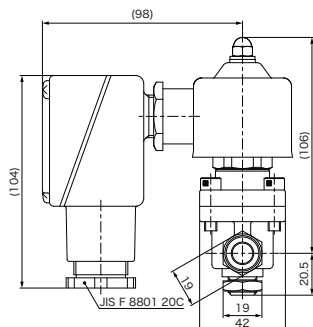
- Current (A) = Voltampere / Rated Voltage
- IP Lead Wire type : IP67, Drip-proof terminal box type : IP34
- The standard specification of the coil style is the Lead wire type.
- Drip-proof terminal box type can be used indoors where water drops may fall.

SPECIFICATIONS OF COILS



(Type UEV-1004BX)

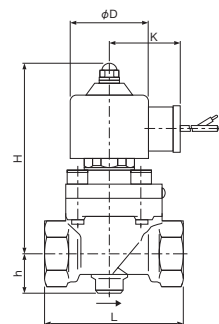
Lead Wire type
(IP67)



(Type UEV-1004BX)

Drip-proof terminal box type
(IP34)

DIMENSIONS



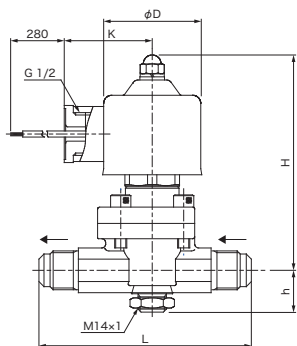
Type UEV-G

Type	Catalog No.	Unit : mm					
		Model	L	H	h	E	phi D
UEV	1004BX	105	108	21	—	48	44
	1205BX	115	110	22			
	1506BX	135	116	25			
	1003GX	65	109	20			
	1204GX	75	112	21			
	1506GX	85	119	24			
	2010GX	100	133	33			
	1004DX	160	108	21	13		
	1205DX	180	110	22	16		
	1506DX	190	116	25	19		
	2007DX	230	132	29	20		
2010DX							
2011DX							

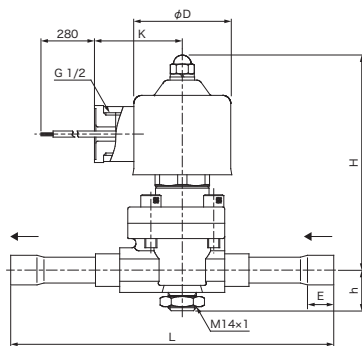
STANDARD ACCESSORY

- Flare Nut (only for flare connection model)

DIMENSIONS



Type UEV-B



Type UEV-D

SOLENOID VALVES FOR REFRIGERANT / Type JEV



Type JEV

Click or scan here for the capacity table. =>



URL : https://saginomiya.co.jp/en/auto/pdf/jev_capacity.pdf

FEATURE

- Solenoid valves for fluorocarbon refrigerants. Also available for air.
- It can also be installed on vertical piping.
- Built-in strainer

APPLICATIONS

- Condensing units
- Chillers
- Air conditioning systems, etc.

COMMON SPECIFICATION

- Max. working pressure : 2.94 MPa
- Fluid Temperature : -40 ~ 125°C
- Ambient temperature : -30 ~ 40°C
- Normally Closed

DESCRIPTION OF CATALOG NO.

JEV - $\frac{12}{I}$ $\frac{03}{II}$ $\frac{E}{III}$ $\frac{X}{IV}$ $\frac{F}{V}$ * $\frac{A}{VI}$ $\frac{4}{VII}$ $\frac{C}{IX}$

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Pressure class
VI	Fluid
VII	Coil Power supply
VIII	Coil Voltage
IX	Coil Style

TYPE NUMBER SELECTION

Catalog No.					Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Manual Opening Stem	* 3 Wt. (kg)
Type	Model	Fluid	Rated Voltage	Coil Style			Style	Connection size	Min.	Max.		
JEV	1203EX	F (Various refrigerants) * 1	* A1 (100V.AC) * A2 (200V.AC) * A3 (110V.AC) * A4 (220V.AC) * A7 (24V.AC)	C (Lead Wire type)	12	3.0	Flange * 2	10A	0.015	2.45	with	4.1
	2006EX				20	6.4		20A				5.3
	2510EX	A (Air)	* AB (240V.AC) * D1 (100V.DC) * D6 (12V.DC) * D7 (24V.DC) * D8 (48V.DC)	W (Drip-proof terminal box type)	25	10.9		25A				9.1
	3212EX	C (Inert gases)	32		16.5	32A		11.1				

* 1 R134a, R404A (For other refrigerants, please contact us.)

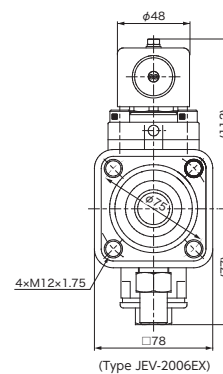
* 2 Joint flange can be attached as an option.

* 3 The weight is included a coil (AC lead wire type), the joint flange and a set of the tie bolt.

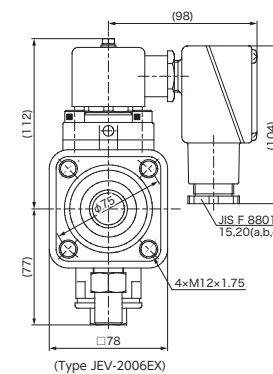
SPECIFICATIONS OF COILS

Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style
			Running	Inrush			
24V.AC	50/60	+ 10 - 15	17/14	43/35	8/7	Class B Molded	Lead Wire type Drip-proof terminal box type
100V.AC							
110V.AC							
200V.AC							
220V.AC							
240V.AC							
12V.DC	—	± 10	—	—	10		
24V.DC							
48V.DC							
100V.DC							

- Current (A) = Voltampere / Rated Voltage
- IP Lead Wire type : IP67, Drip-proof terminal box type : IP34
- The standard specification of the coil style is the Lead Wire type.
- Drip-proof terminal box type can be used indoors where water drops may fall.



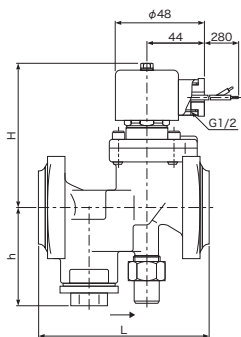
Type Lead Wire (IP67)



Drip-proof terminal box type (IP34)

Unit : mm

DIMENSIONS



Type JEV

Catalog No.		Unit : mm			
Type	Model	L	H *		h
			AC	DC	
JEV	1203EX	130	90	112	60
	2006EX		112	134	77
	2510EX	160	123	145	88
	3212EX	190	125	147	102

* "AC" refers assembled with AC power supply coil and "DC" refers assembled with DC power supply coil.

OPTIONAL PARTS

JOINT FLANGE

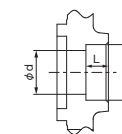
- The lower limit of operating temperature for flanges is -10°C. In case operating temperature would be below the lower limit, please contact us.
- When ordering the joint flange separately, please specify the "Joint Flange Catalog Number" from the compatibility table below.

OPTIONAL PARTS

Valve Body Catalog No.		Joint flange type							* 1 Joint flange Catalog No.			
Type	Model	Connection		Flange type (square flange)	Pipe type	Outer diameter of connection pipe [mm]	Flange inner diameter φ d [mm]	Insert hole				
		Style	Connection size					Screw thread		Inner diameter φ d0 [mm]	Depth L [mm]	
JEV	1203EX	10A	Socket brazing type type RBK	Copper pipe	05D	15.88	13.8	—	16.1	10	JEV-03E05D	
					06D	19.05	17.1		19.3		JEV-03E06D	
					07D	22.22	19.8		22.4		JEV-03E07D	
				Steel pipe	03K	17.30	12.7		17.7		JEV-03E03K	
					04K	21.70	16.1		22.1		JEV-03E04K	
					2006EX	20A	Socket brazing type type RBK		Copper pipe		06D	19.05
	07D	22.22	19.8	22.4				JEV-06E07D				
	10D	25.40	22.6	25.6				JEV-06E10D				
	11D	28.58	25.8	28.8				JEV-06E11D				
	12D	31.75	28.6	32.0				JEV-06E12D				
	06K	27.20	21.4	27.6				JEV-06E06K				
	2510EX	25A	Socket brazing type type RBK	Copper pipe	10D	25.40	22.6	—	25.6	14	JEV-10E10D	
					11D	28.58	25.8		28.8		JEV-10E11D	
					12D	31.75	28.6		32.0		JEV-10E12D	
			13D	34.92	31.4	35.2	JEV-10E13D					
			14D	38.10	34.5	38.1	JEV-10E14D					
			10K	34.00	27.2	34.5	JEV-10E10K					
	3212EX	32A	Socket brazing type type RBK	Copper pipe	10S	34.00	34.5	Rc 1	34.5	—	JEV-10E10S	
					10G	—	—		—		JEV-10E10G	
					Steel pipe	12D	31.75		28.6		32.0	16
			13D	34.92		31.4	35.2		JEV-12E13D			
			14D	38.10		34.5	38.3		JEV-12E14D			
			15D	41.28	37.3	41.5	JEV-12E15D					
	12K	42.70	35.5	43.3	JEV-12E12K							
	14K	48.60	41.2	49.3	JEV-12E14K							
	2006EX	20A	Slip-on welding type type RSK	Steel pipe	12S	42.70	43.3	Rc 1-1/4	43.4	—	JEV-12E12S	
					14S	48.60	49.3		49.3		JEV-12E14S	
			Screwed type	Steel pipe	12G	—	—		Rc 1-1/2		—	JEV-12E12G
					14G	—	—		Rc 1-1/2		—	JEV-12E14G

* 1 The joint flange is a set of one joint flange on one side, bolts and flange packing * 2.
* 2 Only the flange packing can be purchased separately. Please specify the Flange packing Catalog No. from the table below.

Connection size of Joint flange	Flange packing Catalog No.
10A	JEV-1N-00001
20A	JEV-1N-00003
25A	JEV-1N-00004
32A	JEV-1N-00005



Example of Joint flange insert hole

SMALL SOLENOID VALVES FOR WATER / Type HEV



Type HEV-G

FEATURES

- It can also be installed on vertical piping.
- Bronze valve body
- Normally Closed

APPLICATIONS

- Water boilers
- Water heaters
- Electric water heaters, etc.

COMMON SPECIFICATIONS

- Fluid Temperature : 0 ~ 95°C
- Ambient temperature : -10 ~ 50°C
- Normally Closed

DESCRIPTION OF CATALOG NO.

HEX - 10 04 G K W * A 4 R
 I II III IV V VI VII VIII IX

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Pressure class
VI	Fluid
VII	Coil power supply
VIII	Coil voltage
IX	Coil Style

TYPE NUMBER SELECTION

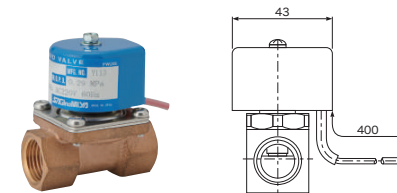
Catalog No.				Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Max. working pressure (MPa)	Operation	* Wt. (kg)
Type	Model	Power supply / Voltage	Coil Style			Style	Connection size	Min.	Max.			
HEV	604GKW	* A1 (100V.AC) * A2 (200V.AC) * A4 (220V.AC)	R (Lead Wire) type	6	0.94	Rc	1/2"	0	0.10	0.10	Direct operated	0.27
	1004GKW	* A7 (24V.AC)		10				0.29	0.29			

* Valve only (without coil)

SPECIFICATIONS OF COILS

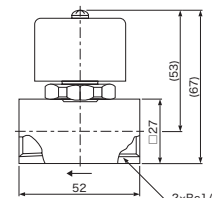
Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style	Coil Wt. (kg)
			Running	Inrush				
24V.AC	50/60	± 10	12/9	30/23	5/4	Class B Molded	R (Lead Wire type)	0.13
100V.AC								
200V.AC								
220V.AC								

- Current (A) = Voltampere / Rated Voltage
- IP Lead Wire type : IP67

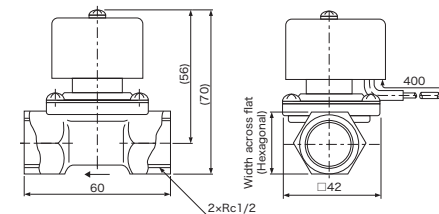


Lead Wire type (IP67) Unit : mm

DIMENSIONS



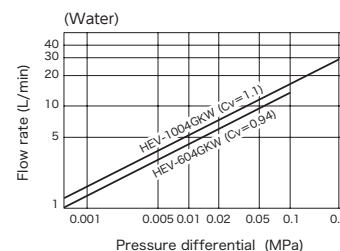
Type HEV-604GKW



Type HEV-1004GKW

Unit : mm

FLOW CHARACTERISTICS



SOLENOID VALVES FOR WATER/BRINE / WEV



Type WEV-G



Type WEV-F

FEATURE

- Normally Closed Solenoid valve dedicated for water and brine.
- It can also be installed on vertical piping.
- Standards : CE, UKCA (Please contact us for details such as approved specifications.)

APPLICATIONS

- Cooling / Heating equipment
- Air conditioning systems
- Various industrial equipment, etc.

COMMON SPECIFICATION

- Max. working pressure : 0.98 MPa

DESCRIPTION OF CATALOG NO.

WEV - 15 04 G L W * A 4 C
 I II III IV V VI VII VIII IX

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Pressure class
VI	Fluid
VII	Coil Power supply
VIII	Coil Voltage
IX	Coil Style

TYPE NUMBER SELECTION

Catalog No.					Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)	
Type	Model	Fluid	Rated Voltage	Coil Style			Style	Connection size	Min.	Max.
WEV	1504GL	W (Water) B * 1 (Hot Water, Glycol and Equivalent Fluid)	* A1 (100V.AC)	C (Lead Wire type) W (Drip-proof terminal box type)	15	4.3	Rc	1/2"	0.015	0.98
	2006GL		* A2 (200V.AC)		20	7.8		3/4"		
	2510GL		* A3 (110V.AC)		25	10.4		1"		
	3212GL		* A4 (220V.AC)		32	17.6		1-1/4"		
	4014GL		* A7 (24V.AC)		40	26		1-1/2"		
	5020GL		* AB (240V.AC)		50	42		2"		
	1504FL		* D1 (100V.DC)		15	4.3	Flange * 2 (Round Type)	15A	0.015	
	2006FL		* D6 (12V.DC)		20	7.8		20A		
	2510FL		* D7 (24V.DC)		25	10.4		25A		
	3212FL		* D8 (48V.DC)		32	17.6		32A		
	4014FL				40	26		40A		
	5020FL				50	42		50A	0.03	
	6524FL				65	65		65A		
	8030FL				80	100		80A		

* 1 Only Nybrine (ethylene glycol and propylene glycol) can be used.

* 2 The joint flange is not included. Please prepare the joint flange separately.

Catalog No.					Fluid Temperature (°C)	Ambient temperature (°C)	* 3 Wt. (kg)
Type	Model	Fluid	Rated Voltage	Coil Style			
WEV	1504GL	W (Water) B * 1 (Hot Water, Glycol and Equivalent Fluid)	* A1 (100V.AC)	C (Lead Wire type) W (Drip-proof terminal box type)	0~60 (W) -35~90 (B) * No fluid freezing	-30~50 * No fluid freezing	0.6
	2006GL		* A2 (200V.AC)				0.8
	2510GL		* A3 (110V.AC)				1.1
	3212GL		* A4 (220V.AC)				1.6
	4014GL		* A7 (24V.AC)				2.4
	5020GL		* AB (240V.AC)				3.6
	1504FL		* D1 (100V.DC)				2.0
	2006FL		* D6 (12V.DC)				2.6
	2510FL		* D7 (24V.DC)				3.7
	3212FL		* D8 (48V.DC)				5.0
	4014FL						5.7
	5020FL						7.7
	6524FL						12.8
	8030FL						16.5

* 1 Only Nybrine (ethylene glycol and propylene glycol) can be used.

* 2 The joint flange is not included. Please prepare the joint flange separately.

* 3 Includes a coil. (AC lead wire type)

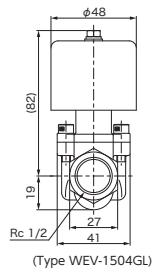
SPECIFICATIONS OF COILS

Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style
			Running	Inrush			
24V.AC	50/60	± 10	18/14	54/47	9/8	Class B Molded	Lead Wire type Drip-proof terminal box type
100V.AC							
110V.AC							
200V.AC							
220V.AC							
240V.AC	-	-	-	-	-	-	
12V.DC							
24V.DC							
48V.DC							
100V.DC							

- Current (A) = Voltampere / Rated Voltage
- IP Lead Wire type : IP67, Drip-proof terminal box type : IP34
- The standard specification of the coil style is the Lead Wire type.
- Drip-proof terminal box type can be used indoors where water drops may fall.



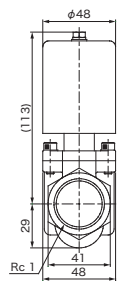
Lead Wire type (AC coil, IP67)



(Type WEV-1504GL)



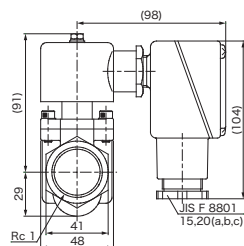
Lead Wire type (DC coil, IP67)



(Type WEV-2510GL)



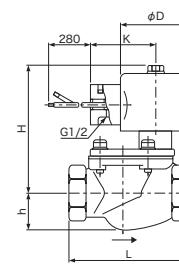
Drip-proof terminal box type (IP34)



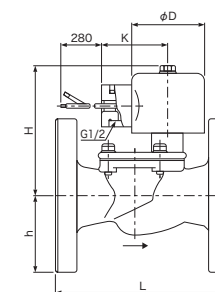
(Type WEV-2510GL)

Unit : mm

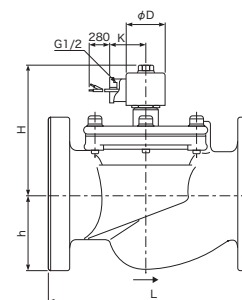
DIMENSIONS



Type WEV-G



Type WEV-1504FL to 4014FL

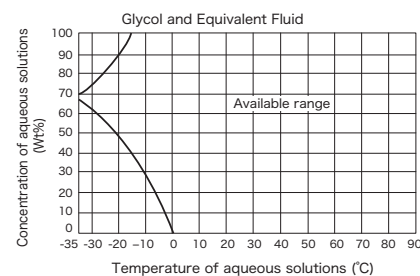


Type WEV-5020FL to 8030FL

Catalog No.		Unit : mm					
Type	Model	L	H*		h	phi D	K
			AC	DC			
WEV	1504GL	65	82	104	19	48	44
	2006GL	80	86	108	25		
	2510GL	90	91	113	29		
	3212GL	105	97	119	36		
	4014GL	120	103	125	47		
	5020GL	140	126	148	55		
	1504FL	105	82	104	48		
	2006FL	115	86	108	50		
	2510FL	125	91	113	63		
	3212FL	140	97	119	68		
	4014FL	150	103	125	70		
	5020FL	160	126	148	78		
	6524FL	200	138	160	88		
8030FL	240	152	174	93			

* "AC" refers assembled with AC power supply coil and "DC" refers assembled with DC power supply coil.

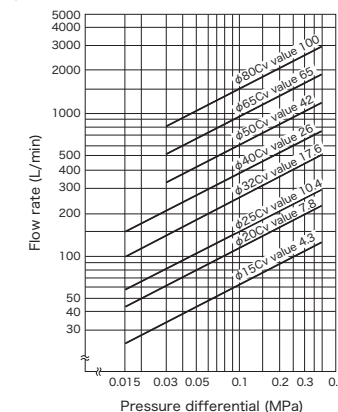
AVAILABLE RANGE OF GLYCOL



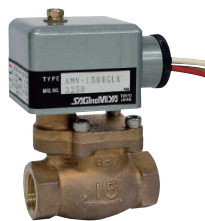
FLOW CHARACTERISTICS

for Water (hot water) piping

When used with brain, please expect a few percent decrease of flow rate.



SOLENOID VALVES FOR GENERAL PURPOSE / Type AMV



Type AMV-G

FEATURE

- Available to use with water, steam, air or oil (50mm²/s or less).
- Apply H-class insulation molded coil for common use in AC100V and AC200V.
- It can also be installed on vertical piping.
- Normally Closed

COMMON SPECIFICATION

- Max. working pressure : 0.98 MPa
- Fluid Temperature : -10~180°C ((No fluid freezing)
- Ambient temperature : -20~70°C (No fluid freezing)
- Normally Closed

APPLICATIONS

- Heating and cooling equipment
- Sterilizers
- Humidifiers
- Oiling equipment, etc.

DESCRIPTION OF CATALOG NO.

AMV - 15 04 G L K
I II III IV V VI

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Pressure class
VI	Fluid

TYPE NUMBER SELECTION

Type	Catalog No.		Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		* Wt. (kg)
	Model	Fluid			Style	Connection size	Min.	Max.	
AMV	1504GL	K (water / steam / air / oil)	15	4.0	Rc	1/2"	0.03	0.98	0.8
	2006GL		20	6.5		3/4"			1.0
	2510GL		25	10.8		1"			1.5

• There is no identification of coil in the catalog number.
* Includes a coil.

SPECIFICATIONS OF COILS

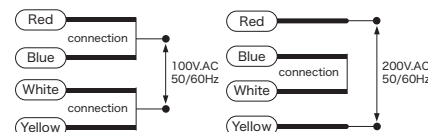
Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style
			Running	Inrush			
100V.AC 200V.AC	50/60	+10 -15	15/12	32/28	8/7	Class H Molded	Lead Wire type

• Current (A) = Voltampere / Rated Voltage

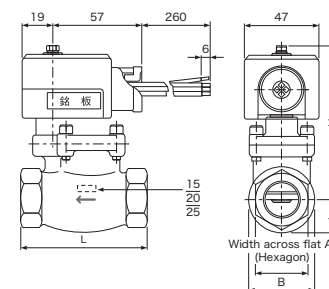


Lead Wire type

WIRING METHOD

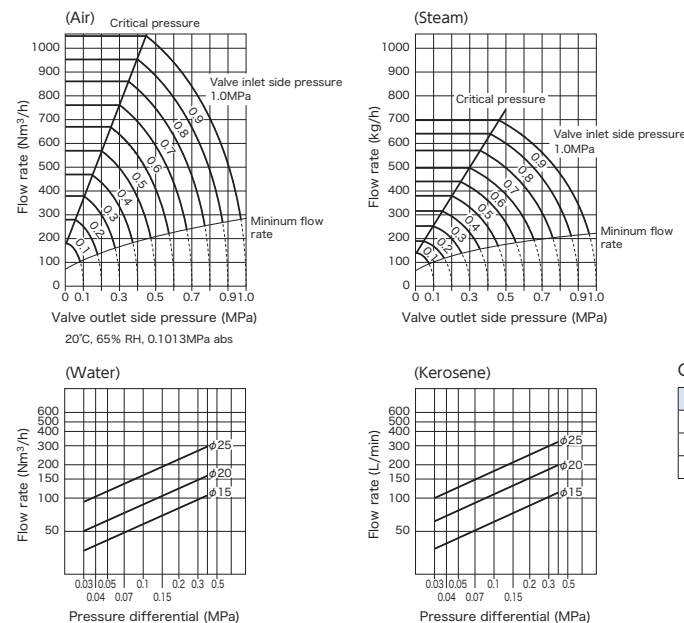


DIMENSIONS



Catalog No.		Unit : mm				
Type	Model	L	H	h	A	B
AMV	1504GL	65	91.5	18.5	28	37
	2006GL	80	96	21	34	42
	2510GL	90	105.5	27	44	56

FLOW CHARACTERISTICS



Correction factor table

Port size	Factor
15	0.62
20	1.00
25	1.66

• The flow rate of Air or Steam should be multiplied by the correction factor.

SOLENOID VALVES FOR OIL / Type GMV



Type GMV-G

FEATURE

- Solenoid valves for diesel fuel, kerosene, fuel oil
- Available both normally closed types and normally opened types.
- Standards : DNV (Please contact us for details such as approved specifications.)

APPLICATIONS

- Water boilers
- Air heaters
- Fuel oil supply devices, etc.

COMMON SPECIFICATION

- Fluid Temperature : -20 ~ 130°C
- Ambient temperature : -20 ~ 40°C

DESCRIPTION OF CATALOG NO.

GMV - H 3 03 G * A 1 U
 I II III IV V VI VII VIII

I	Type
II	Special type
III	Port Size
IV	Connection tube O.D.
V	Connection type
VI	Coil Power supply
VII	Coil Voltage
VIII	Coil Style

TYPE NUMBER SELECTION

Catalog No.		Rated Voltage	Coil Style	Operation	Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Max. viscosity (mm ² /S)	Max. working pressure (MPa)	* 2 Wt. (kg)
Type	Model						Style	Connection size	Min.	Max.			
GMV	H303G	* A1 (100V. AC)	U (Junction box type)	Normally Closed	2.8	0.24	Rc	3/8"	0	2.06	500	2.06	1.4
	H304G							1/2"					
	H403G				3/8"								
	H404G				1/2"								
	H603G				3/8"								
	H604G				1/2"								
	H803G				3/8"								
	H804G				1/2"								
	H1204G * 1	10.5	1.87	1/2"	0	0.49		2.8					
	S303G	* A2 (200V. AC)	W (Drip-proof terminal box type)	Normally Opened	2.8	0.24		3/8"	2.06	0.98	2.6		
	S304G							1/2"					
	S403G				3/8"								
	S404G				1/2"								
	S603G				3/8"								
	S604G				1/2"								
	S803G				3/8"								
S804G	1/2"												

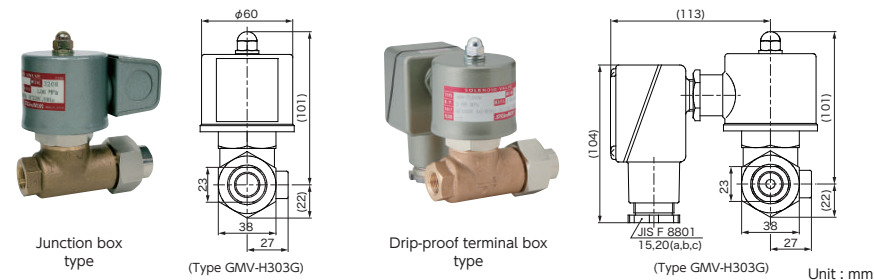
* 1 GMV-H1204G is 3-way valve. Please contact us for details.

* 2 Includes a coil (Junction box type).

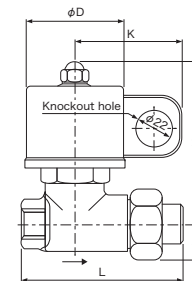
SPECIFICATIONS OF COILS

Valve Body Type	Catalog No. Model	Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style
					Running	Inrush			
GMV	H303G H304G S303G S304G	100V.AC 200V.AC	50/60	± 10	31/24	62/48	15/13	Class B Molded	Junction box type
	48/42				96/84	Drip-proof terminal box type			

- Current (A) = Voltampere / Rated Voltage
- IP Drip-proof terminal box type : IP34
- The standard specification of the coil style is the Junction box type.
- Drip-proof terminal box type can be used indoors where water drops may fall.



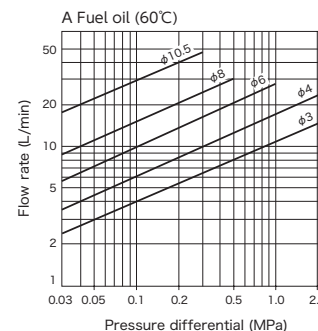
DIMENSIONS



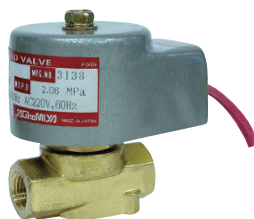
Type GMV-G

Catalog No.		Unit : mm								
Type	Model	L	H	h	phi D	K				
GMV	H303G	100	101	22	60	66				
	H304G	125								
	H403G	135	139	27	75	75				
	H404G									
	H603G									
	H604G									
	H803G									
	H804G									
	H1204G						139	35		
	S303G						100	101	22	60
	S304G	125								
	S403G	135	139	27	75	75				
	S404G									
	S603G									
	S604G									
	S803G									
S804G										

FLOW CHARACTERISTICS



SOLENOID VALVES FOR OIL / Type GEV



Type GEV-H, S

FEATURE

- Solenoid valves for diesel fuel, kerosene, A and B fuel oil.
- Available both normally closed types and normally opened types.
- Small sized valve but working in large operating pressure differential.

APPLICATIONS

- Water boilers
- Air heaters
- General industrial equipment, etc.

COMMON SPECIFICATION

- Max. working pressure : 2.06 MPa
- Fluid Temperature : -20 ~ 100°C
- Ambient temperature : -20 ~ 40°C

DESCRIPTION OF CATALOG NO.

GEV - H 32 3 G * A 4 R
I II III IV V VI VII VIII

I	Type
II	Operation
III	Port Size
IV	Connection tube O.D.
V	Connection type
VI	Coil Power supply
VII	Coil Voltage
VIII	Coil Style

TYPE NUMBER SELECTION

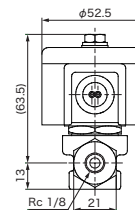
Catalog No.				Operation	Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Max. viscosity (mm ² /S)	* Wt. (kg)
Type	Model	Rated Voltage	Coil Style				Style	Connection size	Min.	Max.		
GEV	H321G	* A1 (100V.AC) * A2 (200V.AC) * A3 (110V.AC) * A4 (220V.AC)	R (Lead Wire type) W (Drip-proof terminal box type)	Normally Closed	3.2	0.22	Rc	1/8"	0	2.06	120	0.7
	H322G											
	H323G											
	S321G			Normally Opened				1/8"				
	S322G							1/4"				
	S323G							3/8"				

• Weight includes a coil (Lead Wire type)
* Includes a coil.

SPECIFICATIONS OF COILS

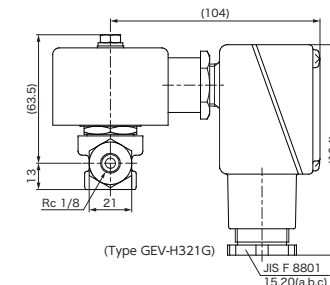
Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style
			Running	Inrush			
100V.AC	50/60	± 10	30/25	150/125	14/13	Class B Molded	Lead Wire type Drip-proof terminal box type
110V.AC							
200V.AC							
220V.AC							

- Current (A) = Voltampere / Rated Voltage
- IP Lead Wire type : IP67, Drip-proof terminal box type : IP34
- The standard specification of the coil style is the Lead Wire type.
- Drip-proof terminal box type can be used indoors where water drops may fall.



(Type GEV-H321G)

Lead Wire type

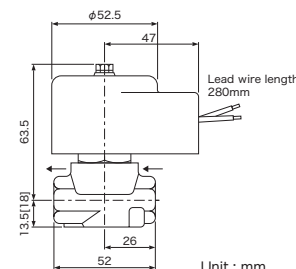


(Type GEV-H321G)

Drip-proof terminal box type

Unit : mm

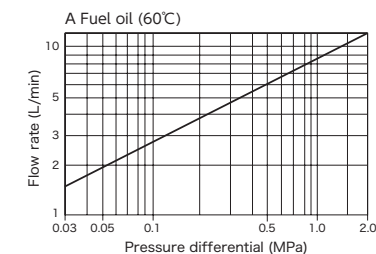
DIMENSIONS



Unit : mm

Type GEV-H
[Type GEV-S]

FLOW CHARACTERISTICS



SOLENOID VALVES FOR AMMONIA REFRIGERANT / Type HMV



Type HMV-G



Type HMV-E

FEATURE

- Normally closed Solenoid valve for ammonia refrigerant.
- Only horizontal piping can be installed with the coil in the upper position.

APPLICATIONS

- Refrigerator / Freezers, etc.

COMMON SPECIFICATION

- Max. working pressure : 2.55 MPa
- Fluid Temperature :
 - 5 to 80°C (302G to 1304G)
 - 0 to 80°C (1606G to 5020E)
 - 50 to 80°C (For perating pressure 1.02 MPa or less)
- Ambient temperature :
 - 5 to 40°C (302G to 1304G)
 - 0 to 40°C (1606G to 5020E)
 - 35 to 40°C (For perating pressure 1.02 MPa or less)
- Normally Closed

DESCRIPTION OF CATALOG NO.

HMV - $\frac{10}{I} \frac{03}{II} \frac{G}{III} * \frac{A}{IV} \frac{1}{V} \frac{B}{VI} \frac{VII}$

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Coil Power supply
VI	Coil Voltage
VII	Coil Style

We ask for your consent regarding the disclaimer for the use of ammonia refrigerant. Please contact us for details.

TYPE NUMBER SELECTION

Type	Catalog No.			Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Manual Opening Stem	* 2 Wt. (kg)			
	Model	Rated Voltage	Coil Style			Style	Connection size	Min.	Max.					
HMV	302G	* A1 (100V.AC)	B (Indoor terminal box type) W (Drip-proof terminal box type)	2.8	0.25	Rc	1/4"	0	1.96 [AC] 1.57 [DC]	without	0.9			
	303G						3/8"							
	702G						1/4"							
	1003G	3/8"		0.015 (Standard type)	1.96 [AC] 1.57 [DC] (Standard type)		1.0							
	1304G	1/2"												
	1606G	3/4"												
	1906E	* D1 (100V.DC)		Oval Flange * 1	19	8.8	20A	0 (No differential pressure type)	0.98 (No differential pressure type)	with	4.4			
	2508E	* D6 (12V.DC)										25	14.1	25A
	3212E	* D7 (24V.DC)												
	3814E	* D8 (48V.DC)			38	29.2	40A							
	5020E	50						42.4	Square Flange * 1		50A	0.015	1.96 [AC] 1.57 [DC]	18.6

* 1 Joint flange can be attached as an option for flange type (Type HMV-E). You can choose from the joint flange table of OPTIONAL PARTS.

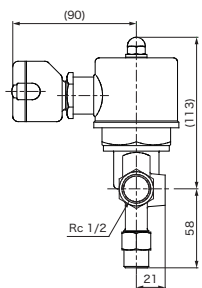
* 2 Includes a coil (AC Indoor terminal box type). The weight of the flange type is not included the joint flange.

SPECIFICATIONS OF COILS

Valve Body Catalog No.	Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style	
				Running	Inrush				
HMV	302G	50/60	± 10	26/22	130/110	9/8	Class B Molded	Indoor terminal box type Drip-proof terminal box type	
	303G								110V.AC
	702G								200V.AC
	1003G	220V.AC		—	—	15			
	1304G	12V.DC							
	1606G	24V.DC							
	1906E	48V.DC		50/60	72/60	360/300			32/27
	2508E	100V.DC							
	3212E	110V.AC							
	5020E	200V.AC		—	—	—			25
		220V.AC							
		12V.DC							
		48V.DC							
		100V.DC							

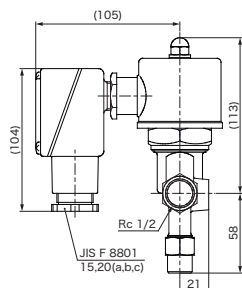
- Current (A) = Voltampere / Rated Voltage
- IP Drip-proof terminal box type : IP34
- The standard specification of the coil style is the Indoor terminal box type
- Drip-proof terminal box type can be used indoors where water drops may fall.

SPECIFICATIONS OF COILS



(Type HMV-1304G)

Indoor terminal box type

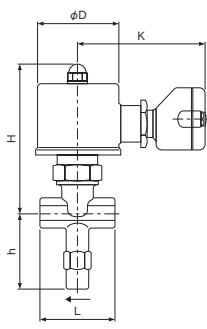


(Type HMV-1304G)

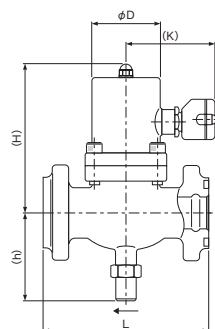
Drip-proof terminal box type

Unit : mm

DIMENSIONS



Type HMV-G



Type HMV-E

Catalog No.		Unit : mm				
Type	Model	L	H	h	φ D	K
HMV	302G	55	95	12	60	90
	303G					
	702G					
	1003G	60	107	54		
	1304G	75	113	58		
	1606G	80	105	82		
	1906E	120	116			
	2508E	150	156	96		
	3212E	180	164	97		
	3814E	200	175	116		
5020E	220	188	135	75	100	

OPTIONAL PARTS

• JOINT FLANGE

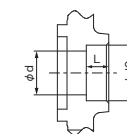
- The lower limit of operating temperature for flanges is -10°C. In case operating temperature would be below the lower limit, please contact us.
- When ordering the joint flange separately, please specify the "Joint Flange Catalog Number" from the compatibility table below.

Valve Body Catalog No.		Joint flange type								* 1	
Type	Model	Style	Connection		Pipe type	Outer diameter of connection pipe [mm]	Flange inner diameter φ d [mm]	Insert hole			Joint flange Catalog No.
			Connection size	Flange type (square flange)				Screw thread	Inner diameter φ d0 [mm]	Depth L [mm]	
HMV	1906E	20A	06K	Socket brazing type (Oval Flange)	Steel pipe	22	27.2	—	27.7	15	HMV-06E06K
			06G	Screwed type (Oval Flange)	Steel pipe	—	—	Rc 3/4	—	—	HMV-06E06G
	2508E	25A	08K	Socket brazing type (Oval Flange)	Steel pipe	28	34.0	—	34.5	18	HMV-08E08K
			08G	Screwed type (Oval Flange)	Steel pipe	—	—	Rc 1	—	—	HMV-08E08G
	3212E	32A	12K	Socket brazing type (Oval Flange)	Steel pipe	36	42.7	—	43.1	18	HMV-12E12K
			12G	Screwed type (Oval Flange)	Steel pipe	—	—	Rc 1-1/4	—	—	HMV-12E12G
	3814E	40A	14K	Socket brazing type (Oval Flange)	Steel pipe	42	48.6	—	49.3	18	HMV-14E14K
			14G	Screwed type (Oval Flange)	Steel pipe	—	—	Rc 1-1/2	—	—	HMV-14E14G
	5020E	50A	20K	Socket brazing type (Oval Flange)	Steel pipe	53	60.5	—	61.3	18	HMV-20E20K
			20G	Screwed type (Oval Flange)	Steel pipe	—	—	Rc 2	—	—	HMV-20E20G

* 1 The joint flange is a set of one joint flange on one side, the necessary bolts and flange packing * 2.

* 2 Only the flange packing can be purchased separately. Please specify the Flange packing Catalog No. from table below.

Connection size of Joint flange	Flange packing Catalog No.
20A	HMV-1N-00027
25A	HMV-1N-00028
32A	HMV-1N-00029
40A	HMV-1N-00030
50A	HMV-1N-00031



Example of Joint flange insert hole

SMALL SOLENOID VALVES FOR REFRIGERANT / Type TEV-S, VPV



Type TEV-S



Type VPV-303DQ1, 603D

High Volume OEM Item
 Drawings must be exchanged for purchase.
 Please contact SAGINOMIYA for more details.

Coil sold separately



Type VPV-803DQ50, 1204DQ50



Type VPV-L202D

FEATURE

- Available for applications such as oil return, hot gas defrost, and heat exchanger switching.
- TEV-S type contributes to energy saving and space saving by its low power consumption (4.5kW), small size and light weight (24g).
- VPV has a lineup of three types of joint shapes to fit various piping configurations.
- Standards : Type TEV-S (UL/CSA, CE, UKCA, CQC)
 Type TVPV (UL/CSA, CE, UKCA)
 (Please contact us for details such as approved specifications.)

APPLICATIONS

- Room air conditioners
- Packaged air conditioners
- Heat pump water heaters
- Bottle coolers
- Dehumidifiers
- Ice makers, etc.

COMMON SPECIFICATION

- Max. working pressure : 4.3 MPa
- Fluid Temperature : -30~120°C
- Ambient temperature : -30~50°C

DESCRIPTION OF CATALOG NO.

TEV-S - 12 20 D
 I II III IV

VPV - 8 03 D Q50
 I II III IV V

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection type
V	Serial number

* Coil is not included with the body.

TYPE NUMBER SELECTION

Catalog No.		Refrigerant	Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Operation		* 2				
Type	Model				Style	Connection size	Min.	Max.			Wt. (kg)				
TEV-S	1220D	Various refrigerants * 1	1.2	0.037	Copper tube solder (ODM)	1/4"	0	3.6	Normally Closed	Direct operated	0.025				
	1620D		1.6	0.07											
	1920D		1.9	0.09											
VPV	L202D		1.8	0.06			5/16"	0.005	3.6			Normally Opened	Normally Closed	Pilot operated	0.06
	303DQ1		3.0	0.21											
	603D		5.8	0.65											
	803DQ50		7.8	1.5											
	1204DQ50		11	3.0		3/8"		0.01	2.75						
						1/2"	0.015								

* 1 R32, R1234yf, R1234ze, R410A, R134a, R404A, R448A, R449A, R407H, R463A-J (For other refrigerants, please contact us.)

* 2 Valve only (without coil)

Catalog No.		Capacity (kW)										
Type	Model	R32	R1234yf	R1234ze	R410A	R134a	R404A	R448A	R449A	R407H	R463A-J	
TEV-S	1220D	0.8	0.4	0.6	0.6	0.5	0.4	0.5	0.5	0.6	0.5	
	1620D	1.5	0.8	1.1	1.0	1.0	0.7	0.9	1.0	1.1	1.0	
	1920D	2.0	1.0	1.4	1.5	1.5	1.0	1.2	1.2	1.5	1.3	
VPV	L202D	1.3	0.7	0.9	1.0	1.0	0.7	0.8	0.8	1.0	0.9	
	303DQ1	4.6	2.3	3.3	3.1	3.1	2.2	2.8	2.9	3.4	3.0	
	603D	14.1	7.3	10.2	9.7	9.6	6.7	8.7	8.8	10.6	9.4	
	803DQ50	32.5	16.8	23.6	22.4	22.2	15.4	20.1	20.4	24.4	21.6	
	1204DQ50	65.0	33.6	47.2	44.8	44.4	30.9	40.1	40.7	48.9	43.2	

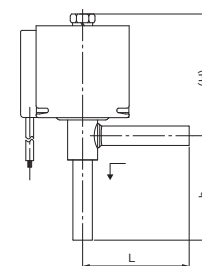
ΔP = 0.015 MPa CT = 38°C ET = 5°C SH = 0K

COIL SELECTION

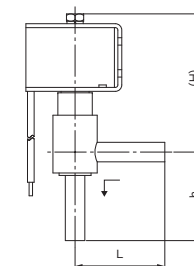
Type	electrical rating	Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Wt. (kg)
					Running	Inrush			
TEV-S	B	24V.AC	50/60	± 10	9/7	22/16	4.5/3.5	Class B Molded *	0.1
	C	100V.AC							
	D	110V.AC							
	E	120V.AC							
	G	200V.AC							
	Q	208V.AC							
	H	220V.AC							
	I	230V.AC							
	J	240V.AC							
	VPV	B							
C		100V.AC							
D		110V.AC							
E		120V.AC							
G		200V.AC							
H		220V.AC							
I		230V.AC							
J		240V.AC							

* Compliant with IEC60085, 60335-2-40.
 • Current (A) = Voltampere / Rated Voltage

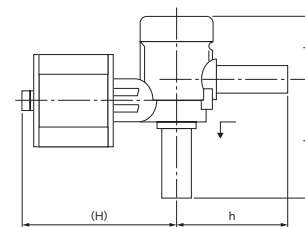
DIMENSIONS



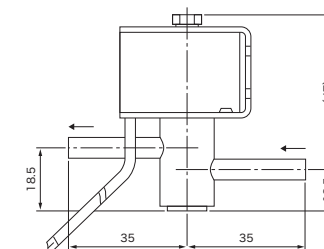
Type TEV



Type VPV-303DQ1, 603



Type VPV-803DQ50, 1204DQ50



Type VPV-L202D

Catalog No.		Unit : mm				
Type	Model	L	H	h	l	
TEV-S	1220D	35	40	33	—	
	1620D					
	1920D					
VPV	303DQ1	36.5	55	36	—	
	603D					
	803DQ50	41.5	53.5	38.5		22.5
	1204DQ50	61.5	57.5	61.5		28.5

BI-FLOW SOLENOID VALVES / Type BPV



Type BPV

High Volume OEM Item

Drawings must be exchanged for purchase.
Please contact SAGINOMIYA for more details.

Coil sold separately

FEATURE

- Bi-flow control simplifies the refrigeration circuit.
- Also suitable for flow control of heat exchangers in multi-type heat pump air conditioners.
- Standards : CE (Please contact us for details such as approved specifications.)

COMMON SPECIFICATION

- Max. working pressure : 4.2 MPa
- Fluid Temperature : -30 ~ 120°C
- Ambient temperature : -20 ~ 60°C

APPLICATIONS

- Packaged air conditioners
- VRF, etc.

DESCRIPTION OF CATALOG NO.

BPV - 8 03 A D Y
I II III IV V VI

I	Type
II	Port Size
III	Connection tube O.D.
IV	Connection direction
V	Connection type
VI	Pressure class

* Coil is not included with the body.

TYPE NUMBER SELECTION

Catalog No.		Refrigerant	Port Size (mm)	Cv Value	When valve close B to A Cv value * 2 (Bleed flow rate)	Connection		O.P.D. (MPa)		* 3 Wt. (kg)
Type	Model					Style	Connection size	Pressure differential at valve opening	Max.	
BPV	803ADY	Various refrigerants * 1	7.8	1.5	0.01 or less	Copper tube solder (ODM)	3/8"	0.01	2.0	0.16
	1204ADY		11	2.9			1/2"			0.30
	1706ADY		17	6.6		Copper tube solder (ODF)	3/4"			0.015

- * 1 R134a, R404A, R407C, R410A, R448A, R449A, R407H (For other refrigerants, please contact us.)
- * 2 Flow direction B to A flows even when the valve is closed.
- * 3 Valve only (without coil)

TYPE NUMBER SELECTION

Catalog No.		Capacity (kW)						
Type	Model	R410A	R134a	R404A	R448A	R449A	R407H	R463A-J
BPV	803ADY	22.4	22.2	15.4	20.1	20.4	24.4	21.6
	1204ADY	43.3	42.9	29.8	38.8	39.4	47.3	41.7
	1706ADY	98.5	97.7	68.0	98.3	89.6	107.5	95.0

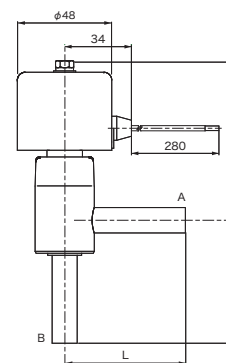
ΔP = 0.015 MPa CT = 38°C ET = 5°C SH = 0K

COIL SELECTION

Valve body catalog No.		Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	* 2 Wt. (kg)
Type	Model				Running	Inrush			
BPV	803ADY 1204ADY	100V.AC	50/60	± 10	12/1 0	36/30	6/5	Class B Molded * 1	0.18
		200V.AC							
		220V.AC							
		240V.AC							
	1706ADY	100V.AC	50/60	± 10	17/14	51/42	7.5/6		
		200V.AC							
220V.AC									
240V.AC									

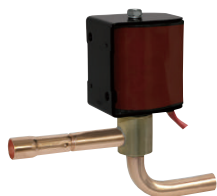
- * 1 Compliant with IEC60085, 60335-2-40.
- * 2 For lead wire length of 280mm.
- Current (A) = Voltampere / Rated Voltage

DIMENSIONS



Catalog No.		Unit : mm		
Type	Model	L	H	h
BPV	803ADY	48	76	48
	1204ADY	61	69	69
	1706ADY	91	85	82

HIGHLY DURABLE SOLENOID VALVES FOR SHOWCASES / Type EPV



Type EPV-1730D

High Volume OEM Item

Drawings must be exchanged for purchase. Please contact SAGINOMIYA for more details.

Coil sold separately

FEATURE

- High durability (35 million times) achieved by special design.
- No liquid supply solenoid valve is required by valve closing during stopped power supply.
- The duty control performs precise control of pumping liquid.
- Standard : CE (Please contact us for details such as approved specifications.)

APPLICATIONS

- Display cases, etc.

COMMON SPECIFICATION

- Max. working pressure : 4.2 MPa
- Fluid Temperature : -30~70°C
- Ambient temperature : -30~50°C
- Normally Closed

DESCRIPTION OF CATALOG NO.

EPV - 17 30 D Q □ □ 1
 I II III IV V VI

I	Type
II	Port size
III	Connection tube O.D.
IV	Connection type
V	Serial number
VI	Orifice size

* Coil is not included with the body.

TYPE NUMBER SELECTION

Catalog No.		* 1 Refrigerant	Orifice size (mm)	Cv Value	* 2 Capacity (kW)			
Type	Model				R404A	R448A	R449A	R407H
EPV	1730DQ□□1	R404A R448A R449A R407H	0.6	0.017	1.5	2.0	2.0	2.4
	1730DQ□□2		0.7	0.023	2.0	2.7	2.8	3.3
	1730DQ□□3		0.9	0.037	3.2	4.4	4.4	5.3
	1730DQ□□4		1.1	0.052	4.4	6.2	6.2	7.5
	1730DQ□□5		1.3	0.073	6.2	8.7	8.7	10.5
	1730DQ□□6		1.7	0.106	9.1	12.6	12.7	15.2

Catalog No.		Connection		O.P.D. (MPa)		* 3 Wt. (kg)
Type	Model	Style	Connection size	Min.	Max.	
EPV	1730DQ□□1	Copper tube solder Inlet side : ODF Outlet side : ODM	3/8"	0	3.0	0.09
	1730DQ□□2					
	1730DQ□□3					
	1730DQ□□4					
	1730DQ□□5					
	1730DQ□□6					

* 1 For other refrigerants, please contact us.

* 2 CT = 38°C ET = 5°C SH = 0K

* 3 Valve only (without coil)

COIL SELECTION

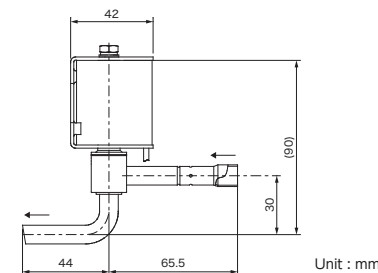
Rated Voltage	Frequency (Hz)	Tolerance (%)	Rated Current (mA)	Power consumption (W)	Insulation Class	* 2 Wt. (kg)
100V.AC	50/60	± 10	162	15.5	Class B Molded * 1	0.21
200V.AC			74	13.5		
220V.AC			65	13.0		

* 1 Compliant with IEC60085, 60335-2-40. Some models are of Class E Molded. Please contact us for details.

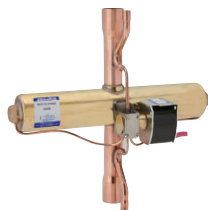
* 2 For lead wire length of 600mm.

• Built-in diode bridge in coil

DIMENSIONS



REVERSIBLE 2-WAY VALVE FOR REFRIGERANT / Type MHV



Type MHV

High Volume OEM Item

Drawings must be exchanged for purchase.
Please contact SAGINOMIYA for more details.

Coil sold separately

FEATURE

- 2-way valve with high flow rate and low pressure drop.

APPLICATIONS

- Packaged air conditioners
- VRF, etc.

COMMON SPECIFICATION

- Max. working pressure : 4.2 MPa
- Maximum Operating Pressure Differential : 3.1 MPa
- Minimum Operating Pressure Differential : 0.3 MPa
- Fluid Temperature (°C) : -20 ~ 120°C
- Ambient temperature (°C) : -20 ~ 55°C

DESCRIPTION OF CATALOG NO.

MHV - $\frac{I}{II}$ $\frac{L}{III}$ $\frac{11}{IV}$ $\frac{04}{V}$ S

I	Type
II	Normally Closed / Opened
III	Port Size
IV	Connection Size
V	Pilot tube

COIL SELECTION

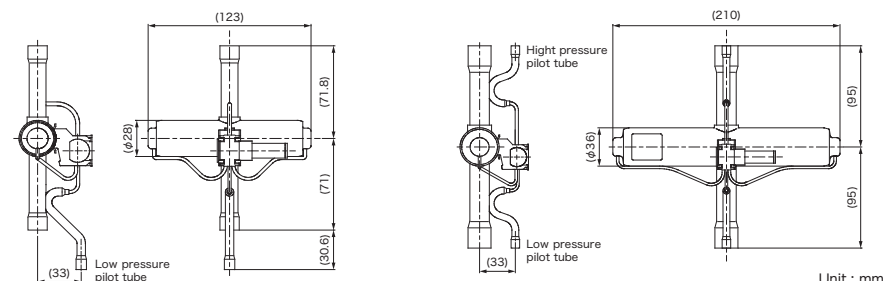
Catalog No.		Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	* 2 Wt. (kg)
Type	Model				Running	Inrush			
STF	(G) □□□□	100V.AC	50/60	+ 10 - 15	13/10	39/30	7/6	Class B Molded * 1	0.13
		200V.AC							
		110V.AC							
		220V.AC							
		230V.AC							
240V.AC	± 10	11/9	33/27	6/6					

* 1 Compliant with IEC60085, 60335-2-40.

* 2 For lead wire length of 600mm.

- Use the STF-G type 4-way reversing valve coil.
- Coil is not included. Please specify coil voltage when ordering the valve body.
- Current (A) = Voltampere / Rated Voltage

DIMENSIONS



Type MHV-L1104, H1104

Type MHV-L1606, H1606

Unit : mm

TYPE NUMBER SELECTION

Catalog No.		* 1 Refrigerant	Port Size (mm)	Style	Connection		Normal operation
Type	Model	High-pressure side			Low-pressure side		
MHV	L1104S		R407C	11.1		Copper tube solder (ODF)	1/2"
	H1104S	R410A	Normally Closed				
	L1606BG	R448A	15.5	3/4"	3/4"		Normally Opened
	H1606BG	R449A R407H					Normally Closed

Catalog No.		Pilot tube	Style	Connection size	* 2 Wt. (kg)	Remarks
Type	Model					
MHV	L1104S	Low-pressure side	Copper tube solder (ODF)	1/4"	0.35	Dedicated to high-pressure gas lines in refrigeration circuits
	H1104S					
	L1606BG	High / low-pressure both side			0.77	Dedicated to gas lines in refrigeration circuits
	H1606BG					

* 1 For other refrigerants, please contact us.

* 2 Valve only (without coil)

SOLENOID VALVES FOR CO₂ REFRIGERANT / Type HPV



Type HPV-102D



Type HPV-122D



Type HPV-402DQ3



Type HPV-825D

High Volume OEM Item

Drawings must be exchanged for purchase. Please contact SAGINOMIYA for more details.

Coil sold separately

FEATURE

- Ultra-high pressure available. (MAX working pressure 13.0 to 15.0 MPa)
- Compact design and highly sealed structure
- Available for hot gas defrosting circuits and for emergency cut-out.
- Standards : CE, UKCA (Please contact us for details such as approved specifications.)

APPLICATIONS

- CO₂ Condensing units
- CO₂ Display cases
- CO₂ Bottle coolers
- CO₂ Refrigerator / Freezers
- CO₂ Heat pump water heaters, etc.

COMMON SPECIFICATION

- Fluid Temperature : -30 ~ 120°C
- Ambient temperature : -20 ~ 50°C
- Normally Closed

DESCRIPTION OF CATALOG NO.

HPV - 10 2 D Q1	I	Type
I II III IV V	II	Port Size
	III	Connection tube O.D.
HPV - 8 25 D S	IV	Connection type
I II III IV VI	V	Serial number
	VI	—

* Coil is not included with the body.

TYPE NUMBER SELECTION

Catalog No.		Port Size (mm)	Cv Value	Connection		O.P.D. (MPa)		Max. working pressure (MPa)	* Wt. (kg)
Type	Model			Style	Connection size	Min.	Max.		
HPV	102DQ1	1.0	0.028	Copper tube solder (ODM)	1/4"	0	10.0	13.0	0.05
	122D	1.2	0.038					13.8	0.08
	402DQ3	4.0	0.32					14.0	0.09
	825DS	7.8	0.54					15.0	0.13

* Valve only (without coil)

COIL SELECTION

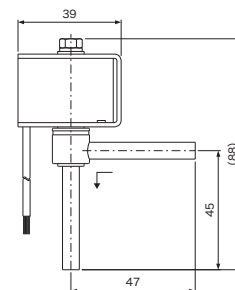
Valve body catalog No.	Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	* 2 Wt. (kg)		
				Running	Inrush					
HPV	102DQ1	100V.AC 200V.AC 220V.AC	50/60	± 10	11/8	32/27	6/4.5	Class B Molded * 1	0.13	
	122D				16/13	52/38			9/8	0.18
	402DQ3				10/8	32/26			5.5/4.5	0.16
	825DS				14/11	42/33			7/6	0.20

* 1 Compliant with IEC60085, 60335-2-40. Some models are Class E coils. Please contact us for details.

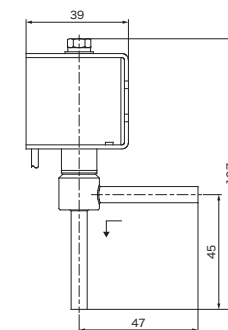
* 2 HPV-102DQ1, 122D, 402DQ3 : For lead wire length of 300mm, HPV-825DS : For lead wire length of 280mm.

• Current (A) = Voltampere / Rated Voltage

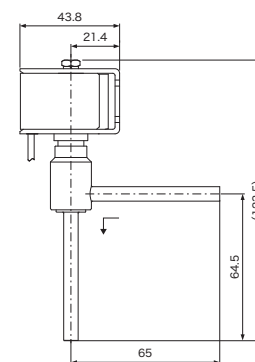
DIMENSIONS



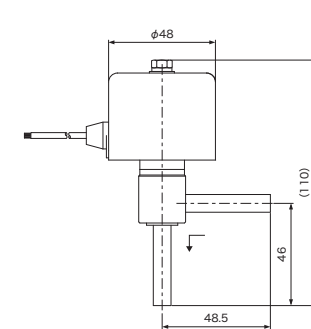
Type HPV-102DQ1



Type HPV-122D



Type HPV-402DQ3



Type HPV-825D

Unit : mm

* Please contact us if other connection types are required.

ELECTRIC EXPANSION VALVE FOR CO₂ REFRIGERANT / Type HPV-E



Type HPV-E

High Volume OEM Item

Drawings must be exchanged for purchase. Please contact SAGINOMIYA for more details.

Coil sold separately

FEATURE

- High durability (35 million times) achieved by special design.
- High quietness
- No liquid supply solenoid valve is required by valve closing during stopped power supply.
- The duty control performs precise control of pumping liquid.
- Built-in strainer

APPLICATIONS

- CO₂ Display cases, etc.

COMMON SPECIFICATION

- Fluid Temperature : -40 ~ 30°C
- Ambient temperature : -30 ~ 50°C

DESCRIPTION OF CATALOG NO.

HPV-E - 11 20 D Q1
I II III IV V

I	Type
II	(Port Size)
III	Connection tube O.D.
IV	Connection type
V	Serial number

* Coil is not included with the body.

TYPE NUMBER SELECTION

Catalog No.		Orifice size (mm)	Cv Value	Connection		O.P.D. (MPa)		Max. working pressure (MPa)	* Wt. (kg)
Type	Model			Style	Connection size	Min.	Max.		
HPV	E1120DQ1	0.5	0.01	Copper tube solder (ODM)	1/4"	0	6.0	8.0	0.08
	E1120DQ2	0.65	0.019						
	E1120DQ3	0.8	0.03						
	E1120DQ4	1.1	0.047						

* Valve only (without coil)

COIL SELECTION

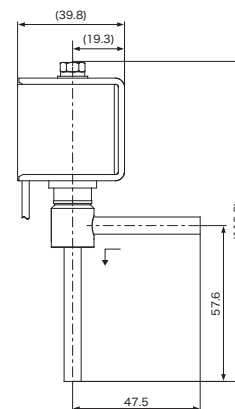
Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)	Power consumption (W)	Insulation Class	* 2 Wt. (kg)
100V.AC	50/60	± 10	37	12	Class B Molded * 1	0.15
200V.AC			58			

* 1 Compliant with IEC60085, 60335-2-40. Some models are of Class E Molded. Please contact us for details.

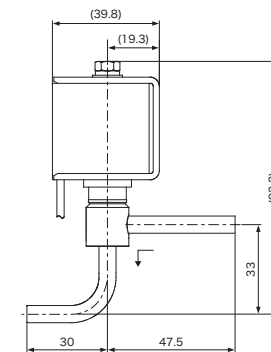
* 2 For lead wire length of 600mm.

• Built-in diode bridge in coil

DIMENSIONS



Type HPV-E1120DQ1 to 4



Line connection type

Unit : mm

* Line connection type is also available. Please contact us for details.

3-WAY VALVES / Type IEV



Type IEV-B1505



Type IEV-B3211

FEATURE

- For branch circuits
- Available for branching refrigerant circuits such as heat recovery systems and hot gas defrost systems.

APPLICATIONS

- Condensing units
- Refrigerator / Freezers, etc.

COMMON SPECIFICATION

- Max. working pressure : 2.94 MPa
- Ambient temperature : -20~50°C

DESCRIPTION OF CATALOG NO.

IEV - B 15 05 D X F * A 4 C
I II III IV V VI VII VIII IX X

I	Type
II	Operation
III	Port Size
IV	Connection tube O.D.
V	Connection type
VI	Pressure class
VII	Fluid
VIII	Coil power supply
IX	Coil voltage
X	Coil Style

TYPE NUMBER SELECTION

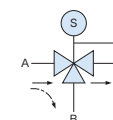
Catalog No.					Port Size (mm)	Cv Value	Connection	
Type	Model	* 1 Fluid	Rated Voltage	Coil Style			Style	Connection size
IEV	B1505DX	F (Fluorocarbon refrigerants)	* A1 (100V.AC) * A2 (200V.AC) * A3 (110V.AC) * A4 (220V.AC)	C (Lead Wire Type)	Copper tube solder (ODF)	18	6.3	5/8"
	B2007DX					20	9.0	7/8"
	B3211DX			C (Lead Wire Type)		30	25	1-1/8"
	B3212DX							1-1/4"
	B3213DX							W (Drip-proof terminal box type)

Catalog No.					* 2 O.P.D. (MPa)		Fluid Temperature (°C)	Operation	* 3 Wt. (kg)				
Type	Model	* 1 Fluid	Rated Voltage	Coil Style	Min.	Max.							
IEV	B1505DX	F (Fluorocarbon refrigerants)	* A1 (100V.AC) * A2 (200V.AC) * A3 (110V.AC) * A4 (220V.AC)	C (Lead Wire Type)	0.29	2.06	-20~125	Branched	0.95				
	B2007DX								1.0				
	B3211DX			C (Lead Wire Type)					30	25	2.6		
	B3212DX										W (Drip-proof terminal box type)	30	25
	B3213DX												

- * 1 For available refrigerants, please contact us.
- * 2 The difference between the compressor discharge side or evaporator outlet side (connection A) and the compressor suction side (connection D).
- * 3 Includes a coil (Lead wire type).

For branch circuits

Flow	Power ON	Power OFF
	A → C	A → B



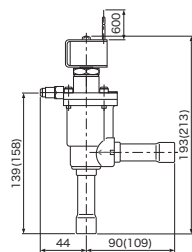
- A : Compressor discharge line
- B : Condenser inlet line
- C : Sub-Condenser inlet line or Evaporator Inlet Line
- D : Compressor suction line

SPECIFICATIONS OF COILS

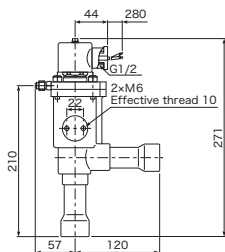
Valve body catalog No.		Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	Coil Style
Type	Model				Running	Inrush			
IEV	B1505DX B2007DX	100V.AC	50/60	± 10	11/9	33/27	6/5	Class B Molded	Lead Wire Type
		110V.AC							
		200V.AC							
	B3211DX B3212DX B3213DX	100V.AC			16/13	40/33	8/7		Drip-proof terminal box type
		110V.AC							
		200V.AC							
		220V.AC							

- IP Lead Wire type : IP67, Drip-proof terminal box type : IP34
- The standard specification of the coil style is the Lead wire type.
- Drip-proof terminal box type can be used indoors where water drops may fall.
- Current (A) = Voltampere / Rated Voltage

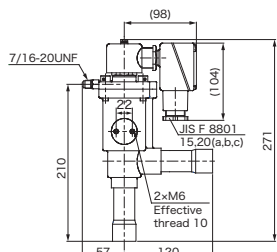
SPECIFICATIONS OF COILS



Type IEV-15D
(Type IEV-25D)



Type IEV-32



Unit : mm

Lead Wire Type

Drip-proof terminal box type

CAPACITY TABLE

Cooling capacity when used for discharge gas pipe

Condensing temperature : 38°C, Evaporating temperature : 5°C,
Gas temperature : 50°C.

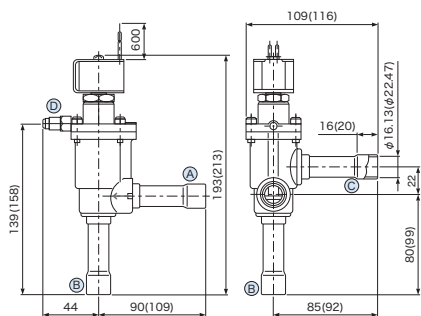
Port size (mm)	Capacity (kW)			
	R134a			
	Pressure difference between inlet and outlet of valve (MPa)			
	0.01	0.015	0.02	0.03
18	14	16	19	23
20	19	23	27	34
30	53	65	76	93

· In case the evaporating temperature is different, the value is multiplied by the correction factor in the evaporating temperature correction factor table.

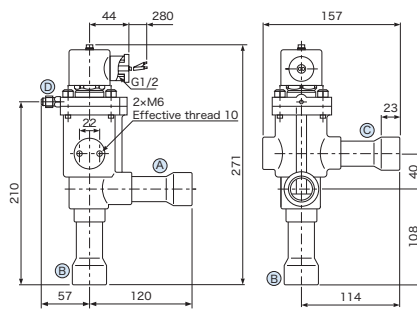
Evaporating temperature correction factor table

Evaporating temperature (°C)	Factor
5	1
0	0.99
-10	0.96
-20	0.93
-30	0.90
-40	0.87

DIMENSIONS



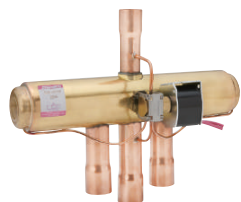
Type IEV-B1505DXF
(Type IEV-B2007DXF)



Unit : mm

Type IEV-B3211 ~ 3213DXF

3-WAY SOLENOID VALVES / Type STF-C



Type STF-C

High Volume OEM Item

Drawings must be exchanged for purchase. Please contact SAGINOMIYA for more details.

Coil sold separately

FEATURE

- 3-way valve with high flow rate.

APPLICATIONS

- Cooling units
- Packaged air conditioners
- VRF
- Chillers, etc.

COMMON SPECIFICATION

- Max. working pressure : 4.2 MPa
- Maximum Operating Pressure Differential : 3.1 MPa
- Minimum Operating Pressure Differential : 0.3 MPa
- Fluid Temperature : -20 ~ 120°C
- Ambient temperature : -20 ~ 55°C

DESCRIPTION OF CATALOG NO.

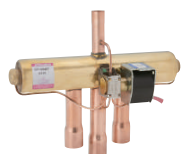
STF-C - 04 07
I II III

I	Type
II	Capacity
III	Serial number

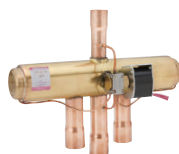
TYPE NUMBER SELECTION

Catalog No.		* 1	Port Size (mm)	Style	Connection		* 2	Remarks
Type	Model	Refrigerant			Connection size		Wt. (kg)	
					High-pressure side	Low-pressure side		
STF-C	0407	R407C R410A R448A	15.5	Copper tube solder (ODF)	1/2"	3/4"	0.8	Dedicated to high-pressure gas lines in refrigeration circuits
	0708	R449A R407H			3/4"	7/8"		

* 1 For other refrigerants, please contact us.
* 2 Valve only (without coil)



Type STF-C0407



Type STF-C0708

COIL SELECTION

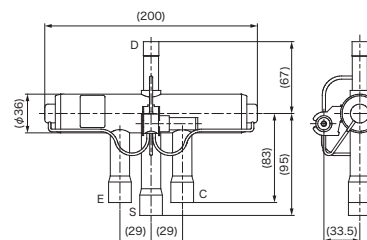
Coil Catalog No.		Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	* 2 Wt. (kg)
Type	Model				Running	Inrush			
STF	(G)□□□□	100V.AC	50/60	+ 10 - 15	13/10	39/30	7/6	Class B Molded * 1	0.13
		200V.AC							
		110V.AC							
		220V.AC							
		230V.AC							
240V.AC	± 10	11/9	33/27	6/6					

* 1 Compliant with IEC60085, 60335-2-40.

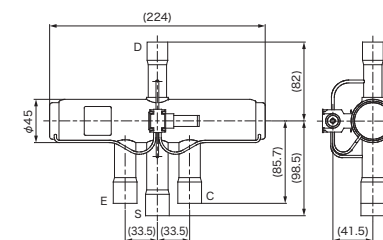
* 2 For lead wire length of 600mm.

- Use the STF-G type 4-way reversing valve coil.
- Coil is not included. Please specify coil voltage when ordering the valve body.
- Current (A) = Voltampere / Rated Voltage

DIMENSIONS



Type STF-C0407



Type STF-C0708

Unit : mm

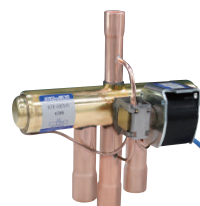
Flow direction (flow path)

Flow	Power ON	Power OFF
	D → E	D → C

4-WAY REVERSING VALVES / Type STF



Type STF-H01



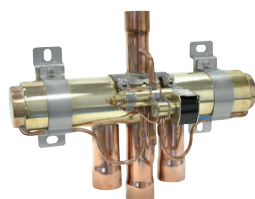
Type STF-H035




Type STF-H04



Type STF-H06



Type STF-30

Click or scan here for the capacity table. ⇒ 

URL : https://saginomiya.co.jp/en/auto/pdf/stf_capacity.pdf

High Volume OEM Item

Drawings must be exchanged for purchase. Please contact SAGINOMIYA for more details.

Coil sold separately

FEATURE

- Used for a switch of cooling ↔ heating , defrosting ↔ heating.
- Standards : UL/CSA, CE, UKCA, VDE (Please contact us for details such as approved specifications.)

COMMON SPECIFICATION

- Max. working pressure : 4.2MPa
- Fluid Temperature : -20 ~ 120°C *
- Ambient temperature : -20 ~ 55°C

* Products up to 130° C are also available. Please contact us for details.

APPLICATIONS

- Room air conditioners
- Packaged air conditioners
- VRF
- Heat pump water heaters
- Chillers, etc.

DESCRIPTION OF CATALOG NO.

STF-H - 01 67	I	Type
I II III	II	Capacity
	III	Serial number

STF - 20 27 G	I	II	III	I
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TYPE NUMBER SELECTION

Catalog No.		* 1 Refrigerant	Port Size (mm)	Connection		O.P.D. (MPa)		* 2 Wt. (kg)				
Type	Model	Style		Connection size		Min.	Max.					
STF	H0167		R407C R410A R448A R449A R407H	8	Copper tube solder (ODF)	5/16"	3/8"		0.3	3.1	0.20	
	H0267	11.1		3/8"		1/2"	0.32					
	H0321	11.5		1/2"		5/8"	0.36					
	H0351	14					0.39					
	H0429	16					0.69					
	H0651	18.1		3/4"		0.74						
	H0731	20				1.21						
	H0951	21.3		3/4"		7/8"	1.24					
	H0954			7/8"		1-1/8"	1.55					
	2027G	24					1"	1-1/4"			1.51	
	2522G	28		1-1/4"		1-1/2"					3.6	
	3019G	34					1-1/2"	2-1/8"			4.4	
	4013G	40		6009G		60					Copper tube solder (High-pressure side : ODM) (Low-pressure side : ODF)	1-5/8"
	5020G	50					8.5					

* 1 For other refrigerants, please contact us.

* 2 Valve only (without coil)

COIL SELECTION

Valve body catalog No.		Rated Voltage	Frequency (Hz)	Tolerance (%)	Voltampere (VA)		Power consumption (W)	Insulation Class	* 2 Wt. (kg)
Type	Model				Running	Inrush			Class B Molded * 1
STF	H□□□□	100V.AC	50/60	+ 10 - 15	10/8	30/24	6/5	Class B Molded * 1	
		110V.AC							
		220V.AC							
		230V.AC			11/9	33/27			
		240V.AC							
		100V.AC							+ 10 - 15
	200V.AC								
	110V.AC								
	(G)□□□□	220V.AC		± 10	11/9	33/27	6/6		
		230V.AC							
		240V.AC							

* 1 Compliant with IEC60085, 60335-2-40.

* 2 For lead wire length of 600mm.

• Coil is not included. Please specify coil voltage when ordering the valve body.

CONSENT RELATED TO DISCLAIMERS

We, SAGINOMIYA SEISAKUSHO, INC. (hereinafter referred to as "Saginomiya"), truly appreciate your choosing Saginomiya's products (hereinafter referred to as "Products").
When the Products are used, this document as provided below shall be applicable except to the extent that there is anything to the contrary in any applicable estimate, agreement, catalogue, specification, etc.

● CONFIRMATION OF OPERATION

All customers using the Products (hereinafter referred to as "Customers") are requested to, after properly installing the Products, test the operation of the Products to confirm that all the systems in connection with the Products fully function.
In order to prevent the occurrence of bodily injury, fire accidents, serious damage, etc., in connection with the Customers' machinery or equipment due to improper installation of the Products, Saginomiya kindly requests the Customers to take the necessary safety measures by preparing safe designs such as a fail-safe design (*1) and a fire spread prevention design, as well as to make the proper adjustments for product reliability necessary for fault-tolerance (*2).

- (*1) Fail-safe design: Design to ensure safety in the event of any mechanical failure
(*2) Fault-tolerance: Utilization of redundancy technology

Periodic Inspection of the Products

Be sure to confirm the proper operation of the Products and keep records of such operation at least once a year.

Saginomiya shall be held harmless and be indemnified by the Customers from any damages incurred due to the Customers failing to conduct the above operational procedures, provided, however, that, this shall not apply if the damages which the Customers incurred due to the defect of the Products caused by Saginomiya.

● RESTRICTIONS OF USE

The Products are designed and manufactured for the purpose of using them for cooling and heating and refrigerating appliances and air conditioning equipment or various industrial equipment, but are not designed and manufactured for the purpose of using the Products for any instrument or system related to human life or health purposes.
Therefore, the use of the Products in fields related to items (1) through (3) below is not intended whatsoever. Saginomiya shall be held harmless and be indemnified from any and all damages incurred by use of the Products under item (3).

- (1) In any field related to nuclear power and radiation;
(2) In any field related to space or seafloor equipment;
(3) In any equipment or device requiring a high degree of reliance on such equipment or device with respect to which it is reasonably foreseeable that failure or malfunction of the equipment or device would either directly or indirectly cause serious damage to human life, health or property;

Also, when using the Products under the fields related to items (1) through (9) below (except for item (3), in relation to which the Products must never be used), please be sure to notify our Saginomiya's contact desk in charge of sales and obtain Saginomiya's prior written approval for such use. Saginomiya shall be held harmless and be indemnified from any and all damages incurred by use of the Products in relation to these fields if the Customers do not notify Saginomiya's contact desk and obtain Saginomiya's prior written approval.

- (4) Transportation device (railroad, aviation, ship or vessel, vehicle equipment, etc.);
(5) Disaster-prevention or crime-prevention device;
(6) Facility or application directly related to medical equipment, burning appliances, electro thermal equipment, amusement rides and devices, facilities/applications associated directly with billing, or device using flammable fluid;
(7) Equipment requiring high reliance on supply systems such as electricity, gas, water, etc., in large-scale communication system, or in transportation or air traffic control system;
(8) Facilities that are to comply with regulations of governmental / public agencies or specific industries or
(9) Other machineries or equipment equivalent to those set forth in the above items (4) to (8) which require for high reliability and safety.

It is recommended to replace the Products within 5 to 10 years of delivery if no other duration of use is provided in the applicable specifications or instruction manual because the conditions and environment of use also have an impact on the Products.

● SCOPE OF WARRANTY

SAGINOMIYA WILL PROVIDE THE CUSTOMERS WITH REPLACEMENT OR REPAIRED THE PRODUCTS DELIVERED, FREE OF COST, ONLY WITHIN ONE YEAR OF DELIVERY TO THE CUSTOMER, IF FAILURE OCCURS IN THE CUSTOMERS' EQUIPMENT USING THE PRODUCTS DUE TO A DEFECT OF THE PRODUCTS, PROVIDED, HOWEVER, THAT IN ANY EVENT THE RATIO OF THE AMOUNT THAT SAGINOMIYA BEARS FOR THE DAMAGES INCURRED BY THE FAILURE OF THE PRODUCTS OR CUSTOMERS' EQUIPMENT SHALL NOT EXCEED THE PRICE OF THE PRODUCTS WE DELIVERED. IN ADDITION, SAGINOMIYA SHALL BE HELD HARMLESS AND BE INDEMNIFIED FROM ANY AND ALL DAMAGES INCURRED WHEN THE FAILURE OF THE CUSTOMERS' EQUIPMENT OCCURRED DUE TO ANY CAUSE SET FORTH BELOW.

- (1) WHEN CAUSED BY INAPPROPRIATE HANDLING OR USE OF THE PRODUCTS BY THE CUSTOMERS (SUCH AS NOT COMPLYING WITH THE CONDITIONS, ENVIRONMENTAL SPECIFICATIONS OR CAUTIONS INDICATED IN ANY APPLICABLE CATALOGUE, SPECIFICATIONS, INSTRUCTION MANUAL, ETC.);
(2) WHEN FAILURE OCCURRED DUE TO ANY REASON OTHER THAN THE PRODUCTS.
(3) WHEN CAUSED BY MODIFICATION OR REPAIR OF THE PRODUCTS MADE BY ANYONE OTHER THAN SAGINOMIYA OR DESIGNEE OF SAGINOMIYA;
(4) WHEN CAUSED BY THE USE OF THE PRODUCTS IN VIOLATION OF THE ABOVE "RESTRICTIONS OF USE" OR "CONFIRMATION OF OPERATION";
(5) WHEN SUCH FAILURE WAS NOT REASONABLY FORESEEABLE AT THE TIME OF SAGINOMIYA'S SHIPMENT; OR
(6) BY ANY OTHER CAUSE NOT ATTRIBUTABLE TO SAGINOMIYA, SUCH AS AN ACT OF GOD, DISASTER, OR ACT OF ANY THIRD PARTY.

PLEASE NOTE THAT THE CUSTOMERS WILL NOT BE ENTITLED TO ANY OF THE ABOVE WARRANTY IF THE CUSTOMERS PURCHASED THE PRODUCTS FROM INTERNET AUCTION, ETC.

SAGINOMIYA
SEISAKUSHO, INC.
Revision1 (2014.12) 2014.10

⚠ WARNING

Failure to read and follow all instruction carefully before installing or operation the product could cause personal injury and/or property damage.

Specifications are subject to change without notice.



Headquarters



Sayama Plant



Tokorozawa Plant

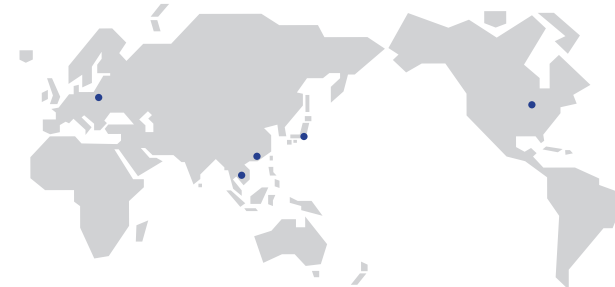


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Tokyo, 169-0072 Japan



Yonezawa Plant

OVERSEAS NETWORK



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Wattana District, Bangkok 10110, Thailand
Sales & Manufacturing

**NOTES FOR SAFETY**

Failure to read and follow all instruction carefully before installing or operating the product could cause personal injury and/or property damage.

Specifications are subject to change without notice.

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