

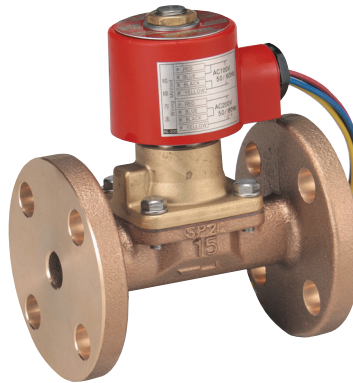
DP-10·13 Series

Features

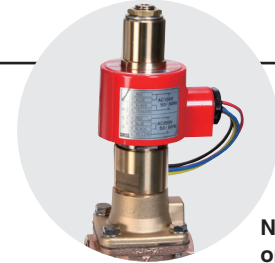
1. Excellent performance on fluid control, mainly used for steam.
2. Compact, lightweight and large capacity.
3. Horizontal and vertical installation.



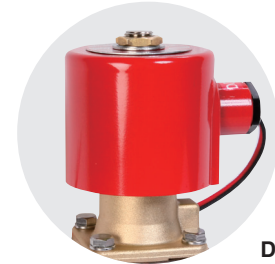
DP-10



DP-13



Normally opened type



DC coil type

●Piston Type Solenoid Valves Variation

Voltage and operation	AC voltage		DC voltage	
	Normally closed	Normally opened	Normally closed	Normally opened
Screwed type	DP-10	DP-10C	DP-10D	DP-10CD
Flanged type	DP-13	DP-13C	DP-13D	DP-13CD

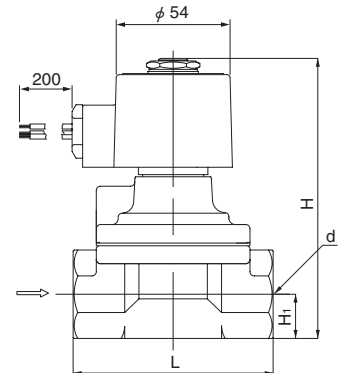
Specifications

Model	AC coil	DP-10	DP-13	DP-10C	DP-13C
	DC coil	DP-10D	DP-13D	DP-10CD	DP-13CD
Application	Steam, Air, Cold and hot water, Oil (20 cSt or less)				
Working pressure	0.05-1.0 MPa (unusable under vacuum)				
Min. differential pressure	0.05 MPa (0.1 MPa or more is required for vertical installation)				
Valve seat leakage	50 mL/min (at the time of air pressure 0.6 MPa)				
Max. temperature	180°C				
Operation	Normally closed			Normally opened	
Material	Body	Cast bronze			
	Piston	Stainless steel			
	Valve disc	PTFE			
Connection	JIS Rc screwed	JIS 10K FF flanged	JIS Rc screwed	JIS 10K FF flanged	

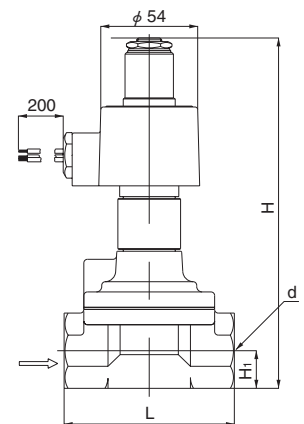
• Available with working pressure of 0 to 0.10 MPa (DP-□□L (D)).

Dimensions (mm) and Weights (kg)
●DP-10

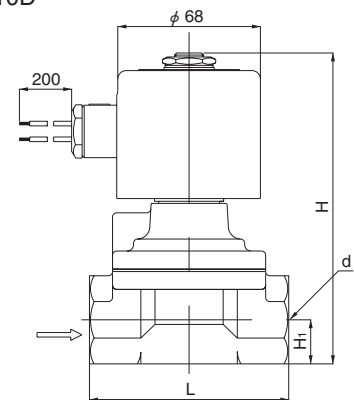
Nominal size	d	L	H	H ₁	Weight
10A	Rc 3/8	70	119	14.5	1.2
15A	Rc 1/2	70	119	14.5	1.2
20A	Rc 3/4	80	126	17.5	1.4
25A	Rc 1	95	133	21.0	1.8
32A	Rc 1-1/4	110	155	26.0	2.6
40A	Rc 1-1/2	120	162	29.5	3.2
50A	Rc 2	140	177	36.5	5.1

DP-10

●DP-10C

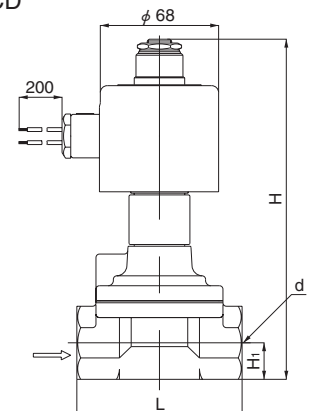
Nominal size	d	L	H	H ₁	Weight
10A	Rc 3/8	70	182	14.5	1.5
15A	Rc 1/2	70	182	14.5	1.5
20A	Rc 3/4	80	189	17.5	1.7
25A	Rc 1	95	196	21.0	2.1
32A	Rc 1-1/4	110	218	26.0	2.9
40A	Rc 1-1/2	120	225	29.5	3.5
50A	Rc 2	140	239	36.5	5.4

DP-10C

●DP-10D

Nominal size	d	L	H	H ₁	Weight
10A	Rc 3/8	70	134	14.5	2.0
15A	Rc 1/2	70	134	14.5	2.0
20A	Rc 3/4	80	141	17.5	2.2
25A	Rc 1	95	148	21.0	2.6
32A	Rc 1-1/4	110	170	26.0	3.4
40A	Rc 1-1/2	120	177	29.5	4.0
50A	Rc 2	140	192	36.5	5.9

DP-10D

●DP-10CD

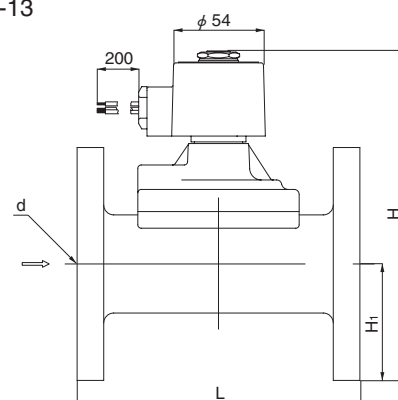
Nominal size	d	L	H	H ₁	Weight
10A	Rc 3/8	70	182	14.5	2.2
15A	Rc 1/2	70	182	14.5	2.2
20A	Rc 3/4	80	189	17.5	2.4
25A	Rc 1	95	196	21.0	2.8
32A	Rc 1-1/4	110	218	26.0	3.6
40A	Rc 1-1/2	120	225	29.5	4.5
50A	Rc 2	140	239	36.5	6.1

DP-10CD


●DP-13

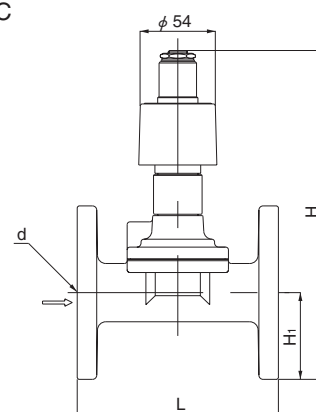
Nominal size	d	L	H	H ₁	Weight
15A	15	120	152.0	47.5	2.7
20A	20	130	158.5	50.0	3.3
25A	25	145	174.5	62.5	4.8
32A	32	160	196.5	67.5	6.6
40A	40	170	202.5	70.0	7.3
50A	50	195	217.5	77.5	10.0
65A	50	198	227.5	87.5	13.5

DP-13


●DP-13C

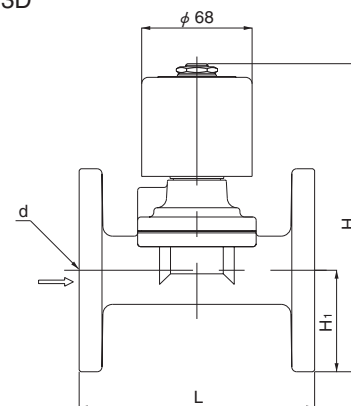
Nominal size	d	L	H	H ₁	Weight
15A	15	120	215	47.5	3.0
20A	20	130	221	50.0	3.6
25A	25	145	237	62.5	5.1
32A	32	160	259	67.5	6.9
40A	40	170	265	70.0	7.6
50A	50	195	280	77.5	10.3

DP-13C


●DP-13D

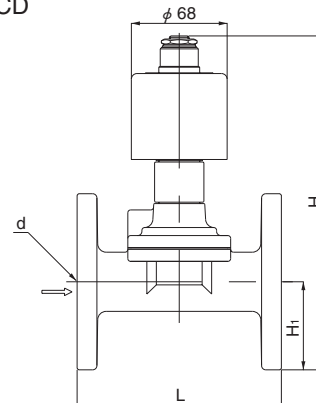
Nominal size	d	L	H	H ₁	Weight
15A	15	120	167	47.5	3.5
20A	20	130	174	50.0	4.1
25A	25	145	190	62.5	5.6
32A	32	160	212	67.5	7.4
40A	40	170	218	70.0	8.1
50A	50	195	233	77.5	10.8

DP-13D

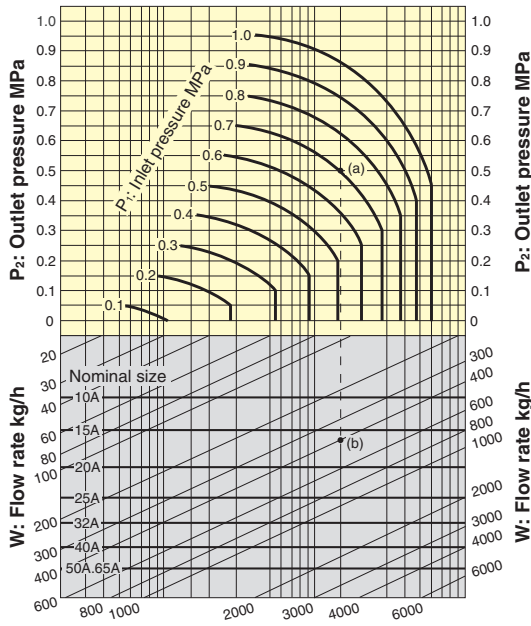

●DP-13CD

Nominal size	d	L	H	H ₁	Weight
15A	15	120	215	47.5	3.7
20A	20	130	221	50.0	4.3
25A	25	145	237	62.5	5.8
32A	32	160	259	67.5	7.6
40A	40	170	265	70.0	8.3
50A	50	195	280	77.5	11.0

DP-13CD



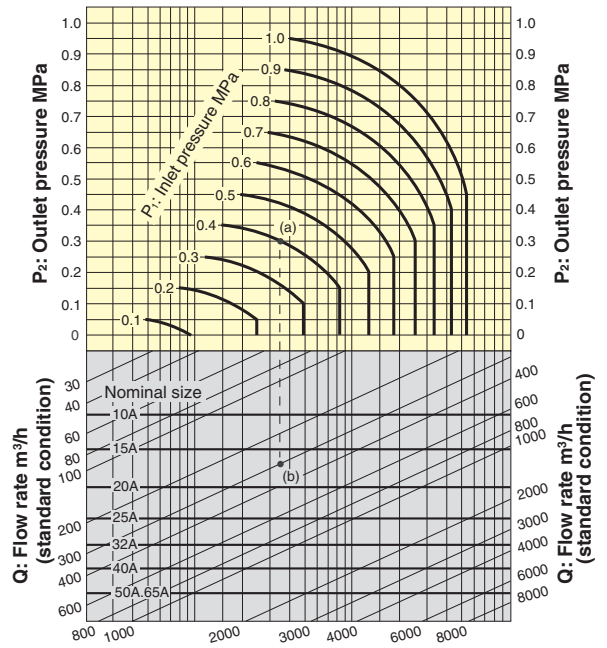
Nominal Size Selection Chart (For Steam)



How to use the chart

When selecting the nominal size of a solenoid valve whose inlet pressure (P_1), outlet pressure (P_2), and steam (saturated steam) flow rate (W) are 0.7 MPa, 0.5 MPa, and 400 kg/h, respectively, first find intersection point (a) of $P_1 = 0.7$ MPa and $P_2 = 0.5$ MPa. Trace down vertically from this intersection point (a) to find intersection point (b) with $W = 400$ kg/h. Since this intersection point (b) lies between nominal sizes 15A and 20A, select the larger one, 20A.

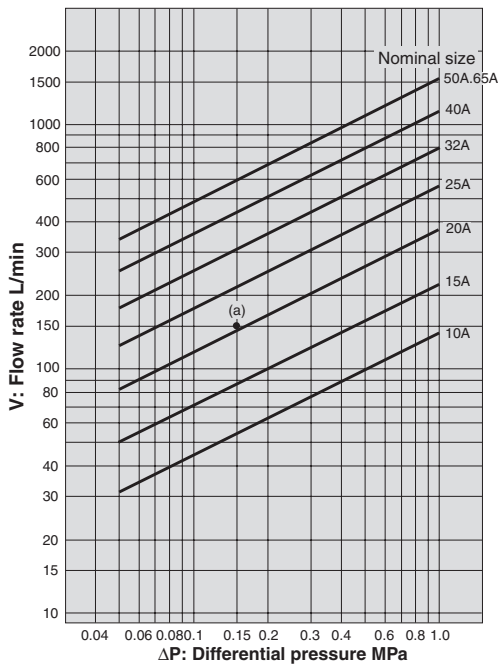
Nominal Size Selection Chart (For Air)



How to use the chart

When selecting the nominal size of a solenoid valve whose inlet pressure (P_1), outlet pressure (P_2), and air (20°C) flow rate (Q) are 0.4 MPa, 0.3 MPa, and 300 m³/h (standard condition), respectively, first find intersection point (a) of $P_1 = 0.4$ MPa and $P_2 = 0.3$ MPa. Trace down vertically from this intersection point (a) to find intersection point (b) with $Q = 300$ m³/h (standard condition). Since this intersection point (b) lies between nominal sizes 15A and 20A, select the larger one, 20A.

Nominal Size Selection Chart (For Water)



How to use the chart

When selecting the nominal size of a solenoid valve whose inlet pressure (P_1), outlet pressure (P_2), and flow rate (V) are 0.5 MPa, 0.35 MPa, and 150 L/min, respectively, first find intersection point (a) of the differential pressure before and after the valve [$\Delta P = 0.5 - 0.35 = 0.15$ MPa] and $V = 150$ L/min. Since this intersection point (a) lies between nominal sizes 20A and 25A, select the larger one, 25A.