

DP-200,200-N DP-200F,200F-N

RED MAN™

ULTRA-HIGH PERFORMANCE SOLENOID

 JWWA approval
 [DP-200-N, DP-200F-N]


Pilot type	Direct type	Piston	Diaphragm
Normally closed	Normally opened	AC coil	DC coil
Stainless steel	110 V / 220 V	Explosion-proof	JWWA
Leak 0			



DP-200



DP-200F

■ Features

1. The shock of water hammer is reduced, and the closing time of valve is shortened.
2. Zero leakage due to synthetic rubber used for valve part.
3. Usable for wide pressure range of 0-1.0 MPa (0.1-1.0 MPa if the coil set sideways).
4. Horizontal and vertical installation. (Within 90 degrees from upward position of the coil)

■ Specifications

Model	Normally closed	DP-200	DP-200-N	DP-200F	DP-200F-N
Nominal size		10A-50A		15A-50A	
Structure		Pilot-operated diaphragm type			
Application		Cold and Hot water, Air, N ₂ gas, CO ₂ gas (dry), Ar gas, Oil (20 cSt or less: equivalent to kerosene and light oil)			
Working pressure		0-1.0 MPa (Unusable under vacuum)			
Min. differential pressure		0 MPa (0.1 MPa or more is required if the coil set sideways)			
Allowable valve seat leakage		No (by confirming pressure gauge visually)			
Temperature range		5-60°C (no freeze condition)			
Ambient temperature		50°C or less (no freeze condition)			
Installation posture		Vertical or horizontal installation (within 90 degrees from upward position of the coil)			
Material	Body	Bronze	Bronze (NPb-treated)	Bronze	Bronze (NPb-treated)
	Valve				
	Diaphragm	NBR			
Connection		JIS Rc screwed		JIS 10K FF flanged	

· Available with rubber material FKM for the diaphragm. Max. temperature: 90°C (It can provide only for DP-200, DP-200F)

■ Specifications of Coil

Rated voltage	AC 100 / 200 V selective type		AC 110 / 220 V selective type	
	50 / 60 Hz common			
Nominal size	10-50A			
Allowable fluctuation	Rated voltage -5% to +10%			
Rated current	0.42 / 0.21 A		0.38 / 0.19 A	
Starting current	1.64 / 0.82 A		1.48 / 0.74 A	
Insulation class	Insulation class H			
Protective structure	Dust tight, Splash proof			
Ingress protection code	IP64 (JIS C0920)			
Insulation resistance	50 M Ω and more / 500 V megger			
Withstand voltage test	1500 V/min			
Removing lead wire	Conduit G 1/2 (CTG 16)			

* Available with a terminal box.

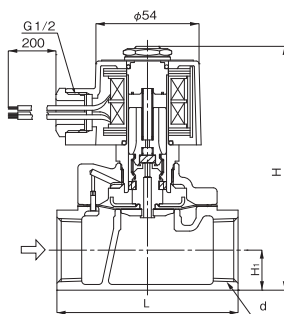
■ Dimensions (mm) and Weights (kg)

· DP-200, DP-200-N

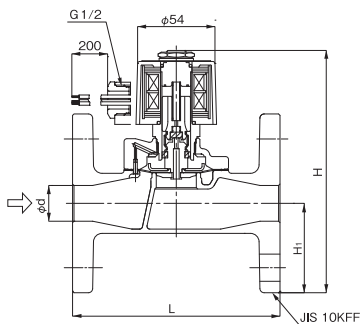
Nominal size	d	L	H	H ₁	Weight
10A	Rc 3/8	70	114	14.5	1.1
15A	Rc 1/2				1.1
20A	Rc 3/4	80	121	17.5	1.3
25A	Rc 1	95	128	21.0	1.7
32A	Rc 1-1/4	110	150	26.0	2.5
40A	Rc 1-1/2	120	157	29.5	3.1
50A	Rc 2	140	172	36.5	5.0

· DP-200F, DP-200F-N

Nominal size	d	L	H	H ₁	Weight
15A	15	120	147	47.5	2.7
20A	20	130	153	50.0	3.3
25A	25	145	169	62.5	4.8
32A	32	160	192	67.5	6.6
40A	40	170	198	70.0	7.3
50A	50	195	213	77.5	10.0

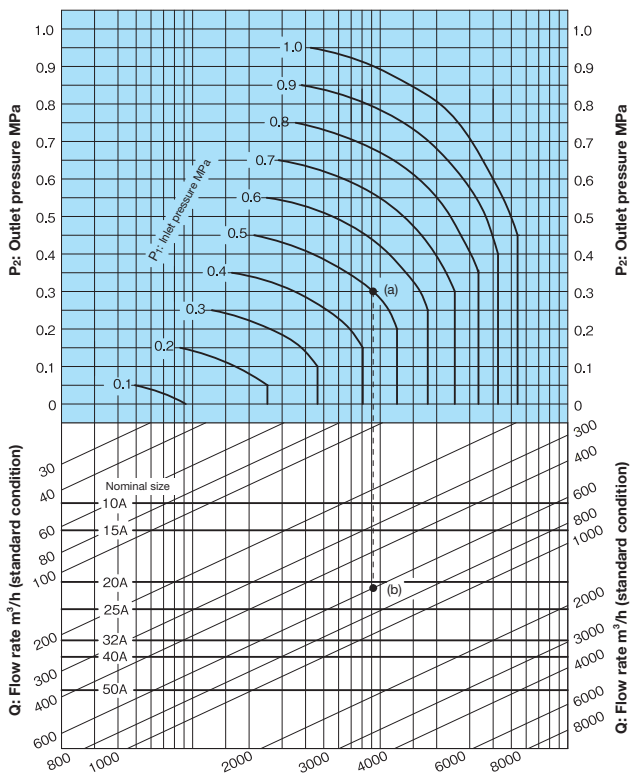


DP-200



DP-200F

Nominal Size Selection Chart (For Air)

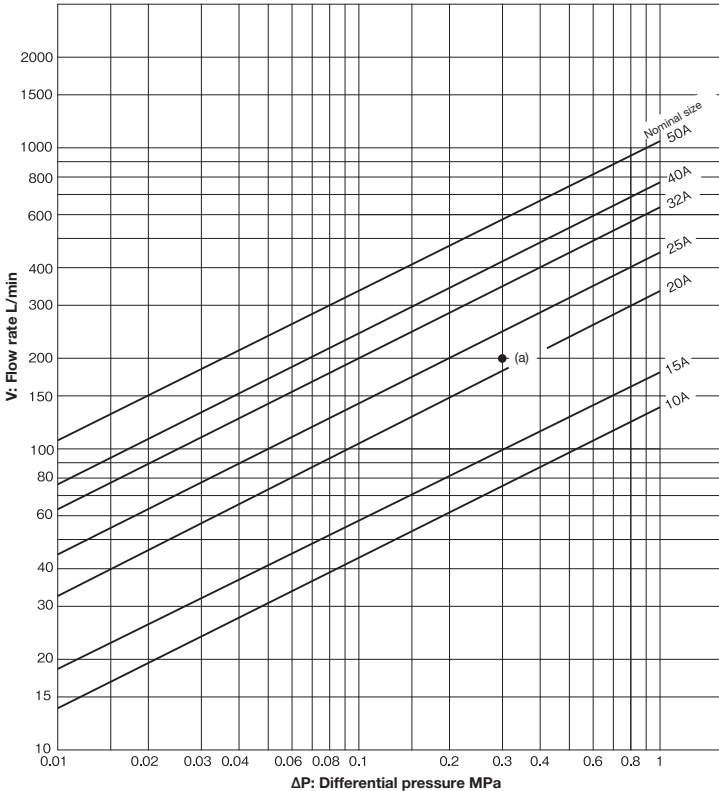


How to use the chart

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 0.5 MPa, 0.3 MPa, and 600 m^3/h (standard condition), respectively, first find intersection point (a) of $P_1 = 0.5$ MPa and $P_2 = 0.3$ MPa. Trace down vertically from this intersection point (a) to find intersection point (b) with $Q = 600$ m^3/h (standard condition). Since this intersection point (b) lies between nominal sizes 20A and 25A, select the larger one, 25A.

* Please refer to P.11-9 for Cv value and calculation formula.

■ 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 0.6 MPa, 0.3 MPa, and 200 L/min, respectively, first find intersection point (a) of the differential pressure before and after the valve [$\Delta P = 0.6 - 0.3 = 0.3$ MPa] and $V = 200$ L/min. Since this intersection point (a) lies between nominal sizes 20A and 25A, select the larger one, 25A.

* Please refer to P.11-9 for Cv value and calculation formula.