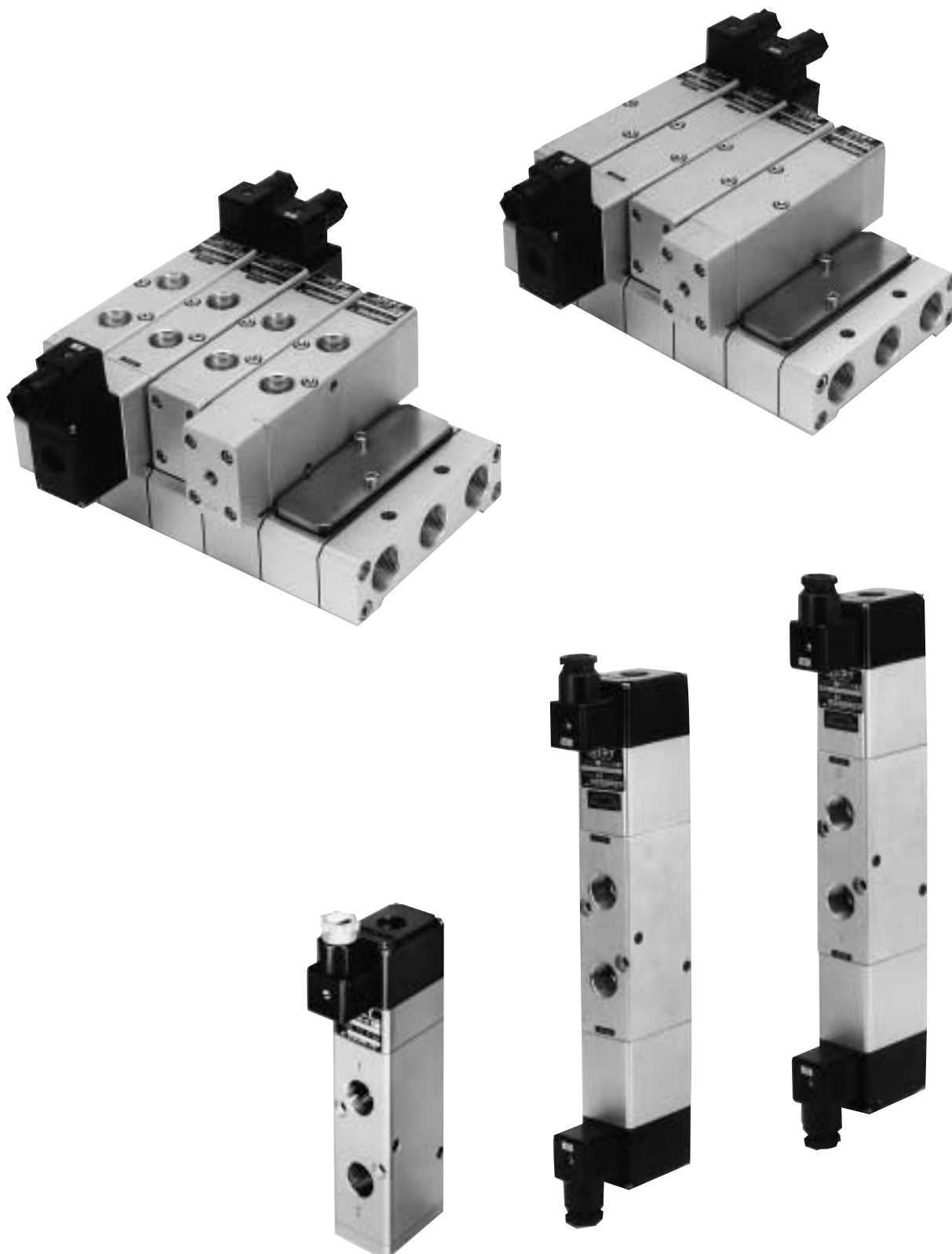


SOLENOID VALVES 600 SERIES

A high flow-rate valve offering optimum performance with an effective area of 60mm² [Cv 3.33] for ϕ 100 [3.937in.]~ ϕ 180 [7.087in.] air cylinder operation has been added to our product range.

The manifold is an user friendly base stacking type, for easy unit changes.

All combinations of combined mountings are possible, for both solenoid valves and air-piloted valves.



Solenoid Valve, Air-piloted Valve Order Codes

		3-position valve Valve function	Port size	Mounting base	Sub-base	Manual override			
		<p>Closed center</p> <p>Blank</p>	<p>Blank : Rc1/2 -03 : Rc3/8</p>	<p>Without mounting base</p> <p>Blank</p>	<p>Blank : Without sub-base -25 : With sub-base (port size Rc1/2) -03-25 : With sub-base (port size Rc3/8)</p>	<p>Non-locking type</p> <p>Blank</p>			
		<p>Exhaust center</p> <p>-13</p>		<p>With mounting base</p> <p>-21</p> <p>For single solenoid only</p>		<p>Locking type</p> <p>-81</p>			
		Basic model					Voltage		
For F type manifold	Single solenoid	600-4E1			-21		AC100V AC200V DC24V		
	2-position double solenoid	600-4E2		-03		-81			
	3-position double solenoid	603-4E2	-13						
For A type manifold	Single solenoid	A600-4E1				-25	AC100V AC200V DC24V		
	2-position double solenoid	A600-4E2				-03-25		-81	
	3-position double solenoid	A603-4E2	-13						
Direct piping air-piloted valve (made to order)	Single pilot	600-4A			-21				
	Double pilot	600-4A2		-03					
Base piping air-piloted valve (made to order)	Single pilot	A600-4A				-25			
	Double pilot	A600-4A2							

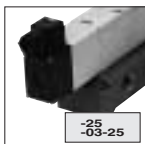
Options

Mounting base



- For direct piping
- Not available for double solenoid

Sub-base



- -25 (Port size Rc1/2)
- -03-25 (Port size Rc3/8)

Manual override



- Locking type

Made to Order

Air-piloted valve 600 series

- The optimum air-piloted valves for master valves or pilot valves for all-pneumatic control.



Basic Models and Valve Functions

Item	Basic model	600-4A	600-4A2
		Direct piping, F type manifold	
	Sub-base piping, A type manifold	A600-4A	A600-4A2
Number of positions		2 positions	
Number of ports		5 ports	
Valve function		Single pilot	Double pilot

Remarks: For optional specifications and order codes, see p.775~776.

Specifications

Item	Basic model	For direct piping, F type manifold		For sub-base piping, A type manifold	
		Single pilot	Double pilot	Single pilot	Double pilot
Media		Air			
Effective area [Cv] ^{Note 1} mm ²		60 [3.33]		60 [3.33]	
Port size ^{Note 2}	Main	Rc1/2 or Rc3/8			
	Pilot	Rc1/8			
Lubrication		Not required			
Operating pressure range MPa(kgf/cm ²) [psi.]	Main	0~0.9 {0~9.2} [0~131]			
	Pilot	See the table "Minimum Pilot Pressure"			
Proof pressure MPa(kgf/cm ²)		1.35 [13.8] [196]			
Operating temperature range (atmosphere and media) °C [°F]		5~50 [41~122]			
Shock resistance m/s ² [G]	Lateral direction	980.7{100.0}	980.7{100.0}	980.7{100.0}	
	Axial direction	980.7{100.0}	294.2{30.0} ^{Note 3}	980.7{100.0}	294.2{30.0} ^{Note 3}
Mounting direction		Any			

Notes: 1. For details, see the effective area.

2. For details, see the port size.

3. Value when pilot is off.

When pilot is on, the value is 980.7{100.0}m/s² [G].

Effective Area [Cv]

mm²

Basic model	Standard (single valve)
600-4A	60
600-4A2	[3.33]
A600-4A	60
A600-4A2	[3.33]

Manifold Connection Port Size

Manifold model	Port	Location of piping connection	Port size
LM□F	1 (P), 3 (R2), 5 (R1)	Manifold	Rc3/4
	4 (A), 2 (B)	Valve	Rc1/2, Rc3/8
LM□A	1 (P), 3 (R2), 5 (R1)	Manifold	Rc3/4
	4 (A), 2 (B)	Manifold	Rc1/2, Rc3/8

Air-piloted Valve Mass

g [oz.]

Basic model	Mass
600-4A	700 [24.69]
600-4A2	780 [27.51]
A600-4A	750 [26.46] (1570 [55.38])
A600-4A2	830 [29.28] (1650 [58.20])

Remark: Figures in parentheses () are the mass with sub-base: -25.

Manifold Mass

g [oz.]

Manifold model	Mass calculation of each unit (n=Number of units)	Block-off plate
LM□F	(330×n)+640 [(11.64×n)+22.57]	175 [6.17]
LM□A	(330×n)+640 [(11.64×n)+22.57]	175 [6.17]

Minimum Pilot Pressure

MPa {kgf/cm²} [psi.]

Model	Main pressure					
	0.02 [0.2] [3]	0.1 [1.0] [15]	0.3 [3.1] [44]	0.5 [5.1] [73]	0.7 [7.1] [102]	0.9 [9.2] [131]
600-4A	0.12 [1.2] [17]	0.15 [1.5] [22]	0.2 [2.0] [29]	0.25 [2.5] [36]	0.33 [3.4] [48]	0.4 [4.1] [58]
600-4A2	0.1 [1.0] [15]		0.12 [1.2] [17]		0.15 [1.5] [22]	

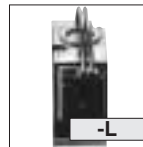
Time Required for Switching

s

Model	Operation	Pilot line length ℓ m [ft.]			
		2 [6.6]	6 [19.7]	10 [32.8]	20 [65.6]
600-4A	ON	0.06	0.12	0.18	0.36
	OFF	0.09	0.20	0.30	0.62
600-4A2	ON	0.06	0.12	0.20	0.40
	OFF	0.06	0.12	0.20	0.40

Measurement conditions: Air pressure (both main and pilot)=0.5MPa [73psi.]
Tube inner diameter=4mm [0.16in.]

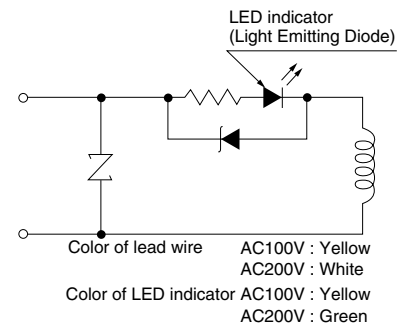
LED indicator



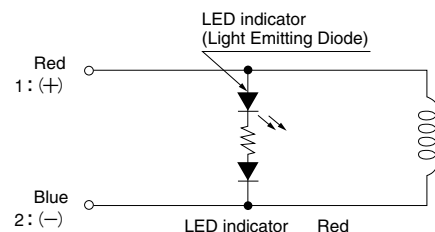
The LED indicator for confirmation of operation offers a clean monoblock look with a compact cover.

- When ordering, enter -L before the voltage specification.

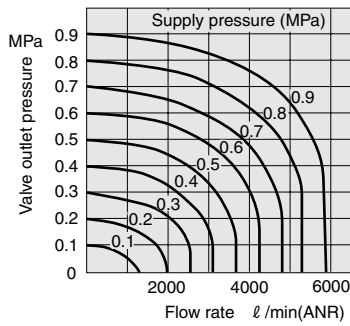
AC100V AC200V



DC24V

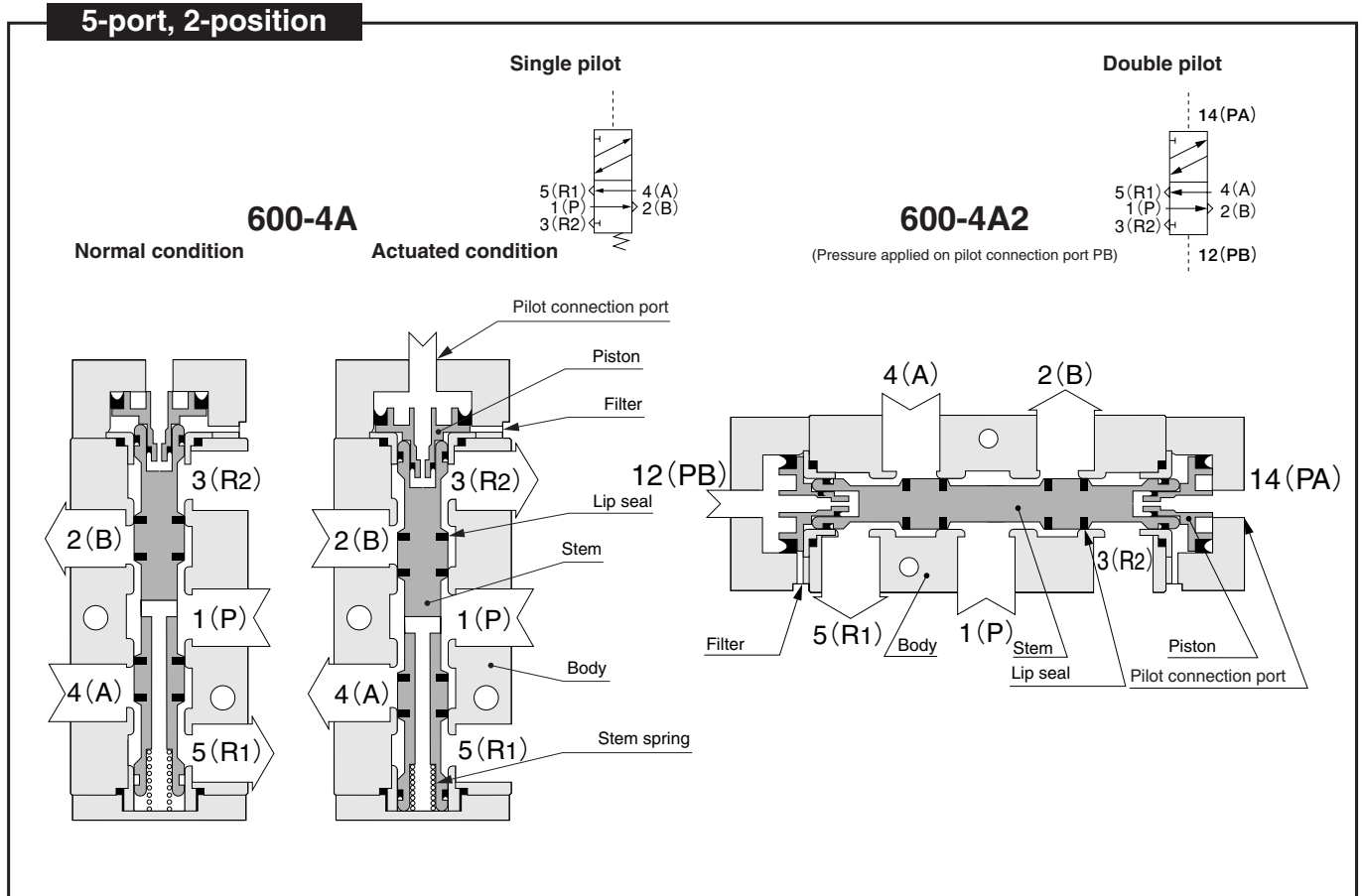


Flow Rate



1MPa=145psi. 1 l/min.=0.0353ft³/min.

Operating Principles and Symbols

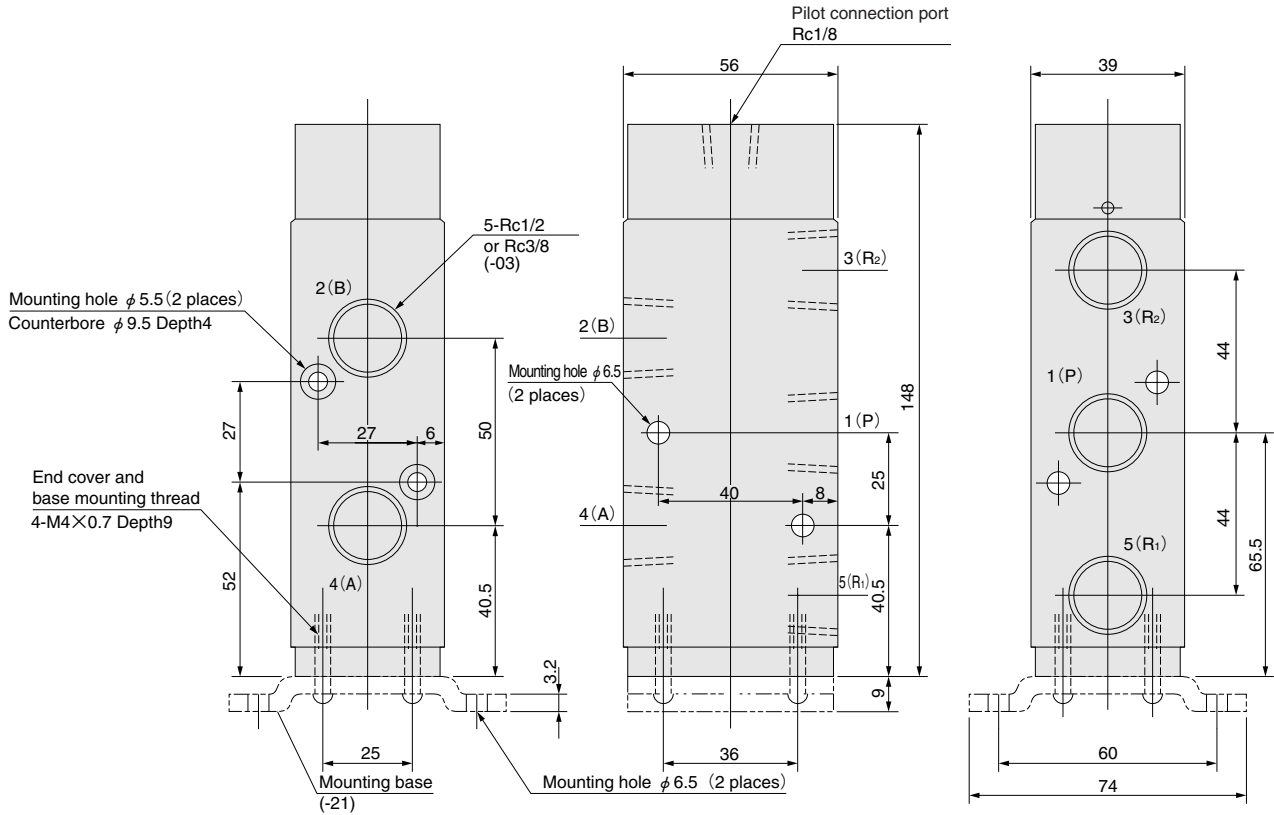


Major Parts and Materials

Parts	Materials
Body	Aluminum alloy (anodized)
Stem	
Stem spring	Stainless steel
Lip seal	Synthetic rubber
Seal	
O-ring	
Base	Mild steel (zinc plated)

Dimensions of Air-piloted Valve (mm)

600-4A



600-4A2

