



3 port direct acting solenoid valve, discrete valve
(general purpose valve)

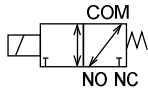
AG31-FP2/AG41-FP2 Series

- Universal type
- Port size: Rc1/8, Rc1/4, Rc3/8



JIS symbol

- AG31/41: universal type



Common specifications

Descriptions	Specifications
Working fluid	Air, low vacuum [1.33×10^2 Pa (abs)]/water/oil (50 mm ² /s or less)
Operating pressure differential MPa	0 to 1 (Refer to max. operating pressure differential in individual specifications.)
Proof pressure (water pressure) MPa	25
Fluid temperature (Note 1) °C	-10 to 60 (without connection)
Ambient temperature °C	-20 to 60
Thermal class	Class 130 (B)
Atmosphere	Place free of corrosive gas and explosive gas
Valve structure	Direct acting type poppet structure
Valve seat leakage cm ³ /min (ANR)	0.2 or less (air)
Mounting orientation	Free
Degree of protection	IP65 equiv.

Individual specifications

Descriptions Model no.	Port size	Orifice size (mm)		Max. operating pressure differential (MPa)							Rated voltage	Apparent power (VA)				Power consumption (W)		Weight (kg)				
				Air		Water/hot water/kerosene		Oil (50 mm ² /s)				Vapor		Holding		AC 50/60 Hz	DC					
				TOP	BODY	AC	DC	AC	DC	AC		DC	AC	50 Hz	60 Hz				50 Hz	60 Hz		
AG31-01-1	Rc1/8	1.5	1.5	0.7	0.7	0.7	0.7	0.6	0.6	0.7	100 VAC 50/60 Hz *4	14	11	20	16	6/4.2	11	0.51				
-01-2		2.0	2.0	0.4	0.4	0.4	0.4	0.25	0.2	0.4												
-02-1	Rc1/4	1.5	1.5	0.7	0.7	0.7	0.7	0.6	0.6	0.7		200 VAC 50/60 Hz *4	22	17	35				27	8.3/6.2	11	0.65
-02-2		2.0	2.0	0.4	0.4	0.4	0.4	0.25	0.2	0.4												
AG41-02-1	Rc1/4	2.0	2.0	1.0	0.7	1.0	0.7	0.4	0.3	1.0	24 VDC		22	17	35	27	8.3/6.2	11	0.70			
-02-2		2.3	2.3	0.7	0.4	0.7	0.4	0.25	0.15	0.7												
-03-1	Rc3/8	2.0	2.0	1.0	0.7	1.0	0.7	0.4	0.3	1.0		24 VDC	22	17	35	27				8.3/6.2	11	0.70
-03-2		2.3	2.3	0.7	0.4	0.7	0.4	0.25	0.15	0.7												

*1: The model nos. above are for the basic port size (Rc) and orifice size. Refer to How to order for other combinations.

*2: Refer to dc column for the max. operating pressure differential of coil with diode.

*3: The voltage fluctuation range must be within $\pm 10\%$ of the rated voltage.

*4: The 100 VAC (50/60 Hz) type can be used with 110 VAC (60 Hz). The 200 VAC (50/60 Hz) type can be used with 220 VAC (60 Hz). However, this does not apply to coil housings 5A/5M/5N/5I/5J.

Flow characteristics

Model no.	Port size	Orifice size (mm)		Flow characteristics					
		TOP	BODY	C [dm ³ / (s·bar)]		b		Cv	
				TOP	BODY	TOP	BODY	TOP	BODY
AG31-01-1	Rc1/8	1.5	1.5	0.29	0.29	0.64	0.53	0.09	0.09
-01-2		2.0	2.0	0.53	0.53	0.54	0.52	0.15	0.15
-02-1	Rc1/4	1.5	1.5	0.29	0.29	0.64	0.53	0.09	0.09
-02-2		2.0	2.0	0.53	0.53	0.54	0.52	0.15	0.15
AG41-02-1	Rc1/4	2.0	2.0	0.53	0.53	0.54	0.52	0.15	0.15
-02-2		2.3	2.3	0.74	0.74	0.66	0.53	0.19	0.19
-03-1	Rc3/8	2.0	2.0	0.53	0.53	0.54	0.52	0.15	0.15
-03-2		2.3	2.3	0.74	0.74	0.66	0.53	0.19	0.19

*1: Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.