Directional control valves

Model	Model Code	Max. Working Pressure MPa	Max. Flow L/min (1 2 5 10 20 50 100 200 500 1000)	Page
Miniature Solenoid Directional Valves DG4M4 Series	These solenoid directional valves have a compact mounting surface. A series of stackable pressure and flow adjustment valves has been put together. (Refer to the G: Stack Valves, Flui-Trol Series.)			E1-1
	DG4M4	21		
Solenoid Operated Directional Control Valves DG4V Series	DG4V−3	35		E2-1
	DG4V−5	31.5		E3-1
Solenoid Controlled Pilot Operated Directional Control Valves DG5V Series DG5S Series	DG5V−7	31.5		E4-1
	DG5V−H8	31.5		E4-1
	DG5S−10	21		E5-1
Semiconductor Relay Integrated Solenoid Directional Valve DG4VC Series	DG4VC−3	35		E6-1
	DG4VC−5	31.5		E7-1
Low-holding Current Solenoid Directional Valves DG4VL Series	DG4VL−3	35		E8-1
	DG4VL−5	31.5		E9-1
Shockless Solenoid Directional Valves DG4VS Series	DG4VS−3	35		E10-1
	DG4VS−5	31.5		E11-1
Mini-watt Solenoid Operated Directional Valves DG4SM Series	DG4SM−3	16		E12-1
Solenoid Directional Valves with Proximity Sensor DG4V-SW Series	DG4V−3−SW	35		E13-1
	DG4V−5−SW	31.5		E14-1
Solenoid Operated Directional Control Valves DG4V, 100 Series	DG4V−3	35		E15-1
Directional and Flow Control Valves “COMNICA”	These valves feature the same installation as the DG4V series and DG5V series of wet-type solenoid operated directional control valves. A series of operated directional control valves with microcomputers has been configured, and these valves enable the durations of the acceleration and deceleration that are essential for shockless operation to be set.			E16-1
	COM−3~8	24.5 (20.6)	3 5 7 8	
COMNICA valve controller	PD3			E17-1
Pilot Directional Valves DG3V Series	DG3V−7	31.5		E18-1
	DG3V−H8	31.5		E18-1
	DG3S−10	21		E19-1
Manually (Push Button) Operated Directional Valves	C−552−K C−572−K	14		E20-1
Mechanically Operated Directional Valves	C−552−E C−572−E	14		E20-1
Manually (Push Button) Operated Directional Valves	DG1M2 DT1M2	14		E21-1
Mechanically Operated Directional Valves	DG2M2 DT2M2	14		E21-1
	DG20S−3	21		E22-1
	DG2S2−01 DG2S4−01	21		E23-1
Manually (Lever) Operated Directional Valves	DG17V−7	31.5		E24-1

Model	Supported Solenoid Supply Voltage	Supported Electrical Wiring System	Features
DG4V-3 DG4V-5	DC 12V DC 24V DC 100V AC 100V 50/60Hz AC 110V 50/60Hz AC 115V 60Hz AC 120V 60Hz AC 200V 50/60Hz AC 220V 50/60Hz AC 230V 60Hz AC 240V 60Hz AC 100V → DC 90V AC 110V → DC 100V AC 200V → DC 180V	P (plug-in) U (DIN connector) KU (lead wire)	• Standard type • Valve switching is performed by turning the solenoid power ON or OFF directly. • The power line must be turned ON or OFF through a relay in order for the switching commands to be output from the PLC. • These are the valves which have the highest number of supported solenoid supply voltages, electrical wiring systems and spool models.
DG4VC-3 DG4VC-5	DC 24V	P (plug-in)	• In these valves, the solenoid drive circuit is contained inside the conduit box. • The switching operations can be performed using transistor level signals so the command signals can be output straight from the PLC or other device to operate the valves. • There is no need for relays to be used for the power lines in the control board. • The valve bodies are the same as those of the DG4V-3/5 so the switching performance and other aspects of the basic performance of the valves are identical.
DG4VL-3 DG4VL-5	DC 24V	P (plug-in)	• These are energy-saving types of valves in which the current is controlled by the solenoid drive circuit incorporated into the conduit box and in which, when 0.3 sec. has elapsed after energizing, the current is reduced to about 20% of the level when the current started to flow so that the power consumption is minimized as a result. • The higher the proportion of the time when the switching frequency is low and the solenoids are energized and kept energized, the greater the energy savings that can be expected. • The switching operations can be performed using transistor level signals so the command signals can be output straight from the PLC or other device to operate the valves.
DG4VS-3 DG4VS-5	DC 12V DC 24V DC 100V AC 100V → DC 90V AC 110V → DC 100V AC 200V → DC 180V	P (plug-in) U (DIN connector) KU (lead wire)	• These are shockless type valves in which the shock that occurs during switching is minimized thanks to the shockless mechanism which has been incorporated into the spools and solenoid cores. • Use of the plug-in types can be combined with changes in the conduit box so models can be used in combination with the DG4VC and DG4VL valves. • Contact Tokyo Keiki for combination of these valves with the DG4VC and DG4VL valves.
DG4SM-3	DC 12V DC 24V	P (plug-in) KU (lead wire)	• With these mini-watt valves, the power consumption has been reduced down to 5 W. • They are useful when operation is to be performed for prolonged periods of time using battery drive or some other power supply with a limited capacity.
DG4V-3-SW DG4V-5-SW	DC 12V DC 24V DC 100V AC 100V 50/60Hz AC 110V 50/60Hz AC 115V 60Hz AC 120V 60Hz AC 200V 50/60Hz AC 220V 50/60Hz AC 230V 60Hz AC 240V 60Hz AC 100V → DC 90V AC 110V → DC 100V AC 200V → DC 180V	P (plug-in)* U (DIN connector) KU (lead wire) * Only with spring set system A or B	• These valves are provided with proximity sensors for monitoring the switching status of the spools. • By comparing the sensor output with the command sent to the valve, it is possible to check whether the valve has been switched as instructed by the command.