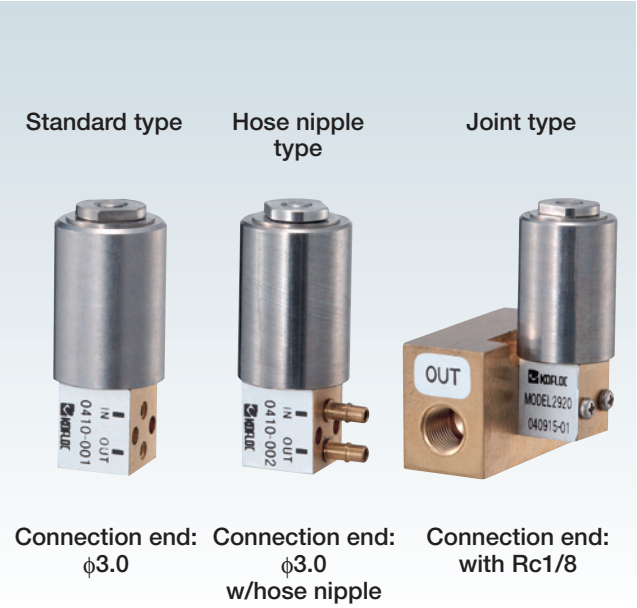
Small Proportional Solenoid Valve
MODEL 2900 SERIES

This small, or rather miniature, proportional solenoid valve maintains flow control characteristics of hysteresis within 15% (full-scale current) and is perfect for automatic gas flow control of gas chromatographs and various other analyzers. Because of its superior resolution, Model 2900 is also ideal for control of precision control of pressure.

Features

- High-performance proportional valve for a single power source ultra-compact in size, light in weight
- Low power consumption (2 W)
- Annealed magnetic materials, together with a specially designed flat spring, perfectly eliminate flow fluctuations caused by vibrations due to plunger run-outs and frictions.
- The incorporated magnetic yoke is annealed after precutting (and not bending) to remove magnetic flux passage interference, thereby to enhance magnetic power.
- Minimum hysteresis available in the industry (within 15%)
- Patent applied for (United States Patent and Trademark Office)



Connection end: φ3.0 | Connection end: φ3.0 w/hose nipple | Connection end: with Rc1/8

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Standard Specifications

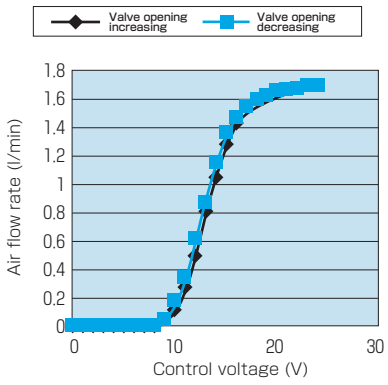
Model		2900 Series			
		2910 *1	2920	2930	2940
Orifice diameter (φ)		0.076	0.25	0.76	1.27
Pressure	Proof pressure	980kPa			
	Operating differential pressure	0-980kPa	0-980kPa	0-690kPa	0-480kPa
Control	Power supply	24VDC±10% (PWC*2 control available)			
	Control voltage range	7VDC-20VDC			
	Power consumption	Max. 2W			
	Hysteresis	15% or less (full-scale current)			
Filter		20μ (IN, OUT)		Without filter	
Working temperature range		0°C-50°C *3			
Retention temperature range		–5°C-70°C			
Materials of parts exposed to gases		BsBM (C3604), SUS 430F, Viton, SUS 316			
Size (mm)		□13 x 15 + φ19 x 48			
Connection end		φ3.0 (Standard)			
Weight		Approx. 60 g (Approx. 200 g for type with Rc1/8)			

*1: Custom-ordered model. Contact us for information on details.
*2: PWC = Pulse Width Coding
*3: Temperature coefficient of the Model 2900 coil copper wire resistance is Rt = RoC° (1+0.004xt°C). If you need to use voltage values for control, use the product in the environment where ambient temperature does not vary in large measure. Where there are large variations in ambient temperature, it is recommended to use current control.

Flow Control Characteristic Curve (Example)

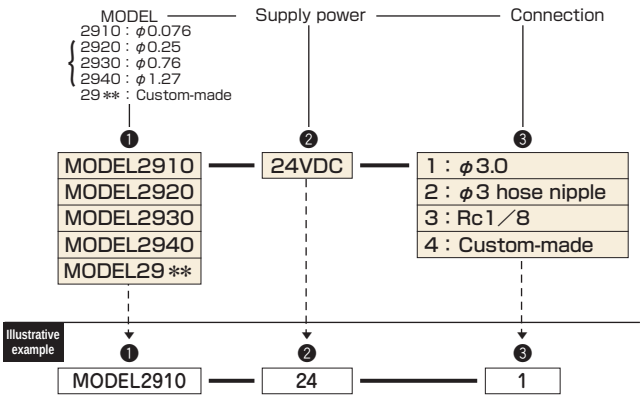
Model 2920

Supply pressure: 0.20 MPa



Ordering

* You may specify the operating conditions (see the example below) of your equipment for our selection of the orifice diameter type that best suits your requirements.
Operating conditions: Fluid - Supply pressure - Max. flow



Note 1: The specifications and overall size above are subject to change without prior notice.
Note 2: Applicable calibration conditions depend upon the type of gas. Please contact us for consultation.
Note 3: Specify the load value of the outlet pressure, if any.