

For Deionized Water and Chemicals

Digital Flow Switch

Series PF2D



How to Order



Remote Type Sensor Unit

PF2D5 20-13-1-C

Flow rate range

04	0.4 to 4 ℓ/min
20	1.8 to 20 ℓ/min
40	4 to 40 ℓ/min

Port size: (inch)

11	3/8	PF2D504
13	1/2	PF2D520
19	3/4	PF2D540

Option (Refer to page 55.)

Nil	None
C	e-con connector x 1 pc.

The cable and connector are shipped unassembled.

Output specification

Symbol	Specification	Applicable display unit (monitor) model
Nil	Output for display unit	Series PF2D300
1	Output for display unit + analog output (1 to 5 V)	Series PF2D200/300
2	Output for display unit + analog output (4 to 20 mA)	Series PF2D300

Specifications for Sensor Unit

Model		PF2D504	PF2D520	PF2D540
Measured fluid		Liquid not to corrode nor erode deionized water and/or Teflon®. Viscosity: 3mPa·s (3cP) or less		
Detection style		Karman vortex		
Rated flow range		0.4 to 4 ℓ/min	1.8 to 20 ℓ/min ^{Note 1)}	4 to 40 ℓ/min
Operating pressure range ^{Note 2)}		0 to 1 MPa		0 to 0.6 MPa
Proof pressure ^{Note 3)}		1.5 MPa		0.9 MPa
Operating fluid temperature		0 to 90°C		
Linearity ^{Note 4)}		±2.5% F.S. or less (at 25°C water)		
Repeatability		±1% F.S. or less (at 25°C water)		
Temperature characteristics		±5% F.S. or less (0 to 50°C, based on 25°C)		
Output specifications	Pulse output	Pulse output, N channel, open drain, output for display unit PF2D 300/301 (Specifications: Maximum load current of 10 mA; Maximum applied voltage of 30 V)		
	Analog output	Voltage output ^{Note 5)} 1 to 5 V Linearity: ±2% F.S. or less, allowable load resistance: 100 kΩ or more		
		Current output ^{Note 6)} 4 to 20 mA Linearity: ±2% F.S. or less, allowable load resistance: 300 Ω or less with 12 VDC, 600 Ω or less with 24 VDC		
Power supply voltage		12 to 24 VDC (ripple ±10% or less)		
Current consumption		20 mA or less (without load)		
Environmental resistance	Enclosure	IP65		
	Operating temperature range	Operating: 0 to 50°C, Stored: −25 to 85°C in stock (with no condensation and freezing)		
	Voltage resistance	1000 VAC for 1 min. between external terminals and case		
	Insulation resistance	50M Ω or more (500 VDC Mega) between external terminals and case		
	Vibration resistance	4.9 m/s ²		
	Impact resistance	490 m/s ² to X,Y,Z directions 3 times for each		
	Noise resistance	1000 Vp-p, Pulse width: 1 μs, Rise time: 1 ns		
Weight		140 g (without lead wire)		225 g (without lead wire)
Port size		3/8 inch tube	1/2 inch tube	3/4 inch tube
Wetted material		Body: New PFA, Sensor: New PFA, Tube: Super PFA		

Note 1) 1.6 to 20 ℓ/min (0.1 MPa) with viscosity of 1 mPa·s (1 cP) or less

Note 2) The operating pressure range drops according to the fluid temperature. See attached graph.

Note 3) 1.5 times of the maximum operating pressure and varying with fluid temperature.

Note 4) The system accuracy when combined with PF2D30□.

Note 5) When the voltage output is selected.

Note 6) When the current output is selected.

Note 7) The sensor unit conforms to the CE mark.

