For Air Digital Flow Switch Series PF2A



How to Order

Integrated PF2A7 10 Display Type

Flow rate range • 1 to 10 ℓ/min 50 5 to 50 ℓ/min 11 10 to 100 ℓ/min 20 to 200 ℓ/min 21 **51** | 50 to 500 ℓ/min

01

02

03

04

Thread type • Nil Rc N NPT G

Port size Flow rate (\ell/min) Applicable model size 10 50 100 200 500 1/8 PF2A710/750 1/4 • • 3/8 PF2A711/721 1/2 PF2A751

Lead wire (Refer to page 35.)

Symbol M12 3 m lead wire with connector Without lead wire

Output specification

Nil With unit switching function M Fixed SI unit Note) Note) Fixed units:

Unit specification

Real-time flow rate: ℓ/min Accumulated flow: 6

Symbol	Output specification					
27	NPN open collector 2 outputs					
67	PNP open collector 2 outputs					

Specifications

Set flow rate range 0.5 to 10.5 t/min 2.5 to 52.5 t/min 5 to 105 t/min 10 to 210 t/min 25 to 525 t/min Rated flow range 1 to 10 t/min 5 to 50 t/min 10 to 100 t/min 20 to 200 t/min 50 to 500 t/min Minimum set unit 0.1 t/min 0.5 t/min 1 t/min 2 t/min 5 t/min Accumulated pluse flow rate exchange value (Pulse width: 50 ms) 0.1 t/pulse 0.5 t/pulse 1 t/pulse 2 t/pulse 5 t/pulse Note 1, 2) Real-time flow rate t/min, CFM x 10-2 t/min, CFM x 10-1 t/min, CFM x								
Place Plac	Model		PF2A710	PF2A750	PF2A711	PF2A721	PF2A751	
Set flow rate range	Measured fluid							
Rated flow range	Flow rate measurement range		0.5 to 10.5 <i>U</i> min	2.5 to 52.5 <i>t</i> /min	5 to 105 ℓ/min	10 to 210 e/min	25 to 525 ℓ/min	
Minimum set unit	Set flow rate range		0.5 to 10.5 <i>d</i> /min	2.5 to 52.5 <i>l</i> /min	5 to 105 ℓ/min	10 to 210 e/min	25 to 525 e/min	
Accumulated pulse flow rate exchange value (Pulse width: 50 ms) Note 1, 2) Display units Operating fluid temperature Linearity Repeatability Temperature characteristics Current consumption (No load) Weight Note 3) Port size (Rc, NPT, G) Indicator light Operating pressure Accumulated flow rate NPN open collector Accumulated pulse output Status LED's Response time Response time Real-time flow rate Accumulated pulse width: 50 ms) O.1 t/pulse O.5 t/pulse O/min, CFM x 10-1 C/min, CFM x 10-1	Rated flow range		1 to 10 <i>l</i> /min	5 to 50 e/min	10 to 100 ℓ/min	20 to 200 e/min	50 to 500 ℓ/min	
Note 1, 2) Display units Real-time flow rate #min, CFM x 10-2 #min, CFM x 10-1	Minimum set unit		0.1 <i>e</i> /min	0.5 ℓ /min	1 ℓ/min	2 ℓ/min	5 ℓ /min	
Display units Accumulated flow C, ft ³ x 10 ⁻¹ O to 50°C	Accumulated pulse flow rate exchange value (Pulse width: 50 ms)		0.1 <i>t</i> /pulse	0.5 ℓ/pulse	1 ℓ/pulse	2 d/pulse	5 ℓ/pulse	
Operating fluid temperature Linearity #5% F.S. or less Repeatability #1% F.S. or less #2% F.S. or								
Linearity			ℓ, ft³ x 10⁻¹					
Repeatability	Operating fluid temperature							
Temperature characteristics ±3% F.S. or less (15 to 35°C, based on 25°C), ±5% F.S. or less (0 to 50°C, based on 25°C) Current consumption (No load) 150 mA or less 160 mA or less 170 mA or less Weight Note 3) 250 g 290 g Port size (Rc, NPT, G) 1/8, 1/4 3/8 1/2 Detection type Indicator light 3-digit, 7-segment LED Operating pressure range Proof pressure Accumulated flow range Note 4) Switch output NPN open collector Accumulated pulse output NPN or PNP open collector (same as switch output) Status LED's Response time Hysteresis Hysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed	Linearity		±5% F.S. or less					
Current consumption (No load) 150 mA or less 160 mA or less 170 mA or less Weight Note 3) 250 g 290 g Port size (Rc, NPT, G) 1/8, 1/4 3/8 1/2 Detection type Indicator light Operating pressure range Proof pressure Accumulated flow range Note 4) Switch output NPN open collector Accumulated pulse output Status LED's Response time Hysteresis 150 mA or less 170 mA or less 180 mA or less	Repeatability		±1% F.S. or less					
Weight Note 3) 250 g 290 g	Temperature characteristics		±3% F.S. or less (15 to 35°C, based on 25°C), ±5% F.S. or less (0 to 50°C, based on 25°C)					
Port size (Rc, NPT, G) Detection type Indicator light Operating pressure range Proof pressure Accumulated flow range Note 4) Switch output NPN open collector Accumulated pulse output Status LED's Response time Hysteresis 1/8, 1/4 3/8 1/2 Heater type 1-50 kPa to 0.5 MPa -50 kPa to 0.5 MPa -50 kPa to 0.5 MPa -50 kPa to 0.75 MPa			150 m <i>A</i>	A or less	160 mA or less		170 mA or less	
Detection type Indicator light 3-digit, 7-segment LED Operating pressure range Proof pressure Accumulated flow range Note 4) Switch output NPN open collector Accumulated pulse output Status LED's Response time Hysteresis Hysteresis Heater type 3-digit, 7-segment LED 3-	Weight Note 3)		25	0 g		290 g		
Indicator light Operating pressure range Proof pressure Accumulated flow range Note 4) Switch output NPN open collector PNP open collector Accumulated pulse output Status LED's Response time Hysteresis Acigit, 7-segment LED 3-digit, 7-segment LED -50 kPa to 0.5 MPa -50 kPa to 0.5 MPa -50 kPa to 0.5 MPa -50 kPa to 0.75			1/8,	1/8, 1/4 3/8		/8	1/2	
Operating pressure range			Heater type					
Proof pressure Accumulated flow range Note 4) Switch output NPN open collector Maximum load current: 80 mA; Internal voltage drop: 1 V or less (with load current of 80 mA; Internal voltage 30 V; 2 outputs NPN open collector Maximum load current: 80 mA internal voltage drop: 1.5 V or less (with load current of 80 mA); 2 outputs NPN or PNP open collector (same as switch output) Status LED's Response time 1.0 MPa Maximum load current: 80 mA Internal voltage drop: 1 V or less (with load current of 80 mA); 2 outputs NPN or PNP open collector (same as switch output) Illuminates up when output is ON OUT1: Green; OUT2: Red 1 sec. or less Hysteresis Hysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed			0, 0					
Accumulated flow range Note 4) Switch output NPN open collector Maximum load current: 80 mA; Internal voltage drop: 1 V or less (with load current of 80 mA; Internal voltage: 30 V; 2 outputs NPN open collector Maximum load current: 80 mA; Internal voltage drop: 1 V or less (with load current of 80 mA); 2 outputs NPN open collector NPN open collector NPN open collector (same as switch output) Status LED's Response time 1 sec. or less Hysteresis Hysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed								
Switch output NPN open collector Maximum load current: 80 mA; Internal voltage drop: 1 V or less (with load current of 80 maximum applied voltage: 30 V; 2 outputs NPN open collector Maximum load current: 80 mA Internal voltage drop: 1.5 V or less (with load current of 80 mA); 2 outputs NPN or PNP open collector (same as switch output) Status LED's Response time 1 sec. or less Hysteresis Hysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed								
Status LED's Illuminates up when output is ON OUT1: Green; OUT2: Red Response time 1 sec. or less Hysteresis Hysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed			7.0.00000					
Status LED's Illuminates up when output is ON OUT1: Green; OUT2: Red Response time 1 sec. or less Hysteresis Hysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed	Switch output Switch output		NPN open collector Maximum load current: 80 mA; Internal voltage drop: 1 V or less (with load current of 80 mA) Maximum applied voltage: 30 V; 2 outputs					
Status LED's Illuminates up when output is ON OUT1: Green; OUT2: Red Response time 1 sec. or less Hysteresis Hysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed								
Status LED's Illuminates up when output is ON OUT1: Green; OUT2: Red Response time 1 sec. or less Hysteresis Hysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed			NPN or PNP open collector (same as switch output)					
Hysteresis Mysteresis mode: Variable (can be set from 0), Window comparator mode Note 6): 3-digit fixed	Status LED's		Illuminates up when output is ON OUT1: Green; OUT2: Red					
	Response time		1 11 11 11 11 11 11 11 11 11 11 11 11 1					
Power supply voltage 12 to 24 VDC (ripple ±10% or less)	Hysteresis		, , , , , , , , , , , , , , , , , , , ,					
	Power supply voltage		, , , , , , , , , , , , , , , , ,					
Eliciocaro	Enclosure		IP65					
Operating temperature range Operating: 0 to 50°C, Stored: –25 to 85°C (with no freezing and condensation)	Operating te	temperature range	Operating: 0 to 50°C, Stored: –25 to 85°C (with no freezing and condensation)					
	일 Withstand ve		1000 VAC for 1 min. between external terminal and case					
Insulation resistance 50M Ω or more (500 VDC Mega) between external terminal and case.	Insulation resistance		(),					
Vibration resistance 10 to 500 Hz with a 1.5 mm amplitude or 98 m/s² acceleration, in each X, Y, Z direction for 2 hrs, whichever is smaller. (de-energi	ซื้อ Vibration resistance		10 to 500 Hz with a 1.5 mm amplitude or 98 m/s ² acceleration, in each X, Y, Z direction for 2 hrs, whichever is smaller. (de-energized)					
			490 m/s ² in X, Y, Z directions 3 times each					
Noise resistance 1000 Vp-p, Pulse width 1 μs, Rise time 1 ns	Noise resistance		1000 Vp-p, Pulse width 1 μs, Rise time 1 ns					

Note 1) For digital flow switch with unit switching function. (Fixed SI unit [(t/min, or t, m3 or m3 x 103)] will be set for switch type without the unit switching function.)

Note 2) Flow rate display can be switched between the basic condition of 0°C, 101.3 kPa and the standard condition (ANR) of 20°C, 101.3 kPa, and 65% RH.

Note 3) Without lead wire.

Note 4) Accumulated flow rate is reset when the power supply turns OFF.

Note 5) Switch output and accumulated pulse output can be selected during initial setting.

Note 6) Window comparator mode — Since hysteresis will reach 3 digits, keep P_1 and P_2 or n_1 and n_2 apart by 7 digits or more. (In case of output OUT2, n_1, 2 to be n_3, 4 and P_1, 2 to be P_3, 4.)

Note 7) The flow switch conforms to the CE mark.

