

ELSIE EP400 SERIES



PRESSURE SENSOR CONTROLLER

Features

- 3-color digital LCD display, easy readout
- 7 user programmable pressure units available
- Dual LCD display allows setting value to be displayed
- Key lock indicator
- 2 NPN or 2 PNP outputs
- Analog output : 1-5V or 4-20mA
- Sensor input : 1-5V or 4-20mA
- 12 pressure ranges for transducer



SPECIFICATIONS

MODEL		EP400												
Rated pressure range		0~-101.3 kPa	0~100 kPa	0~2 kPa	0~5 kPa	-100~100 kPa	-101~500 kPa	0~1 MPa	0~2 MPa	0~2.5 MPa	0~10 MPa	0~25 MPa	0~40 MPa	
Setting pressure range		10~-101.3 kPa	-10~100 kPa	-0.2~2 kPa	-0.5~5 kPa	-100~100 kPa	-101~500 kPa	-0.100~1 MPa	-0.100~2 MPa	-0.100~2.5 MPa	0~10 MPa	0~25 MPa	0~40 MPa	
Setting pressure range(Auto-shift input)		101.3~-101.3 kPa	-100~100 kPa	-2~2 kPa	-5~5 kPa	-100~100 kPa	-500~500 kPa	-1~1 MPa	-2~2 MPa	-2.5~2.5 MPa	-10~10 MPa	-25~25 MPa	-40~40 MPa	
Set pressure resolution	kPa	0.1	0.1	0.01	0.01	0.1	1	--	--	--	--	--	--	
	MPa	--	--	--	--	--	--	0.001	0.01	0.01	0.01	0.1	0.1	
	kgf/cm ²	0.001	0.001	--	--	0.001	0.01	0.01	0.1	0.1	0.1	1	1	
	bar	0.001	0.001	--	--	0.001	0.01	0.01	0.1	0.1	0.1	1	1	
	psi	0.01	0.01	--	--	0.01	0.1	0.1	1	1	1	1	1	
	inHg	0.1	--	--	--	0.1	--	--	--	--	--	--	--	--
	mmHg	1	--	0.1	0.1	1	--	--	--	--	--	--	--	--
Power supply voltage		12 to 24V DC ±10%, Ripple (P-P) 10% or less												
Current consumption		≤ 40mA (With no load)												
Sensor input		1~5V or 4~20mA												
Switch output		NPN : open collector 2 outputs Max. load current : 125mA Max. supply voltage : 30V DC Residual voltage : ≤ 1.5V						PNP : open collector 2 outputs Max. load current : 125mA Max. supply voltage : 24V DC Residual voltage : ≤ 1.5V						
Repeatability(Switch output)		≤ ±0.1% F.S. ±1 digit												
Hysteresis	One point set mode	Adjustable (*1)												
	Hysteresis mode													
	Window comparator mode													
Response time		≤ 2.5ms (chattering-proof function : 25ms, 100ms, 250ms, 500ms, 1000ms and 1500ms selections)												
Output short circuit protection		Yes												
7 segment LCD display		Two color (Red/Green) main & unit display, Orange sub-display (Sampling rate : 5 times/1sec.)												
Indicator accuracy		≤ ±1% F.S. ±1 digit (Ambient temperature: 25 ±3°C)												
Switch ON Indicator		Orange (1 & 2 Indicator) OUT1 OUT2												
Auto-shift input (*2)		Non-Voltage input, Low level input, 5ms or more, Low level: 0.4V or less												
Analog output (Voltage Output) (*3)		Output Voltage : 1 to 5V ≤ ±2.5% F.S. (within rated pressure range) Linearity : ≤ ±1% F.S. Output impedance : about 1kΩ												
Analog output (Current Output) (*4)		Output Current : 4 to 20mA ≤ ±2.5% F.S. (within rated pressure range) Linearity : ≤ ±1% F.S. Max.Load Impedance : 300Ω at power supply of 12V, 600Ω at power supply of 24V Min.Load impedance : 50Ω												
Environment	Enclosure	IP 40												
	Ambient temp. range	Operation : 0 ~ 50°C, storage : -10 ~ 60°C (No condensation or freezing)												
	Ambient humidity range	Operation/Storage : 35 ~ 85% RH (No condensation)												
	Withstand voltage	1000V AC in 1-min (between case and lead wire)												
	Insulation resistance	50Mohm min. (at 500V DC, between case and lead wire)												
	Vibration	Total amplitude 1.5mm or 10G, 10Hz-150Hz-10Hz scan for 1 minute, two hours each direction of X, Y and Z												
Shock		100m/s ² (10G), 3 times each in direction of X, Y and Z												
Temperature characteristic		≤ ±0.5% F.S. of detected pressure (25°C) at temp. Range of 0~50°C												
Lead wire		Oil-resistance cable (0.15mm ²)												
Weight		Approx. 67g (with 2-meter lead wire)												

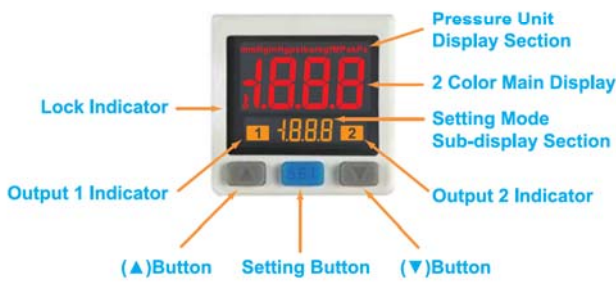
*1. Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.

*2. If Auto-shift input is selected, the Analog output cannot be selected at the same time.

*3. If analog voltage output is selected, the analog current output cannot be selected at the same time.

*4. If analog current output is selected, the analog voltage output cannot be selected at the same time.

■ PANEL DESCRIPTION



■ ORDERING INFORMATION

E P 4 1 0 - 0 1 0

Input Specifications

- 1: Voltage input
- 2: Current input

Output Channel

- 0: 1 Channel

Standard Part

CN-0048-01: Power supply / Output connection cable

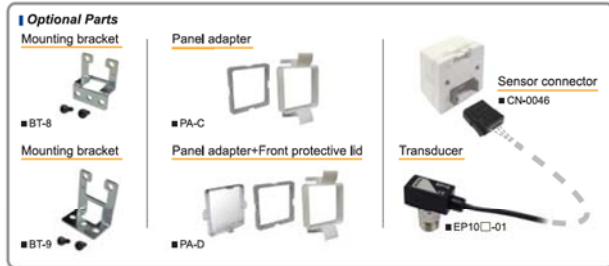
Optional Parts

- BT-8: Mounting bracket
- BT-9: Mounting bracket
- PA-C: Panel adapter (PA-3+PA-4)
- PA-D: Panel adapter + Front protective lid (PA-3+PA-4+FPC-2)
- CN-0046: Sensor connector
- EP10□-01: Transducer

Input / Output Specifications

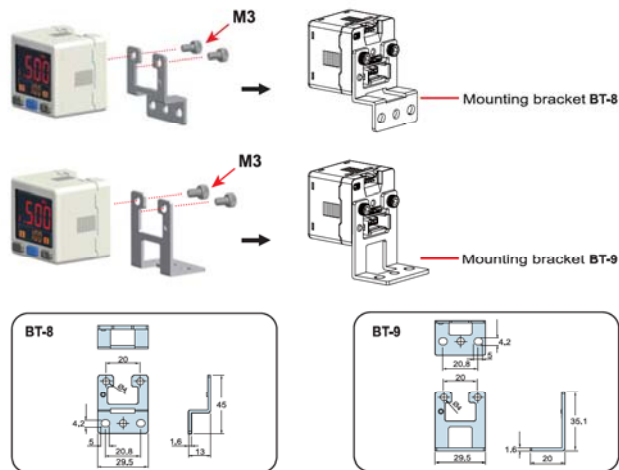
- 010: 2 NPN outputs & 1 Analog output (1-5V)
- 011: 2 NPN outputs & 1 Analog output (4-20mA)
- 05: 2 NPN outputs & 1 Auto-shift input
- 030: 2 PNP outputs & 1 Analog output (1-5V)
- 031: 2 PNP outputs & 1 Analog output (4-20mA)
- 07: 2 PNP outputs & 1 Auto-shift input

Standard Part

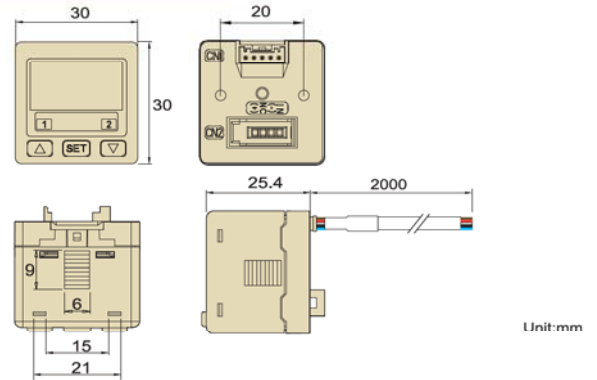


■ OPTIONAL PARTS DIMENSIONS

1 Mounting Bracket



■ DIMENSIONS

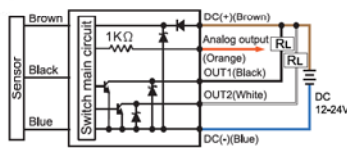


Unit:mm

■ OUTPUT CIRCUIT WIRING DIAGRAMS

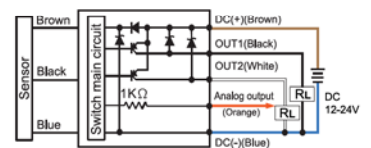
EP4□0 - 010

2 NPN + Analog (Voltage) Output (1-5V)



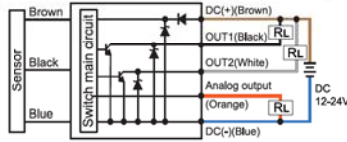
EP4□0 - 030

2 PNP + Analog (Voltage) Output (1-5V)



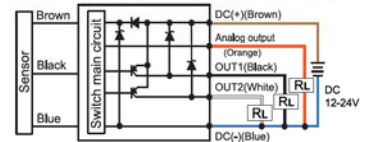
EP4□0 - 011

2 NPN + Analog (Current) Output (4-20mA)



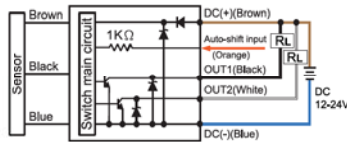
EP4□0 - 031

2 PNP + Analog (Current) Output (4-20mA)



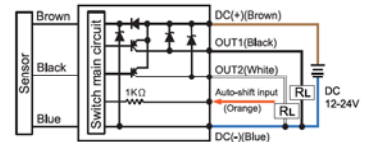
EP4□0 - 05

2 NPN output & Auto-shift input

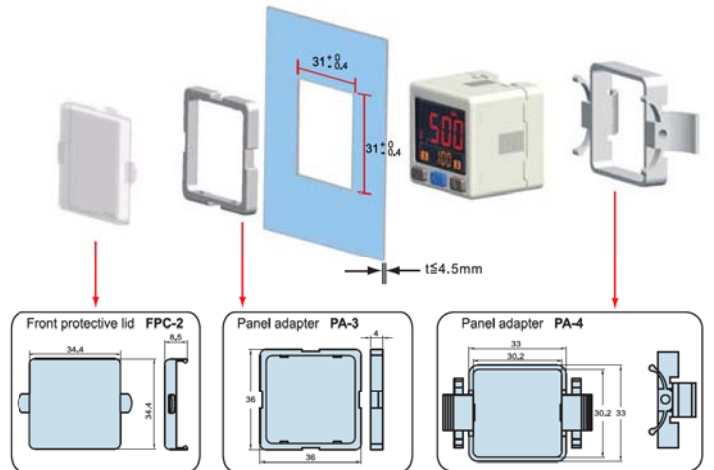


EP4□0 - 07

2 PNP output & Auto-shift input



2 Panel Mount Adapter + Front Protective Lid



Unit:mm