

Amplifier Units

Model		E2C-GE4A	E2C-GF4A	E2C-JC4A E2C-JC4AP	E2C-AM4A	E2C-AK4A
Item						
Power supply voltage (operating voltage range)		12 to 24 VDC (10 to 30 VDC), ripple (p-p): 10% max. *1				100 to 240 VAC (90 to 264 VAC) 50/60 Hz
Current consumption		25 mA max.		45 mA max.	50 mA max.	55 mA max.
Sensing distance adjustment range *2		20% min. of rated sensing distance with 4-turn potentiometer		20% to 100% of rated sensing distance with 4-turn potentiometer		
Differential travel adjustment range		Differential travel fixed (10% max. of sensing distance)			1% to 5% of rated sensing distance	
Re-sponse time	Solid-state	(Refer to the response frequency of the Proximity Sensor.)				
	Relay	---				20 ms max.
Control outputs	Solid-state	NPN Load resistance: 4.7 kΩ, 100 mA max. (30 VDC max.) (Residual voltage: 1.5 V max.)	PNP Load resistance: 4.7 kΩ, 100 mA max. (30 VDC max.) (Residual voltage: 1.5 V max.)	NPN Open-collector output 100 mA max. (30 VDC max.) (Residual voltage: 0.7 V max.) (E2C-JC4AP: 1 V max.)	NPN/PNP output Open-collector output 200 mA max. (30 VDC max.) (Residual voltage: 1.5 V max.)	Transistor/photocoupler 50 mA max. (40 VDC max.) (Residual voltage: 2 V max.)
	Relay	---				Relay output, SPDT 2 A at 250 VAC, cosφ = 1 (resistive load) *3
Indicators		Detection indicator (red) (OPERATION)		Detection indicator (red) (OPERATION) Stability indicator (green) (STABILITY)	Detection indicator (red) (OPERATION) Stability indicator (green) (STABILITY)	
Operation mode		Changed with NO/NC switch.				
Self-diagnostic output		---		(E2C-JC4AP only) Output transistor turns ON when Sensor open circuit or unstable sensing is detected; solid-state NPN open-collector 50 mA max. (30 VDC max.) (Residual voltage: 1 V max.)	---	
Timer function		---		OFF-delay: 40 ±10 ms	---	
Cable length compensation between Sensor and Amplifier Unit		---		(E2C-JC4AP only) 3 m/5 m, terminals Short-plate switching Shorted: 1 to 3 m Open: 3 to 5 m	Mode switched with 4-position switch.	
Ambient temperature range		Operating/storage: −10 to 55°C (with no icing or condensation)				
Ambient humidity range		Operating/Storage: 35% to 85% (E2C-JC4AP: 35% to 95%) (with no condensation)				
Temperature influence		10% max. of sensing distance at 23°C in the temperature range of −10 to 55°C				
Voltage influence		DC Models: ±1% max. of sensing distance at rated voltage in the rated voltage ±20% range AC Models: ±1% max. of sensing distance at rated voltage in the rated voltage ±10% range				
Insulation resistance		50 MΩ min. (at 500 VDC) between current-carrying parts and case				
Dielectric strength		DC Models: 1,000 VAC, 50/60 Hz for 1 min between current-carrying parts and case AC Models: 1,500 VAC, 50/60 Hz for 1 min between current-carrying parts and case				
Vibration resistance		Destruction: 10 to 25 Hz, 2-mm double amplitude for 2 hours each in X, Y, and Z directions		Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions	Destruction: 10 to 25 Hz, 2-mm double amplitude for 2 hours each in X, Y, and Z directions	

*1. A full-wave rectification power supply of 24 VDC $\pm$ 10% (average value) can be used (except for the E2C-GE4□).

*2. The sensing distance range required to maintain performed is given for using the Amplifier Unit in combination with the Sensor.

*3. Internal relay: G2R-14 DC 12V