

BJ Series (Cable type)

INSTRUCTION MANUAL

Autonics

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Sensing type	Through-beam	Polarized retroreflective	Diffuse reflective	BGS reflective	Narrow beam reflective
Product components	Product, instruction manual				
Reflector	-	MS-2A	-	-	-
Adjustment screwdriver	× 1	× 1	× 1	× 1	× 1
Bracket A	× 2	× 1	× 1	× 1	× 1
M3 bolt / nut	× 4	× 2	× 2	× 2	× 2

Through-beam	Retroreflective	Reflective
Emitter - Receiver: Install to face each other	Sensor - Reflector: At least 0.1 m apart, install to face each other (parallel with the sensing side of the unit)	Sensor - Sensing target: Install to face each other (parallel with the sensing side of the unit) BGS reflective : Recommend horizontal / back and force movements of sensing target

Power supply	12-24 VDC $\pm$ 10% (ripple P-P: $\leq$ 10%)
Current consumption	It depends on the sensing type
Through-beam	Emitter: $\leq$ 20 mA, receiver: $\leq$ 20 mA
Reflective	$\leq$ 30 mA
Control output	NPN open collector output / PNP open collector output model
Load voltage	$\leq$ 26.4 VDC $\Rightarrow$
Load current	$\leq$ 100 mA
Residual voltage	NPN : $\leq$ 1 VDC $\Rightarrow$, PNP : $\leq$ 2.5 VDC $\Rightarrow$ (BGS reflective type : $\leq$ 2 VDC $\Rightarrow$)
Protection circuit	Reverse power protection circuit, output short overcurrent protection circuit
Insulation resistance	$\geq$ 20 M Ω (500 VDC $\Rightarrow$ megger)
Noise immunity	$\pm$ 240 VDC $\Rightarrow$ the square wave noise (pulse width: 1 μ s) by the noise simulator
Dielectric strength	Between the charging part and the case: 1,000 VAC $\Rightarrow$ 50/60 Hz for 1 min
Vibration	1.5 mm double amplitude at frequency of 10 to 55 Hz in each X, Y, Z direction for 2 hours
Shock	500 m/s ² ($\approx$ 50 G) in each X, Y, Z direction for 3 times
Ambient illuminance (receiver)	Sunlight: $\leq$ 11,000 lx, incandescent lamp: $\leq$ 3,000 lx
Ambient temperature	-25 to 55 $^{\circ}$ C, storage: -40 to 70 $^{\circ}$ C (no freezing or condensation)
Ambient humidity	35 to 85 %RH, storage: 35 to 85 %RH (no freezing or condensation)
Protection rating	IP65 (IEC standard)
Connection	Cable type
Cable spec.	ϕ 3.5 mm, 3-wire (emitter: 2-wire), 2 m
Wire spec.	AWG24 (0.08 mm, 40-core), insulator outer diameter: ϕ 1 mm
Material	Case: PC-ABS, CAP: PC, sensing part: PMMA, bracket: SUS304, bolt: SCM, nut: SCM, sleeve: Brass, NI-plate