Optical Lamp Fiber Sensor



FA COMPONENTS
MACHINE VISION SYSTEMS
UV CURING SYSTEMS

Selection Guide	
Wafer Detection	
Liquid Leak Detection	
Liquid Level Detection	
Water Detection	
Color Mark Detection	
Hot Melt Glue Detection	
Ultrasonic	
Small / Slim Object Detection	
Obstacle Detection	
Other Products	

General terms and conditions...... F-17 Related Information Glossary of terms......P.1359~

Sensor selection guide...... P.831~ General precautions..... P.1405





· Never use this product as a sensing device for personnel protection.

In case of using sensing devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

panasonic-electric-works.net/sunx

High color sensing ability with a 0.1 ms high-speed response

SPECIFICACTIONS

Fibers

Туре	Thru-beam	Coaxial reflective	Fixed coaxial reflective
Item Model No.	FT-3	FR-3	FF
Applicable amplifier	LX-23		
Sensing range (Note 2)	30 mm 1.181 in	1 to 3 mm 0.039 to 0.118 in	n (Center: 1.5 mm 0.059 in)
Min. sensing object	ø1.5 mm ø0.059 in	0.1 mm 0.004 in width black line on wh	ite paper (under the optimum condition)
Fiber cable length	300 mm 11.811 in	300 mm 11.811 in	
Allowable bending radius (Note 3)	R 30 mm 1.181 in or more		
Ambient temperature	–20 to +70 °C –4 to +158 °F (No dew condensation or icing allowed) Storage: –20 to +70 °C –4 to +158 °F		-10 to +40°C +14 to +104 °F (No dew condensation or icing allowed) Storage: -10 to +40 °C +14 to +104 °F
Material	Sheath: Silicone tube Fiber core: Acrylic		Sheath: Brass (nickel plated) Fiber core: Acrylic

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +23 °C +73.4 °F. 2) The sensing range of the reflective type fiber is specified for white non-glossy paper (50 × 50 mm 1.969 × 1.969 in) as the object.
3) The allowable bending radius indicates the value when bending a fiber at a 90° angle.

Amplifier

\swarrow	Туре	Optical lamp		
Item	Model No.	LX-23		
Supply voltage		12 V DC ±10 % Ripple P-P 10 % or less		
Current consumption		150 mA or less		
Output		NPN transistor universal • Maximum sink current: 80 mA • Residual voltage: 1 V or less (at 80 mA sink current)		
Output ope	eration	Light-ON		
Response time		0.1 ms (Max. response frequency: 10 kHz)		
Sensitivity adjuster		Optical multi-turn adjuster		
Protection		IP62 (IEC)		
Ambient temperature		-10 to +40 °C +14 to +104 °F (No dew condensation or icing allowed), Storage: -10 to 40 °C +14 to +104 °F		
Emitting element		Optical tungsten lamp (average lifetime: 20,000 hours)		
Case grounding type		Direct grounding		
Material		Die-cast zinc alloy		
Weight		Net weight: 150 g approx.		
Dimensions		W18.5 × H50 × D45 mm W0.729 × H1.969 × D1.772 in		

Note: Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +23 °C +73.4 °F.

MEMO

