

SPECIFICATIONS



Sensor head

Type	M8 Thrubeam			M12 Thrubeam		M12 Reflective	
	Standard	Armored	Hex-shaped	Standard	Armored	Standard	Armored
Model *1	PX-H71	PX-H71G	PX-H71TZ	PX-H72	PX-H72G	PX-H61	PX-H61G
Light source	Red 4-element LED (Wavelength: 635 nm)			Infrared LED (Wavelength: 870 nm)		Red 4-element LED (Wavelength: 635nm)	
Detecting distance	TURBO	4 m 13.1'		10 m 32.8'		400 mm 15.7"	
	SUPER	6 m 19.7'		15 m 49.2'		600 mm 23.6"	
	ULTRA	12 m 39.4'		30 m 98.4'		1200 mm 47.2"	
	MEGA	20 m 65.6'		40 m 131.2'		2000 mm 78.7"	
Detectable object	Ø4 mm Ø0.16" Opaque materials			Ø7.5 mm Ø0.30" Opaque materials		—	
Spot diameter	—			—		Approx. 15x15 mm 0.59" at 100 mm 3.94"	
Environmental resistance	Enclosure rating	IEC: IP68/JEM: IP68g/NEMA: 4X, 6P, 13/DIN: IP69K					
	Ambient light	Incandescent lamp: 20,000lx max., Sunlight: 30,000lx max.					
	Ambient temperature	-10°C to +55°C 14 to 131°F (No freezing)					
	Relative humidity	35 to 85% RH (No condensation)					
Materials	Housing : SUS303 (Plastic parts: PMP, POM) Lens : BK7						
	Screw nut (SUS303) x 4, toothed washer (SUS304) x 2 [PX-H71TZ has 2 screw nuts]						
Accessories	Screw nut (SUS303) x 4, toothed washer (SUS304) x 2 [PX-H71TZ has 2 screw nuts]					Screw nut x 2, toothed washer x 1	
Weight (including cable)*2	Approx. 80g	Approx. 250g	Approx. 88g	Approx. 90g	Approx. 260g	Approx. 80g	Approx. 220g

*1: Standard cable length is 2 m for all models. The PX-H71 and the H71TZ are available with a 10 m cable for both transmitter and receiver. The PX-H72 is available with a 30 m cable for the transmitter and 10 m cable for the receiver. Contact KEYENCE for cable length variations of spiral types.

*2: The PX-H71G, H72G and H61G have SUS304 spiral protective tube on the cables.

Amplifier

Type	Cable type		Connector type
Model	NPN output	PX-10	PX-10C
	PNP output	PX-10P	PX-10CP
Response time	500us (TURBO)/1ms (SUPER)/4ms (ULTRA)/16ms (MEGA)		
Output selection	LIGHT-ON/DARK-ON		
Indicator	- Operation indicator: Red LED x 2, DSC orange LED x 1		
	- Dual digital monitor: Dual 7-segment display		
	[Preset value (4-digit green LED) and current value (4-digit red LED) illuminated together, current value range: 0 to 65504, excess gain: 0P to 999P]		
	- Hold function: Possible to display both peak and bottom hold values. Selectable from 5 variations.		
Detection mode	- Bar LED monitor [Excess gain displayed (85% to 115% in 7 steps)]		
	- Scaling display		
Detection mode	Light intensity (automatic sensitivity-tracking function provided)/[Limit light intensity/output monitor]		
Shift function	1999 to 9999 selectable		
Timer function	Timer OFF/OFF-delay/ON-delay/One-shot/ON-delay, OFF-delay/ON-delay One-shot		
	Timer duration selectable: 1 ms to 9999ms Maximum error against the setting value: ±10% max.		
Control output	NPN output	NPN open-collector 40V, 100mA max. for an output/100mA max. for two outputs, residual voltage 1V max.	
	PNP output	PNP open-collector 30V, 100mA max. for an output/100mA max. for two outputs, residual voltage 1V max.	
External Input *1	Input time 2ms (ON)/20ms (OFF) min.		
Interference prevention *2	Up to 4units (in all power modes)		
Ratings	Supply voltage *3	12 to 24VDC ripple (P-P) 10% max, Class2	
	Current consumption	Standard mode: 50mA max. at 24V/ 55mA max. at 12V Power saving mode: 40mA max. at 24V/45mA max. at 12V	
Environmental resistance	Enclosure rating	IEC: IP67/JEM: IP67/NEMA: 4X	
	Ambient temperature *4	-10°C to +55°C 14 to 131°F (No freezing)	
	Relative humidity	35 to 85%RH (No condensation)	
Materials	10 to 55Hz amplitude 1.5 mm 0.06" 2 hours each in X, Y and Z axis		
	Housing: PBT, display: PSU, display cover/connector cover: SUS304, radiator plate: SUS304, gasket: NBR		
Weight	100 g (Including cable)		50 g

*1: PX-10(P) only. Not available for PX-10C(P).

*2: The received light intensity may vary somewhat when the sensor head's cable layout is changed, so redo the sensitivity setting when changing the layout. The interference prevention function is affected somewhat when using multiple units installed adjacent to each other. Fine-tune the sensitivity (increase the setting) for adjacent layouts.

*3: Use a 24 VDC power voltage when using a head light transmitting cable of 3 m 9.8' or more (PX-H71/H71TZ) or 10 m 32.8' or more (PX-H72).

*4: When using multiple units connected adjacently, the ambient temperature varies with the conditions below.

2 to 4 Units: -10 to +50°C (14 to 122°F), 5 to 17 Units: -10 to +45°C (14 to 133°F).

OPTIONS *1

Type	M12 socket cable*2 straight (2m 6.6')	L-shaped M12 *2 socket cable (2m 6.6')	End unit	Mounting bracket A for M8	Mounting bracket A for M12	Mounting bracket B for M8	Mounting bracket B for M12
Model	OP-75721	OP-75722	OP-26751	PX-B71	PX-B72	PX-B71L	PX-B72L
Shape							
			(2 pieces per package)	(1 bracket per package)	(1 bracket per package)	(1 bracket per package)	(1 bracket per package)

*1: Amplifier has no accessories. Apply a DIN rail or M3 screws (x 2) using mounting holes on the side to firmly fix it. The use of multiple amplifiers requires a DIN rail, and end units for both ends. (OP-26751)

*2: When using the PX-10C(P), the OP-75721 or the OP-75722 is required.