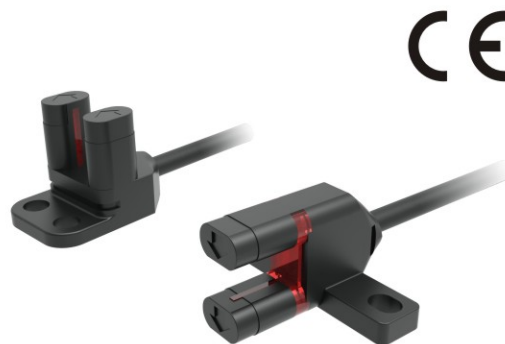


TOYO Photoelectric Limit Sensors

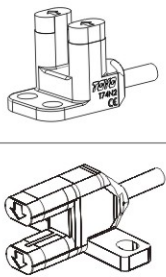
T64N/P T62N/P

TOYO Global Standard Home and Limit Sensors

- Two Outputs: ON when light is received / ON when light is blocked
- Equipped with power reverse polarity protection, short circuit protection, load protection
- Response frequency to 1KHz high-speed response
- DC 5~24V Power Required
- Flexibility with wiring



■ Type

Design	Detection Method	Detection Range	Action Mode	Light Pattern	Model	
					NPN Output	PNP Output
	Through-Beam (Groove Type)	5 mm (Groove Width)	On When Light is Blocked	Lights Up When Light Comes In	T64N2	T64P2
					T64N5	T64P5
			On When Light is Received		T62N2	T62P2
					T62N5	T62P5

■ Part Number Selection

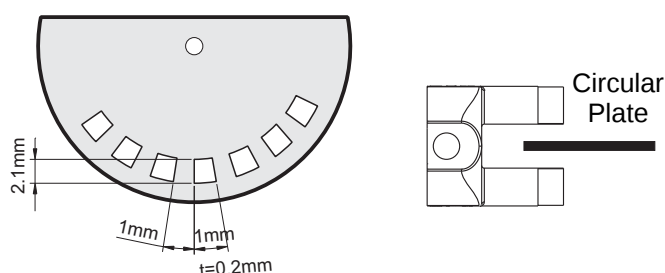
Part Number	Model	Sensor Qty	Output Type	Wire Length	Actuator Family
22008-000103	T64N2	1 set of 1	NPN	2 Meter	GLTH, GTH, ETH2
11045-000012	T64N2	1 set of 3	NPN	2 Meter	GLTH, GTH, ETH2
22008-000105	T64N5	1 set of 1	NPN	5 Meter	GLTH, GTH, ETH2
11045-000014	T64N5	1 set of 3	NPN	5 Meter	GLTH, GTH, ETH2
22008-000104	T64P2	1 set of 1	PNP	2 Meter	GLTH, GTH, ETH2
11045-000013	T64P2	1 set of 3	PNP	2 Meter	GLTH, GTH, ETH2
22008-000106	T64P5	1 set of 1	PNP	5 Meter	GLTH, GTH, ETH2
11045-000015	T64P5	1 set of 3	PNP	5 Meter	GLTH, GTH, ETH2
22008-000107	T62N2	1 set of 1	NPN	2 Meter	ETH, MK
22008-000109	T62N5	1 set of 1	NPN	5 Meter	ETH, MK
22008-000108	T62P2	1 set of 1	PNP	2 Meter	ETH, MK
22008-000110	T62P5	1 set of 1	PNP	5 Meter	ETH, MK

T64N/P T62N/P

Specifications

Model	T64N2 T62N2	T64N5 T62N5	T64P2 T62P2	T64P5 T62P5
Output type	NPN		PNP	
output status	NPN normally open + normally closed			
Sensing distance	5mm			
Standard sensing object	Opaque above 0.8 1.2mm			
hysteresis distance	<0.05mm			
Repeatability	<0.01mm			
supply voltage	5VDC~24V DC-10% pulsation P-P10% or less			
Control output (Output type)	<NPN output> PNP open collector transistor Maximum inflow current: 50mA Applied voltage: below 30VDC (between output and 0V) Residual voltage: Below 2V, the inflow current is 50mA Below 1V, the inflow current is 16mA		<PNP output> PNP open collector transistor Maximum inflow current: 50mA Applied voltage: below 30VDC (between output and +V) Residual voltage: Below 2V, the inflow current is 50mA Below 1V, the inflow current is 16mA	
light source	Infrared LED 940nm			
indicator light	Red LED (lights up when light is received)			
consumption current	<15mA			
Short circuit protection	Power reverse polarity protection, short circuit protection, overload protection			
load current	50mA or less			
Reaction time	1ms or less			
response frequency	Above 1KHz			
Ambient Illumination	Sunlight: 10000Lx Incandescent lamp: 3000Lx			
ambient temperature	When operating: 25~55 storage 30~+80 (no icing, no condensation)			
ambient humidity	Operation: 35-85%RH Storage: 35~95%RH (no condensation)			
Vibration resistance	Durability: 10~55 Hz complex amplitude 1.5mm X, y, Z direction 2 times (without power)			
withstand voltage	DC1000V1 minute meter (between all power connection terminals and the shell)			
Insulation resistance	Between all power connection terminals and the shell, more than 20MQ, based on DC500V megger			
Installation Torque	0.5N·m or less			
Protection class	IEC standard IP65			
connection method	Wire lead type 2 meters, 5 meters (optional)			
shell material	PBT			
product weight	2M - 27g	5M- 66.5g	2M - 28g	5M - 68g

NOTE: The response frequency is determined by rotating the value of the plate in the figure below.



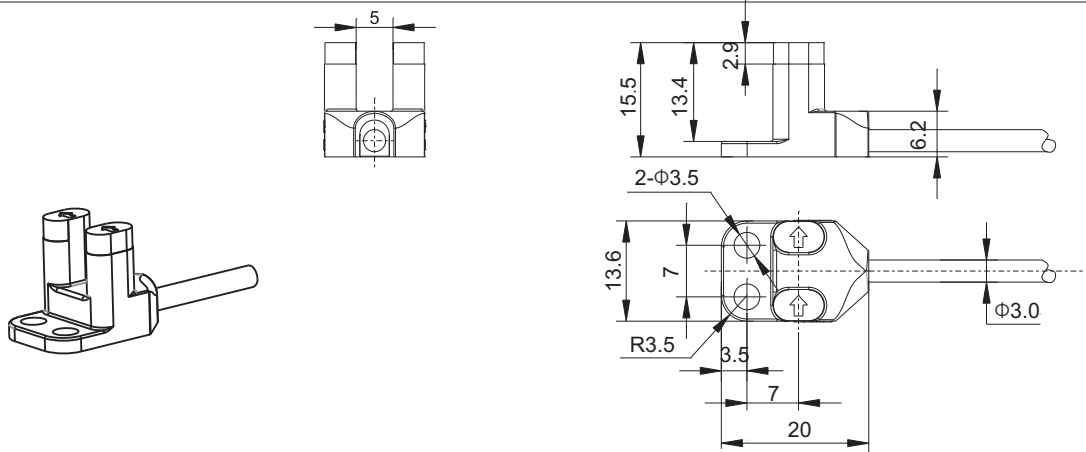
T64N/P T62N/P

Output Diagram

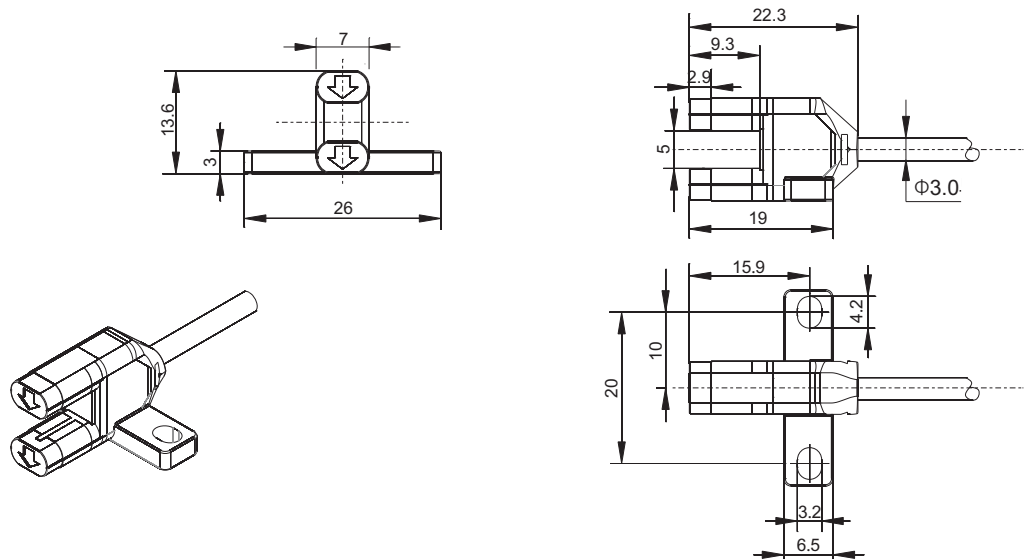
Model	Action Mode	Sequence Diagram	Connection	Output Circuit									
T64N2 T64N5 T64P2 T64P5 T62N2 T62N5 T62P2 T62P5	ON when light is received	light enters blackened out LED Indicator light on light off Output transistor ON OFF Load (relay, etc) action reset	Normally Open & Normally Closed (NO + NC)	NPN Output Output Action <table><tr><th></th><th>Wire Color</th><th>Output Action</th></tr><tr><td>Output 1</td><td>Black</td><td>On when light enters</td></tr><tr><td>Output 2</td><td>White</td><td>On when light is blocked</td></tr></table>		Wire Color	Output Action	Output 1	Black	On when light enters	Output 2	White	On when light is blocked
	Wire Color	Output Action											
Output 1	Black	On when light enters											
Output 2	White	On when light is blocked											
	ON when light is blocked	light enters blackened out LED Indicator light on light off Output transistor ON OFF Load (relay, etc) action reset	Normally Open & Normally Closed (NO + NC)	PNP Output NOTE: Please make sure to insulate the unused output wires									

Dimensions

T64



T62



warning:			
●It is forbidden to use this product for the purpose of directly or indirectly ensuring personal safety.			
●For the purpose of human body protection, please use OSHA, ANI and EC insured products.			
safety attention			
The following items are very important in ensuring safety, so please follow them.			
1. Do not use in an environment with flammable, explosive or corrosive gases.			
2. Do not disassemble, repair or modify this product.			
3. The power supply voltage must be within the rated value (5to24VDC+10%).			
4. Please use the load below the rated value.			
Precautions			
1. This product is developed and manufactured for use in industrial environments.			
2. Please confirm that the wiring is done according to the correct wiring method when the power is off.			
3. During installation and use, please do not collide or squeeze the sensing surface and its surroundings.			
4. Please confirm that the power supply voltage is within the rated range			
5. If the power supply is provided by a switching-regulated power supply, please ensure that the frame ground terminal (F.G) of the power supply is grounded.			
6. If you use noise-generating equipment (such as switching power supply or inverter) near this product, please ground the frame ground terminal (F.G) of the equipment			
7. The sensor should not be in direct contact with organic solvents such as diluents			
8. Do not parallel wiring with high-voltage lines or power lines or in the same wire conduit, which may cause malfunction due to induction.			
9. Do not use within 50ms after the power is turned on.			
10. The cable above 0.3mm can be extended by 100m, but it will cause a voltage drop, so make sure that the input voltage is within a certain range.			
11. Do not forcibly bend or pull the cable connector of the sensor.			
12. When using dusty operations, please regularly clean the light-emitting and light-receiving parts with a dry, soft cloth.			
13. When installing the sensor, please install it firmly on the installation part without bending.			
When fixing the sensor with screws, please use M3 screws, plus a combined flat washer and spring washer, the tightening torque of M3 screws is required to be below 0.5N·m.			
screw	spring washer	Flat Washers	Tightening Torque
M3 screw	1 piece	d6mm(round shape)	0.5N.m
14. When using the sensor in the moving part, please fix the lead-out part of the wire to prevent the pressure from being directly applied to the lead-out part of the wire.			
15. Do not use in the following installation places, otherwise it may cause malfunction.			
1. Places with a lot of oil mist or dust			
2. more corrosive places			
3. Places where water, oil, and chemicals are directly or indirectly scattered			
4. Places exposed to strong light such as outdoors or sunlight			