

TAKEX

Embedded Amplifier Thru Hole/Threaded Barrel Installation

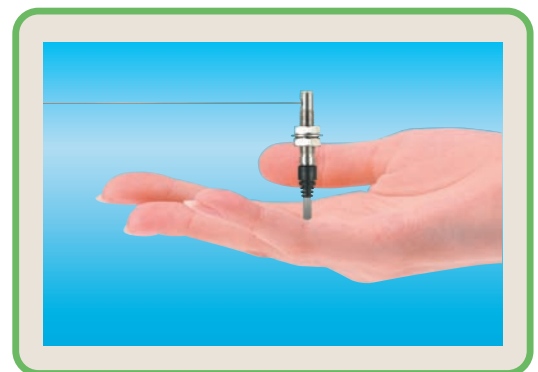
Ultra Xtreme miniaturization **UX** Series



Self-contained device designed for constrained area applications

■ Features

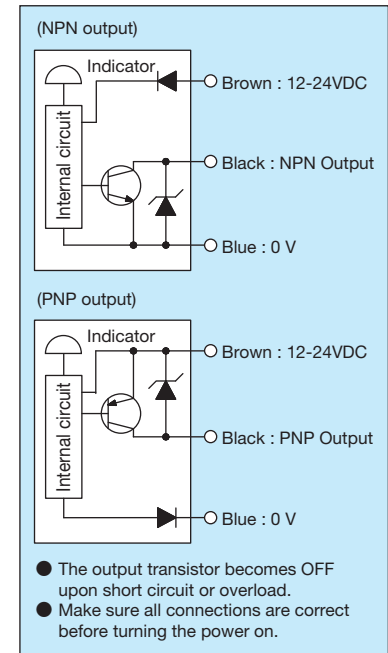
- **Revolutionary Side View approach is a world's first-of-its-kind**
Side View Thru Beam range to 500mm
(Model: UX-T50DS/T50DSPN)
- **Minimal installation space required**
Installs in the same space as typical Fiber applications
- **Long distance Head On detection up to 1m**
Head On Thru Beam range to 1000mm
(Model: UX-T100D/T100DPN)
- **SS construction rated at IP67**
High solidity and durability are achieved by a strong stainless steel body
- **Self-contained - no external electronic requirement**
Diffuse Reflective versions available with integrated sensitivity adjustment



Specifications

Detection method		Through beam		Diffuse reflection			
Type		Straight type	Side view	Straight type			
Models	NPN output	UX-T100D	UX-T50DS	UX-R2	UX-R3	UX-R5	UX-R5V
	PNP output	UX-T100DPN	UX-T50DSPN	UX-R2PN	UX-R3PN	UX-R5PN	UX-R5VPN
Detecting distance		1000mm	500mm	3~20mm	3~30mm	3~50mm	3~50mm
Detection object		φ4mm Opaque	φ5mm Opaque	100 × 100mm white paper			
Thread size (screw size)		M5 × 0.5		M6 × 0.75			
Power supply		12~24VDC ±10% ripple 10% or less					
Current consumption		Transmitter: 15mA or less Receiver: 15mA or less		20mA or less			
Output mode		Open collector output NPN output Rating: Sink current: 80mA DC30V or less PNP output Ratings: Source current: 80mA DC30V or less					
Operation mode		Dark on		Light on			
Response time		0.5ms or less					
Operating angle		2° (Receiver side)	10° (Receiver side)	—			
Light source		Red LED (630nm)	Red LED (625nm)	Infrared LED (870nm)			
Indicator		Operation: Orange LED, Stability: Green LED					
Sensitivity adjustment		—					SENS.VR
Short circuit protection		Built-in					
Material		Case, Nut and Washer: SUS303, Lens: Polysulphone Flying lead outer diameter 2.8mm length 2m.					
Connection		Transmitter: 0.15sq×2 core Receiver: 0.15sq×3 core		0.15sq×3 core			
Weight		Transmitter: 30g, Receiver: 30g		30g			
Accessory		Screw driver					

Input/Output Circuit and Connection

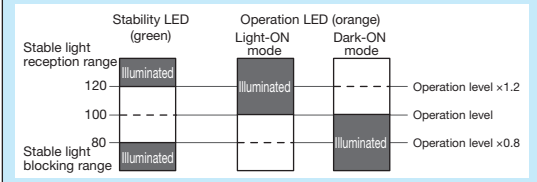


Environmental Characteristics

Ambient light	3,000lx or less
Ambient temperature	-25 to +55°C (non-freezing) storage :-30 to +70°C (non-freezing)
Ambient humidity	35 to 85%RH (non-condensing)
Protection rating	IP67
Vibration	10 to 55Hz/ 1.5mm amplitude, 2 hours in X,Y,Z direction for each
Shock	500m/s ² , 3 times each in 3 directions
Dielectric withstanding	500VAC for 1 minute
Insulation resistance	500VDC, 20MΩ or higher

Indicators

- The operation indicator (orange LED) and stability indicator (green LED) operate on different received light intensity levels as described in the figure.
- Make alignment and/or sensitivity adjustment so that the stability indicator (green LED) lights on both on detection and no-detection using the object to be detected. It ensures higher reliability against environmental changes.



Dimensions (Unit : mm)

Through beam (straight type)	Through beam (Side view type)	Diffuse reflection type
UX-T100D (Transmitter) 	UX-T50DS (Transmitter) 	UX-R5V (PN)
UX-T100D (Receiver) 	UX-T50DS (Receiver) 	UX-R□ (PN)



- This sensor is designed to detect a specific object. It is not provided with control functions for prevention of injuries or accidents in itself.
- Takex will not held responsible for any damage or loss incurred due to accidents, faulty installation, abuse, misuse, improper maintenance or acts of God including lightning surge.
- Specifications and dimensions may be subject to change without notice.



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