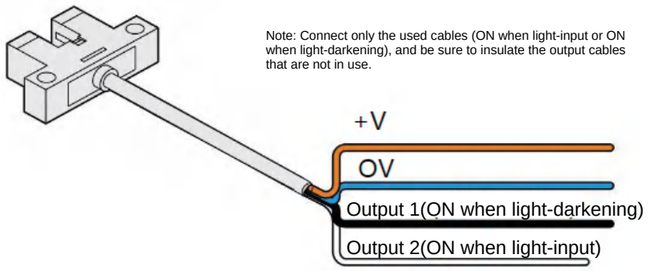
UX95 SERIES ULTRA-SMALL SLOTTED PHOTOELECTRIC SENSOR

The equipment has two separate outputs

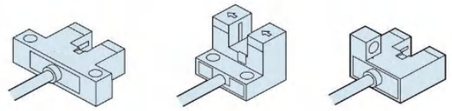
All models are equipped with two independent outputs - ON when light-input and ON when light-darkening - to cope with different output requirements depending on the place of use.



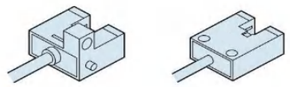
Note: Connect only the used cables (ON when light-input or ON when light-darkening), and be sure to insulate the output cables that are not in use.

Simple connection

The simple connection type realizes quick and easy connection by eliminating all the troubles such as soldering and insulation treatment that were required in the past.



K-type L-type F-type



R-type U-type

Wire lead

Comes standard with 2M flexible wire, wire length can be customized.
Bend-resistant drag chain wire-GR is optional.
Optional white-normally-open black-normally-closed-SX.

Wide voltage range

Power supply voltage range 5~24VDC:

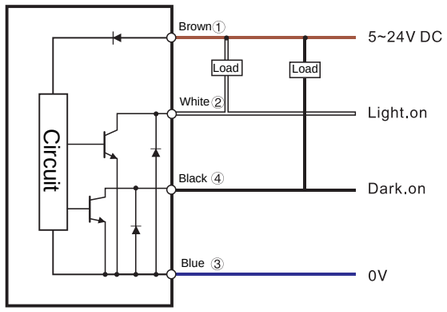
High-speed response

High-speed response with an answer frequency of 3KHZ.

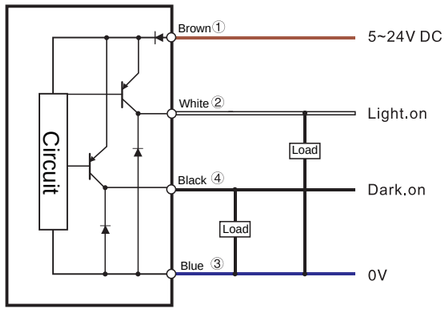
Appearance					
Category	K-type	L-type	F-type	R-type	U-type
Detection distance	5mm (slot width)				
Standardized detecting object	Opaque objects of 0.8*1.2mm or above				
Repeated accuracy	0.03mm or below				
Output mode	NPN or PNP open collector				
Switching mode	L.on(light-input action)/D.on(light-darkening action) can be switched				
Indicator light	Light off when object is detected, light on when no object is detected				
Response frequency	3 KHz				
Light source	Infrared light				
Operating voltage	5~24V DC				
Residual voltage	1V or below (at load current 100mA)				
Current consumption	≤8mA				
Protection circuit	Surge protection, reverse polarity protection				
Ambient light	Lighted surface luminance incandescent light: 1000lux or below				
Ambient temperature	Operating: -25℃~+55℃ Storing: -30℃~+80℃, non-freezing				
Environmental humidity	Operating: 5%~85%RH Storage: 5%~95%RH, no condensation				
Voltage-resistant	AC,1000V for 1 minute, between all power supply connection terminals and housing				
Vibration-resistant	Frequency 10Hz~2,000Hz double-amplitude 1.5mm (Max. acceleration 196m/s2) XYZ each direction 2 hours				
Insulation resistance	20MΩ or above between all power connection terminals and housing (based on DC250V)				
Protection level	IP50				
Material	ABS+PC				
Wire outgoing method	2M4 core cable				
Model NPN	UX950-WR	UX951-WR	UX952-WR	UX953-WR	UX954-WR
Model PNP	UX950P-WR	UX951P-WR	UX952P-WR	UX953P-WR	UX954P-WR

Circuit

DC line 4-wire NPN output



DC line 4-wire PNP output

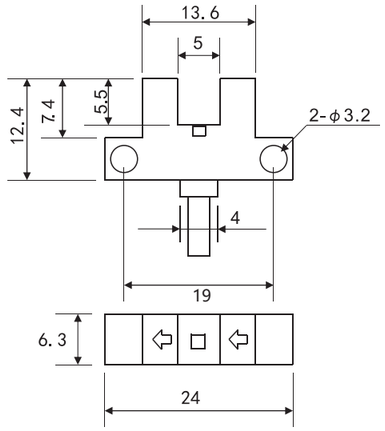


Slotted sensor

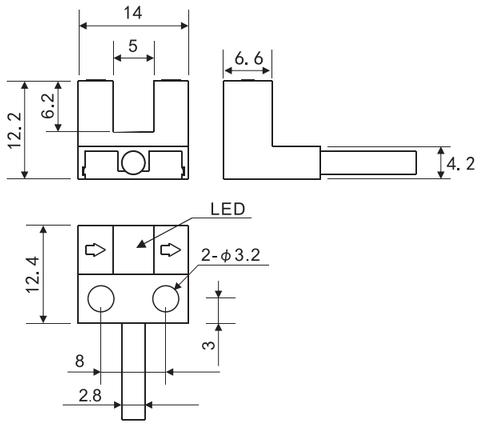
- Slotted sensor
- Optical fiber sensor
- Displacement sensor
- Safety sensor
- Photoelectric sensor
- Proximity sensor
- Specialized sensor

Outline dimension diagram (unit: mm)

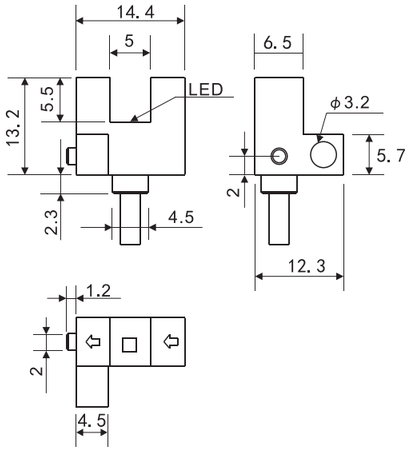
UX950-WR



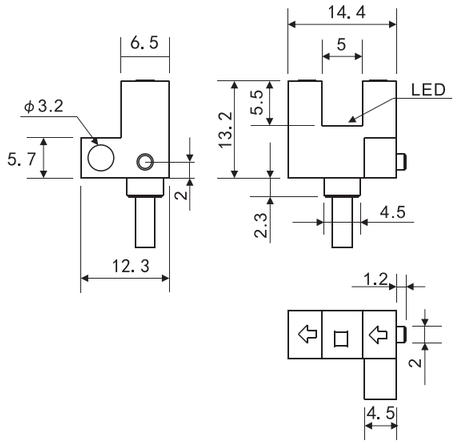
UX951-WR



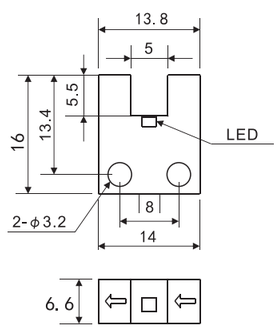
UX952-WR



UX953-WR



UX954-WR

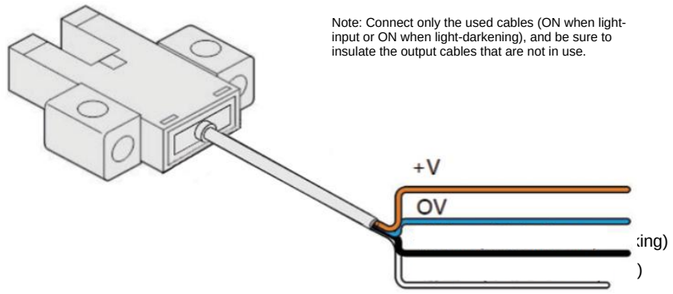


Slotted sensor
Optical fiber sensor
Displacement sensor
Safety sensor
Photoelectric sensor
Proximity sensor
Specialized sensor

UX45 SERIES COMPACT SLOTTED PHOTOELECTRIC SENSOR

The equipment has two separate outputs

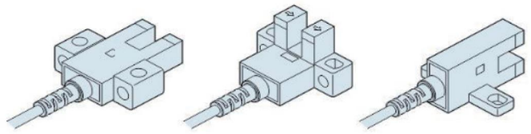
All models are equipped with two independent outputs - ON when light-input and ON when light-darkening - to cope with different output requirements depending on the place of use.



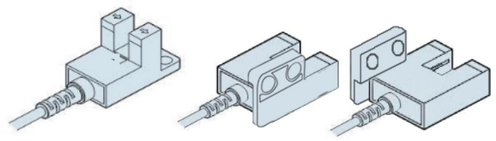
Note: Connect only the used cables (ON when light-input or ON when light-darkening), and be sure to insulate the output cables that are not in use.

Multiple models

A wide range of up to 6 shapes is available, from which you can select the model that meets your installation conditions.



K-type L-type T-type



Y-type F-type R-type

Wire lead

Comes standard with 2M flexible wire, wire length can be customized.
Bend-resistant drag chain wire-GR is optional.
Optional white-normally-open black-normally-closed-SX.

Wide voltage range

Power supply voltage range 5~24VDC:

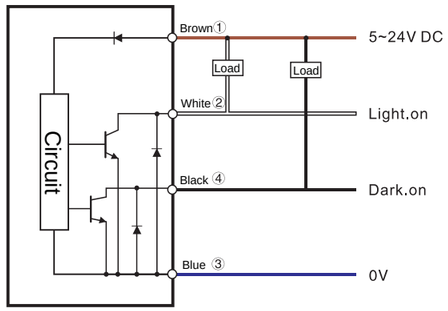
High-speed response

High-speed response with an answer frequency of 3KHZ.

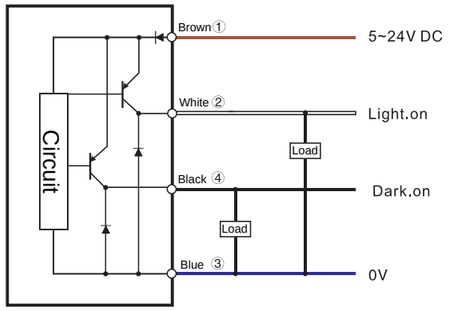
Compact slotted photoelectric sensor

Appearance						
Category	K-type	L-type	T-type	Y-type	F-type	R-type
Detection distance	5mm (slot width)					
Standardized detecting object	Opaque objects of 0.8*1.2mm or above					
Repeated accuracy	0.03mm or below					
Output mode	NPN open collector					
Switching mode	L.on(light-input action)/D.on(light-darkening action) can be switched					
Indicator light	Light off when object is detected, light on when no object is detected					
Response frequency	3 KHz					
Light source	Infrared light					
Operating voltage	5~24V DC					
Residual voltage	1V or below (at load current 100mA)					
Current consumption	≤8mA					
Protection circuit	Surge protection, reverse polarity protection					
Ambient light	Lighted surface luminance incandescent light: 1000lux or below					
Ambient temperature	Operating: -25℃~+55℃ Storing: -30℃~+80℃, non-freezing					
Environmental humidity	Operating: 5%~85%RH Storage: 5%~95%RH, no condensation					
Voltage-resistant	AC,1000V for 1 minute, between all power supply connection terminals and housing					
Vibration-resistant	Frequency 10Hz~2,000Hz double-amplitude 1.5mm (Max. acceleration 196m/s2) XYZ each direction 2 hours					
Insulation resistance	20MΩ or above between all power connection terminals and housing (based on DC250V)					
Protection level	IP50					
Material	ABS+PC					
Wire outgoing method	2M4 core cable					
Model NPN	UXK45	UXL45	UXT45	UXY45	UXF45	UXR45
Model PNP	UXK45P	UXL45P	UXT45P	UXY45P	UXF45P	UXR45P

DC line 4-wire NPN output

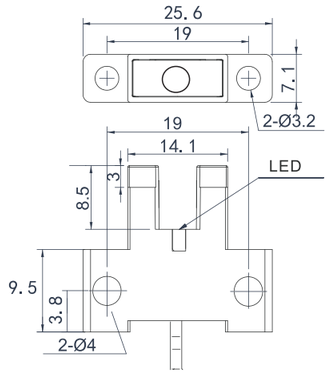


DC line 4-wire PNP output

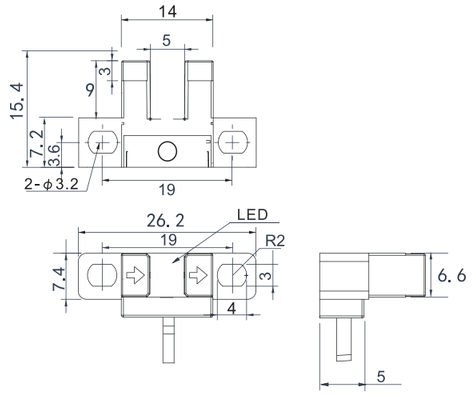


Outline dimension diagram

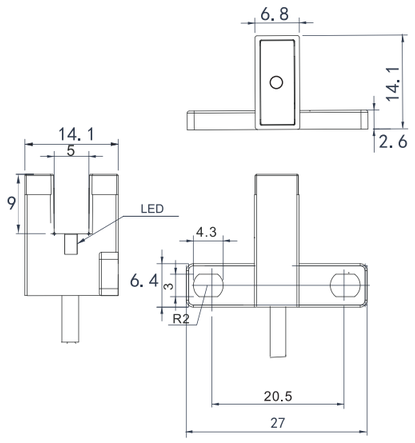
UXK45



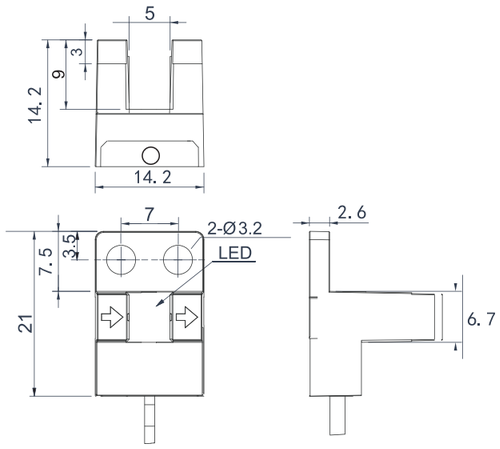
UXL45



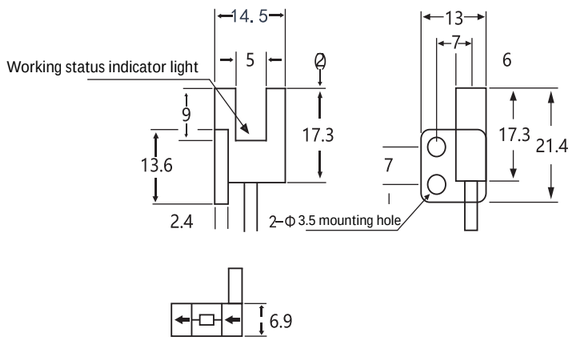
UXT45



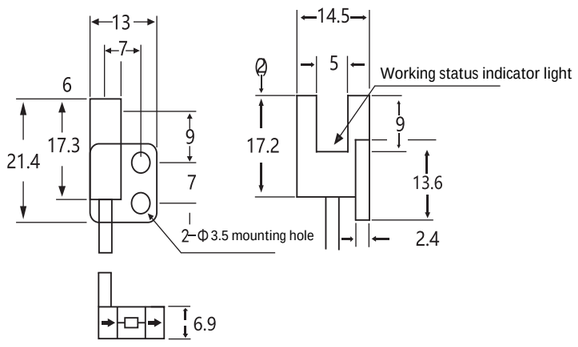
UXY45



UXF45

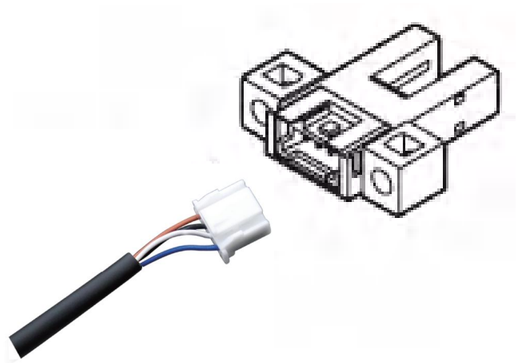


UXR45



UX65 SERIES PLUG-IN SLOTTED PHOTOELECTRIC SENSOR

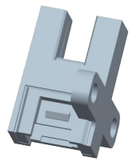
Cable with connectors



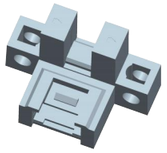
Multiple models

A wide range of up to 6 shapes is available, from which you can select the model that meets your installation conditions.

UXK65



UXT65



UXL65

UXY65

Wire lead

Optional UX1008 connection cable.
Optional UX1008-GR high flex cable.

Wide voltage range

Power supply voltage range 5~24V DC:

High-speed response

High-speed response with an answer frequency of 3KHZ.

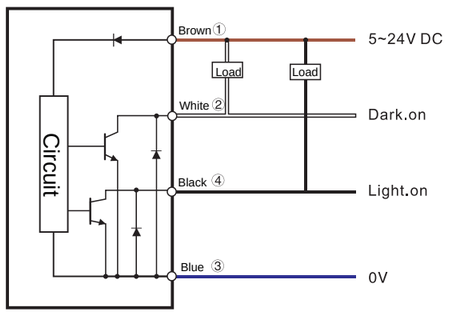
Plug-in slotted photoelectric sensor

Slotted sensor

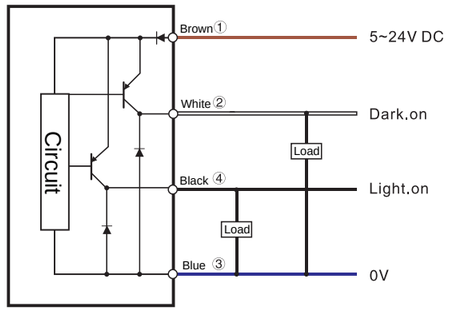
Appearance						
Category	K-type	L-type	T-type	Y-type	F-type	R-type
Detection distance	5mm (slot width)					
Standardized detecting object	0.8Mm×1.2mm opaque body					
Repeated accuracy	0.03mm or below					
Output mode	NPN open collector					
Switching mode	L.on(light-input action)/D.on(light-darkening action) can be switched					
Indicator light	Orange LED(lights up when light-input)					
Response frequency	3 KHz					
Light source	Infrared light					
Operating voltage	5V DC~24V DC±10% pulsation P-P10% or below					
Residual voltage	1V or below (at load current 100mA)					
Current consumption	≤8mA					
Protection structure	IP50(IEC)					
Ambient light	Lighted surface luminance incandescent light: 1000lux or below					
Ambient temperature	-25℃~+55℃ (caution: no condensation or icing), in storage: -30℃~+80℃					
Environmental humidity	5%RH~85%RH, in storage：5%RH~95%RH					
Voltage-resistant	AC 1,000V for 1 minute between all power supply connection terminals and housing					
Vibration-resistant	Frequency 10Hz~2,000Hz double-amplitude 1.5mm (Max. acceleration 196m/s2) XYZ each direction 2 hours					
Insulation resistance	20MΩ or above between all power connection terminals and housing, based on DC250V megger)					
Protection level	P50(IEC)					
Material	ABS+PC					
Wire outgoing method	Connector					
Model NPN	UXK65	UXL65	UXT65	UXY65	UXF65	UXR65
Model PNP	UXK65P	UXL65P	UXT65P	UXY65P	UXF65P	UXR65P

Circuit

DC line 4-wire NPN output



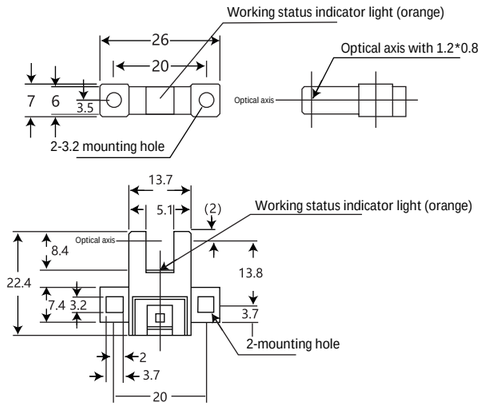
DC line 4-wire PNP output



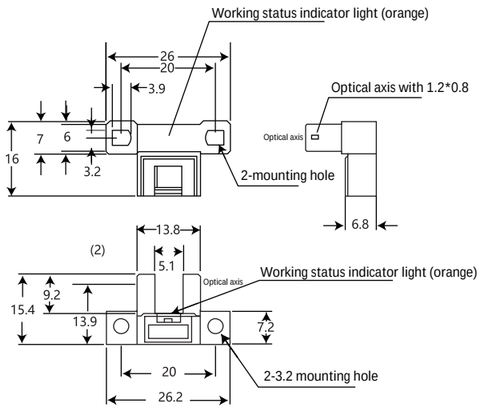
Plug-in slotted photoelectric sensor

Outline dimension diagram

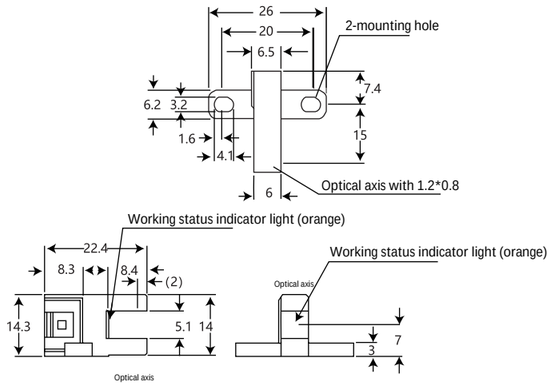
UXK65



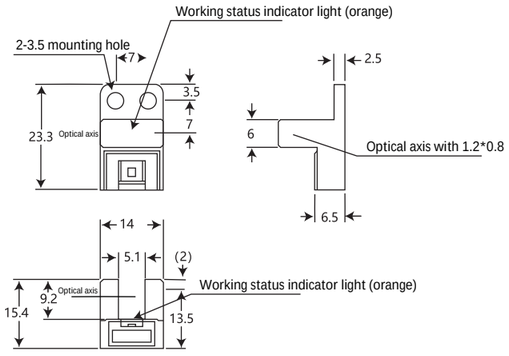
UXL65



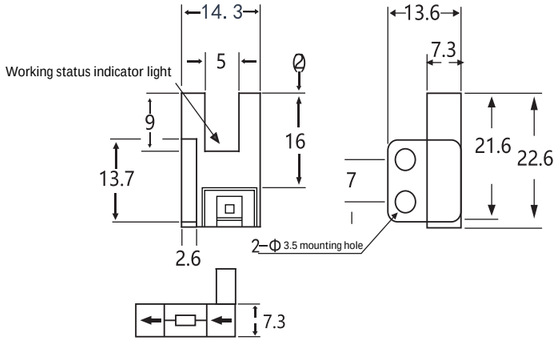
UXT65



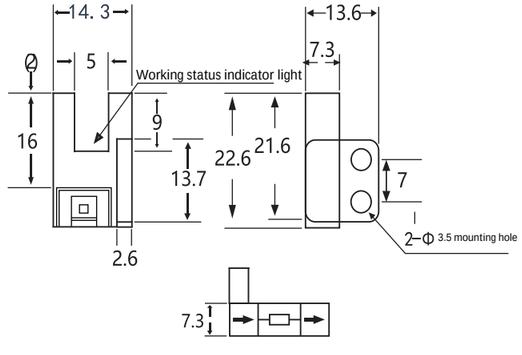
UXY65



UXF65



UXR65



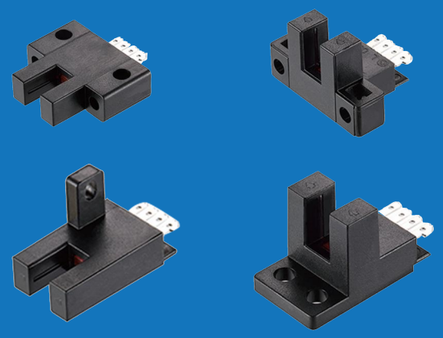
Accessories

UX1008 (default 2m, others 1m, 3m, 5m, 7m, 10m are available)

Slotted sensor

Slotted sensor
Optical fiber sensor
Displacement sensor
Safety sensor
Photoelectric sensor
Proximity sensor
Specialized sensor

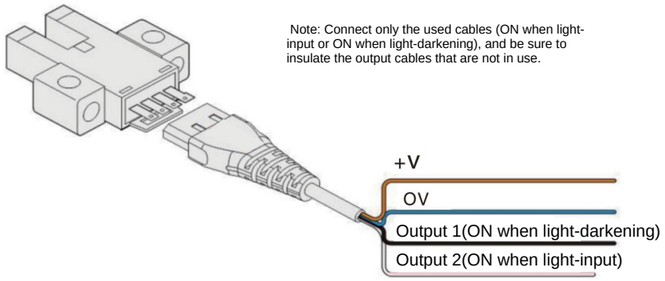
UX67 SERIES PLUG-IN SLOTTED PHOTOELECTRIC SENSOR



Plug-in slotted photoelectric sensor

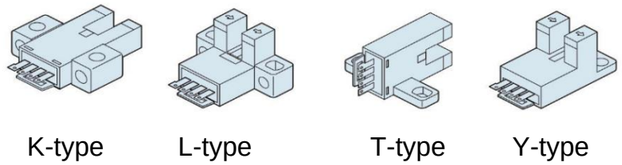
The equipment has two separate outputs

All models are equipped with two independent outputs - ON when light-input and ON when light-darkening - to cope with different output requirements depending on the place of use.



Multiple models

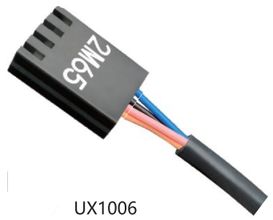
A wide range of up to 4 shapes is available, from which you can select the model that meets your installation conditions.



K-type L-type T-type Y-type

Simple connection

The simple connection type realizes quick and easy connection by eliminating all the troubles such as soldering and insulation treatment that were required in the past.Equipped with black output , pink switching product selection-QH.



UX1006

High-speed response

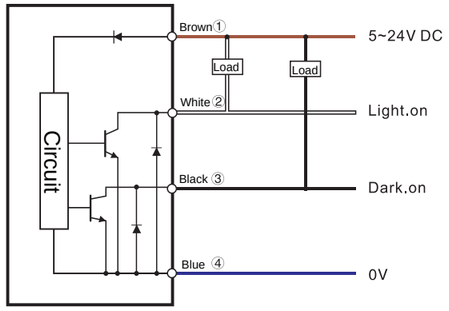
High-speed response with an answer frequency of 3KHZ.

Wired slotted photoelectric sensor

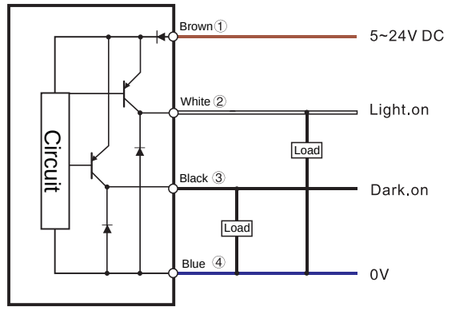
Appearance				
Category	K-type	L-type	T-type	Y-type
Detection distance	5mm (slot width)			
Standardized detecting object	Opaque objects of 0.8*1.2mm or above			
Repeated accuracy	0.03mm or below			
Output mode	NPN open collector			
Switching mode	L.on(light-input action)/D.on(light-darkening action) can be switched			
Indicator light	Light off when object is detected, light on when no object is detected			
Response frequency	3 KHz			
Light source	Infrared light			
Operating voltage	5~24V DC			
Residual voltage	1V or below (at load current 100mA)			
Current consumption	≤8mA			
Protection circuit	Surge protection, reverse polarity protection			
Ambient light	Lighted surface luminance incandescent light: 1000lux or below			
Ambient temperature	Operating: -25℃~+55℃ Storing: -30℃~+80℃, non-freezing			
Environmental humidity	Operating: 5%~85%RH Storage: 5%~95%RH, no condensation			
Voltage-resistant	AC,1000V for 1 minute, between all power supply connection terminals and housing			
Vibration-resistant	Frequency 10Hz~2,000Hz double-amplitude 1.5mm (Max. acceleration 196m/s2) XYZ each direction 2 hours			
Insulation resistance	20MΩ or above between all power connection terminals and housing (based on DC250V)			
Protection level	IP50			
Material	ABS+PC			
Wire outgoing method	Connector			
Model NPN	UX670	UX671	UX672	UX674
Model PNP	UX670P	UX671P	UX672P	UX674P

Circuit

DC line 4-wire NPN output

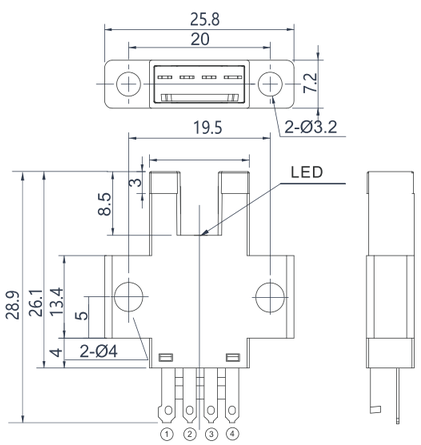


DC line 4-wire PNP output

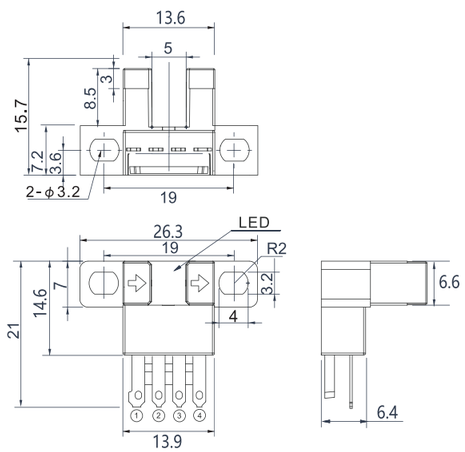


Outline dimension diagram (unit: mm)

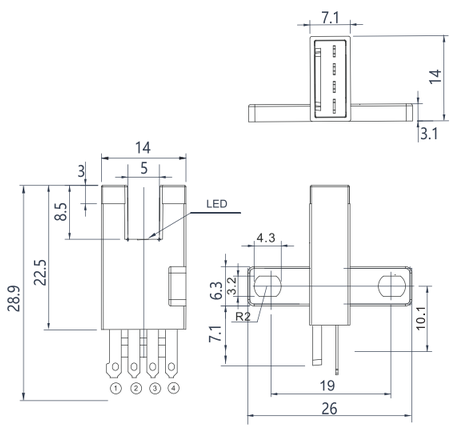
UX670



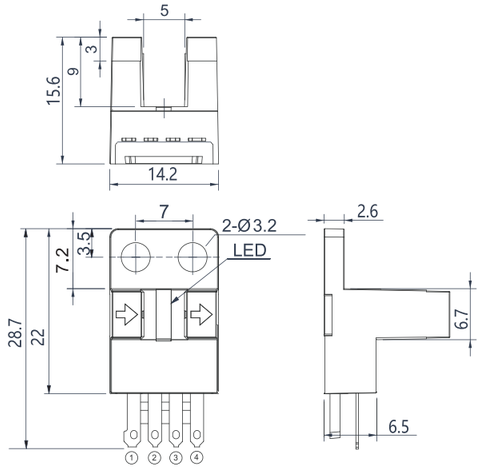
UX671



UX672



UX674



Accessories

UX1006 (default 2m, others 1m, 3m, 5m, 7m, 10m are available)

UX1010 (default 2m, others 1m, 3m, 5m, 7m, 10m are available)

Slotted sensor
Optical fiber sensor
Displacement sensor
Safety sensor
Photoelectric sensor
Proximity sensor
Specialized sensor

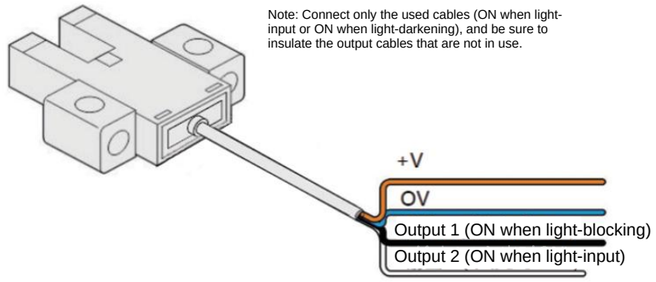
Slotted sensor
Optical fiber sensor
Displacement sensor
Safety sensor
Photoelectric sensor
Proximity sensor
Specialized sensor

UX67-WR SERIES WIRED SLOTTED PHOTOELECTRIC SENSOR

Wired slotted photoelectric sensor

The equipment has two separate outputs

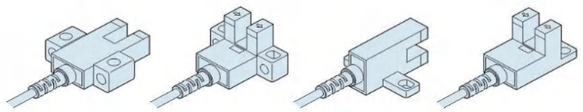
All models are equipped with two independent outputs - ON when light-input and ON when light-darkening - to cope with different output requirements depending on the place of use.



Note: Connect only the used cables (ON when light-input or ON when light-darkening), and be sure to insulate the output cables that are not in use.

Multiple models

A wide range of up to 6 shapes is available, from which you can select the model that meets your installation conditions.



K-type L-type T-type Y-type

Wire lead

Comes standard with 2M flexible wire, wire length can be customized.
Bend-resistant drag chain wire-GR is optional.
Optional white-normally-open black-normally-closed-SX.

Wide voltage range

Power supply voltage range 5~24VDC:

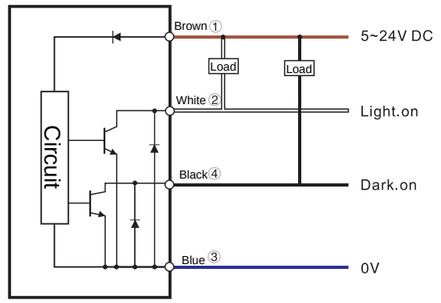
High-speed response

High-speed response with an answer frequency of 3KHZ.

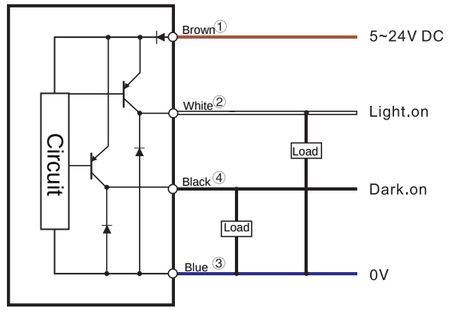
Appearance						
Category						
Detection distance	5mm (slot width)					
Standardized detecting object	Opaque objects of 0.8*1.2mm or above					
Repeated accuracy	0.03mm or below					
Output mode	NPN open collector					
Switching mode	L.on(light-input action)/D.on(light-darkening action) can be switched					
Indicator light	Light off when object is detected, light on when no object is detected					
Response frequency	3 KHz					
Light source	Infrared light					
Operating voltage	5~24V DC					
Residual voltage	1V or below (at load current 100mA)					
Current consumption	≤8mA					
Protection circuit	Surge protection, reverse polarity protection					
Ambient light	Lighted surface luminance incandescent light: 1000lux or below					
Ambient temperature	Operating: -25℃~+55℃ Storing: -30℃~+80℃, non-freezing					
Environmental humidity	Operating: 5%~85%RH Storage: 5%~95%RH, no condensation					
Voltage-resistant	AC,1000V for 1 minute, between all power supply connection terminals and housing					
Vibration-resistant	Frequency 10Hz~2,000Hz double-amplitude 1.5mm (Max. acceleration 196m/s2) XYZ each direction 2 hours					
Insulation resistance	20MΩ or above between all power connection terminals and housing (based on DC250V)					
Protection level	IP50					
Material	PC					
Wire outgoing method	2M4 core cable					
odel NPN	UX670-WR	UX671-WR	UX672-WR	UX673-WR	UX674-WR	UX675-WR
Model PNP	UX670P-WR	UX671P-WR	UX672P-WR	UX673P-WR	UX674P-WR	UX675P-WR

Circuit

DC line 4-wire NPN output

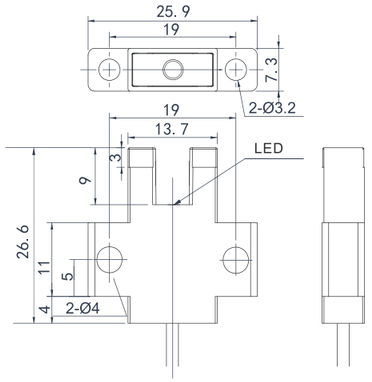


DC line 4-wire PNP output

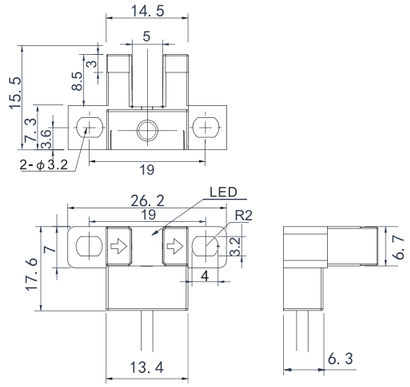


Outline dimension diagram

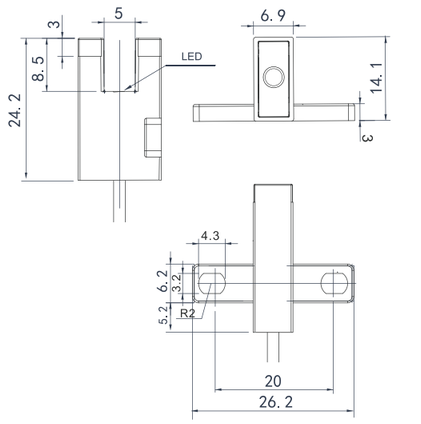
UX670-WR



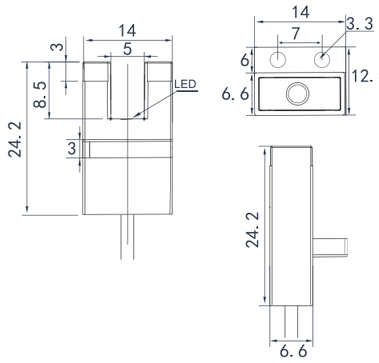
UX671-WR



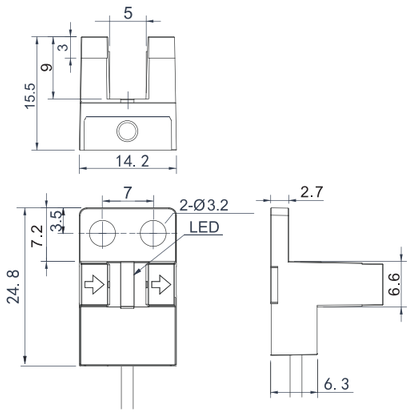
UX672-WR



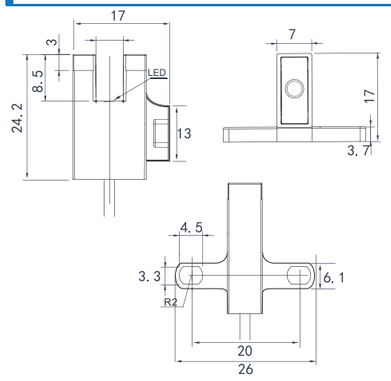
UX673-WR



UX674-WR



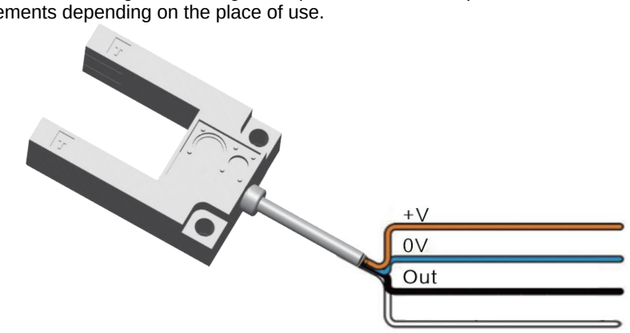
UX675-WR



UXG SERIES WIDE-SLOTTED PHOTOELECTRIC SENSOR

The equipment has two separate outputs

All models are equipped with two independent outputs - ON when light-input and ON when light-darkening - to cope with different output requirements depending on the place of use.



Note: Link only the used cables (ON when light-input \ ON when light-darkening), and be sure to insulate the output cables that are not in use.

Strong interference resistant ability

Strong resistance to external light interference, the smallest detection object of 1mm, high-speed response with an answer frequency of 1Khz

Three model options for slot width

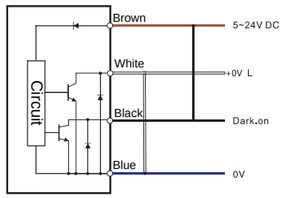
Slot width includes: 15mm, 25mm and 30mm, you can choose the model that meets your installation conditions according to your needs

Sensitivity adjustable

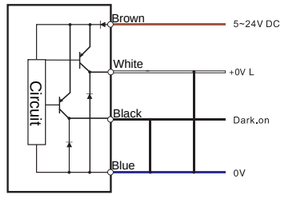
Built-in single-turn potentiometer, adjust the sensitivity to detect transparent film or labels over 0.1mm

Wiring method

DC line 4-wire NPN output



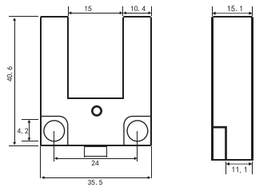
DC line 4-wire PNP output



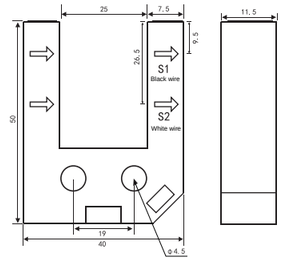
Product parameters

Appearance			
Item model	UXG15	UXG25	UXG30
Detection distance	15mm	25mm	30mm
Standardized detecting object	Opaque objects of φ 1mm or above		
Response frequency	1 KHz		
Light source (luminous wavelength)	Infrared light emitting diode (950nm)		
Power supply voltage	DC 12~24V±10% pulsation (p-p)10% or below		
Current consumption	40mA or below		
Control output	Load power supply voltage DC24V or below, load current 80mA or below (residual voltage 2V or below), NPN voltage output type, ON when light input /ON when light blocking, wire connection switching method		
Protection circuit	Power supply reverse-connection protection, output short circuit protection		
Response time	Action, reset: under 1ms each		
Sensitivity adjustment	Unidirectional rotary knob		
Service ambient luminance	Lighted surface luminance incandescent light: 3,000lx, sunlight: 10,000lx		
Ambient temperature	Operating: -25~+55℃ In storage: -40~+70℃ (no icing or frosting)		
Environmental humidity	In operating: 35~85% RH, in storage: 35~95% RH (no condensation)		
Insulation resistance	20MΩ or above (DC500V megohmmeter)		
Voltage-resistant	AC1,000V50/60Hz 1min		
Vibration (durable)	10~55Hz double amplitude 1.5mm 2h in each direction of X, Y, Z		
Impact (durable)	500m/s2 3 times in each direction of X, Y, Z		
Protection structure	IEC standard IP67		
Connection method	Wire lead type (standard wire length 2m)		
Quality (after packaging)	Approx. 330g		
NPN model	UXG15	UXG25	UXG30
PNP model	UXG15P	UXG25P	UXG30P

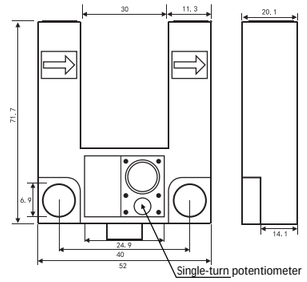
UXG15



UXG25 (two optical axes and two channels output)



UXG30



UX SERIES
LABEL SENSOR

Product characteristics

Outline advantage

The thin design allows flexible installation near automatic labeling machines, ensuring higher process precision. Compact housing saves installation space.

Solid integrated housing

Solid integrated housing for extra high reliability. Aluminum housing, protection level IP65, meets all the needs of use in harsh industrial environments.

Solid U-shape without optical axis alignment

The light projector and light receiver are mounted in the same sensor, so optical axis alignment is not required.

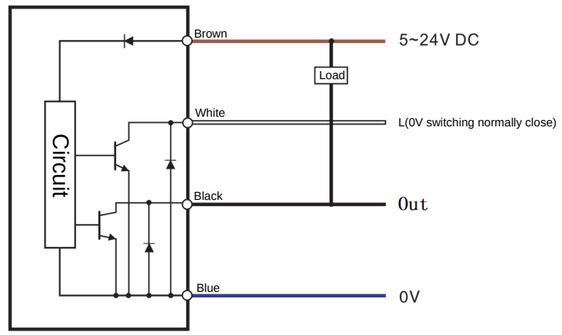
High-efficient response

Short response time, rapid response time as low as 50μs and high resolution ensure reliable detection even at high speeds.

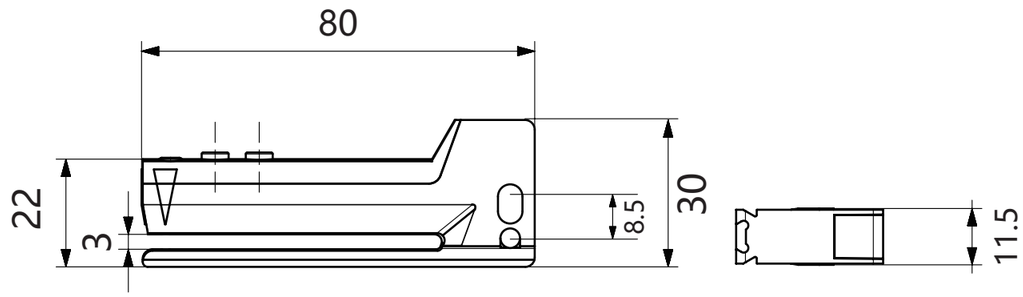
Interference resistant

Superior ambient light interference resistance with infrared light source.

Wiring method



Product Parameters

Item \ Model	Category	Label sensor	
	NPN output	UX-WFS3N	UX-WFS3P
	PNP output		
Appearance			
Slot depth/slot width		3x58mm	
Operating voltage		DC12V~24V	
Ripple voltage		10%	
Power consumption		40mA	
Light source		GaAs infrared light emitting diodes (940nm)	
Switching frequency		10 kHz	
Stability of response time		±20μs	
Switch function		Normally open and normally close, selectable by button	
Switch output voltage		NPN: High level=Approx. Vs/Low level≤2V PNP: High level=Vs-≤2V/Low level=Approx. 0V	
Maximum output current		100mA	
Initialization time		100ms	
Connection method		Direct outgoing wire	
Ambient light safety		Sunlight: (10000Lx)	
Circuit protection		Surge protection circuit, short circuit protection, reverse polarity protection	
Housing protection level		IP65	
Material		Housing: plastic	

Dimension diagram (unit: mm)