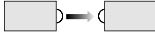


U SERIES PHOTOELECTRIC SENSOR

Type	U Series -A	U Series -B
Sensing Mode	Through-beam	Through-beam
Sensing Schematic		
Sensing Range	3.5mm	3.5mm

Parameter	Symbol	MIN	TYP	MAX	Units	Test Conditions
IR Emitter						
Forward Voltage	V _F			1.6	V	V _R = 3V
Reverse Leakage Current	I _R			10	μA	I _F = 20mA
Detector						
Collector-Emitter Breakdown Voltage	V _(BR) CEO	30			V	I _C = 100μA
Emitter-Collector Breakdown Voltage	V _(BR) CEO	5.0			V	I _C = 100μA
Collector Dark Current	I _{CEO}			100	nA	V _{CE} = 10V I _F = 0
Coupled Characteristics						
On-State Collector Current	I _{C(on)}	1.5			mA	V _{CE} = 5V I _F = 20mA
Collector-Emitter Saturation Voltage	V _{CE(SAT)}			0.4	V	I _F = 20mA I _C = 230μA
Rise And Fall Time	t _r , t _f		15		μS	V _{CC} = 5V, I _C = 1mA R _L = 1000 Ω

Absolute Maximum Ratings

Operating Temperature Range	-40 °C to 85 °C
Storage Temperature Range	-40 °C to 85 °C
Soldering Temperature (5 sec)	240 °C

IR Emitter

Power Dissipation	100 mW
Reverse Voltage	3 V
Continuous Forward Current	50 mA

Detector

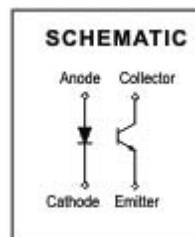
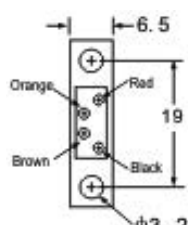
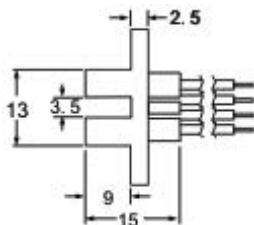
Collector-Emitter Voltage	30 V
Emitter-Collector Voltage	5 V
Power Dissipation	100 mW
Collector DC Current	30 mA
Housing material	PC

Model Number	PPU3.2-T3.5N-A4V0.35-A	PPU3.2-T3.5N-A4V0.35-B
Features		

Features

- NPN Silicon phototransistor output
- Infrared emitting diode
- 1.52 mm dia. detector aperture
- 3.5 mm slot width
- 22 AWG UL wire leads

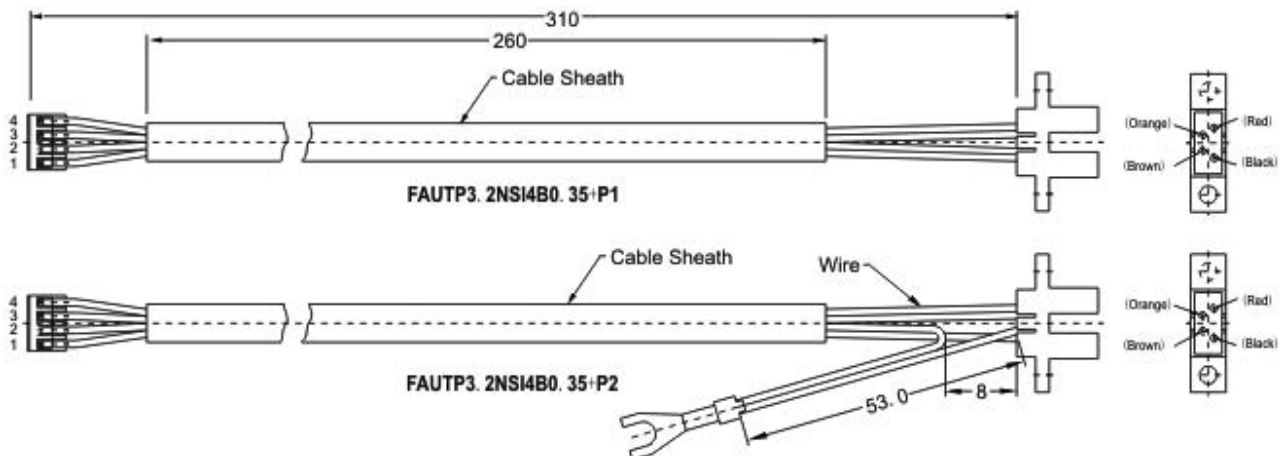
Dimensions (unit: mm)



Wire color code and functions are:

- Black: IRED Anode
- Orange: Detector Collector
- Brown: IRED Cathode
- Red: Detector Emitter

Outline: (unit: mm)



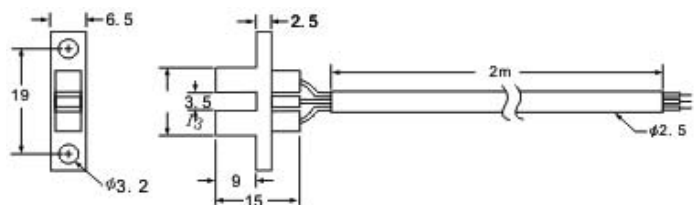
U SERIES PHOTOELECTRIC SENSOR

Type	U Series -C	U Series -D
Sensing Mode	Through-beam	Through-beam
Sensing Schematic		
Sensing Range	3.5mm	3.5mm
Supply Voltage	5-24VDC	5-24VDC
Ripple	<10%	<10%
Lightproof Current	<10mA	50-100mA
Incident Current	50-100mA	<10mA
Max. Output Current	100mA	100mA
Switching Frequency	>1KHz	>1KHz
Lightproof Output Voltage	Appr. Power Voltage	<0.7V
Incident Output Voltage	<0.7V	Appr. Power Voltage
Min. Detection distance	Φ1mm	Φ1mm
Output Mode	Shading Light ON type	Incident Light ON type
Output	NPN, Max. Current=100mA	NPN, Max. Current=100mA
Emitting Element	Infrared (880nm)	Infrared (880nm)
Protection Category	IP65	IP65
Operating Temperature	-25℃ - +70℃	-25℃ - +70℃
Slot Width	3.5mm	3.5mm
Short Circuit Protection	No	No
Indicator	Red LED when "ON" output	Red LED when "ON" output
Weight	approx.45 g	approx.45 g
Housing Material	PBT	PBT
2m PVC Cable (2.6 ∅ 3x0.15)	PPU3.2-T3.5N-A4V2-C	PPU3.2-T3.5N-A4V2-D

Picture



Dimensions (unit: mm)



Wiring Diagram

