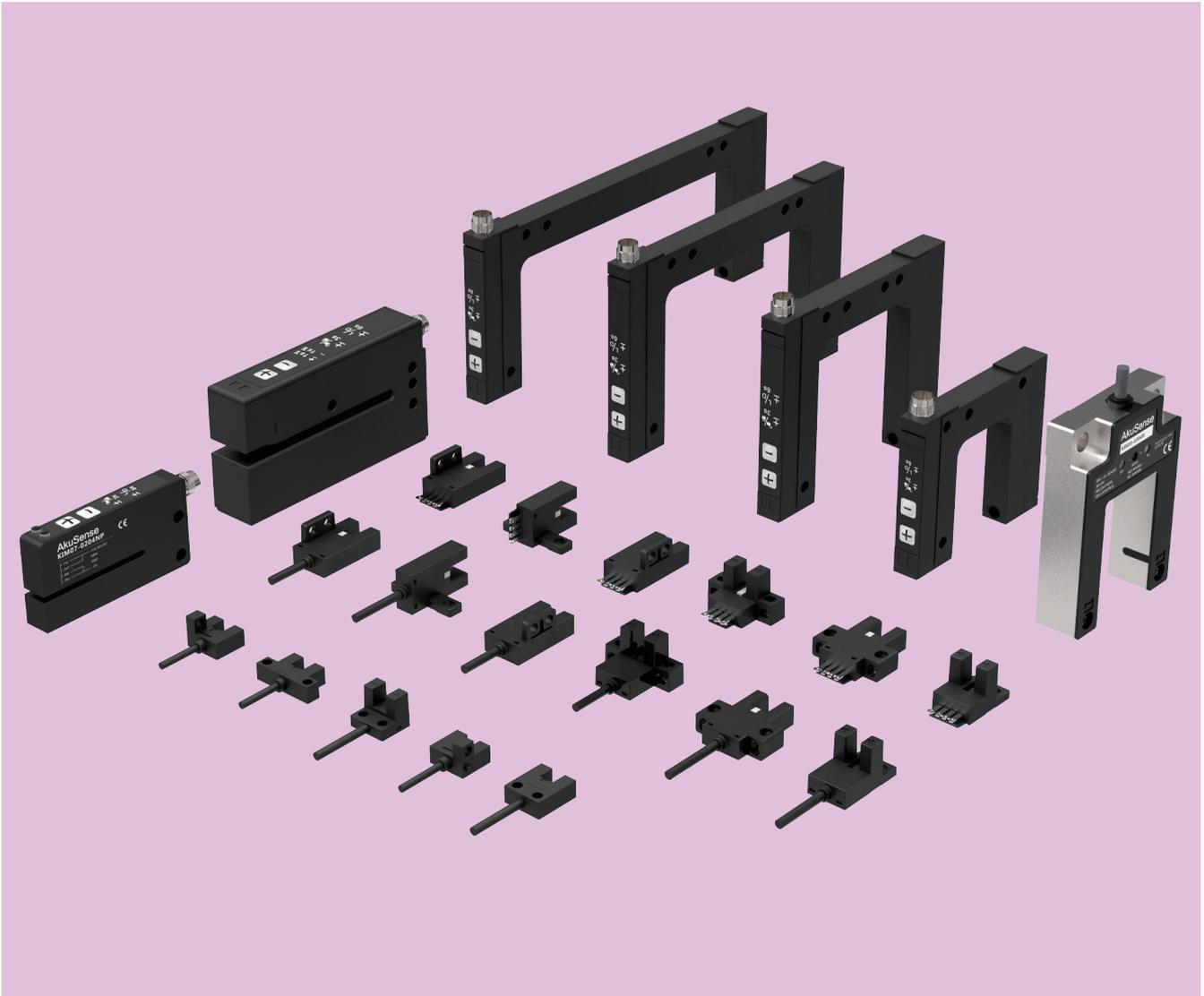


Slot-Type Sensors

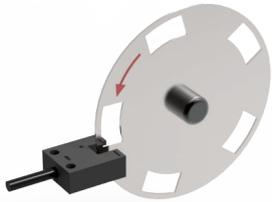


- ⦿ Multiple product line, slot width ranges from 5mm to 120mm
- ⦿ Mircoslot sensors can fully substitute for the popular models from other well-known brands.
- ⦿ Label sensors are equipped with standard teach-in function, can stably detect various labels.
- ⦿ Can be customized according to clients' requirements, such as oil resistance, drag chain, etc.

- Fiber Optic
- Slot Sensors**
- Photoelectric
- Laser
- Proximity
- Displacement
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Code Readers
- Vibration
- Temperature
- Accessories

Guidance

- Slot type sensors**
- Micro slot type
- Slot type
- Wide slot type
- Label detection



Micro Slot Type

- Newly developed products, competitive price and good quality
- Derived from Japanese advanced technology, excellent performance
- 6.5mm slot depth (effectively prevents detected objects from hitting the bottom of the slots)

P.B-04



HOT

Slot Type

- Available in pre-wired and connector type, 12 specifications such as F/T/R/L/K.T for option
- NO/NC output (easy wiring)
- 8.5 mm slot depth (prevents detected objects from hitting the bottom of the slot to a large extent)

P.B-06

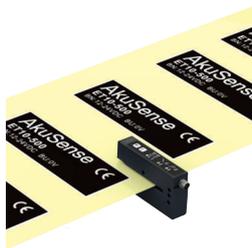


NPN and PNP in one

Wide Slot Type

- Flexible to switch NPN and PNP output
- Provide laser and infrared light sources according to different needs
- Various wide slots are available, 30mm, 50mm, 80mm, 120mm, etc.

P.B-10



Label Detection Type

- Stably detects those labels with 2mm gaps or 2mm lengths.
- With two-point and single-point teaching function
- Infrared detection and ultrasonic detection are available

P.B-12

Micro Slot Type

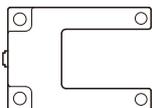
Series	Appearance	Slot width	Model number		Pages	
			NPN Normally open	PNP Normally open		
Micro slot type(4-wire)		K shape	5mm	D.on/ L.on	SK-206NA-W SK-206PA-W	B-04
		L shape	5mm	D.on/ L.on	SL-205NA-W HOT SL-205PA-W	
		F shape	5mm	D.on/ L.on	SF-202NA-W SF-202PA-W	
		R shape	5mm	D.on/ L.on	SR-204NA-W SR-204PA-W	
		U shape	5mm	D.on/ L.on	SU-201NA-W SU-201PA-W	

Slot Type

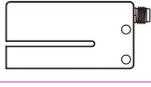
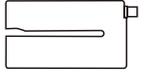
Series	Appearance	Slot width	Model number		Pages		
			When detecting objects	When not detecting objects			
Slot type(Pre-wired)		F shape	5mm	Light on when detecting object	SF-302N-W	SF-302P-W	B-06
				Light off when detecting object	SF-302NA-W	SF-302PA-W	
		T shape	5mm	Light on when detecting object	ST-303N-W	ST-303P-W	
				Light off when detecting object	ST-303NA-W	ST-303PA-W	
		R shape	5mm	Light on when detecting object	SR-304N-W	SR-304P-W	
				Light off when detecting object	SR-304NA-W	SR-304PA-W	
		L shape	5mm	Light on when detecting object	SL-305N-W	SL-305P-W	
				Light off when detecting object	SL-305NA-W	SL-305PA-W	
		K shape	5mm	Light on when detecting object	SK-306N-W	SK-306P-W	
				Light off when detecting object	SK-306NA-W	SK-306PA-W	
		Y shape	5mm	Light on when detecting object	SY-307N-W	SY-307P-W	
				Light off when detecting object	SY-307NA-W	SY-307PA-W	
Slot type (Connector type)		F shape	5mm	Light on when detecting object	SF-302N-E	SF-302P-E	B-08
				Light off when detecting object	SF-302NA-E	SF-302PA-E	
		T shape	5mm	Light on when detecting object	ST-303N-E	ST-303P-E	
				Light off when detecting object	ST-303NA-E	ST-303PA-E	
		R shape	5mm	Light on when detecting object	SR-304N-E	SR-304P-E	
				Light off when detecting object	SR-304NA-E	SR-304PA-E	
		L shape	5mm	Light on when detecting object	SL-305N-E	SL-305P-E	
				Light off when detecting object	SL-305NA-E	SL-305PA-E	
		K shape	5mm	Light on when detecting object	SK-306N-E	SK-306P-E	
				Light off when detecting object	SK-306NA-E	SK-306PA-E	
		Y shape	5mm	Light on when detecting object	SY-307N-E	SY-307P-E	
				Light off when detecting object	SY-307NA-E	SY-307PA-E	

■ Remark: Standard 2 or 4m cable, cable length is customizable

Wide Slot Type

Series	Appearance	Slot width	Output mode	Model number	Pages
KLM		30mm	NPN & PNP dual output	KLM06-0304NP	B-10
		50mm		KLM06-0506NP	
		80mm		KLM06-0806NP	
		120mm		KLM06-1206NP	
KIM		30mm	NPN D.on/L.on	KIM30-0304N	B-11
		30mm	PNP D.on/L.on	KIM30-0304P	

Label Detection

Series	Appearance	Slot width	Min length of label	Model number		Pages
				NPN	PNP	
KIM		3mm	2mm	KIM07-0204NP		B-12
KUM		3mm	2mm	KUM08-0307N	KUM08-0307P	B-13

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- Accessories
- Guidance

- Slot type sensors**
- Mirco slot type
- Slot type
- Wide slot type
- Label detection

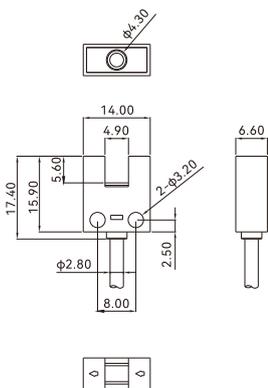
Appearance						
Shape	U shape	F shape	R shape	L shape	K shape	
Sensing distance	5mm (Slot width)					
Standard sensing object	Opaque objects (Size: >0.8*1.2mm)		Opaque objects (Size: >1.2*1.8mm)		Opaque objects (Size: >0.8*1.2mm)	
Repeat accuracy	< 0.03mm					
Output type	NPN or PNP open-collector					
Switch type	Selectable L.on/D.on					
Indicator	Light off when objects are detected; light on when no objects are detected					
Response frequency	3KHz					
Light source	Infrared LED (940nm)					
Operating voltage	5~24V DC					
Voltage drop	< 1V(Load current 50mA)					
Current brightness	≤8mA		≤16mA		≤8mA	
Protective circuit	Surge protection , Reverse polarity protection					
Ambient brightness	Incandescent lamp< 1000 Lux					
Ambient temperature	Operation: -25°C~+55°C, Storage: -30°C~+80°C, no freezing					
Ambient humidity	Operation: 5%~85%, Storage: 5%~95%, no condensation					
Withstand voltage	AC, 1000V for 1 minute, between all power connection terminals and housing					
Anti-vibration	10 to 2000 Hz with 1.5mm(Maximum acceleration 196m/s ²) amplitude for 2 hours each in X, Y, and Z directions		10 to 55 Hz with 1.5mm amplitude for 2 hours each in X, Y, and Z directions		10 to 2000 Hz with 1.5mm (Maximum acceleration 196m/s ²) amplitude for 2 hours each in X, Y, and Z directions	
Insulation resistance	20MΩ or more between all power connection terminals and housing (based on DC250V)					
Degree of protection	IP50					
Material	ABS+PC		ABS		ABS+PC	
Connection method	2M 4core cable					
Model No.	NPN PNP	SU-201NA-W SU-201PA-W	SF-202NA-W SF-202PA-W	SR-204NA-W SR-204PA-W	SL-205NA-W (HOT) SL-205PA-W	SK-206NA-W SK-206PA-W

Remarks : SL-205NA/PA-W, suggest to install with small-head or non-standard M3(diameter less than 5.2mm) screws; for other models, please take regular M3 screws for mounting.

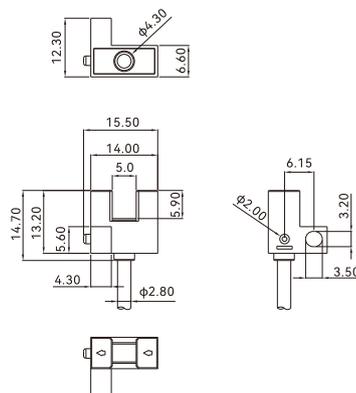
Dimensions

Unit: mm

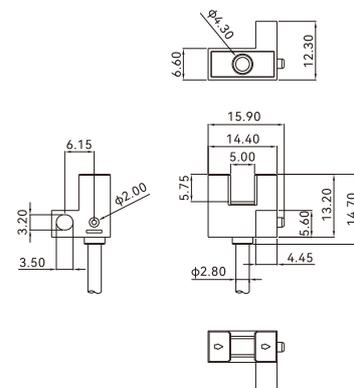
U Shape



F Shape



R Shape



- Fiber Optic
- Slot Sensors**
- Photoelectric
- Laser
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- Displacement
- Magnetic
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- Area
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- Vision
- Code Readers
- Vibration
- Temperature
- Accessories

Guidance

Slot type sensors

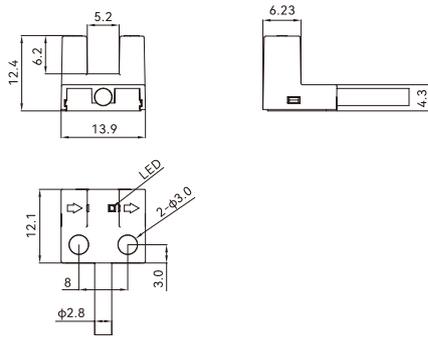
- Micro slot type**
- Slot type
- Wide slot type
- Label detection

Micro Slot Type

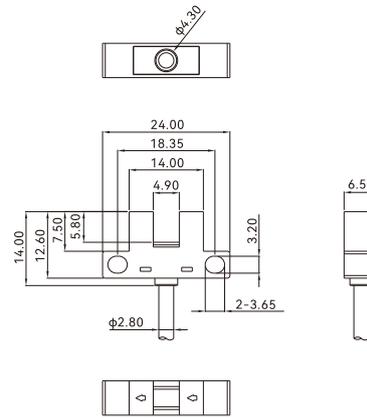
Dimensions

Unit: mm

L Shape

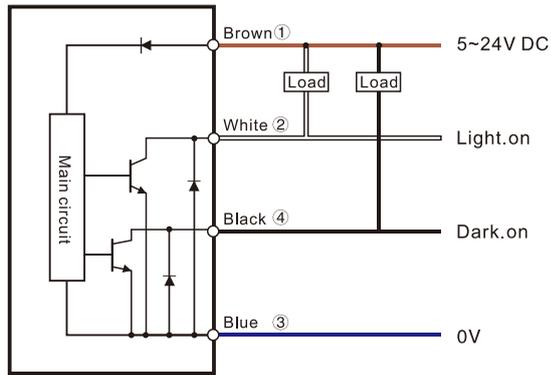


K Shape

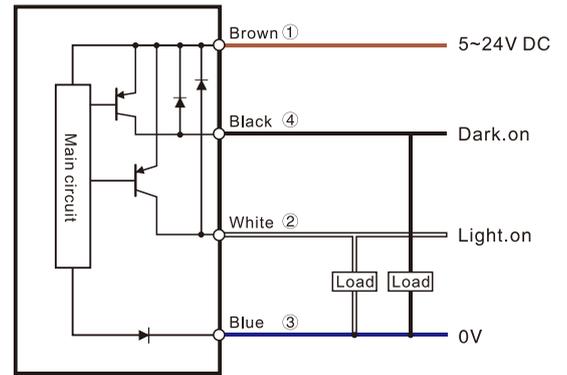


Circuit diagram

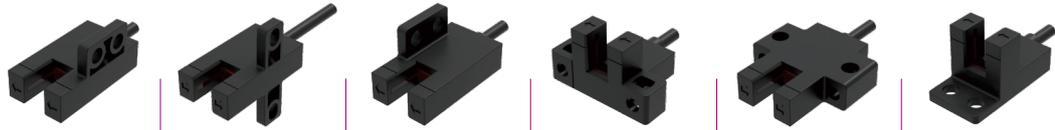
NPN



PNP



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Shape	F Shape	T Shape	R Shape	L Shape	K Shape	Y Shape	
Sensing distance	5mm (Slot width)						
Standard sensing object	Opaque objects (Size: 1.2*1.8mm)						
Repeat accuracy	< 0.03mm						
Output type	NPN or PNP open-collector						
Switch type	Selectable L.on/D.on						
Indicator	Red LED						
Response frequency	3KHz						
Response time	≤0.3ms						
Light source	Infrared LED (940nm)						
Operating voltage	5~24V DC						
Voltage drop	< 1.5V (load current 100mA, 2m cable length)						
Current consumption	< 20mA						
Protective circuit	Surge protection, Reverse polarity protection						
Ambient temperature	Operation: -25°C~+55°C, Storage: -30°C~+80°C, no freezing						
Ambient humidity	Operation: 5%~85%, Storage: 5%~95%, no condensation						
Ambient brightness	Incandescent lamp ≤1000Lux						
Withstand voltage	AC, 1000V 1 minute between all supply terminals connected to the housing						
Vibration resistance	10 to 55 Hz with 1.5mm amplitude for 2 hours each in X, Y, and Z directions						
Insulation resistance	Between all supply terminals connected with the housing, 20MΩ or more (based DC250V)						
Degree of protection	IP50						
Material	PC						
Connection method	2M 4core cable						
NPN	Light on when objects are detected	SF-302N-W	ST-303N-W ^(HOT)	SR-304N-W	SL-305N-W ^(HOT)	SK-306N-W	SY-307N-W ^(HOT)
	Light off when objects are detected	SF-302NA-W	ST-303NA-W ^(HOT)	SR-304NA-W	SL-305NA-W ^(HOT)	SK-306NA-W	SY-307NA-W ^(HOT)
PNP	Light on when objects are detected	SF-302P-W	ST-303P-W	SR-304P-W	SL-305P-W	SK-306P-W	SY-307P-W
	Light off when objects are detected	SF-302PA-W	ST-303PA-W	SR-304PA-W	SL-305PA-W	SK-306PA-W	SY-307PA-W

Remarks: SL-305NA/PA-W, suggest to install with small-head or non-standard M3(diameter less than 5.2mm) screws; SK-306NA/PA-W, suggest to install with universal M3.5 screws; for other models, please take regular M3 screws for mounting

- Fiber Optic
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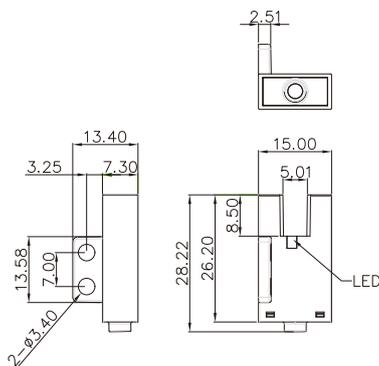
Guidance

- Slot type sensors
- Micro slot type
- Slot type**
- Wide slot type
- Label detection

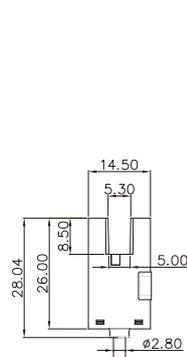
Dimensions

Unit: mm

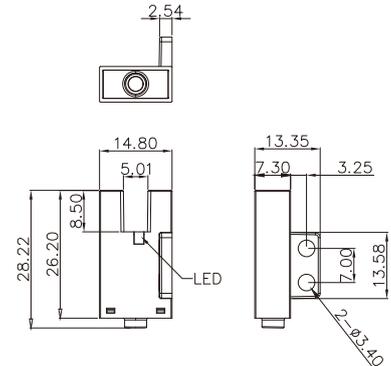
F Shape



T Shape



R Shape

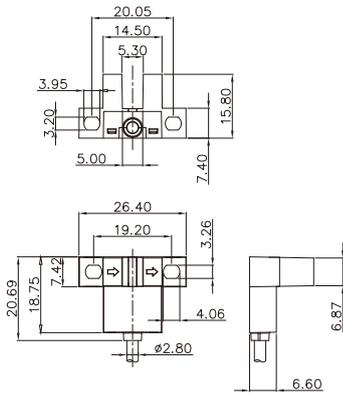


Slot Type

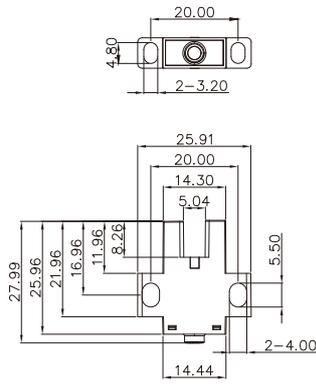
Dimensions

Unit: mm

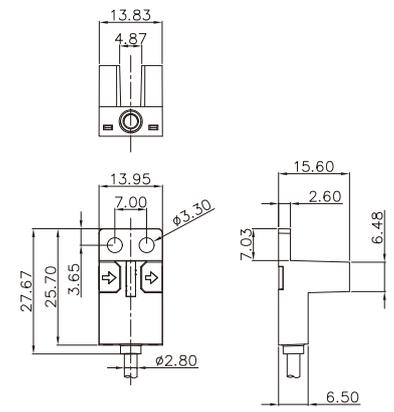
L Shape



K Shape

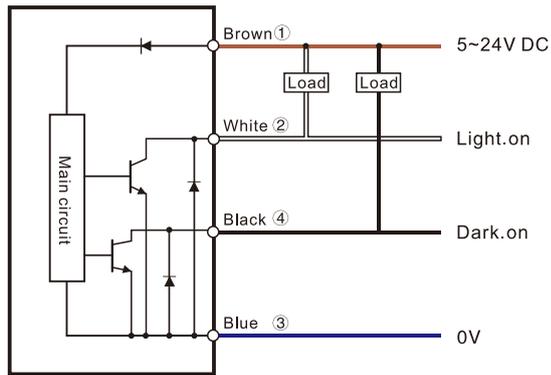


Y Shape

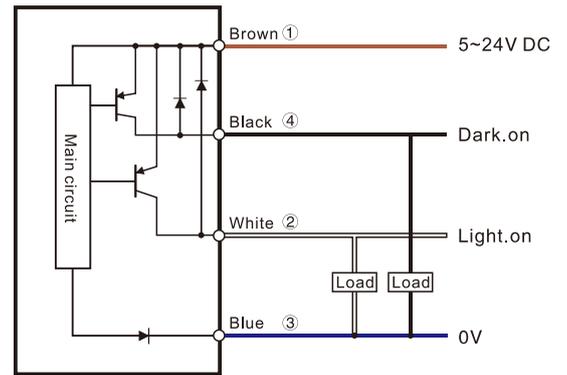


Circuit diagram

NPN



PNP



- Fiber Optic
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- Mirco slot type
- Slot type
- Wide slot type
- Label detection

Appearance						
Shape	F Shape	T Shape	R Shape	L Shape	K Shape	Y Shape
Sensing distance	5mm (Slot width)					
Standard sensing objects	Opaque objects (Size:1.2*1.8mm)					
Repeat accuracy	< 0.03mm					
Output type	NPN or PNP open-collector					
Switch type	Selectable L.on/D.on					
Indicator	Red LED					
Response frequency	3KHz					
Response time	≤0.3ms					
Light source	Infrared LED(940nm)					
Operating voltage	5~24V DC					
Voltage drop	0.2V or less (load current 10mA), 1.5V or less (load current 100mA)					
Current consumption	<20mA					
Protective circuit	Surge protection , Reverse polarity protection					
Ambient temperature	Operation: -25°C~+55°C, Storage: -30°C~+80°C, no freezing					
Ambient humidity	Operation: 5%~85%, Storage: 5%~95%, no condensation					
Ambient brightness	Incandescent lamp ≤1000Lux					
Withstand voltage	AC, 1000V 1 minute between all supply terminals connected to the housing					
Vibration resistance	10 to 55 Hz with 1.5mm amplitude for 2 hours each in X, Y, and Z directions					
Insulation resistance	Between all supply terminals connected with the housing, 20MΩ or more (based DC250V)					
Degree of protection	IP50					
Material	PC					
Connection method	Connector					
NPN	Light on when objects are detected SF-302N-E	Light on when objects are detected ST-303N-E (HOT)	Light on when objects are detected SR-304N-E	Light on when objects are detected SL-305N-E (HOT)	Light on when objects are detected SK-306N-E	Light on when objects are detected SY-307N-E (HOT)
	Light off when objects are detected SF-302NA-E	Light off when objects are detected ST-303NA-E (HOT)	Light off when objects are detected SR-304NA-E	Light off when objects are detected SL-305NA-E (HOT)	Light off when objects are detected SK-306NA-E	Light off when objects are detected SY-307NA-E (HOT)
PNP	Light on when objects are detected SF-302P-E	Light on when objects are detected ST-303P-E	Light on when objects are detected SR-304P-E	Light on when objects are detected SL-305P-E	Light on when objects are detected SK-306P-E	Light on when objects are detected SY-307P-E
	Light off when objects are detected SF-302PA-E	Light off when objects are detected ST-303PA-E	Light off when objects are detected SR-304PA-E	Light off when objects are detected SL-305PA-E	Light off when objects are detected SK-306PA-E	Light off when objects are detected SY-307PA-E

Remarks: SL-305NA/PA-E, suggest to install with small-head or non-standard M3(diameter less than 5.2mm) screws; SK-306NA/PA-E, suggest to install with universal M3.5 screws; for other models, please take regular M3 screws for mounting
Cable: ME-1007 (P:O-11)

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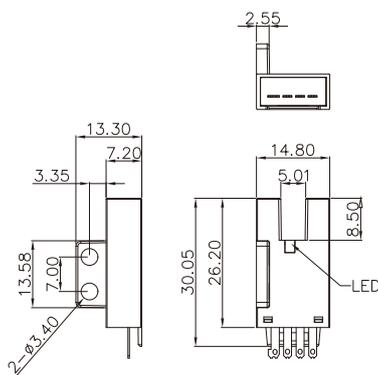
Guidance

- Slot type sensors
- Micro slot type
- Slot type**
- Wide slot type
- Label detection

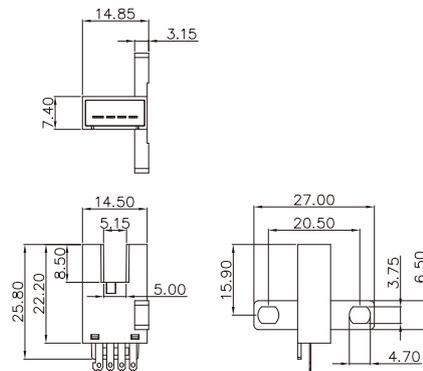
Dimensions

Unit: mm

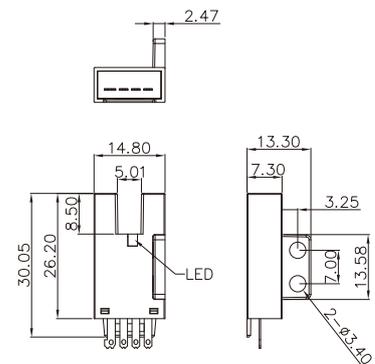
F Shape



T Shape



R Shape



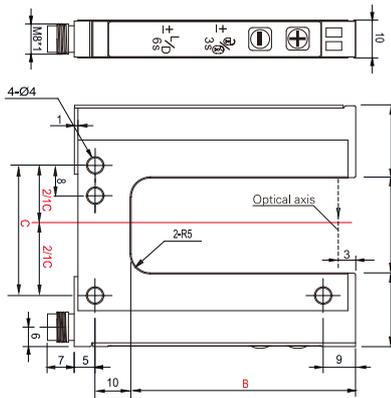


Appearance

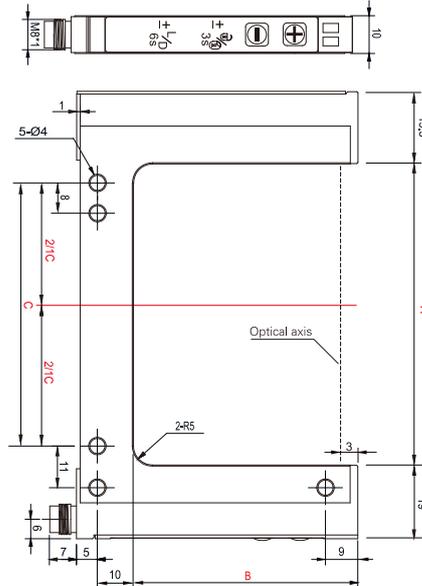
Slot depth	42mm	59mm	59mm	59mm
Slot width	30mm	50mm	80mm	120mm
Sensing distance	30mm	50mm	80mm	120mm
Diameter of the min detector	0.05mm			
Output mode	NPN & PNP dual output			
Switch mode	Selectable L.on/D.on			
Light source	Laser (670nm) modulated light, class1			
Ambient brightness	≤ 10000Lux			
Operating voltage	12~24V DC ± 10%			
No-load current	40mA			
Load current	100mA			
Residual voltage	< 2V@1L=100mA			
Response frequency	10KHz			
Protective circuit	Reverse polarity protection, Output short circuit protection, Interference suppression			
Ambient temperature	-20°C~+50°C			
Storage temperature	-30°C~+80°C			
Degree of protection	IP65			
Housing shell material	Al, glass			
Connection method	M8 4pin plug			
Weight	55g to 128g			
Model No.	KLM06-0304NP	KLM06-0506NP	KLM06-0806NP	KLM06-1206NP

Dimensions

Umit: mm



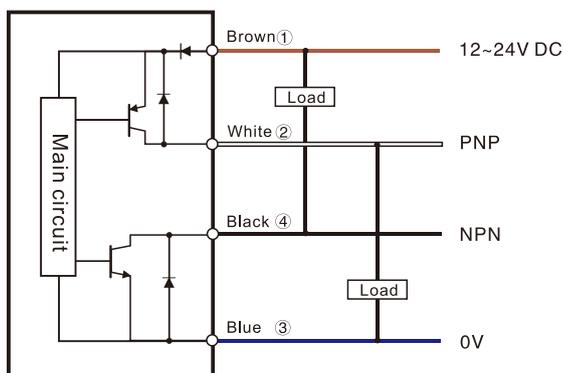
Model number	A	B	C
KLM06-0304NP	30	42	42



Model number	A	B	C
KLM06-0506NP	50	59	40
KLM06-0806NP	80	59	70
KLM06-1206NP	120	59	110

Circuit diagram

NPN/PNP



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- Micro slot type
- Slot type
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- Label detection

Wide Slot Type

KIM Series

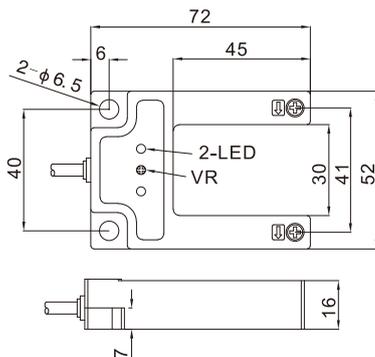


Appearance

Detection method	Thru-beam
Sensing distance	30mm
Output mode	NPN and PNP open collector
Switch mode	Selectable L.on/D.on
Standard test object	Opaque objects diameter>2mm
Output instructions	Yellow LED
Response time	≤1ms
Light source	Infrared LED (modulation)
Operating voltage	12~24V DC
Residual voltage	≤2.5V DC
Current consumption	≤15mA
Load current	≤200mA
Circuit protection	Reverse polarity protection, short circuit protection
Ambient temperature	-15°C~+55°C
Withstand voltage	1000V/AC 50/60Hz 1 minute
Shock resistance	10 to 50 Hz with 1.5mm amplitude for 2 hours each in X, Y, and Z directions
Impact resistance	500m/s ² (50G), 3 times in XYZ direction
Insulation resistance	≥50MΩ/500V DC
Degree of protection	IP60
Material	Aluminum alloy
Connection	2M 4core cable
Model No.	NPN D.on/L.on KIM30-0304N PNP D.on/L.on KIM30-0304P

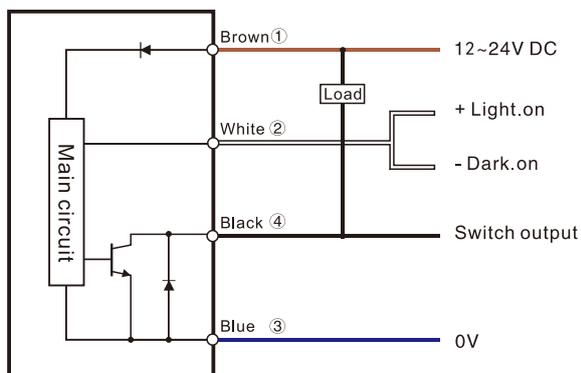
Dimensions

Unit: mm

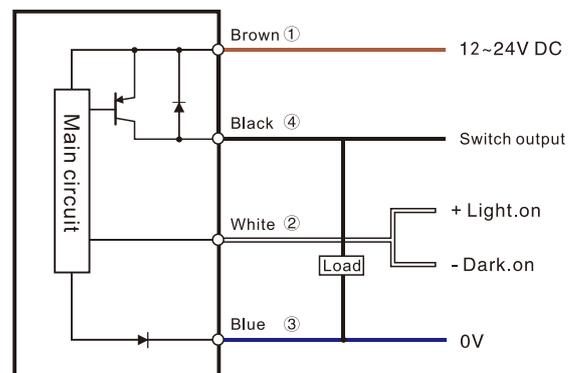


Circuit diagram

NPN



PNP



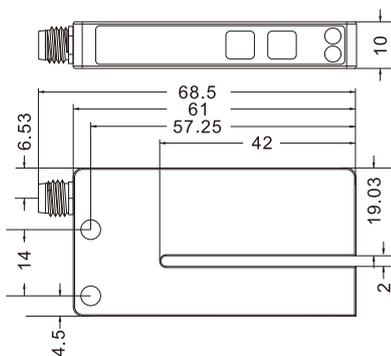


Appearance

Sensing distance	2mm
Slot depth	42mm
Slot width	3mm
Light source	Infrared light (940nm)
Switch mode	Selectable L.on/D.on
Operating voltage	12~24V DC \pm 10%
No-load current	40mA
Load current	100mA
Response frequency	10KHz
Response time	\leq 20 μ s
Protection circuit	Reverse polarity protection, Output short circuit protection; Interference suppression
Protection degree	IP65
Material	Aluminum
Connection method	M8 4-pin connector
Weight	35g
Output method	NPN/PNP
Ambient brightness	Sunlight \leq 10000Lux
Model No.	KIM07-0204NP

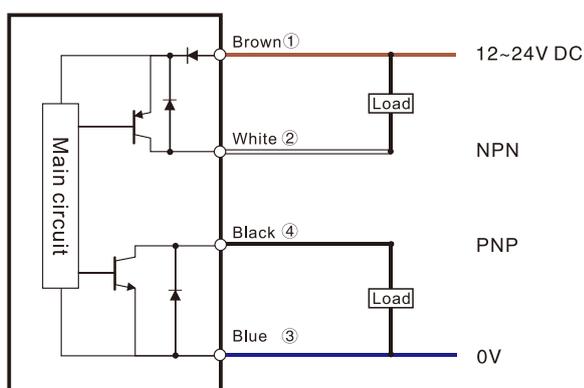
Dimensions

Unit: mm



Circuit diagram

NPN/PNP



Fiber Optic

Slot Sensors

Photoelectric

Laser

Proximity

Displacement

Magnetic

Contact

Area

Ultrasonic

Vision

Code Readers

Vibration

Temperature

Accessories

Guidance

Slot type sensors

Micro slot type

Slot type

Wide slot type

Label detection

Label Detection

KUM Series

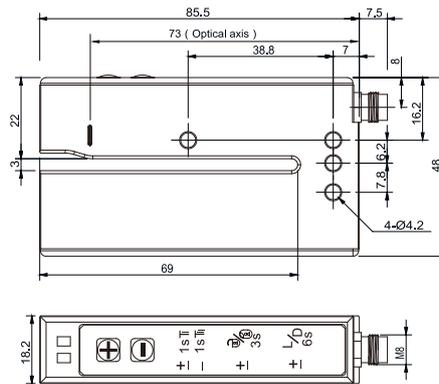
Slot Type



Appearance

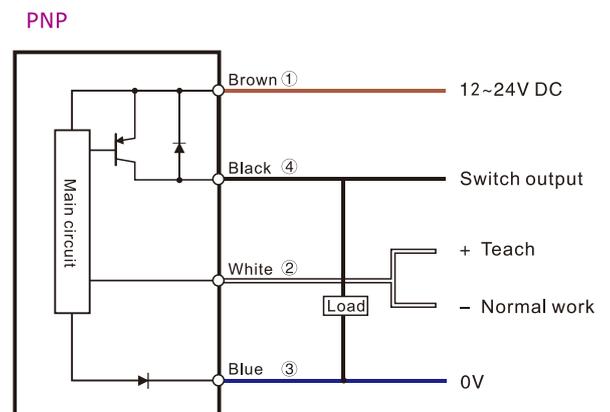
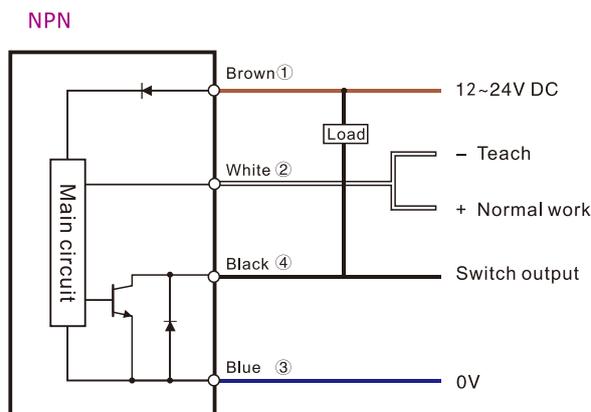
Sensing distance	3mm
Min length of label	2mm
Min gap of label	2mm
Slot depth	69mm
Slot width	3mm
Emitter	Ultrasonic
Max detection speed	180m/min
Repeat accuracy	± 0.20mm(120m/min)
Switch mode	Selectable L.on/D.on
Operating voltage	12~24V DC ± 10%
No-load current	45mA
Load current	100mA
Residual voltage	< 2V@1L=100mA
Response frequency	1500Hz
Response time	300 μs
Circuit protection	Output short circuit protection; Interference suppression
Operating temperature	-5~+55°C
Storage temperature	-20~+70°C
Degree of protection	IP65
Housing material	Aluminum
Connection method	M8 4-pin connector
Weight	130g
Mode	NPN KUM08-0307N
	PNP KUM08-0307P

Dimensions



Unit: mm

Circuit diagram



Fiber Optic

Slot Sensors

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Slot type sensors

Micro slot type

Slot type

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Label detection