Wide Slot Type

KLM Series

Basic Features	Working principle	Photoelectric sensor			
	Housing style	Shape U			
	Optical working principle	Through-beam			
	Light source	Red laser, 670nm (modulated)			
	Slot width	30mm	50mm	80mm	120mm
	Slot depth	42mm	59mm		
	Detecting object	0.05mm			
	Indicator light	Output function: Red LED, operational status: Green LED			
Electrical data	Switching mode	L.on (light-on action)/D.on (dark-on action) switchable			
	Output mode	NPN or PNP collector open			
	Response time	0.1ms			
	Switching frequency	20kHz			
	Repeat accuracy	<0.01mm		<0.2mm	<0.01mm
	Hysteresis	<0.01mm		<0.2mm	<0.01mm
	Operating voltage	12~24V DC ± 10%			
	Power consumption	≤40mA			
	Residual voltage	≤2.0V(100mA)			
	Load current	≤100mA(24VDC)			
	Insulation resistance	≥50MΩ(500VDC)			
	Withstand voltage	1000VAC (50/60Hz)			
	Protection circuit	Reverse polarity protection/short-circuit protection			
Environmental conditions	Operating temperature	−20~50℃(no freezing)			
	Storage temperature	−30~80℃(no freezing)			
	Operating humidity	35~85%RH(no condensation)			
	Storage humidity	35~95%RH(no condensation)			
	Environmental illumination	Incandescent light ≤1000 Lux; LED light ≤1000 Lux; Sunlight ≤10000 Lux			
	Vibration resistance	10~55Hz, amplitude 1.5mm, 2 hours each in X/Y/Z axes			
	Protection rating	IP65			
Mechanical data	Connection method	M8/4-pin plug			
	Dimensions	57.0x10.0x68.5mm	74.0x10.0x88.5mm	74.0x10.0x118.5mm	74.0x10.0x158.5mm
	Material	Aluminum, glass			
	Weight	0.043kg	0.058kg	0.068kg	0.081kg
	Accessories	—			
	Model	KLM06-0304NP	KLM06-0506NP	KLM06-0806NP	KLM06-1206NP

Unit：mm
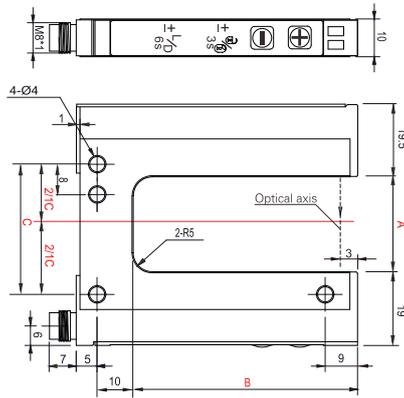
Model number	A	B	C
KLM06-0304NP	30	42	42
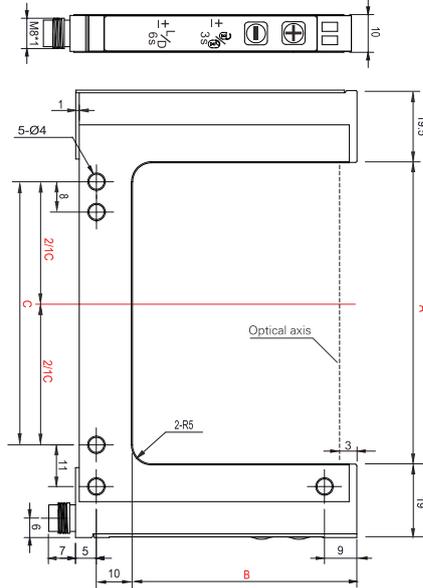
Model number	A	B	C
KLM06-0506NP	50	59	40
KLM06-0806NP	80	59	70
KLM06-1206NP	120	59	110

Circuit diagram

NPN/PNP

Main circuit

Brown ① — 12~24V DC
Load
White ② — NPN

Black ③ — PNP
Load
Blue ④ — 0V
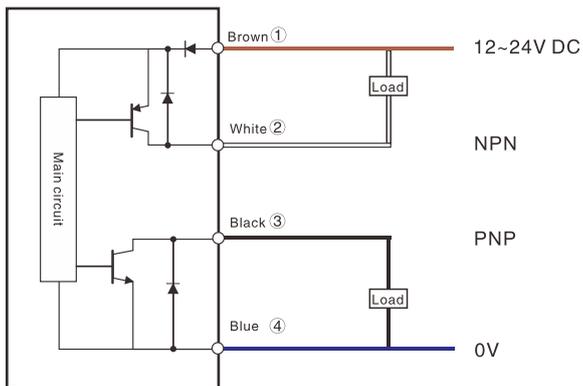
Fiber Optic
Slot Sensors
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Area
Ultrasonic
AI Image
Code Readers
Vibration
Temperature
RFID
Safety door lock
Pressure Switch
Communication
Accessories

Guidance

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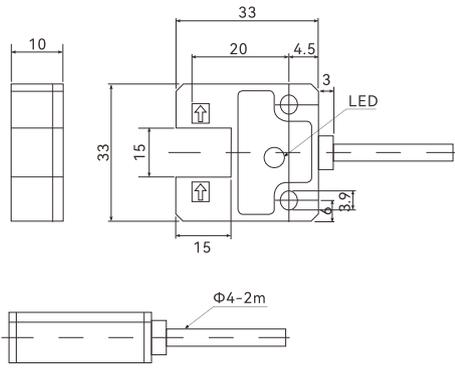Wide slot type
Label detection

Wide Slot Type

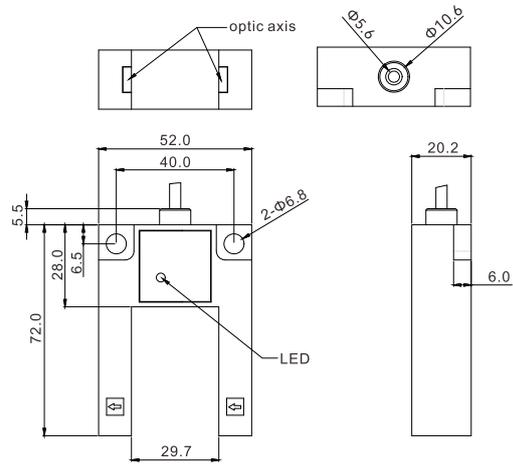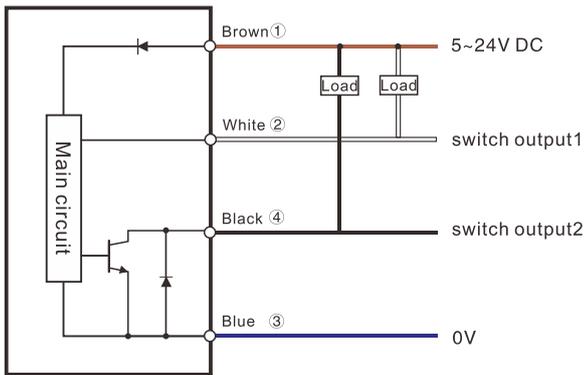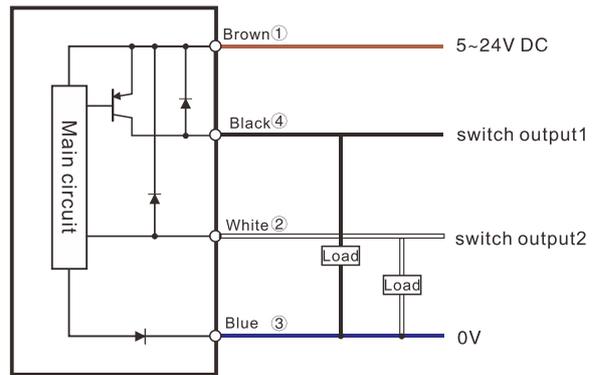## KIM Series

Basic Features	Working principle	Photoelectric sensor	
	Housing style	Shape U	
	Optical working principle	Through-beam	
	Light source	Infrared LED, 940nm(modulated)	
	Slot width	15mm	30mm
	Slot depth	15mm	44m
	Detecting object	2mm	
	Indicator light	Output function: Yellow LED	
Electrical data	Switching mode	L.on (light-on action)/D.on (dark-on action) switchable	
	Output mode	NPN or PNP collector open	
	Response time	0.5ms	1ms
	Switching frequency	0.5kHz	2kHz
	Repeat accuracy	<1%	<0.03mm
	Hysteresis	≤2%	<0.03mm
	Operating voltage	12~24V DC ± 10%	
	Power consumption	≤15mA	
	Residual voltage	≤1.5V(100mA)	≤2.5V(100mA)
	Load current	≤100mA(24VDC)	
	Insulation resistance	≥20MΩ(500VDC)	≥50MΩ(500VDC)
	Withstand voltage	1000VAC (50/60Hz)	
	Protection circuit	Reverse polarity protection	Reverse polarity protection/short-circuit protection
Environmental conditions	Operating temperature	−10~55℃(no freezing)	−15~55℃(no freezing)
	Storage temperature	−20~60℃(no freezing)	−25~80℃(no freezing)
	Operating humidity	35~85%RH(no condensation)	35~95%RH(no condensation)
	Storage humidity	35~95%RH(no condensation)	
	Environmental illumination	Incandescent light ≤2000 Lux；Sunlight ≤1000 Lux	LED light ≤500 Lux
	Vibration resistance	10~50Hz, amplitude 1.5mm, 2 hours each in X/Y/Z axes	
	Protection rating	IP54	IP60
Mechanical data	Connection method	2m/4-core cable	
	Dimensions	10.0x33.0x33.0mm	52.0x20.2x72.0mm
	Material	ABS	
	Weight	0.025kg	0.065kg/0.019kg
	Accessories	−	
Model	NPN	**KIM15-0101N**	**KIM30-0304N-J**
	PNP	**KIM15-0101P**	**KIM30-0304P-J**

KIM15-0101N/P

33
10
20   4.5
33
15
3
LED
15
3.9
Φ4-2m

KIM30-0304N/P-J

optic axis
Φ5.6   Φ10.6
52.0
40.0
5.5
28.0
6.5
72.0
2-Φ6.8
LED
29.7
20.2
6.0

Circuit diagram

NPN

Main circuit

Brown①   5~24V DC
Load Load
White ②   switch output1
Black ④   switch output2
Blue ③   0V

PNP

Main circuit

Brown①   5~24V DC
Black④   switch output1
White②   switch output2
Load
Load
Blue ③   0V