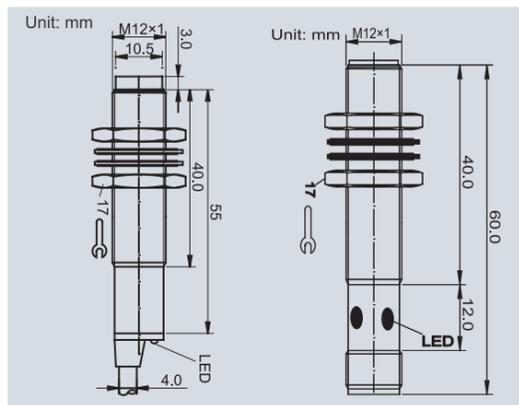


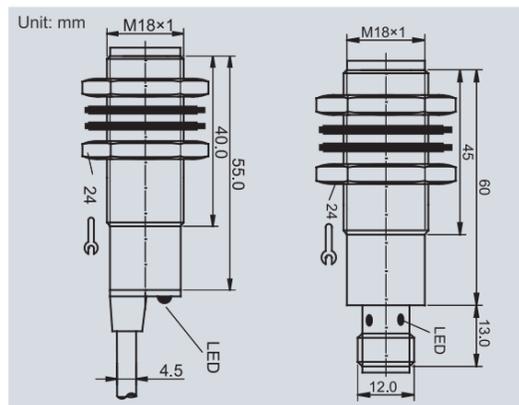
Dimension
Connection



M12×1
Wires



M18×1
Wires / Connector



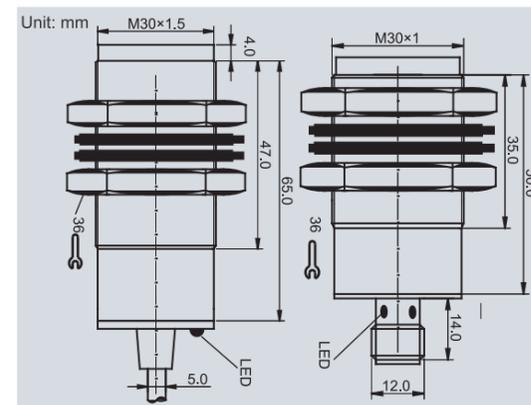
	T: Through beam	R: Retro-reflective	D: Diffused	T: Through beam	R: Retro-reflective	D: Diffused
Mounting distance Sn	3m	/	10cm	10m	3m	10/30/50cm
Output type	Code					
PNP	DC 3 wires	NO	PES(I/L)-T12	/	PES(I/L)-D12	PES(I/L)-T18
		NC	-PO3MD	/	-PO10D	-PO10MD
		NO+NC	-PC3MD	/	-PC10D	-PC10MD
NPN	DC 3 wires	NO	/	/	/	-POC10MD
		NC	-NO3MD	/	-NO10D	-NO10MD
		NO+NC	-NC3MD	/	-NC10D	-NC10MD
DC 2 wires	NO	/	/	/	/	-NOC10MD
		NC	/	/	/	/
AC 2 wires	NO	/	/	/	/	-AO10MA
		NC	/	/	/	-AO3MA
Relay	AC/DC 24~250V	/	/	/	/	-AC10MA
		/	/	/	/	-AC3MA
		/	/	/	/	-AO10(30)A
		/	/	/	/	-AC10(30)A

Rated operational voltage(DC/AC)	10...30 V DC	10...30 V DC / AC 90~250V
Voltage drop	≤ 2 V	≤ 2 V
Rated insulation voltage	≥20MΩ	≥20MΩ
Load current capacity(DC/AC)	200mA	DC: 200mA / AC: 300mA
Max.Off-state current (NPN/PNP)	≤ 20 mA	≤ 20 mA
Leak current	≤ 20 μA	≤ 20 μA
Against polarity reversal	YES	YES

Response time	Through beam: <5ms / Diffused: <3ms	Through beam: <5ms / Retro, diffused relective: <3ms
Working angle (T/R)	< 3~20°	< 3~20° / < 1~5°
Difference distance	< 15%	< 15%
Function indication	Red LED Indicator	Red LED Indicator
Detect mode	Infrared LED	Infrared LED
Ambient light	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx
IP rating (IEC60529)	IP67	IP67
Housing material	Nickle plated brass	Nickle plated brass
Connection mode	Wires	Wires / Connector
Cable length (standard)	2m	2m
Ambient temperature	-10...+55 °C	-10...+55 °C

- 1.For connection drawing, please refer to instruction manual.
- 2.Cable and housing of sensor can be special ordered.
3. DC5V or AC 24~250V can be special ordered.

M30×1.5
Wires / Connector

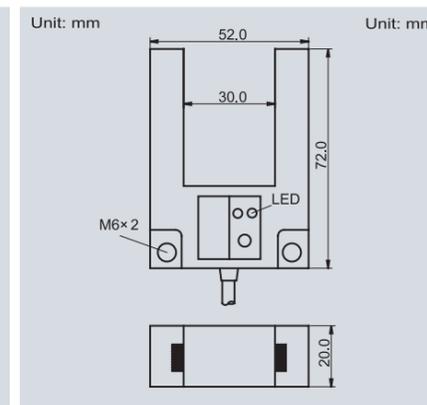


T: Through beam	R: Retro-reflective	D: Diffused
20m	4m	1m
PES(I/L)-T30	PES(I/L)-R30	PES(I/L)-D30
-PO20MD	-PO4MD	-PO1MD
-PC20MD	-PC4MD	-PC1MD
-POC20MD	-POC4MD	-POC1MD
-NO20MD	-NO4MD	-NO1MD
-NC20MD	-NC4MD	-NC1MD
-NOC20MD	-NOC4MD	-NOC1MD
/	/	/
/	/	/
-AO20MA	-AO4MA	-AO1MA
-AC20MA	-AC4MA	-AC1MA
-R20MDA	-R4MDA	-R1MDA

Rated operational voltage(DC/AC)	10...30 V DC / AC 90~250V
Voltage drop	≤ 2 V
Rated insulation voltage	≥20MΩ
Load current capacity(DC/AC)	DC: 200mA / AC: 300mA
Max.Off-state current (NPN/PNP)	≤ 20 mA
Leak current	≤ 20 μA
Against polarity reversal	YES

Response time	Through beam: <5ms / Retro, diffused relective: <3ms
Working angle (T/R)	< 3~20° / < 1~5°
Difference distance	< 15%
Function indication	Red LED Indicator
Detect mode	Infrared LED
Ambient light	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx
IP rating (IEC60529)	IP67
Housing material	Nickle plated brass
Connection mode	Wires / Connector
Cable length (standard)	2m
Ambient temperature	-10...+55 °C

C20
Wires

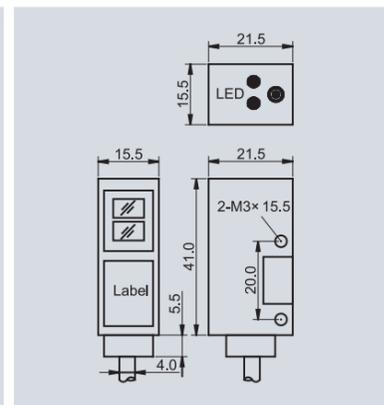


T: Through beam
3cm
PES-TC20
-PO3D
-PC3D
-POC3D
-NO3D
-NC3D
-NOC3D
/
/
/
/
/
/
/
/

Rated operational voltage(DC/AC)	10...30 V DC / AC 90~250V
Voltage drop	≤ 2 V
Rated insulation voltage	≥20MΩ
Load current capacity(DC/AC)	DC: 200mA / AC: 300mA
Max.Off-state current (NPN/PNP)	≤ 20 mA
Leak current	≤ 20 μA
Against polarity reversal	YES

Response time	Through beam: <5ms
Working angle (T/R)	3~20° / < 1~5°
Difference distance	< 15%
Function indication	Red LED Indicator
Detect mode	Infrared LED
Ambient light	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx
IP rating (IEC60529)	IP65
Housing material	ABS
Connection mode	Wires
Cable length (standard)	2m
Ambient temperature	-10...+55 °C

C41
Wires

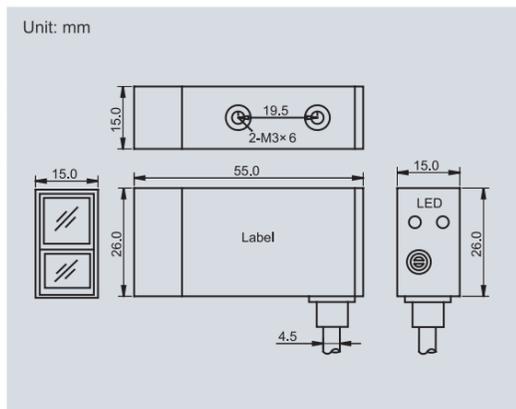


T: Through beam	D: Diffused
2m	10cm
PES-TC41	PES-DC41
-PO2MD	-PO10D
-PC2MD	-PC10D
/	/
-NO3MD	-NO10D
-NC2MD	-NC10D
/	/
/	/
/	/
/	/
/	/
/	/
/	/

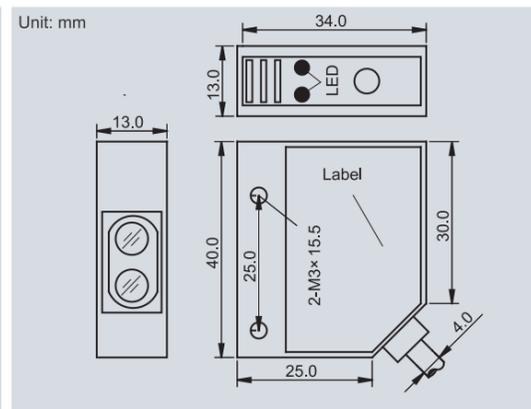
Rated operational voltage(DC/AC)	10...30 V DC
Voltage drop	≤ 2 V
Rated insulation voltage	≥20MΩ
Load current capacity(DC/AC)	200mA
Max.Off-state current (NPN/PNP)	≤ 20 mA
Leak current	≤ 20 μA
Against polarity reversal	YES

Response time	Through beam: <5ms / diffused: <3ms
Working angle (T/R)	< 3~20° / < 1~5°
Difference distance	< 15%
Function indication	Red LED Indicator
Detect mode	Infrared LED
Ambient light	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx
IP rating (IEC60529)	IP65
Housing material	ABS
Connection mode	Wires
Cable length (standard)	2m
Ambient temperature	-10...+55 °C

Diension	C26
Connection	Wires



Diension	C40
Connection	Wires

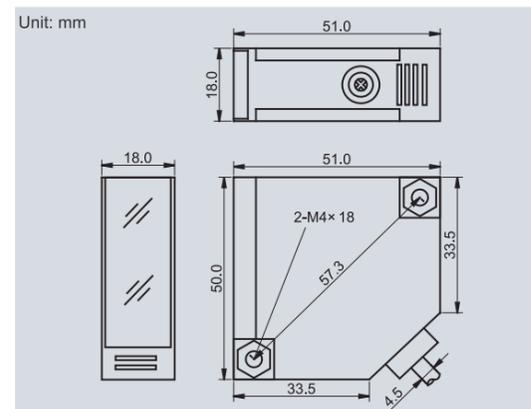


Type of reflection	T: Through beam	R: Retro-reflective	D: Diffused	T: Through beam	R: Retro-reflective	D: Diffused		
Mounting distance Sn	5m	2m	50cm	5m	2m	50cm		
Output type	Code	PES-TC26	PES-RC26	PES-DC26	PES-TC40	PES-RC40	PES-DC40	
PNP	DC 3 wires	NO	-PO5MD	-PO2MD	-PO50D	-PO5MD	-PO2MD	-PO50D
		NC	-PC5MD	-PC2MD	-PC50D	-PC5MD	-PC2MD	-PC50D
	DC 4 wires	NO+NC	-POC5MD	-POC2MD	-POC50D	-POC5MD	-POC2MD	-POC50D
NPN	DC 3 wires	NO	-NO5MD	-NO2MD	-NO50D	-NO5MD	-NO2MD	-NO50D
		NC	-NC5MD	-NC2MD	-NC50D	-NC5MD	-NC2MD	-NC50D
	DC 4 wires	NO+NC	-NOC5MD	-NOC2MD	-NOC50D	-NOC5MD	-NOC2MD	-NOC50D
DC 2 wires	NO	/	/	/	/	/	/	
	NC	/	/	/	/	/	/	
AC 2 wires	NO	/	/	/	/	/	/	
	NC	/	/	/	/	/	/	
Relay	AC/DC 24~250V	/	/	/	/	/		

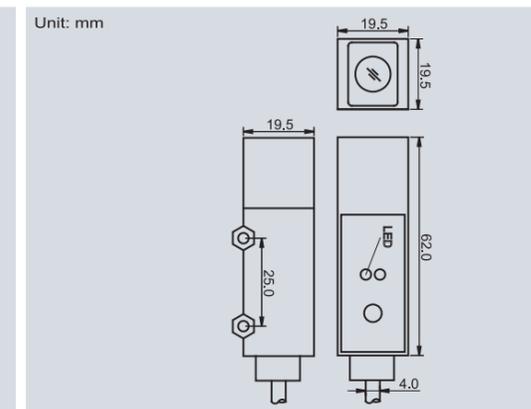
Rated operational voltage(DC/AC)	10...30 V DC	10...30 V DC
Voltage drop	≤ 2 V	≤ 2 V
Rated insulation voltage	≥20MΩ	≥20MΩ
Load current capacity(DC/AC)	200mA	DC: 200mA
Max.Off-state current (NPN/PNP)	≤ 20 mA	≤ 20 mA
Leak current	≤ 20 μA	≤ 20 μA
Against polarity reversal	YES	YES
Response time	Through beam: <5ms / Retro、diffused relective: <3ms	Through beam: <5ms / Retro、diffused relective: <3ms
Working angle (T/R)	< 3~20°	< 3~20° / < 1~5°
Difference distance	< 15%	< 15%
Function indication	Red LED Indicator	Red LED Indicator
Detect mode	Infrared LED	Infrared LED
Ambient light	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx
IP rating (IEC60529)	IP65	IP65
Housing material	ABS	ABS
Connection mode	Wires	Wires
Cable length (standard)	2m	2m
Ambient temperature	-15...+55 °C	-15...+55 °C

1.For connection drawing, please refer to instruction manual.
 2.Cable and housing of sensor can be special ordered.
 3. DC5V or AC 24~250V can be special ordered.

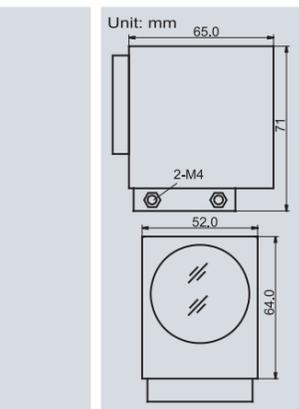
Diension	C50
Connection	Wires



Diension	C19
Connection	Wires



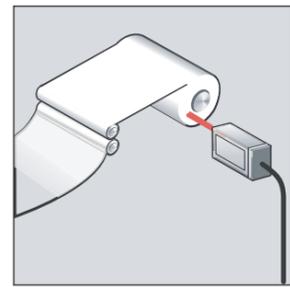
Diension	C71
Connection	Wires



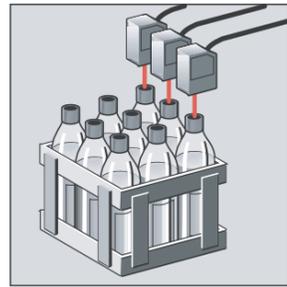
Type of reflection	T: Through beam	R: Retro-reflective	D: Diffused	T: Through beam	R: Retro-reflective	D: Diffused	T: Through beam		
Mounting distance Sn	5m	2m	30cm	6m	1m	30cm	50m		
Output type	Code	PES-TC50	PES-RC50	PES-DC50	PES-TC19	PES-RC19	PES-DC19	PES-TC71	
PNP	DC 3 wires	NO	-PO5MD	-PO2MD	-PO30D	-PO6MD	-PO1MD	-PO30D	-PO50MD
		NC	-PC5MD	-PC2MD	-PC30D	-PC6MD	-PC1MD	-PC30D	-PC50MD
	DC 4 wires	NO+NC	-POC5MD	-POC2MD	-POC30D	-POC6MD	-POC1MD	-POC30D	-POC50MD
NPN	DC 3 wires	NO	-NO5MD	-NO2MD	-NO30D	-NO6MD	-NO1MD	-NO30D	-NO50MD
		NC	-NC5MD	-NC2MD	-NC30D	-NC6MD	-NC1MD	-NC30D	-NC50MD
	DC 4 wires	NO+NC	-NOC5MD	-NOC2MD	-NOC30D	-NOC6MD	-NOC1MD	-NOC30D	-NOC50MD
DC 2 wires	NO	/	/	/	/	/	/	/	
	NC	/	/	/	/	/	/	/	
AC 2 wires	NO	/	/	/	/	/	/	/	
	NC	/	/	/	/	/	/	/	
Relay	AC/DC 24~250V	/	/	/	/	/	/	/	

Rated operational voltage(DC/AC)	10...30 V DC / AC 90~250V	10...30 V DC	10...30 V DC / AC 90~250V
Voltage drop	≤ 2 V	≤ 2 V	≤ 2 V
Rated insulation voltage	≥20MΩ	≥20MΩ	≥20MΩ
Load current capacity(DC/AC)	DC: 200mA / AC: 400mA	200mA	DC: 200mA / AC: 400mA
Max.Off-state current (NPN/PNP)	≤ 20 mA	≤ 20 mA	≤ 20 mA
Leak current	≤ 20 μA	≤ 20 μA	≤ 20 μA
Against polarity reversal	YES	YES	YES
Response time	Through beam: <5ms / Retro、diffused relective: <3ms	Through beam: <5ms	Through beam: <5ms
Working angle (T/R)	< 3~20° / < 1~5°	3~20°	< 3~20°
Difference distance	< 15%	< 15%	< 15%
Function indication	Red LED Indicator	Red LED Indicator	Red LED Indicator
Detect mode	Infrared LED	Infrared LED	Infrared LED
Ambient light	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx	Incandescence lamp: ≤3000Lx / Sun light ≤ 10000Lx
IP rating (IEC60529)	IP65	IP65	IP65
Housing material	ABS	ABS	ABS
Connection mode	Wires	Wires	Wires
Cable length (standard)	2m	2m	2m
Ambient temperature	-15...+55 °C	-15...+55 °C	-15...+55 °C

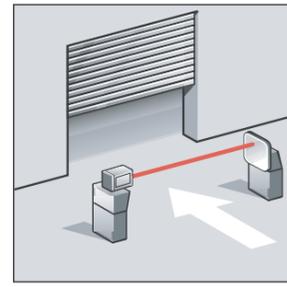
1.For connection drawing, please refer to instruction manual.
 2.Cable and housing of sensor can be special ordered.
 3. DC5V or AC 24~250V can be special ordered.



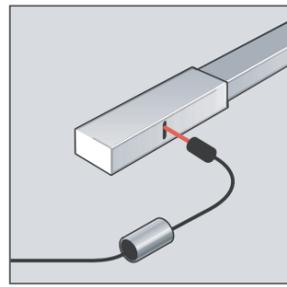
Inspect roll thickness



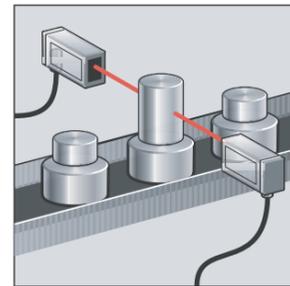
Inspect cap of container



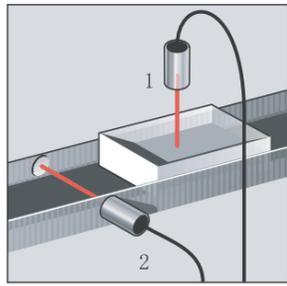
Inspect channels



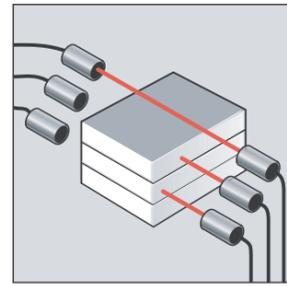
Inspect readable mark



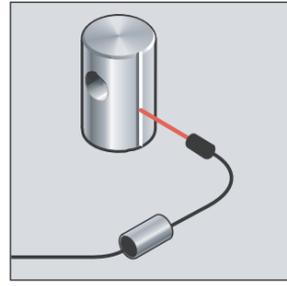
Sort out different components



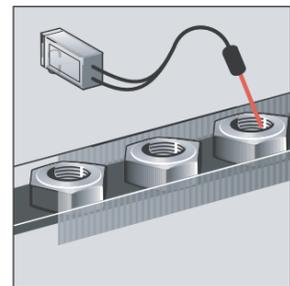
Inspect size and depth of container



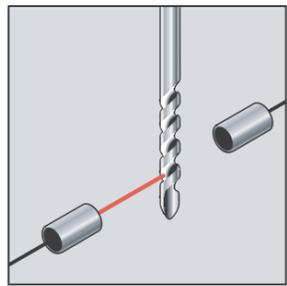
Inspect height of cumulate objects



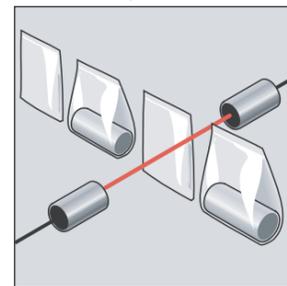
Inspect depth of slot



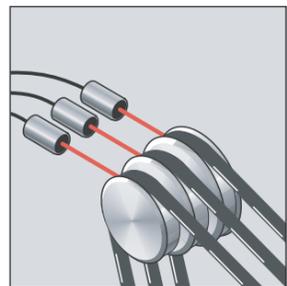
Inspect screw thread



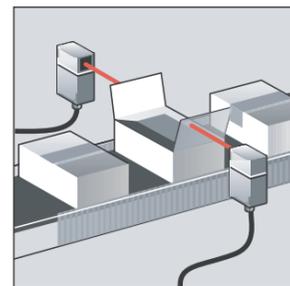
Inspect damage of aiguille



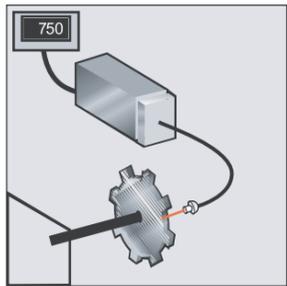
Detect defected products during packaging



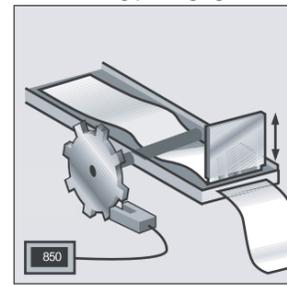
Inspect damage of chain wheel belt



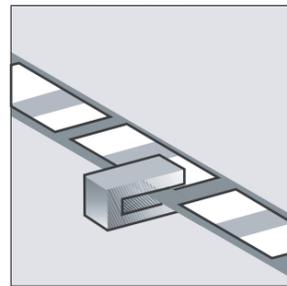
Inspect sealing status of packaging box



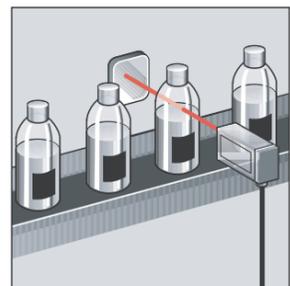
Measuring tacho speed



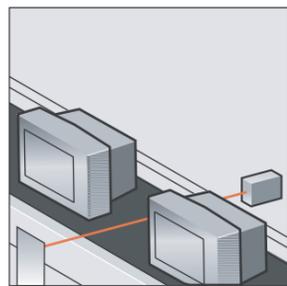
synchronous control of cutting



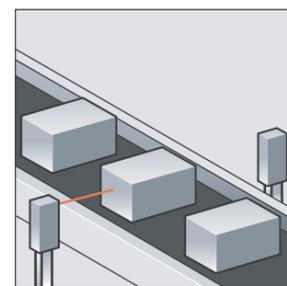
Inspect exist of label



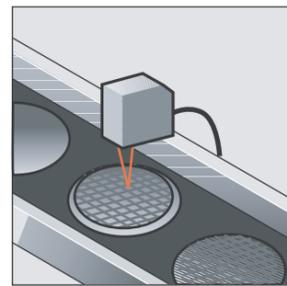
Inspect capacity of container liquid



Count products on production line

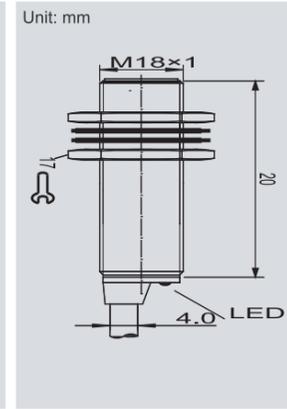
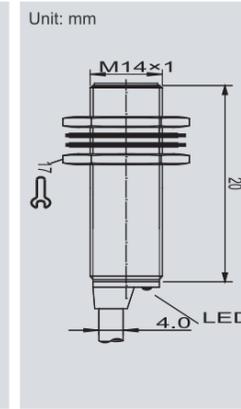
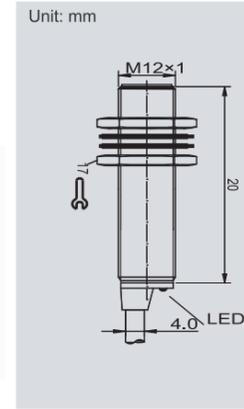


Count products on production line



Count products on production line

Diension	M12×1	M14×1	M18×1
Installation	Flush	Flush	Flush
Mounting distance Sn	10mm	10mm	10mm
Detect distance Sa	Magnet	Magnet	Magnet



PNP DC-3 wires	NO	HPS-12PO10A	HPS-14PO10A	HPS-18PO10A
	NC	HPS-12PC10A	HPS-14PC10A	HPS-18PC10A

NPN DC-3 wires	NO	HPS-12NO10A	HPS-14NO10A	HPS-18NO10A
	NC	HPS-12NC10A	HPS-14NC10A	HPS-18NC10A

Rated Voltage	24V DC	24V DC	24V DC
Working Voltage	10-30V DC	10-30V DC	10-30V DC
Voltage Drop	≤ 2 V	≤ 2 V	≤ 2 V
Rated Current	100mA	100mA	100mA
Frequency	≥5KHz	≥5KHz	≥5KHz
Detect Status	Red LED Indicator	Red LED Indicator	Red LED Indicator
IP Rating (IEC60529)	IP67	IP67	IP67
Housing Material	Nickle Plated Brass	Nickle Plated Brass	Nickle Plated Brass
Connection Mode	Cable	Cable	Cable
Standard Cable	2m	2m	2m

Features of Hall Effect Proximity Sensor:

- Standard sensing object: magnetic objects
- Fast response, long operation life.
- Mini volume, easy to be installed, in particular installed closely inside metal objects in line, can detect magnetic objects through metal objects.
- IP ratings: IP67, water and oil resistant.
- Widely used in pneumatic, liquid, plunger pump, bicycle pump...etc for detecting and positioning purpose.

1.For connection drawing, please refer to instruction manual.

2.Cable and lenth of housing can be special ordered.