

Diffuse Photo-Electric Sensor

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MachineMotion Sensors



Name	Non-Flush Inductive Proximity Sensor	Flush Inductive Proximity Sensor
Part Number	CE-SN-004-0001	CE-SN-004-0003
Applications	<ul style="list-style-type: none"> • Homing sensor • End-stop sensor • Object detection 	<ul style="list-style-type: none"> • Homing sensor • End-stop sensor • Object detection
Presence Detection Material	Steel, Aluminum and other metals	Steel, Aluminum and other metals
Detection Range	<ul style="list-style-type: none"> • 10 mm for Steel & other ferrous material • 4mm for Aluminum 	<ul style="list-style-type: none"> • 8 mm for Steel & other ferrous material • 3mm for Aluminum
Sensor Type	Inductive proximity	Inductive proximity
Output Type	NC, NPN	NC, NPN
Operating Voltage	10 - 30 V	10 - 30 V

Current Consumption	10 mA	10 mA
Voltage Drop	< 2.5 V	< 2.5 V
Cable Color	Black	Black
Cable Material	PUR	PUR
Cable Length	5 m	5 m
Sensor Side Connector	M12 4-pin quick-disconnect	M12 4-pin quick-disconnect
Controller Side Connector	M12 4-pin quick-disconnect	M12 4-pin quick-disconnect
Operating Temperature	- 40C to + 80C	- 40C to + 85C
Housing Material	Brass white bronze coated	Brass white bronze coated
Ingress Protection	IP65	IP65
Detection LED	Yes, orange visible through connector	Yes, orange visible through connector
Body Thread	M18	M18
Diameter	18 mm	18 mm
Sensor Length	60 mm	45 mm
Weight	0.3 kg	0.3 kg

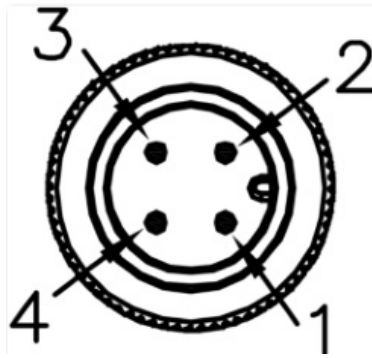
NPN Photoelectric Sensors (Compatible with Digital I/O Module V2)



Name	Retro-Reflective Photo-Electric Sensor	Through-Beam (Receiver & Transmitter) Photo-Electric Sensor	Diffuse Photo-Electric Sensor	M18 Keyence Bipolar Diffuse Sensor (Sn 500)
Part Number	CE-SN-003-0001 v2 CE-SN-003-0004 v2	CE-SN-006-0001 v2 CE-SN-006-0004 v2	CE-SN-007-0001 v2 CE-SN-007-0004 v2	CE-SN-007-0007
Applications	<ul style="list-style-type: none"> • Object detection • Presence detection 	<ul style="list-style-type: none"> • Mostly used for conveyors for object detection 	<ul style="list-style-type: none"> • Object detection • Presence detection 	<ul style="list-style-type: none"> • Object detection • Presence detection

Presence Detection Material	Non-transparent materials	Non-transparent materials	Metals and plastics (except for IR invisible materials)	Non-transparent materials
Detection Range	2500 mm	6000 mm	15 - 300 mm	500 mm
Sensor Type	Retro-Reflective	Photo-electric, Through Beam	Photo-Electric, Diffuse	Photo-Electric, Diffuse
Sensing Type	Programmable light-on/dark-on	Programmable light-on/dark-on	Programmable light-on/dark-on	Programmable light-on/dark-on
Output Type	CE-SN-003-0001 v2 NPN CE-SN-003-0004 v2 PNP	CE-SN-006-0001 v2 NPN CE-SN-006-0004 v2 PNP	CE-SN-007-0001 v2 NPN CE-SN-007-0004 v2 PNP	Bipolar (NPN & PNP)
Operating Voltage	10 - 36 V	10 - 36 V	10 - 36 V	10 - 30 V
Current Consumption	20 mA	20 mA	25 mA	15 mA
Voltage Drop	< 2.5 V	< 2.5 V	< 2.5 V	< 2.5 V
Cable Color	Black	Black	Black	Black
Cable Material	PUR	PUR	PUR	PUR
Cable Length	5 m	5 m	5 m	5 m
Sensor Side Cable Connector	M12 4-pin female quick-disconnect	M12 4-pin female quick-disconnect	M12 4-pin female quick-disconnect	
I/O Module Side Cable Connector	M12 4-pin male quick-disconnect (signal on pin #2)	M12 4-pin male quick-disconnect (receiver signal on pin #2)	M12 4-pin male quick-disconnect (signal on pin #2)	M12 4-pin male quick-disconnect (signal on pin #2)
Operating Temperature	- 25C to + 80C	- 25C to + 80C	- 25C to + 80C	- 20C to + 70C
Housing Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Ingress Protection	IP67	IP67	IP67	IP68 & IP69K
Detection Indicator	Orange LED	Orange LED	Orange LED	7-segment display (0 to 999), Orange LED
Mounting Thread	M18	M18	M18	M18 or 2x M3
Face Dimension	M18 diameter	M18 diameter	M18 diameter	30.5 mm x 15.4 mm
Sensor Length	72 mm	72 mm	72 mm	44.6 mm
Weight	0.3 kg	0.3 kg	0.3 kg	0.45 kg

Pinout of Vention's sensors



Inductive and photo-electric sensors (M12, A-coded, male cable end) :

Pin	Description
1	24 VDC
2	Sensor signal output
3	Ground
4	NC

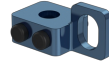
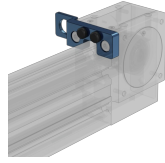
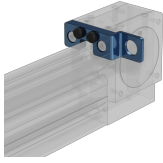
Inductive sensors (M12, A-coded, no cable) :

Pin	Description
1	24 VDC
2	Sensor signal output
3	Ground
4	NC

Photoelectric sensors (M12, A-coded, no cable) :

Pin	Description
1	24 VDC
2	NC
3	Ground
4	Sensor signal output

Mounting Hardware



Name	Left Timing Belt Sensor Bumper	Right Timing Belt Sensor Bumper	Universal M18 Sensor Bracket	M18 Threaded Sensor Bracket	M18 Sensor Bracket
Part Number	MO-LM-015-0001 v2	MO-LM-015-0002 v2	CE-HW-001-0002	CE-HW-001-0003	CE-HW-001-0003 v2
Compatibility	All sensors	All sensors	All sensors	All sensors except CE-SN-007-0007	All sensors