

NA1-11



Cross-beam scanning system to detect slim objects

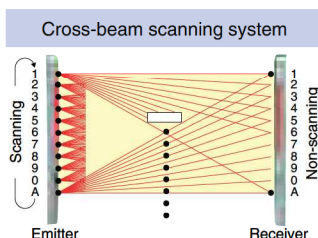
Features

■ Letter or business card detectable

Thin objects can be detected by using the cross-beam scanning system.

■ Emitting and receiving element pitch: 10mm

A minimum sensing object size of $\varnothing 13.5\text{mm}$ is realized by using an emitting and receiving element pitch of 10mm.

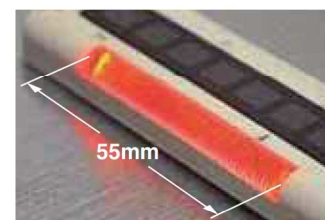


■ Wide area

Though very slim a wide sensing area of 1m length and 100mm width is realized. It is most suitable for object detection on a wide assembly line, or for detecting the dropping of, or incursion by, small objects whose travel path is uncertain.

■ Clearly visible large indicator

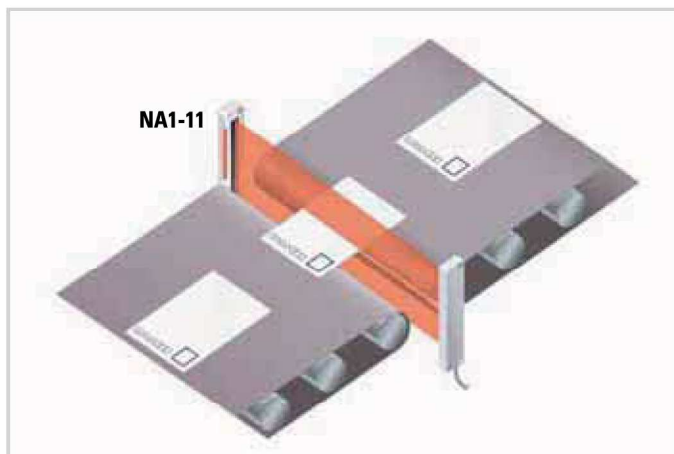
A clearly visible large indicator having a 55mm width is incorporated on both the emitter and the receiver.



Typical Applications

Detecting postcards

NA1-11 can detect thin postcards due to its crossbeam scanning system.



Technical Specifications

Model no.	NA1-11	NA1-11-PN
Sensing height	100mm	
Sensing range	0.17 to 1m	
Element pitch	10mm	
Number of emitting/receiving elements	11 each on the emitter and the receiver, respectively	
Sensing object	$\varnothing 13.5\text{mm}$ or more opaque object	
Supply voltage	12 to 24VDC $\pm 10\%$	
Output	NPN open-collector transistor	PNP open-collector transistor
Ambient temperature	-10 to +55°C	
Dimensions	W30×H140×D10mm	

NA1-PK5/NA1-PK3

NA1-PK5/ NA1-PK3

Ultra-slim body pick-to-light sensor



Features

■ 10 mm thick: half the thickness of conventional models

Space saving now possible; ultra-thin design does not obstruct picking operations.

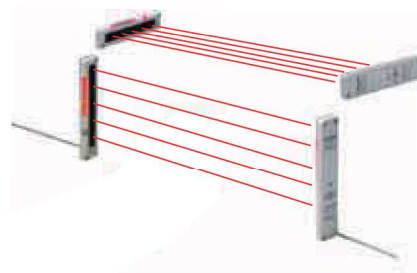


Cable can be freely arranged in any position

■ Two unit installations are possible

Sensor units can now be set to different light emission frequencies in order to prevent mutual interference.

Two units can now be operated in a side-by-side configuration without interference for problem-free detection over wider areas.



■ Lighting pattern selectable

The job indicator operation can be selected as either continuous lighting or blinking.

Continuous lighting



Blinking

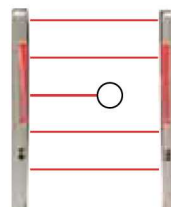


Changeover

■ Selectable detection operation

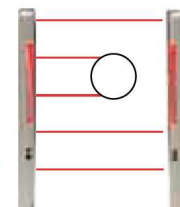
Sensor units can be set to detect the interruption of 1 beam channel or 2 or more beam channels.

Single beam interruption



All opaque bodies with $\varnothing 35$ mm $\varnothing 1.378$ in or greater will be detected.

Double beam interruption



The accidental passage of small objects through the beam axis will not trigger detection, yet the operator's hands will always be accurately detected. This function is also useful when small objects regularly interrupt the beam axis.

Changeover

Typical Applications

■ Cell production line



■ Assembly line



Technical Specifications

	NPN output		PNP output	
	NA1-PK5	NA1-PK3	NA1-PK5-PN	NA1-PK3-PN
Sensor type	Picking sensor			
Sensing height	100mm	49.2mm	100mm	49.2mm
Sensing range	0.1 to 1.2m	0.03 to 0.3m	0.1 to 1.2m	0.03 to 0.3m
Beam pitch	25mm	24.6mm	25mm	24.6mm
Number of beam channels	5 beam channels	3 beam channels	5 beam channels	3 beam channels
Sensing object	≥ Ø 35mm or more, opaque object	≥ Ø 29mm or more, opaque object	≥ Ø 35mm or more, opaque object	≥ Ø 29mm or more, opaque object
Supply voltage	12 to 24V DC ±10%			
Output	NPN open-collector transistor, max.100mA		PNP open-collector transistor, max.100mA	
Dimensions (W×H×D)	30×140×10mm	24×70×8mm	30×140×10mm	24×70×8mm