

Distance-Setting
Photoelectric Sensor

E3NT-L

robust, powerful and intelligent



Advanced Industrial Automation

OMRON



Omron's E3NT-L is a distance-setting photoelectric sensor whose ease-of-use, robustness and intelligence make it one of the most advanced sensors on the market. The E3NT-L has a detection range of up to 2000mm, and features background and foreground suppression. Its patented optic design enables this innovative sensor to reliably detect objects regardless of their direction.

One of the most advanced sensors in the world

It is teachable and can be operated via just three keys. It is fully digital for stable, reliable information, and can be adapted to operate in the harshest of environments. These features make the E3NT-L suitable for applications in the material warehousing and food processing industries, where long yet precise distance sensing is required.





Built for every environment

The E3NT-L is a sealed unit. Its robust aluminium housing and smooth body design prevents dirt from easily attaching to it. This makes the E3NT-L ideal for use in the food processing industry. An optional coating enables it to operate in environmentally aggressive conditions, and an anti-condensation option with heated glass window enables it to cope in very low temperature environments.

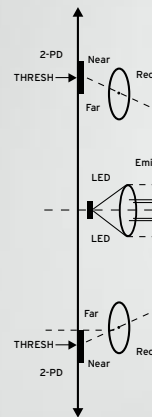


Patented optic design for reliable sensing

The E3NT-L sensor's optics are specially arranged so that distance is evaluated using the 'double triangulation' principle. This patented optic design enables the E3NT-L to reliably detect objects regardless of their direction. It also enables the rotary position of the E3NT-L to be selected freely about its optical axis, which makes this sensor ideal for multi-axis handling equipment. The E3NT-L's background and foreground suppression features means that objects are detected only within the predefined sensing zone. Objects in the background or foreground of that zone are ignored.

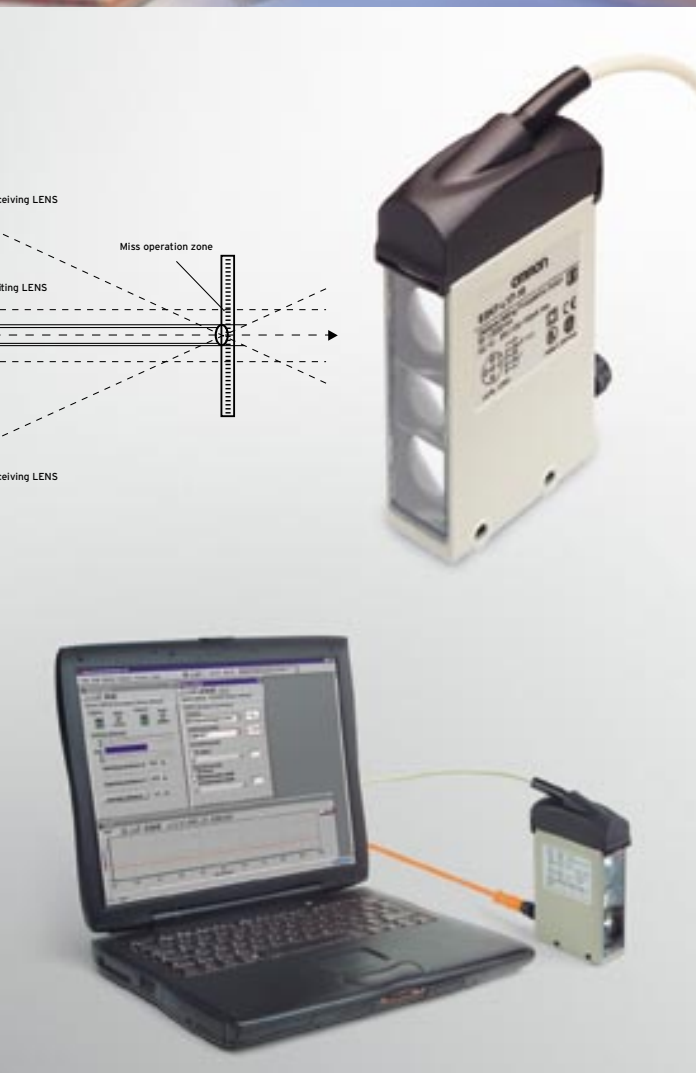
'Teach & play' manually...

Setting up the E3NT-L is fast and easy via external pushbuttons. Its 'teach & play' design concept enables you to teach the sensor the distance of the detectable object simply by pressing one push-button. The built-in 3 pushbutton keypad and a 4-digit display enable you to set and monitor parameters via a user-friendly menu. The display provides direct verification of the setting result, and it enables a relatively deep menu structure to be implemented into the sensor.



...Or via computer!

The E3NT-L can also be remotely configured using Omron's PC configuration Sensor Support Software package, whose features include teaching, operation and mode set-up, I/O configuration and distance monitoring via a trend graph. This software not only saves you configuration time, it also makes field exchange, firmware upgrading and remote trouble-shooting easy.



Accessories for enhanced operation

Multi-purpose bracket

Omron's specially designed multi-purpose bracket enables the E3NT-L to be installed in a wide variety of positional choices for optimal sensing performance.

Optical link adapter

Omron's E3NT-AL232 optical link adapter clips to fit the E3NT sensor's communication head for connector-less data transfer between the sensor and your PC. This is ideal when the E3NT-L is installed in an area where access is restricted. Via this link and your PC you can continuously monitor the sensor's operation from the comfort of a remote area.

Sensor Support Software (S³)

With Omron's Sensor Support Software (S³) package you can enjoy the benefits of copying multiple customised sensor settings, monitoring for more detailed analysis, setting up parameters much more easily, and tracing.

Intelligence built-in

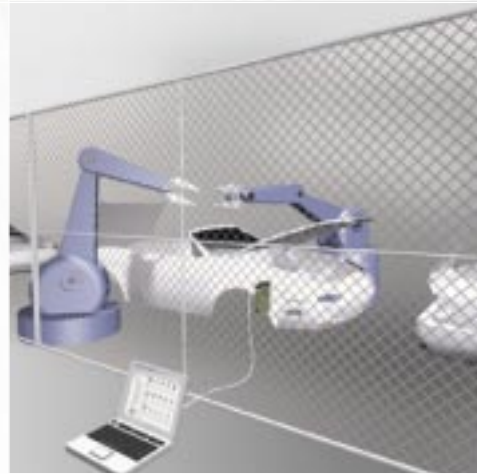
The E3NT-L is intelligent: one programmable input and two programmable outputs, all configured by software as PNP or NPN, provide the utmost flexibility. The programmable input can be set as a teach-in or program lock. The programmable outputs can be adjusted to different set points (shelf replenishment control is just one of many examples), alarm output, self test etc., which means that the E3NT-L can replace two sensors. An analogue version of the E3NT-L is also available and comes with a full range of linear analogue outputs, making it ideal for unwinding applications.

The E3NT-L can check if there is shelf-space free for a pallet



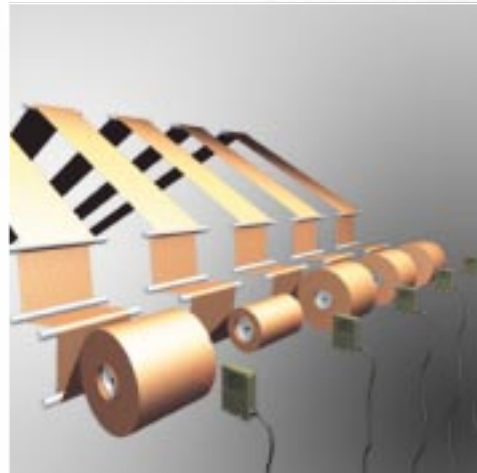
Two outputs can distinguish whether there is one, two or even more pallets in the storage location

Machines in the food industry need to be cleaned frequently. With rapid temperature changes, and lots of water and steam, a completely sealed sensor with window heating is essential




Thanks to the optic link, the sensor can be remotely set and checked while it is operating in an area where access is restricted

This robust sensor is ideal for operation in the harshest of environments



A version of the E3NT-L with analogue output is available, making it ideal for winding/unwinding applications

Ordering Information Sensors

Sensing method	Appearance	Connection method	Setting distance	Model	
				Digital output	Digital & analogue output
Distance setting (BGS/FGS)		M12 Connector (5-pole)	0.2m .. 2.0m	E3NT-L17	E3NT-L27
Window heating				E3NT-LH17	
	E3NT-L37			E3NT-L47	
Window heating	E3NT-LH37				

Accessories (order separately) Communication

Communication method to sensor	Appearance	Communication method to PC	Model
IR data interface	Snap on 	RS232	E3NT-AL232 2M

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