# OMRON

### New Models That Counteract the Decline in Operating Rates Caused by Dust and Dirt

#### Advanced ATC Models

- Active Threshold Control (ATC) Automatically adjusts the threshold value.
- ATC Error Output (Selectable Function) Provides an error output when ATC does not adjust the threshold value.
- Alarm Output (Selectable Function) Provides an alarm when maintenance is required.





Chip component detection

Glass substrate detection though view ports



### Technology

## Intelligently Solve Problems Onsite with ATC Function

A unique OMRON algorithm has been used that can determine whether changes have been caused by dust and dirt or by differences in workpieces.

The threshold value is automatically adjusted by the Sensor according to changes to increase equipment operating rates by reducing sensing errors. This is particularly true in applications requiring high-precision detection.

2000 1800 An absolute value is set for the threshold Digital incident level Adjustment is required for sensing errors. \_ Time ON Output OFF Active Threshold Control (ATC Models) 2000 A relative value is set for the threshold Digital incident level The value of the threshold is adjusted every 30 s (see note) to prevent sensing errors.\* Time ON Output OFF The monitoring range is set in the Sensor according to the thresh-old value. The threshold value is adjusted according to changes within this range.

# The $D_{IN}C$ Engine for High-performance Sensing

OMRON's many years of accumulated sensing technology and highspeed digital processing techniques merge to meet onsite needs. Our goal is high-performance sensing that provides easy, reliable application.



#### Fixed Threshold Value (Previous Models)

#### **Ordering Information**

Digital Fiber Sensor

Туре	Appearance	Functions	Model		
			NPN output	PNP output	
Pre-wired Models		ATC	E3X-DA11AT-S	E3X-DA41AT-S	
Connector Models		Alarm output	E3X-DA6AT-S	E3X-DA8AT-S	

#### Separate Digital Amplifier Laser Sensors

Туре	Appearance	Functions	Model		
			NPN output	PNP output	
Pre-wired Models		ATC	E3C-LDA11AT	E3C-LDA41AT	
Connector Models	U.S.	Alarm output	E3C-LDA6AT	E3C-LDA8AT	

#### Ratings and Specifications

Model		Model	Digital Fiber Sensors		Separate Digital Amplifier Laser Sensors		
	NPN output   ype   PNP output		E3X-DA11AT-S	E3X-DA6AT-S	E3C-LDA11AT	E3C-LDA6AT	
Item			E3X-DA41AT-S	E3X-DA8AT-S	E3C-LDA41AT	E3C-LDA8AT	
	Super-high-speed mode		Operate or Reset: 80 µs		Operate or Reset: 100 µs		
Response time	High-speed mode		Operate or Reset: 250 µs		Operate or Reset: 250 µs		
	Standard mode		Operate or Reset: 1 ms				
	High-resolution mode		Operate or Reset: 4 ms				
ATC			Active threshold control (used for output 1)				
Functions	I/O settings		The signal that is output can be selected (used for output 2): ATC error output				
	Startup operation		The operation when power is turned ON can be selected: No operation, PT, or PT + ATC				

Note: Basic performance is the same as the Advanced Twin-output Sensors. Refer to E3C-LDA Datasheet (E338) and E3X-DA-S Datasheet (E336) for details. Only differences from the Advanced Twin-output Sensors have been given above.

> This document provides information mainly for selecting suitable models. Please read the *Instruction Sheet* carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

#### Note: Do not use this document to operate the Unit.

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