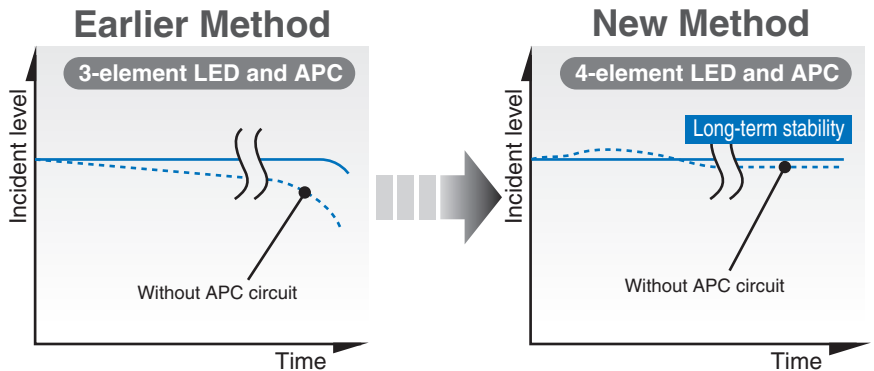


Stable, long-term performance with OMRON's APC function

**OMRON provides the industry's most stable long-term detection** Highest Level of Stability  
**by using new 4-element LEDs and an APC (Auto Power Control) circuit.**

In addition to our unique APC circuit used in the E3X-DA-N Amplifiers to compensate for the deterioration of the LED, the E3X-DA-S uses 4-element LEDs to counteract the deterioration of the light-emitting elements over time and achieve the industry's most stable long-term detection performance. Furthermore, the circuit is designed with excess light capacity, so the Sensors can be used with high stability regardless of whether the APC circuit is ON or OFF.



**Compensate for the effects of contaminants and temperature variation with differential operation mode. (Advanced Models)**

This operation mode uses a special OMRON algorithm to compensate for slight light level changes due to dirt or temperature variations and detect only the light level changes due to the workpiece.

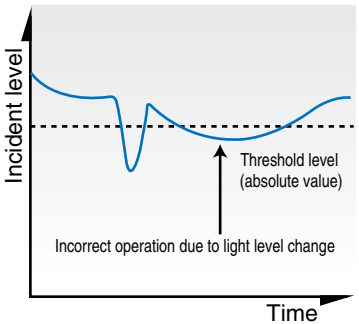
Slight light level changes can be detected with stability and precision, eliminating the need for time-consuming manual adjustments for light level changes.

With the Twin-output Amplifiers, output 2 can function as an alarm output (light level operation) to indicate when the light level has changed due to dirt or other causes.

Patent Pending

**Light Level Operation (Normal Operation)**

Judges light level changes by comparing the incident level and threshold level.

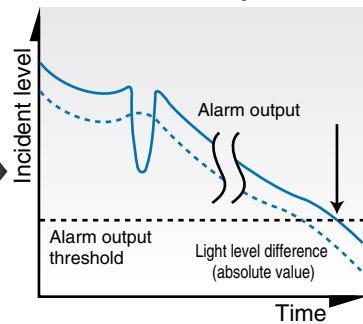


The light level varies due to dirt, temperature variations, or other environmental factors.

Incorrect operation

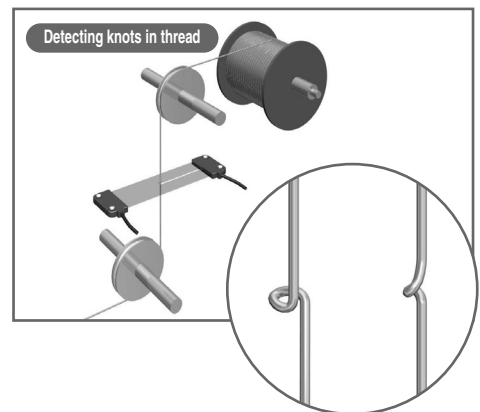
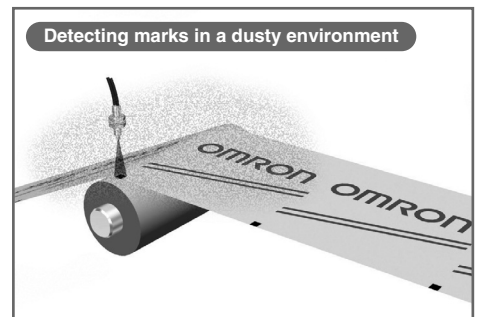
**Differential Operation**

Judges light level changes by comparing the incident level to a time-averaged incident level.



Detecting differences in the light level enables setting more subtle light level differences.

Minute changes are detected reliably.

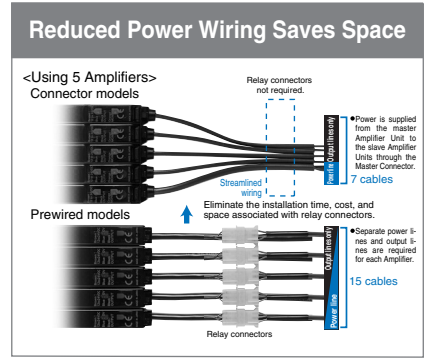
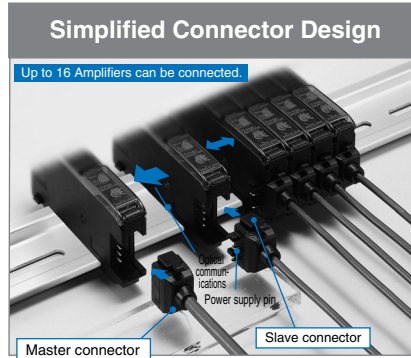


## The E3X-DA-S uses OMRON's own simplified wiring connectors that were introduced with the E3X-DA-N.

**Patent Pending**  
Japan patent number 3266198

In Amplifiers with Connectors, the power supply is distributed to slave connectors through a single master connector. This design has three major advantages.

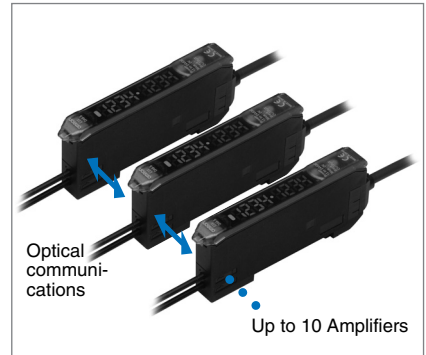
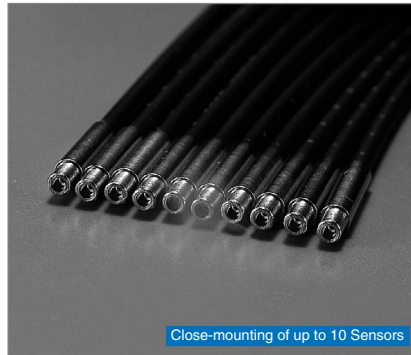
1. Wiring time is significantly reduced.
2. Relay connectors are unnecessary, so wiring takes up less space.
3. Storage and maintenance are simpler because it isn't necessary to distinguish between master connector and slave connectors on the Amplifier.



## Optical communications prevents mutual interference.

Mutual interference is prevented with optical communications, so up to 10 Amplifiers can be mounted together.

(The number of Amplifiers depends on the operating conditions.)



Can also be used with Photoelectric Sensors with Separate Digital Amplifiers.



E3C-LDA  
Photoelectric Sensor with Separate Digital Amplifier

E3X-MC-S  
Mobile Console

## Group Power Tuning

*Easily set multiple Sensors.*

With the group power tuning function, power tuning is possible for multiple Sensors at the same time.



Group Power Tuning

