Smart Style!

for Even More Applications

POWER ZERO ENABLE

1.2.3.4.5
3.0.7u
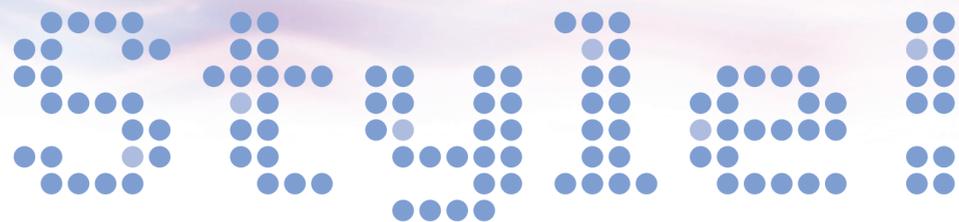
Tough and Compact for a Wide Variety of Applications

Smart Sensors
Inductive Displacement Type **ZX Series**

Smart Sensor Series

8 Reflective and 3
Through-beam Laser Types

Diffuse
Reflective
Sensor

Regular Reflective
Sensor (Displacement)

Through-beam
Sensor

For details, look here.

http://www.fa.omron.co.jp/smart/

(Available only in Japanese now)

Authorized Distributor:
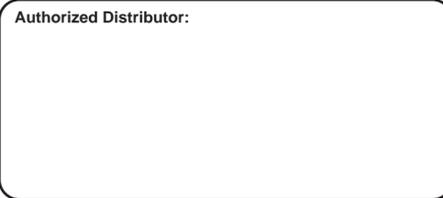
Smart Sensors Inductive Displacement Type
ZX Series

OMRON

New Inductive Displacement Sensors

New Smart Sensors with Eddy Current Method

Smart Style!

1.2.3.4.5
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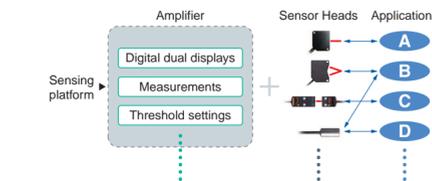
The Concept behind Smart Sensors

Smart

A host of remarkable functions inside a compact body. OMRON's sensing platform meets a wide range of diverse applications with a wide selection of heads employing different detection methods.

Sensing
platform

Amplifier
- Digital dual displays
- Measurements
- Threshold settings

Sensor Heads

Applications
- A
- B
- C
- D

Stylish

The ZX-series Sensor Setup Tool, SmartMonitor V2, enables connecting to a personal computer (PC).
A new style for digital sensing.

Sensor Setup Tool
Smart Monitor V2
Interface Unit | PC Software

Sensors → Amplifiers → Interface Unit → PC Software → PC

Effective use
of information
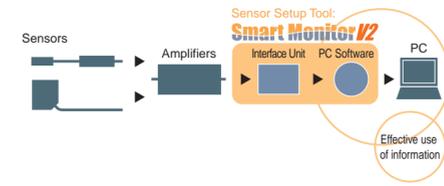
Variations
for Smart Style!

Various Sensor Heads for All Applications

More Efficient Maintenance

Complete Compatibility between Sensor Heads and Amplifier Units

The Amplifier Unit can be used as is when replacing damaged Sensor Heads or changing the Sensor Head for a differential measurement distance.

Wide Selection of Sensor Heads

3-mm-Diameter Sensor Heads – Smallest in this Class

To detect gaps of small objects or for applications requiring many Sensor Heads in a row.

3 dia. 5.4 dia. 8 dia. M10 M18

Models with stainless steel Protective Spiral Tubes are also available.

Sensor Head Cords Extendable to 10 m

The distance between the Amplifier Units and Sensor Heads can be extended to 10 m by using a ZX-XC□A Cable (sold separately).

10 m
Fixed at 2 m

Advance
to Smart Style!

Advanced Functions for Any Application

Complete Range of Useful Functions

Simple Linearity Adjustment [Patent Pending]

Adjustments using the adjustment knob are no longer required to adjust linearity.
Linearity adjustment is completed simply by teaching at 0%, 50%, and 100% of the measurement distance, greatly reducing setting time.
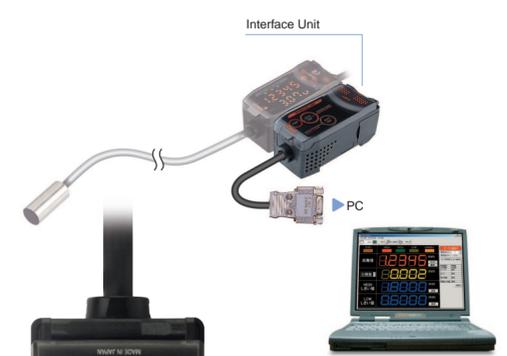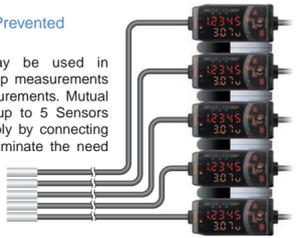
0%   50%   100%
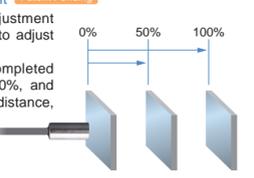
Suitable for Non-ferrous Metals Also

Linearity is worse for non-ferrous than ferrous sensing objects. A material selection function has been developed to improve linearity with stainless steel and aluminum sensing objects.
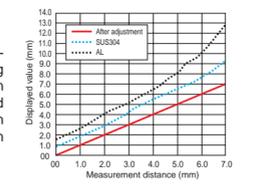
Mutual Interference Prevented for up to 5 Sensors

Multiple Sensors may be used in confined spaces for gap measurements or multiple-point measurements. Mutual interference between up to 5 Sensors can be prevented simply by connecting Calculating Units to eliminate the need for timing signals on the user side.

Succeess
with Smart Style!

**Advanced functions made simple.
That is the essence of Smart Style.**

Interface Unit
▶ PC

Sensor Setup Tool Smart Monitor *V2*
for ZX-series Smart Sensors

SmartMonitor V2 is the latest version of the Smart Monitor and is capable of making settings and logging data for ZX-L-series and ZX-E-series Sensors.

NEW

Data Logging and Waveform Display
Logs detected data. Also displays data in waveform during logging.

Sensor Settings
Settings difficult to make on the Amplifier can be made simply while browsing the function menus.

Waveform Monitoring
Waveforms can be easily monitored and threshold values can be set just by dragging and dropping.

NEW

One-shot Waveform
High-speed waveforms can be obtained and displayed in one-shot operation.

Easy Resolution Display [Patent Pending]
The resolution can be displayed simply by detecting the workpiece to be tested. It is easy to learn the margin for threshold values with this resolution display, allowing accurate judgements about whether detection is possible.

Resolution Deviation to be detected
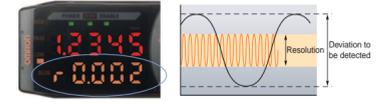
Calculation Settings without Digital Panel Data [Patent Pending]
The calculation results from two Sensors can be displayed on the Amplifier for one Sensor simply by placing a Calculating Unit between the Amplifier Units. The required parameters need to be input only into one Amplifier Unit.
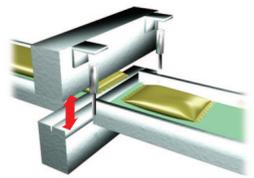
Applications
with Smart Style!

Functions to Support a Wide Variety of Applications

Minute Gap Detection

Delay Hold

(One-shot)
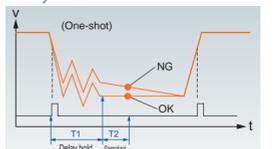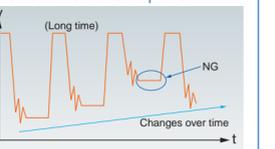
Starts sampling after a specified time delay from the timing signal to obtain a stable sampling point. Can be used to avoid bounding during machine startup.

Previous Value Comparison
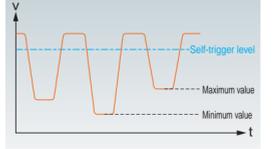
(Long time)

Changes over time

Gradual changes in measurements due to machine temperature changes or other factors can be ignored and only sudden changes detected and judged.

Height and Step Detection

Automatic Teaching

Self trigger level
Maximum value
Minimum value
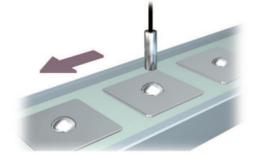
When automatic teaching is executed, the maximum and minimum values for the sensing object are measured and displayed on the Amplifier Unit. Automatic teaching is useful when there is no standard sensing object.

Average Hold

Average for A
Average for B
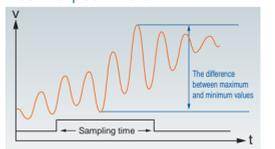Sampling time   Sampling time
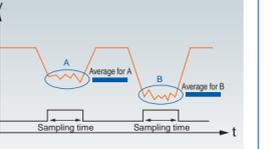
When the average hold function is executed, the average value for the sampling period is calculated and displayed on the Amplifier Unit. The average hold function is useful for when the surface of the sensing object is not uniform.

Vibration and Surface Movement Measurements

Peak-to-peak Hold

The difference between maximum and minimum values
Sampling time
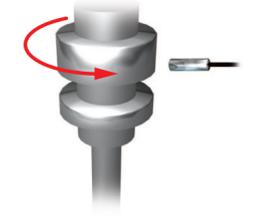
Measures the difference between the maximum and minimum values during the sampling time and displays it on the Amplifier Unit. The peak-to-peak hold function enables easy measurement of surface movement and eccentricity.