Specifications

Overall performance

Measurement range			0 to 2 mm	0 to 5 mm	0 to 10 mm
Standard target (Measurement targets)	Material		Iron/cast iron, steel, stainless steel (magnetic/non-magnetic), aluminum/aluminum alloy, copper/copper alloy		
	Shape		Φ27 mm or more Flat T = 5 mm or more	Φ45 mm or more Flat T = 5 mm or more	Φ102 mm or more Flat T = 5 mm or more
Highest resolution	Material	S45C, SS400, SCM440, SUS430	0.4 µm	0.7 µm	0.9 µm
		SUS304	0.6 µm	0.9 µm	1.2 µm
		A5052, C2801, C1020	0.7 µm	1.2 µm	1.6 µm
Linearity *1	Material	S45C, SS400, SCM440, SUS430	typ. ±1.0 % of F.S.	typ. ±1.0 % of F.S.	typ. ±1.0 % of F.S.
		SUS304	typ. ±1.5 % of F.S.	typ. ±1.2 % of F.S.	typ. ±1.8 % of F.S.
		A5052, C2801, C1020	typ. ±1.8 % of F.S.	typ. ±1.5 % of F.S.	typ. ±2.0 % of F.S.
Sensor Temperature Characteristics *2	Material	S45C, SS400, SCM440, SUS430	typ. -0.05 % of F.S./°C	typ. -0.06 % of F.S./°C	typ. -0.09 % of F.S./°C
		SUS304	typ. -0.06 % of F.S./°C	typ. -0.06 % of F.S./°C	typ. -0.09 % of F.S./°C
		A5052, C2801, C1020	typ. -0.07 % of F.S./°C	typ. -0.09 % of F.S./°C	typ. -0.10 % of F.S./°C
Analog output	Displacement output		0 to 5 VDC (output-impedance 100 Ω)		
	Burnout(when sensor short-circuit or disconnection)		"UP" Selected: +6.1 V or more , "DOWN" Selected: -3.5 V or less		
Frequency response			100 Hz (-3 dB)		
Contact input	For zero shift operation		Non-voltage contact input (ON: 15 ms or more → or more OFF: 15 ms)		
System cable length			3 m (without extension cable) or 10 m (with extension cable)		
Power supply voltage			Within +24 VDC ±10 % (including ripple) Power consumption 0.9 W or less		
Amplifier installation method			35 mm DIN rail (with DIN-rail adapter clip)		

*1 The value obtained by calibrating with the ambient temperature is 25 °C using a calibration table. The typ. values are the typical values used as reference for measurement error.
*2 When the distance between the detection target (measured object) and the sensor detection surface is 50% of the measurement range at the temperature of between +30 °C to +70 °C.

Specifications are subject to change without notice. Please contact us for the latest information.

Environmental

	Sensor	Extension cable	Amplifier
Operating temperature range	-10 °C to +70 °C	-10 °C to +70 °C	-10 °C to +50 °C
Operating humidity range	30 % to 85 % RH (non-condensing, non-immersing)	30 % to 85 % RH	30 % to 85 % RH
Degree of protection	IPX7 (excluding connectors)	-	-

Specifications are subject to change without notice. Please contact us for the latest information.

Ordering Information

Selections

Set model code ① System cable length 3 m (Set Contents: Sensor, Amplifier, Spacer set for calibration)

No.	Description	Model code	Items and quantities in set contents					
			Sensor			Amplifier	Extension cable	Spacer set for calibration
			For 0 to 2 mm	For 0 to 5 mm	For 0 to 10 mm	Common use of each range	7 m, common for each range	
1	2 mm range Set	RXT-CL2000	1 unit	-	-	1unit	-	1 / 2 mm 1each
2	5 mm range Set	RXT-CL0500	-	1unit	-	1unit	-	2.5 / 5 mm 1each
3	10 mm range Set	RXT-CL0010	-	-	1unit	1unit	-	5 / 10 mm 1each
4	Multi range Set	RXT-CL2510	1 unit	1unit	1unit	1unit	-	1 / 2 / 2.5 / 5 / 10 mm 1each

Set model code ② System cable length 3 m or 10 m (Set Contents: Sensor, Amplifier, Extension cable, Spacer set for calibration)

No.	Description	Model code	Items and quantities in set contents					
			Sensor			Amplifier	Extension cable	Spacer set for calibration
			For 0 to 2 mm	For 0 to 5 mm	For 0 to 10 mm	Common use of each range	7 m, common for each range	
1	2 mm range Set	RXT-S2000	1unit	-	-	1unit	1pc.	1 / 2 mm 1each
2	5 mm range Set	RXT-S0500	-	1unit	-	1unit	1pc.	2.5 / 5 mm 1each
3	10 mm range Set	RXT-S0010	-	-	1unit	1unit	1pc.	5 / 10 mm 1each
4	Multi range Set	RXT-S2510	1unit	1unit	1unit	1unit	1pc.	1 / 2 / 2.5 / 5 / 10 mm 1each

Single unit model code

No.	DESCRIPTION	Specifications	Single unit model code
1	Sensor	0 to 2 mm	RXS-02-M030-03
2		0 to 5 mm	RXS-05-M050-03
3		0 to 10 mm	RXS-10-M050-03
4	Amplifier	Common use of each range	RXC-0
5	Extension cable	7 m, common for each range	RXW-07

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Simple and Easy displacement measurement!
Quick RIVERNEW

Easy displacement measurement in FA and laboratory (test and research) scenes.

Simple

Useful in a simple instrument configuration.

Sensor types and extension cables can also be shared by one amplifier

1. **Range free amplifier. Commonly used for any of the 3 measurement ranges of 2 mm, 5 mm or 10 mm.**
2. **Sensor can be chosen from three measuring ranges of 2 mm, 5 mm, 10 mm.**
3. **Extendable length between sensor and amplifier; with the use of 7 m extension cable, overall length can be extended to 10 m.**

Easy

Used conveniently according to the purpose.

Only 3 points calibration are required.

1. **One single amplifier can be used to measure any of the targets materials such as iron, stainless steel, aluminum, coper etc.**
2. **One single amplifier can be used with any of the 3 ranges (2 mm, 5 mm, 10 mm) of sensors.**
3. **One single amplifier can be used for either of (3 m or 10 m) the cable length.**

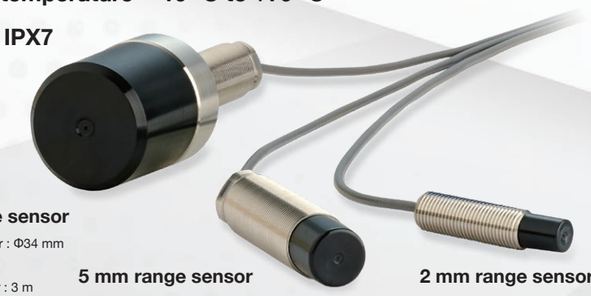
Shinkawa Electric's sensor technologies can be found at;

(C)JAXA

- Rocket engine fuel pump displacement and vibration sensor
- Magnetic levitation control sensor for linear motor car
- Electric track general test vehicle rail displacement sensor

Non-contact displacement sensor with high environmental resistance

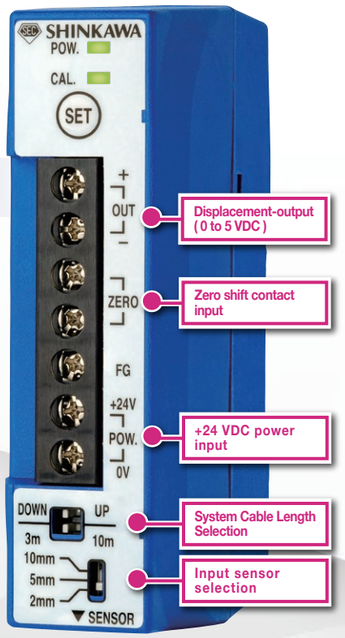
- **Non-contact measurement**
- **Eddy current method: Not affected by water, oil, dust etc.**
- **Operating temperature -10 °C to +70 °C**
- **IP Rating IPX7**



10 mm range sensor
Sensor top diameter : Φ34 mm
Screw size : M16
Cable length sensor : 3 m
Approximately : 213 g

5 mm range sensor
Sensor top diameter : Φ14.7 mm
Screw size : M16
Cable length sensor : 3 m
Approximately : 120 g

2 mm range sensor
Sensor top diameter : Φ8.7 mm
Screw size : M10
Cable length sensor : 3 m
Approximately : 72 g



Amplifier (Mounting : DIN rail)
Sizes : Width 35.4 mm × Depth 65 mm × Height 112.45 mm
Approximately : 213 g

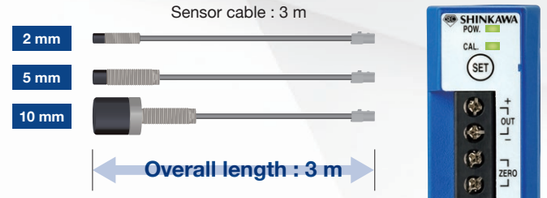
System Configurations

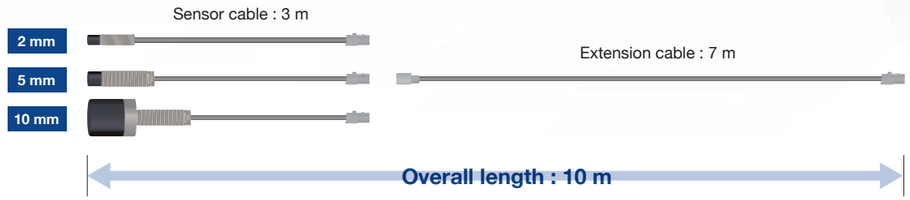
One amplifier can calibrate to any of three types of sensors × either of 3 m or 10 m the system cable length

One single amplifier for any of the 3 ranges of sensors.

One single amplifier for either of 3 m or 10 m cable length.

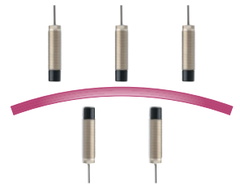
One single ext. cable can be used with any of the 3 ranges of sensors.



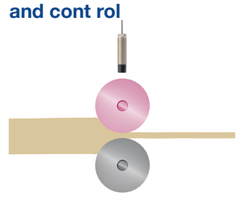


Application Examples

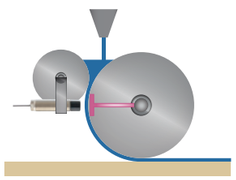
Metallic plate thickness, shape, warpage measurement



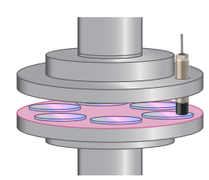
Roll gap, parallelism, thickness measurement and cont rol



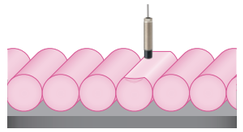
Paint, glue, coating thickness control



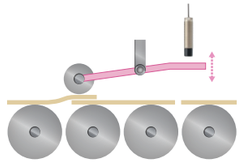
Polishing equipment thickness control



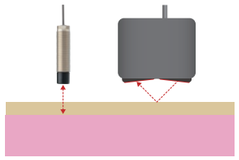
Dimension measurement, deformation detection, and quantity counting



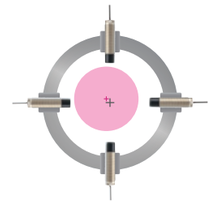
Detection of two sheet feeds, detection of presence, and thickness measurement



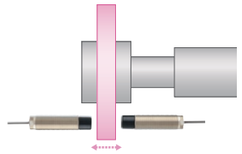
Thickness measurement of non-conductive sheets and films



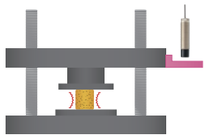
Centering, shaft misalignment and eccentricity measurement



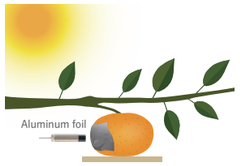
Displacement measurement and positioning of grinding wheels and blades



Displacement measurement of compression tester and tensile tester



Observation of fruit growth



Measuring displacement and positioning of machine tools and press machines