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DOLPHIN SENSOR TYPE LEVEL METER Model **KF-900**



Magnetostrictive Model

Accurated best performance for float type level indicator

KF-900 Magnetostrictive Model

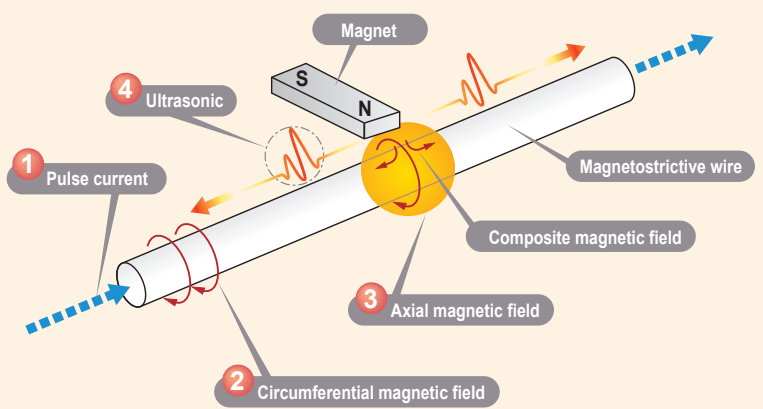
Highly Accurate Performance in Float Type Level Indicator!

Linear Displacement Sensor with magnetostrictive wire inserted. It may detect at a magnetized place supersonic vibration transmitted through the magnetostrictive wire and output analogue signals proportional to the position of the magnetized object.

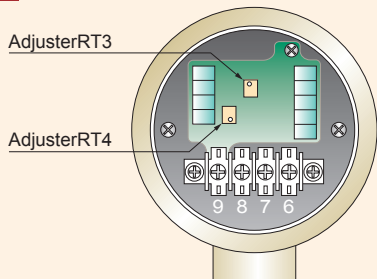


■ Principle of Operation

- 1 Pass pulsed current through magnetostrictive wire.
- 2 Magnetic field is generated around magnetostrictive wire.
- 3 Cross the detection magnet over the wire and generate the torsional strain.
- 4 Ultrasonic vibration travels through the magnetostrictive wire.
- 5 Detect the float position from the travel time.
- 6 Measure the travel time repeatedly.

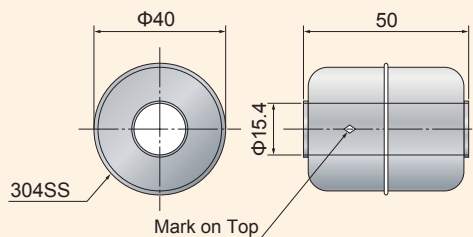


■ Connection



Terminal Block Wiring	
Power / Output cable	
6	+Output
7	24VDC
8	0VDC
9	-Output (Analogue GND)

*RT3Zero Adjuster
 *RT4.....Span Adjuster



General Drawings

KF-900-□□1 Screw	KF-900-□□2 Flange	KF-900-□□3 Ferrule	KF-900-□□3H Ferrule radiation fin

■ Standard Specifications

Item	Specification
Power Source	+24VDC ±2V (Ripple below 1%)
Power Consumption	Below 55mA
Linearity	±0.5mm or ±0.1%FS whichever is greater.
Repeatability	±0.02%FS (L < 300mm)
	±0.01%FS (L ≥ 300mm)
Response Frequency	About 70Hz
Output Signal	Current Output
	4–20mA Load resistance below 400ohms
Hysteresis	Below 0.3mm
Temperature Characteristics	Transducer : ±50ppm / °CFS
	Detector : ±150ppm / °CFS
Temperature Range	-20 – +60°C (No freezing)
Moisture Range	30 – 95% RH (No condensation)
Withstand Voltage	1000VAC per 1 minute
Insulation Resistance	Over 50M ohms

Model	KF-900	
Withstand Pressure	490kPa	
Specific Gravity of Liquid	Over 0.63	
Heat resistant Temperature	Wetted Part	60°C Heat-resistant Type 100°C
	Body	50°C
Wetted Parts Material	304SS / 316SS	
Float Dimensions	Φ40mm × H50mm	
Stem Outer Diameter	Φ13.8mm	
Housing Material	ADC (Equivalent to IP55)	
Enclosure Rating	Drip-proof (Equivalent to IP55)	
Conduit Connection	G 1/2	

Type Designation

KF-900-□□□□

Blank Standard
H Heat-resistant Type

Mounting

1. Screw Joint (over R2)
2. Flange (over JIS5K50A)
3. Ferrule (over 2S)
4. IDF nut (over 2S)

L Dimensions

1. 100 – 500 (mm)
2. 501 – 1000 (mm)
3. 1001 – 1500 (mm)
4. 1501 – 1800 (mm)

Material

1. 304SS
2. 316SS
3. Others

Notes

Power

1. Power and voltage should be within the specified range.
2. Avoid common use of power and earth with any instruments of generating high noise.
3. Wire transducer cable and power/output cable separately from other power lines

Environments

Avoid using at the places where strong magnetic and electric fields as well as hard vibration and impact take place.

Product Compatibility

1. Being compatible, floats in the same type number can freely be convertible.
2. Transducer and detector are not compatible. Be sure to use the identical serial number in pairing

Others

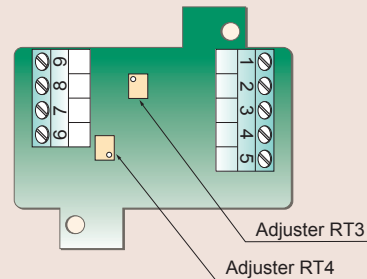
Do neither strain cable hard nor fold it repeatedly. There may be a fear of cable breaking (when a detector is separately used).

Output Power Adjustment

At factory setting output signals are set to within ± 1 mm in both Zero and Span. When adjusting, you open the lid of terminal box to adjust Zero at RT3 and Span at RT4. Adjust RT3 and RT4 until Zero and Span can respectively come to a predetermined level.

Warming-up

Warm up more than 10 minutes after power supply voltage is charged.



Line of business

- Rotary Paddle Type Level Switch
- Vibration Type Level Switch
- Swing Type Level Switch
- Acoustic Level Switch
- Capacitance Type Level Switch
- Capacitive Proximity Sensor
- Capacitance Type Level Indicator
- Diaphragm Type Level Switch
- Tiit Switch
- Leak Type Level Switch
- Microwave Type Switch
- Sounding Bob Type Level Indicator
- Flow Switch
- Conductance Type Level Switch
- Float Switch
- Float Type Level Indicator
- Ultrasonic Type Level Indicator
- Equipments For Conveyor Lines
- Dust Monitor System
- Zirconia Oxygen Analyzer
- Laser Type Level Indicator
- RADAR Type Level Indicator
- On-line Sensors for Accurate Liquid Analysis
- Ultrasonic Flow meter

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*Please be sure to read USER'S GUIDE, Installation & Operation Instructions before using the instrument.

*The specifications herein may be subject to change without advance notice.