

Fluoride Ion Monitor HC-200F/HC-300F

4-Wire Analyzer

2-Wire Transmitter

Ideal for the continuous measurement of wastewater discharged from semi-conductor plants.

The HC-200F Simple Fluoride Ion Monitor for use in industry provides continuous measurements of the free fluoride ion concentration in wastewater using the fluoride ion electrode method. The unit can be used on a range of wastewater with varying concentrations from 0.0 to 10.0 mg/L up to 0 to 10,000 mg/L. This makes the HC-200F the ideal unit for monitoring the treatment of wastewater and effluent resulting from the semiconductor production process, as well as electronic and glass factories using fluoride in the production process.



Ideal for wastewater treatment at semi-conductor / FPD plants and glass factories

Suitable for on-site continuous measurement of fluoride ions at treatment facilities discharging large volumes of wastewater.

Wide range of measurements

This one unit is capable of measuring in a range from 0 to 10,000 mg/L. (measurement can be switched across a range of 10 levels)

Implementing a silver ion trap structure

The silver ion trap prevents blocking at the liquid junction resulting in more stable measurements.

Internal cleaning timer

The cleaning solenoid valve can be operated directly. A water jet cleaner can be supplied as an optional extra.

Specifications

■ Converter

Model	HC-200F (4-Wire Analyzer)	HC-300F (2-Wire Transmitter)
Measuring method	Fluoride ion electrode method	
Measuring range	0.0 to 10.0, 0.0 to 20.0 mg/L (Resolution: 0.1 mg/L) 0 to 50, 0 to 100, 0 to 200 mg/L (Resolution: 1 mg/L) 0 to 500, 0 to 1000, 0 to 2000 mg/L (Resolution: 10 mg/L) 0 to 5000, 0 to 10000 mg/L (Resolution: 100 mg/L)	
Linear precision	±10% FS (excluding detection unit), ±30% FS (including detection unit)	
Reproducibility	±7% FS (excluding detection unit), ±30% FS (including detection unit)	
Contact output	No. of outputs: 3 (R1, R2, FAIL) Contact type: SPDT Contact rating: AC25 V 3 A, DC30 V 3 A (resistance load)	—
Contact input	No. of contacts: 1 For cleaning For holding signal	
Transmission output	DC4 – 20 mA Max. load res. 900 Ω Max. load res. 600 Ω	
Additional functions	Error message	
	Alarm ON delay	—
	Cleaning time	—
	Set periodic cleaning	—
	Select transmission output state in Hold mode during calibration or cleaning	
	Output hold functions	
Power	Set damping factor function	
	Transmission output, Arbitrary Hold setting	
Ambient environment	AC90 – 264 V 50/60 Hz	DC21 – 32 V
Structure	Outdoor installation: JIS C0920, Protection level: 3 (rain-proof) Installation method: 50 A pole or wall attachment	
Weight	Approx. 4.5 kg	
Equipment protected	CE marking, FCC rules	

■ Sensor

Model	1009
Measuring method	Ion electrode method, LaF3 response membrane (doped with Eu 0.5%)
Test sample environment	pH range: 4 to 8 (at 0.2 mg/L), 4 to 10 (at 20 mg/L), 4 to 12 (at 2000 mg/L) Temperature range: 0 to 40°C, Electric conductivity: Over 500 μS/cm Flow speed range: 1 to 20 cm/sec.
Compensation element	Pt1000 Ω (0°C)
Temperature compensation range	0 – 40°C
Cable length	5 m
Weight	Approx. 200 g
Compatible holders	CH-101 series (Immersion type holder), CF-250/300 series (Flow type holder)
Compatible cleaning device	JCH-121 Immersion type water-jet cleaning device JCH-311 Circulation type water-jet cleaning device

- Cautions**
1. This sensor detects the free fluoride ions contained in liquids; it does not detect all fluorides.
 2. Measurements may vary depending upon the pH level. Use this monitor in close to neutral pH conditions.



Please read the operation manual before using this product to assure safe and proper handling of the product.

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Manufacturer

HORIBA Advanced Techno

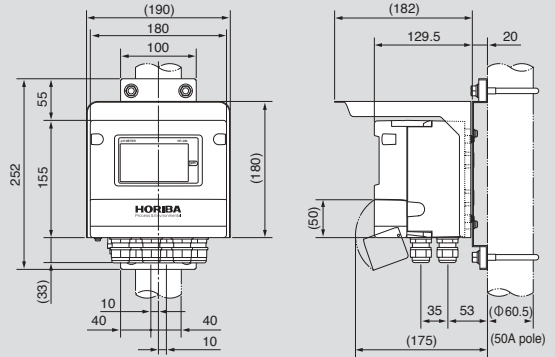
HORIBA Advanced Techno, Co., Ltd.

Head Office

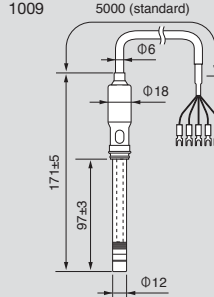
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External dimensions Unit: mm

■ Converter



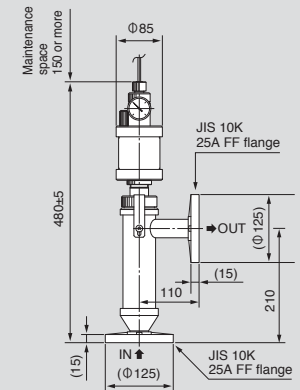
■ Sensor



■ Immersible Type Holder



■ Flow Type Holder



Model	Length: L
CH-101 (Material: PP)	0.5 m
CH-101P (Material: PVC)	1.0 m
	1.5 m
	2.0 m
	2.5 m
	3.0 m