DFMC

CM

Ultrasonic (Slurry)
Concentration Meter

DFMC Ultra Density Meter
DF-6420
35.35%

Ultrasonic (Slurry) Concentration Meter (CM)

I. Product Overview

Ultrasonic (Slurry) Concentration Meter (CM) is a concentration online measuring instrument which integrates ultrasonic composite detection technology, digital multi-frequency ultrasonic emission technology and a number of patented technologies. It has the advantages of no radiation, high precision, strong adaptability, good reliability, easy installation and simple operation. The product solves the technical problems of the conventional ultrasonic concentration meter in detecting the concentration of the slurry, such as abrasion and air bubbles, and has advantages over concentration meters with other principles.

II. Product Features

- Adopting the patent applied by our company, the core technology of "Zero-Particle Sensitivity" has solved the influence of the change of ore particle size on the measurement accuracy of concentration.

- Adopting the direct digital synthesize (DDS) ultrasonic launch technology, high reliability

and no drift.

- Data processing is conducted via multi-mode curve fitting method in order to ensure the maximum fitting of concentration and improve the accuracy.

- Concentration or density can be measured optionally.

- A variety of measuring device is offered in order to fulfill different demanding applications.

- No radioactive source, running more safely.

- Non-contact measurement allows the transducer to serve longer.

III. Technical Parameters

Measuring performance	
Precision	2% (one sigma)
Resolution	0.5%
Measuring range	0-70%
Display	Concentration/density, relay status
Calibration	Factory setting, field correction
Temperature compensation	Automatically done via built-in temperature sensor
Output	
Analog output	
Signal	4～20mA, Reading error ±0.15%
Relay output	High & low concentration warning, 120mA, 350VAC
Communication	RS-485
Environmental conditions	
Ambient temperature	0～+60℃
Ambient humidity	Relative humidity 0-98% (non- condensing)
Medium conditions	
Process pressure	≤0.5MPa
Medium temperature	0～+60℃

IV. Product Applications

- For online detection of slurry or coal slime concentration in the metallurgy, mining, washing and power plant.

- For concentration detection of tailings in the backfilling process in the extractive industry.

- For real-time concentration detection of the sediment in the hydrological station.

- For long-term detection of the sediment concentration of the soil erosion.

- For detection of sediment movement and sedimentation around the river and river mouth, and detection of float sludge around the harbor channels.

- For concentration detection in the water supply plant and the sewage treatment plant. (Reflux sludge, primary sedimentation tank, secondary sedimentation tank, thickened pool, sludge dewatering, etc.)

- For long-term detection of the pollutant suspended solids in the environment protection engineering.

- For sinks, model tests online measurement of sediment concentration.

- For measurement of concentration of particulate suspension in other chemical, medical, food and other industries.

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