

# Ultrasonic Suspended Solid Monitoring System



The SDM4000 suspended solid meter utilizes its specialized ultrasonic technology to measure the concentration of sludges and slurries in various applications. SDM4000 use 2 transducers to maximize its reliability of measurement. One transducer is used for transmission and the other transducer is used for signal reception. Thus, new patented measuring algorithm maximizes its measurement credibility and accuracy.

SDM4000 offers both pipeline type sensor and spoolpiece/insertion type sensor for wide applications. Its 3 set-point relays can be independently configured as either a high or low setpoint and can be used for direct control or for error alarming. The graphic display shows the present sensors status and helps the operator to check its performance.

## ***Product Features***

- Non Contact Measurement
- Multiple reception transducers
- 10,000 points Data Logging & Trend Mode
- Robust Total Insulated FRP Enclosure
- Submersible and Insertion transducers
- In-situ measurement and calibration
- Selectable display units(ppm, mg/l, %)

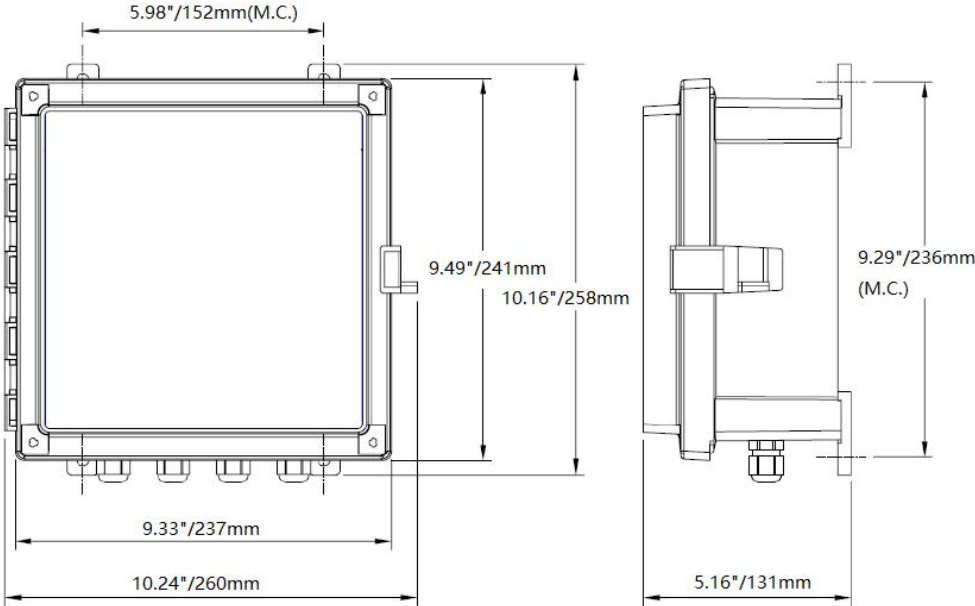
## ***Application Industry***

- Water, wastewater treatment
- Pulp and paper
- Food and beverage
- Chemical
- Mining



**Product Dimensions**

**Electronic Device**



**Sensor Types**

Several sensor types enable field operators to fit their need in application. The sensor size's is different from pipe diameter and density value.

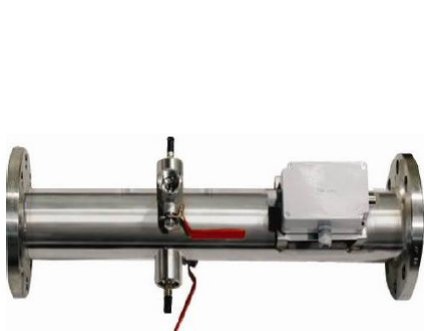
Insertion Type



Tank-mount Type



Pipeline Type



## Product Specifications

### Electronic

- **Measuring ranges** 200 ~ 200,000mg/l (0.2~20%)
- **Resolution** 10mg/l (0.01%)
- **Accuracy**  $\pm 5\%$  of F.S.
- **Repeatability**  $\pm 1\%$  of F.S.
- **Operational Temperature** -4 ~ 140°F (-20 ~ 60°C)
- **Outputs**
  - Current output : 4 ~ 20mA, nom. Load 250 $\Omega$  (load range : 100 ~ 750 $\Omega$ )
  - Relay output : 3 SPDT(5A ,250VAC) – “ER” “R1” “R2”
  - Digital output (option) : RS232, RS485
- **Power supply**
  - Standard : 100 ~ 240V AC,50~60Hz,  $\leq 15W$
  - Option : 24V DC  $\pm 10\%$
- **Enclosure Material** Body/Cover : FRP  
Window : Polycarbonate
- **Dimension** W 9.33x H 9.45x D 5.16 inch (237 x 241 x 131mm)
- **Mounting** hole center W 5.98 x H 9.29 inch(152 x 36mm)  
Dia. 0.33inch x 4ea ( $\Phi 8.2\text{mm}$  x 4ea)
- **Weight** 6.6 lb (3 kg)
- **Enclosure Rating** NEMA 4 (IP66)
- **10,000-points Data Logging & Trend Mode**

### Transducer

- **Material** Body: 316 SS; Ultrasonic Head: Epoxy; Pipe: 304 SS
- **Operational Pressure** 10 bar
- **Cable length** 33ft or 10m (Standard)
- **(Junction box to Controller)** Max. 300ft (91m) extensible
- **Operational Temperature** 14 ~ 140°F(-10 ~ 60°C)
- **Dimension** Dia 3.78x3.74inch ( $\Phi 96$  x h 95 mm)
- **Weight** Spoolpiece/Insertion : 0.66pounds (0.3kg),  
Submersible : 2.2pounds (1kg)
- **Pipe Diameter** 4~24inch (100 ~ 600mm)
- **Sealing** Submersible (>IP68)
- **Cleaning Device** Optional



**Ordering Code**

**Electronic**

	<b>Enclosure</b>		
	4	Standard NAME 4	
	<b>Communication</b>		
	-	Without protocol	
	1	RS232	
	2	RS485	
	<b>Power supply</b>		
	AC	AC 100-240VAC	
	DC	DC 18-36VDC	
<b>SDM-4000</b>			

**Transducer**

	<b>Type of transducer</b>		
	F	Submersible transducer	
	I	Insertion transducer	
	P	Pipeline transducer	
	<b>Unit of pipe(Insertion type in use)</b>		
	-	Submersible transducer	
	A	ANSI	
	D	DIN	
	J	JIS	
	<b>Pipe size</b>		
		***	
	<b>Cable length (From Sensor Junction box to Transmitter)</b>		
		C**	
<b>SDM-4000-RTX</b>			

