

# MICROWAVE TOTAL SOLIDS METER



- Single point calibration for all concentrations
- Low installation and lifetime costs
- Reliable & accurate
- Not affected by process or media changes
- Easy to use display
- Wide TS concentration range

## CMC TS-METER

The CMC high concentration total solids meter is an excellent tool for continuous online TS concentration measurement in WWTP and biosolids applications. Common applications are thickened sludge prior to digesters, anaerobic sludge to centrifuges, primary clarifier sludge to obtain polymer dosing savings or better process control. The reliable and well tested measuring principle of microwave true-

phase technology which utilizes 5 frequencies to achieve higher accuracy and automatic recovery after an empty pipe situation. True-Phase technology used in the CMC has proven to offer high measurement accuracy over a wide range of TS concentrations. The rugged design with no moving parts insures high reliability and minimum maintenance. The microwave sensor is available in sizes DN80 – DN300 and for insertion type from DN150.

### TECHNICAL SPECIFICATIONS

#### Measurement

Range	<35% TS(350,00 mg/l or ppm)
Repeatability	0.01 % TS
Resolution	0.001% TS for sizes 50 - 300 mm (2 » 12") 0.002% TS for size 80 mm (3") and insertion type (IT)

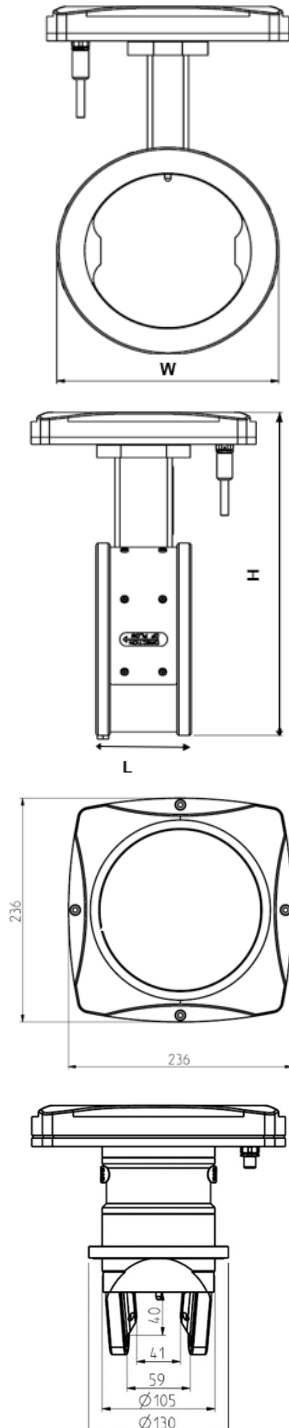
#### Instrument

Sensor type	Microwave TS consistency / concentration transmitter
Wetted parts	Sensor: SS 316L Window: Ceramic
Display unit	ABS
Enclosure class	Sensor: IP66 (Nema 4x), Display unit: IP65 (Nema 4)
Approvals	EMC, CE, PED
Output signal	3 × analog outputs, 4–20 mA + HART®
Binary inputs	24 VCD, process stop, sludge type (2) and sampler input
Binary outputs	12–48 VDC, max 10 mA, dry contact
Analog input	2 external input 4-20mA, isolated

#### Installation requirements

Installation	Wafer type between flanges for flow through (FT) models. Sandvik saddle (NS114 mm) for ITL and ITLF models	
Length	100 mm for all CMC models, 105 mm for ITL and ITLF	
Process Temp	0 » 100°C (32 » 212°F)	
Power supply	86–264 VAC, 47–63 Hz, 20 VA	
Process pressure	Pressure class PN25, Recommendation >1.Bar(>22 psi ), no air	
Process pH	2.5 » 11.5 pH	
Ambient temperature	Sensor: 0 » 60 °C (32 » 140 °F) Display unit: 0 » 60 °C (32 » 140°F)	
Flow velocity	Flow through type – no effect Insertion type – max flow 5 m/s (16.4ft/s)	
Conductivity limits	CMC 80 mm (3")	< 25 mS/cm
	CMC 100 mm (4")	< 20 mS/cm
	CMC 150 mm (6")	< 20 mS/cm
	CMC 200 mm (8")	< 15 mS/cm
	CMC 250 mm (10")	< 15 mS/cm
	CMC 300 mm (12")	< 15 mS/cm
	IT 80 mm (3")	< 25 mS/cm
	CMC ITL 105 mm (4")	<25 mS/cm
	CMC ITLF 105 mm (4")	<25 mS/cm

Sensor	H	W	L	kg
CMC 80	285mm	138mm	100mm	10 kg
CMC 100	307mm	160mm	100mm	12 kg
CMC 150	363mm	216mm	100mm	16 kg
CMC 200	417mm	270mm	100mm	20 kg
CMC 250	467mm	320mm	100mm	25 kg
CMC 300	521mm	374mm	100mm	30 kg
CMC ITL	202mm	105mm	105mm	10 kg
CMC ITLF	232mm	105mm	105mm	10kg



CMC