Solid matter measurement

91S131100

The eCHEM optical sensor for solid measurements is a process and immersion sensor for measuring solid particle content. The measurement is based on multi-channel technology using the 90° scattered light method.

Benefits

- Sewage treatment plants: primary sludge, sludge, return sludge, digested sludge
- Outlets

Applications

- Sludges from biological processes
- Paper mills
- Food processing
- Scrubber systems

Technical Specifications

OPERATION AND SYSTEM CONFIGURATION	
Measurement principle	90° scattered light method
Measuring method	Nephelometry
AUXILIARY POWER	
Electrical connection	8-pin M12 plug
Power supply	12-24 V
Power consumption	3 W
INPUT PARAMETERS	
Measuring ranges	0...30 g/L
Cable specification	black PUR (halogen free), shielded, M12 plug
Measurement wavelength	860 nm
OUTPUT SIZES	
Output signal	RS-485, Modbus RTU
Accuracy	± 3 % FS
Data interface	RS-485, Modbus RTU
PERFORMANCE CHARACTERISTICS	
Response time	90 % of the value in 5 seconds
Repeatability	98 %
Calibration method	On the meter by means of analytical multipoint determination

AMBIENT CONDITIONS	
Protection type	IP68
PROCESS CONDITIONS	
Process temperature	0...+60 °C
Process pressure	4 bar
STRUCTURAL DESIGN	
Materials	Stainless steel 1.4401 casing, window with epoxy glue, Viton® O-ring
Thread	1" GAS
CERTIFICATES AND APPROVALS	
CE Manufacturer's Declaration	2014/30/EC EMC Directive (EN 61326-1:2013)
Work certificates	Yes
SCOPE OF DELIVERY	
value only lead Manual	Yes
CE Manufacturer's Declaration	Yes
Test certificate	Yes
ACCESSORIES	
Cables	Extension cables: 0.3 m, 2 m, 10 m, 25 m
Measuring transducer	TriBox3, TriBox mini, HS100, TriBox Flex