



MES 5 / VB5, Measurement of SS, turbidity and sludge blanket

Applications

- Treatment of urban waste water (Input / Network (SS, Turbidity) Aeration Tank (MES), Clarifier (Sludge Blanket), Outlet (Turbidity)).
- Industrial effluent treatment (Aeration Tank (SS), Decanter (Sludge Blanket), output (Turbidity))
- Sludge treatment channels.
- Monitoring of dredging sites ...



Optical Technology

The measuring principle is based on the attenuation of the IR signal through an optical slot. The sensor delivers measurement in Sludge concentration (g / l), Turbidity (FAU) and Sludge blanket in % of IR transmission. For a best accuracy, the optical measurements are temperature controlled. For a measure of Suspended Solids, the sensor is calibrated directly on the material to be measured (sludge sample). In Turbidity mode, the sensor provides measurements over a range of 0-4000 FAU (Formazin Attenuation Unit) and it is calibrated with Formazin solutions. Temperature: optical measurement and control via CTN.

ADVANTAGES



- Optical sensor based on IR absorptiometry
- Measuring ranges: SS: 0-50 g / L, Sludge Blanket 0-100% Turbidity 0-4000 FAU
- Digital communication RS-485 Modbus / SDI-12
- Robust sensor

Accessory

Odeon



Technical specifications

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| Measures Sludge concentration, Turbidity, Sludge blanket detection | |
| SS Measuring principle | Optical IR (870 nm) based on absorptiometry |
| Measuring range | SS: 0-50 g / L Turbidity: 0-4000 FAU, Sludge blanket: 0-100% MES |
| Resolution | SS : 0.01 g / L Turbidity: 0.01 to 1 FAU, sludge blanket: 0.01 to 0.1% sludge blanket |
| Accuracy | SS : <10%; Turbidity: ± 5% (range 200-4000 FAU); Sludge blanket: ± 2% |
| Response time | < 35 seconds |
| Temperature Measurement | |
| Measuring principle T°C | NTC |
| Operating temperature | -5,00 °C to +60,00°C |
| Resolution | 0,01 °C |
| Accuracy | ± 0.5 °C |
| Storage temperature | -10°C to +60°C |
| Protection | IP 68 |
| Interface signal | RS-485 Modbus or SDI-12 |
| Refresh speed measurement | Maximum < 1 second |
| Sensor supply | 5-28 volts |
| Consumption | Standby: 25 µA (5V), RS485 Average (1 measure / second): 4.5 mA (power supply 5V), SDI-12 Average (1 measure / second): 4.5 mA (power supply 5V) Pulse current 100 mA during 30 mS, Warm up time: 100 mS |
| Sensor | |
| Weight | 750 g (sensor) |
| Materials in contact with the environment | DELRIN |
| Maximum pressure | 5 bars |
| Cable / connector | 9 armored connectors, polyurethane sheath, bare wires or sealed metal Fischer connector |

References

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| Digital sensor MES5 Odeon Fisher plug 3m | PF-CAP-C-00276 |
| Digital sensor MES5 Odeon Fisher plug 7m | PF-CAP-C-00277 |
| Digital sensor MES5 Odeon Fisher plug 15m | PF-CAP-C-00278 |
| Digital sensor VB5 Odeon Fisher plug 3m | PF-CAP-C-00283 |
| Digital sensor VB5 Odeon Fisher plug 7m | PF-CAP-C-00284 |
| Digital sensor VB5 Odeon Fisher plug 15m | PF-CAP-C-00285 |

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| Digital sensor MES5 bare wires 3m | PF-CAP-C-00279 |
| Digital sensor MES5 bare wires 7m | PF-CAP-C-00280 |
| Digital sensor MES5 bare wires 15m | PF-CAP-C-00281 |
| Digital sensor VB5 bare wires 3m | PF-CAP-C-00286 |
| Digital sensor VB5 bare wires 7m | PF-CAP-C-00287 |
| Digital sensor VB5 bare wires 15m | PF-CAP-C-00288 |

