HM-600 Series Online CODeq Sensor

COD is an important indicator for online monitoring of the inlet and outlet water of drainage pipe network and sewage treatment. There has always been a lot of actual demand for online rapid monitoring.

Dissolved organic matter (DOM) and UV254 in water can often be used as cod/bod alternative indicators for online monitoring of codeq/bodeq, which has outstanding advantages such as rapid monitoring, no reagent, low maintenance, etc,

It is applicable to the trend or early warning monitoring of water samples with stable organic pollution sources, and can be used as an alternative indicator for COD monitoring of drainage pipe networks and sewage treatment. HM-600 series online organic matter probe in water adopts UV fluorescence and UV absorption detection technology, which has high sensitivity and can detect dissolved organic matter (DOM) and organic pollutants (UVAS) in water online.

The probe can be assembled into a customized tee, which has two ¾ Inch (DN20) NPT internal thread opening to facilitate installation to the same ¾ Inch (DN20) water intake circuit. The online probe has an internally isolated 4-20mA current output and can be connected to any controller that supports isolated or non isolated 4-20mA input. The design of HM-600 series on-line organic matter probe in water makes it very easy to clean, which can avoid the accumulation of impurities affecting the measurement.

Applications

HM-600: Tap water inflow, water source protection area monitoring, rural drinking water monitoring, decentralized sewage treatment in villages and towns, reverse osmosis membrane element inflow monitoring HM-610: organic pollutant water quality monitoring at the inlet and outlet of sewage treatment facilities, organic pollutant load trend monitoring during treatment, sewer network, sponge city and other applications

Instrument Features

- HM-600 second response speed: The system is tested every 4 seconds, which can respond quickly to sudden pollution events and reduce unnecessary losses.
- HM-600 adopts UV fluorescence method, which is all solid without reagent; Without moving parts, it can withstand vibration and impact without damage in mobile applications.
- HM-600 has low cost: compared with TOC monitoring, the initial investment of DOM online monitoring technology is reduced by more than 70%. In the later application process, there are no consumables and reagent costs.
- HM-600 adopts four beam technology to greatly reduce turbidity interference.
- HM-610 utilizes the absorption of organic matter in the ultraviolet band of 254nm to provide continuous monitoring of pollutants in water, which can be used as a substitute index of cod/bod for process control.
- Compared with chromium cod analyzer, hm-610 has no concerns about heavy metal pollution, no reagents, low operation cost and simple maintenance.
- Pollution resistant design: the embedded quartz tube channel design greatly reduces the need for cleaning and maintenance.
- The built-in transmitter directly outputs RS485 and 4-20mA isolation signals without preamplifier or meter. The long-distance transmission is more stable and accurate. The calibration, data recording and diagnosis can be carried out on the personal computer or smart phone through the Bluetooth adapter. Before leaving the factory, it has undergone the aging test and pre calibration under pressure to ensure the stability and reliability of the probe.

Specifications (1)

Item	HM-600	HM-610
Object	DOM	UVAS
Range (2)	0- 10mg/L	300/m (6mm optical distance)
Limit	0. 1mg/L	0.1 /m
Accuracy	≤3% or 0.1 mg/L	≤3% or 0.25 /m
Detection Principle	Ultraviolet fluorescence method	HPCE-UV
Velocity of Flow	0-3m/s	
Working Voltage	12-36 VDC, power ~1W	
Outputs	4-20mA analog output and RS-485 digital output	
Cable Joint	IP67 aviation mode connector, cable length 1.5m (4.5ft)	
Pressure	≤6.9 bar(100psi)	
Working Temperature	0~50℃(32~122℉)	
Storage	-20~60℃(-4~140℉)	
Material	Shell: CPVC; Detection channel: optical quartz tube	
Size	L172.7 × ∅36.6 mm	
Weight	170 g	
Installation	3/4 "by order tee fitting, socket or NPT threaded connection	
IP Code	IP68	
Calibration	DOM: calibration with humic acid reference material; UVAS:calibration with Cod standard solution	
Certification (3)	CE, RoHS	
Cleaning System	Compressed air purging	

Remarks:
(1) With the continuous update of technology and the continuous change of technical parameters, please keep an eye on it.
(2)The measurement range depends on the composition of organic matter and water sample.
(3)The cleaning system depends on the actual application.

Ordering Imformation

P/N	Model	Description
52111	HM-600	Online DOM probe
52112	HM-610	Online UVAS probe
43003	UC- 100	General controller
MA-WB	MA-WB	7-core Bluetooth communication converter with display