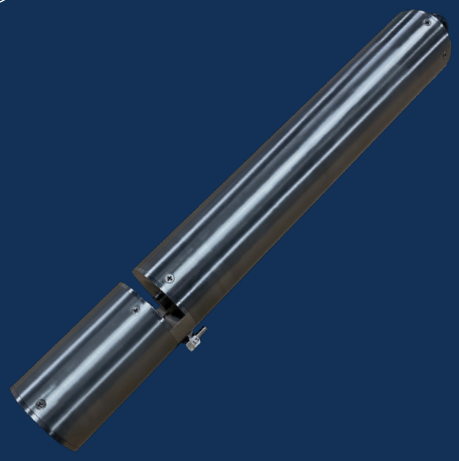
BOD/COD PROBE

BA SERIES



FEATURES & BENEFITS

- Affordable real-time BOD/COD organics monitoring
- Multiple wavelength sensor uses patent-pending technology for superior measurement performance
- Robust submersible probe with titanium or stainless steel housing
- Operator friendly, low maintenance UV LED design
- Reagent free optical measurements
- Simple to install and operate

MUNICIPAL DRINKING WATER
MUNICIPAL WASTEWATER
INDUSTRIAL PROCESS WATER
INDUSTRIAL WASTEWATER

REAL-TIME MONITORING SOLUTION

BOD/COD Probe

Real Tech's robust BOD/COD submersible probe provides affordable real-time measurement of organic matter in water or wastewater. The probes rugged body is built to withstand harsh environments, with titanium or stainless steel options. Designed to meet the needs of many monitoring applications, the BA series offers multiple path length selections for the desired measurement range.

Controllers and Accessories

Our innovative modular product platform ensures our clients gain the real-time water quality monitoring system that meets their specific demands and budget. With multiple controller and accessory options available such as automatic compressed air cleaning systems that lower maintenance while improving system performance, Real Tech provides a total solution for all of your unique water quality needs.

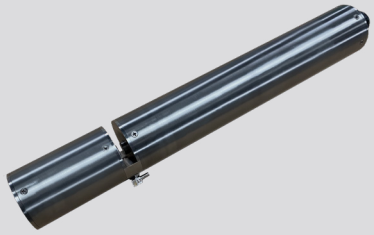
Liquid Ai® Compatible

Our Liquid Ai® data services complement our real-time quality monitoring systems. Calibration Health Monitoring ensures accuracy and reliability are maintained so our clients can have the utmost confidence in their results, while our Remote Monitoring platform enables access to data anywhere, anytime.

MEASUREMENT PRINCIPLE

Real Tech's BOD/COD probe utilizes patent-pending technology to provide superior measurement performance across multiple wavelengths of light using UV LEDs. Many compounds absorb light in the UV-VIS spectrum including organic compounds. The sensor measures organics in a multi-dimensional way that results in improved correlations to aggregate organics water quality parameters, such as BOD and COD. This also allows the sensor to be able to detect changes in the composition of organics independently of their concentration. Real Tech's innovative BOD/COD probe is advancing wastewater management.

REAL TECH INC.



BOD/COD PROBE SPECIFICATIONS

CHARACTERISTIC	TECHNICAL DATA	
Model	BA-X	BA-S
Path Length	0.5, 1, 2, 4, 10 mm	
Parameters	BOD, COD, TOC, TSS	
Range	Depends on model selected. Refer to range chart.	
Units	mg/L	
Sampling Time	10 seconds	
Calibration	Factory calibrated. Field adjustment of calibration is possible.	
Cleaning	Automatic compressed air or pressurized water cleaning with optional Probe Clean System	
Self-Diagnostics	Detection and diagnosis of internal system fault	
Alarms	Continuous detection of leaks, lamp output, humidity, temperature and electrical fault	
Humidity Control	Humidity sensor with desiccant pack	
Wavelengths	Multiple wavelengths	
Light Source	UV LED	
Electrical/Comm.	From controller	
Pressure Rating	15 PSI	
Operating Temp.	0 to 45°C (32 to 113°F)	
Housing Material	Titanium (Grade 2)	Stainless steel (SS 316)
Wetted Materials	Titanium, Epoxy, Sapphire, SS 316, Viton	Epoxy, Sapphire, SS 316, Viton
Weight	1.5kg (3.31lb)**	2.5kg (5.25lb)**
Ingress Protection Type	IPX8	
Dimensions	15" H x 2.0" Diameter	
Warranty	2-year limited warranty (Extended care packages available)	

* Technical Specifications are subject to change without notice.

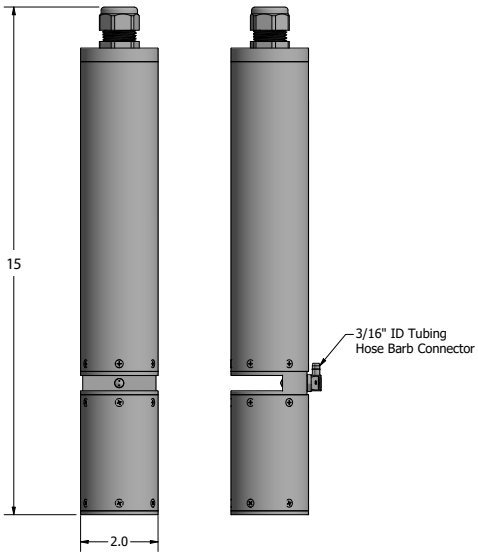
* Operating (water) temperature absolute maximum 55°C (131°F). Instrument performance reduced when operating outside recommended operating range. Contact Real Tech to verify application.

** Weight does not include cable. Cable weight: 0.70kg (1.55lb).

DIMENSIONS

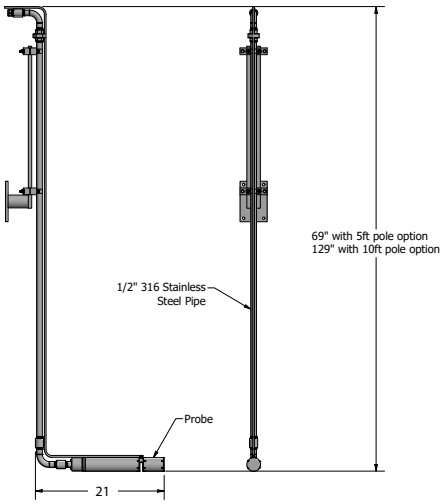
The BOD/COD probe is a submersible instrument installed directly in-situ using a pole mounting kit or chain mount.

DIMENSIONS FOR BOD/COD PROBE



MOUNTING FOR BOD/COD PROBE

Pole mount



Chain mount

PROBE MODELS & RANGE

Includes titanium (-X) or stainless steel (-S) BOD/COD probe sensor and 35 feet of communication cable.
Controller, mounting kit and cleaning system sold separately.

Measurement ranges are estimations based on previous field data, and may vary based on plant specific details. Full measurement range may be greater than the ranges stated in the table below, although accuracy may be significantly reduced outside these stated ranges.

Please contact Real Tech for your application specific demands.

MUNICIPAL

PRODUCT#	PATH LENGTH	BOD (mg/L)	COD (mg/L)	TOC (mg/L)	TSS (mg/L)*
BA-X2005 / BA-S2005	0.5 mm	0 - 6000	0 - 14,000	0 - 3500	0 - 40,000
BA-X2010 / BA-S2010	1 mm	0 - 3000	0 - 7000	0 - 1750	0 - 20,000
BA-X2020 / BA-S2020	2 mm	0 - 1500	0 - 3500	0 - 875	0 - 10,000
BA-X2040 / BA-S2040	4 mm	0 - 750	0 - 1750	0 - 440	0 - 5000
BA-X2100 / BA-S2100	10 mm	0 - 300	0 - 700	0 - 175	0 - 2000

DAIRY

PRODUCT#	PATH LENGTH	BOD (mg/L)	COD (mg/L)	TOC (mg/L)	TSS (mg/L)*
BA-X2005 / BA-S2005	0.5 mm	0 - 20,000	0 - 50,000	0 - 12,500	0 - 40,000
BA-X2010 / BA-S2010	1 mm	0 - 10,000	0 - 25,000	0 - 6250	0 - 20,000
BA-X2020 / BA-S2020	2 mm	0 - 5000	0 - 12,500	0 - 3125	0 - 10,000
BA-X2040 / BA-S2040	4 mm	0 - 2500	0 - 6250	0 - 1560	0 - 5000
BA-X2100 / BA-S2100	10 mm	0 - 1000	0 - 2500	0 - 625	0 - 2000

BEVERAGE

PRODUCT#	PATH LENGTH	BOD (mg/L)	COD (mg/L)	TOC (mg/L)	TSS (mg/L)*
BA-X2005 / BA-S2005	0.5 mm	0 - 16,000	0 - 48,000	0 - 12,000	0 - 40,000
BA-X2010 / BA-S2010	1 mm	0 - 8000	0 - 24,000	0 - 6000	0 - 20,000
BA-X2020 / BA-S2020	2 mm	0 - 4000	0 - 12,000	0 - 3000	0 - 10,000
BA-X2040 / BA-S2040	4 mm	0 - 2000	0 - 6000	0 - 1500	0 - 5000
BA-X2100 / BA-S2100	10 mm	0 - 800	0 - 2400	0 - 600	0 - 2000

BREWERY

PRODUCT#	PATH LENGTH	BOD (mg/L)	COD (mg/L)	TOC (mg/L)	TSS (mg/L)*
BA-X2005 / BA-S2005	0.5 mm	0 - 16,000	0 - 48,000	0 - 12,000	0 - 40,000
BA-X2010 / BA-S2010	1 mm	0 - 8000	0 - 24,000	0 - 6000	0 - 20,000
BA-X2020 / BA-S2020	2 mm	0 - 4000	0 - 12,000	0 - 3000	0 - 10,000
BA-X2040 / BA-S2040	4 mm	0 - 2000	0 - 6000	0 - 1500	0 - 5000
BA-X2100 / BA-S2100	10 mm	0 - 800	0 - 2400	0 - 600	0 - 2000

MEAT PROCESSING

PRODUCT#	PATH LENGTH	BOD (mg/L)	COD (mg/L)	TOC (mg/L)	TSS (mg/L)*
BA-X2005 / BA-S2005	0.5 mm	0 - 12000	0 - 20,000	0 - 5000	0 - 40,000
BA-X2010 / BA-S2010	1 mm	0 - 6000	0 - 10,000	0 - 2500	0 - 20,000
BA-X2020 / BA-S2020	2 mm	0 - 3000	0 - 5000	0 - 1250	0 - 10,000
BA-X2040 / BA-S2040	4 mm	0 - 1500	0 - 2500	0 - 625	0 - 5000
BA-X2100 / BA-S2100	10 mm	0 - 600	0 - 1000	0 - 250	0 - 2000

PULP & PAPER

PRODUCT#	PATH LENGTH	BOD (mg/L)	COD (mg/L)	TOC (mg/L)	TSS (mg/L)*
BA-X2005 / BA-S2005	0.5 mm	0 - 1400	0 - 4000	0 - 1000	0 - 40,000
BA-X2010 / BA-S2010	1 mm	0 - 700	0 - 2000	0 - 500	0 - 20,000
BA-X2020 / BA-S2020	2 mm	0 - 350	0 - 1000	0 - 250	0 - 10,000
BA-X2040 / BA-S2040	4 mm	0 - 175	0 - 500	0 - 125	0 - 5000
BA-X2100 / BA-S2100	10 mm	0 - 70	0 - 200	0 - 50	0 - 2000

* Stated ranges are approximate, dependent on site and application - contact Real Tech to confirm model selection

* TSS measurement range is approximate and dependent upon site specific conditions. For a more accurate TSS output a dedicated TSS or Turbidity sensor should be installed as part of the system.

CONTROLLERS

Controllers include proprietary inputs for Real Tech sensors and accessories.

PRODUCT #	NAME	DESCRIPTION
S-229005	Real Controller Lite	Wall mounted controller with 4-line x 20-character back lit LCD display. Includes modbus RTU (RS485)
S-169000	Real Controller	Wall mounted controller with 4-line x 20-character back lit LCD display. Includes modbus RTU (RS485), 1 channel of 4-20 mA out and digital I/O module
S-11TPC	Real Controller Pro	Wall mounted controller with 12.1" colour LCD touch panel PC interface (PC inside cabinet model). Includes Modbus TCP
S-11TPCD	Real Controller Pro	Wall mounted controller with 12.1" colour LCD touch panel PC interface (PC external on door model). Includes Modbus TCP

ACCESSORIES

PRODUCT #	NAME	DESCRIPTION
S-228070	Probe Clean System	Cleaning valve module requires on-site compressed air or pressured water for automatic probe cleaning
S-228080	Compressed Air System	Compressor for air cleaning when compressed air not available on-site
S-219081	Probe Mounting Kit I	Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. No pole included.
S-219082	Probe Mounting Kit II	Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. 5' pole included.
S-219083	Probe Mounting Kit III	Provides secure mounting attachment for titanium or stainless steel probe to a tank wall or open channel wall. 10' pole included.
S-229085	Chain Mount	Stainless steel chain for mounting probe in open channel

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