NV3300 Color Probe

Applications

- Wastewater Effluent
- Drinking Water
- Process Water

Easy and reliable color monitoring

The Hach® NV3300 color probe enables simple and reliable monitoring of any changes affecting the color of your water. The online color measurement probe is suitable for industrial applications, such as cooling water and waste water, as well as for drinking water and surface water monitoring.

Easy trend monitoring of changes in color

Continuous color monitoring is an easy way to detect changes in your water color related to numerous substances. With measurement intervals as frequent as every 2 seconds, the NV3300 color probe will detect changes earlier than a wet chemistry analyser, enabling you to react before downstream water quality is affected. It is also designed to help you meet your regulatory requirements in line with DIN EN ISO 7887 (SAC) or DIN EN ISO 6271 (AHPA/Hazen) color scales.

Easy operation and expert support

Thanks to factory pre-calibration, color monitoring is available to you from day one with easy setup. Plus, Hach experts are standing by to support you any time.

Low maintenance and robust housing

The measuring method does not require any reagents or sample preparation. With the probe submerged in the water, the nano-coated measuring windows can be automatically cleaned to prevent fouling of the optical path that can diminish monitoring precision. The optional titanium housing is particularly well suited for aggressive media in industrial applications.

Technical Data*

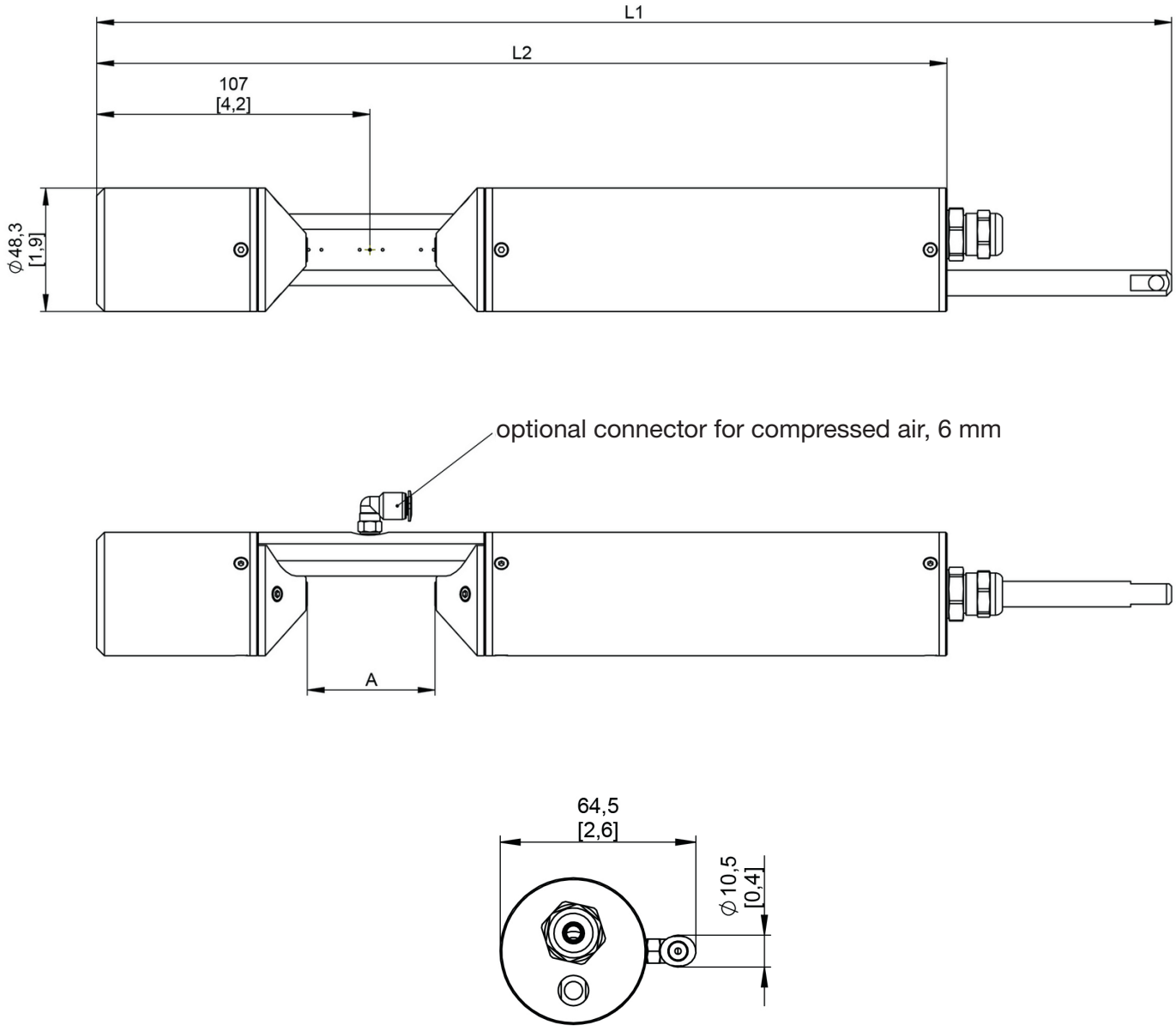
Parameter		SAC 436 nm, Pt-Co Hazen 455 nm, Pt-Co Hazen 390 nm, True color 410 nm			
Application		Wastewater effluent, Drinking water, Process water monitoring			
Path Length		50/100/150/250 mm			
Parameter		SAC 436 nm	Pt-Co Hazen 455 nm	Pt-Co Hazen 390 nm	True color 410 nm
Range	Path length 50 mm	0.1 - 30 m^{-1}	4.0 - 1100 mg/L	0.8 - 220 mg/L	2.0 - 560 mg/L
	Path length 100 mm	0.05 - 15 m^{-1}	2.0 - 550 mg/L	0.4 - 110 mg/L	1.0 - 280 mg/L
	Path length 150 mm	0.03 - 10 m^{-1}	1.5 - 360 mg/L	0.3 - 75 mg/L	0.6 - 185 mg/L
	Path length 250 mm	0.02 - 6 m^{-1}	0.8 - 220 mg/L	0.2 - 45 mg/L	0.4 - 110 mg/L
Lower Limit of Detection (LOD)	Path length 50 mm	0.1 m^{-1}	4.0 mg/L	0.8 mg/L	2.0 mg/L
	Path length 100 mm	0.05 m^{-1}	2.0 mg/L	0.4 mg/L	1 mg/L
	Path length 150 mm	0.03 m^{-1}	1.5 mg/L	0.3 mg/L	0.6 mg/L
	Path length 250 mm	0.02 m^{-1}	0.8 mg/L	0.2 mg/L	0.4 mg/L
Controller Compatibility		CD500, CD300			
Measuring Interval		≥ 2 s			
Measuring Principle		Attenuation, Transmission			
Operating Temperature Range		2 - 40 °C			
Sample Temperature		2 - 40 °C			
Storage Conditions		-20 °C - 80 °C			
Pressure Range		Max. 3 bar (in the flow cell max. 1 bar)			
Sample Flow Rate		0.1 - 10 m/s			
Weight		Stainless steel: 2.5 kg Titanium: 1.4 kg			
Diameter		48.3 mm			
Length		421/471/521/621 mm			
Material		Sensor enclosure: Stainless steel 1.4571/1.4404 or Titanium			
Light Source		2 LEDs			
Cable Length		10 m fixed cable with M12 plug			
Interface		Ethernet (TCP/IP), RS232 or RS485 (Modbus RTU)			
Power Requirements (Voltage)		12 - 24 V DC (±10%)			
Certifications		CE			

**Subject to change without notice.*

Principle of Operation

The sensor uses two different LEDs for long-term stable measurements of SAC or colors at different wavelengths. Based on the model, LED1 emits light at a specific wavelength and the photometer determines the transmittance - intensity of the remaining light not absorbed by the medium flowing through the optical path. There are four options for LED1, each measuring to a different standard (SAC 436 nm, Pt-Co Hazen 390 nm, Pt-Co Hazen 455 nm, or True Color 410 nm). LED2 emits light at 740 nm and the transmittance measured at this wavelength is used to determine the turbidity compensation needed for the sample.

Dimensions



Order Information

Probes

LXV513.99.11X12	NV3300 color probe, SAC 436 nm, 50 mm optical path length
LXV513.99.12X12	NV3300 color probe, Pt-Co Hazen 455 nm, 50 mm optical path length
LXV513.99.13X12	NV3300 color probe, Pt-Co Hazen 390 nm, 50 mm optical path length
LXV513.99.14X12	NV3300 color probe, True color 410 nm, 50 mm optical path length
LXV513.99.21X12	NV3300 color probe, SAC 436 nm, 100 mm optical path length
LXV513.99.22X12	NV3300 color probe, Pt-Co Hazen 455 nm, 100 mm optical path length
LXV513.99.23X12	NV3300 color probe, Pt-Co Hazen 390 nm, 100 mm optical path length
LXV513.99.24X12	NV3300 color probe, True color 410 nm, 100 mm optical path length
LXV513.99.31X12	NV3300 color probe, SAC 436 nm, 150 mm optical path length
LXV513.99.32X12	NV3300 color probe, Pt-Co Hazen 455 nm, 150 mm optical path length
LXV513.99.33X12	NV3300 color probe, Pt-Co Hazen 390 nm, 150 mm optical path length
LXV513.99.34X12	NV3300 color probe, True color 410 nm, 150 mm optical path length
LXV513.99.41X12	NV3300 color probe, SAC 436 nm, 250 mm optical path length
LXV513.99.42X12	NV3300 color probe, Pt-Co Hazen 455 nm, 250 mm optical path length
LXV513.99.43X12	NV3300 color probe, Pt-Co Hazen 390 nm, 250 mm optical path length
LXV513.99.44X12	NV3300 color probe, True color 410 nm, 250 mm optical path length

The NV3300 probes are available in different materials: X=1: stainless steel / X=2: titanium

Accessories

LXZ529.99.00032	Chain mount kit, stainless steel
LZY232	Stainless steel chain with lock, 5 m
6860000	High Output Airblast, 115 V
6860100.99.0002	High Output Airblast, 230 V
LZY499	Cable Kit for High Output Airblast
LXZ529.99.00028	Air hose with check valve for High Output Airblast
LXZ529.99.B0002	Flow cell, panel, NV3300, 50 mm path length
LXZ529.99.B0003	Flow cell, panel, NV3300, 100 mm path length
LXZ529.99.B0004	Flow cell, panel, NV3300, 150 mm path length
LXZ529.99.B0005	Flow cell, panel, NV3300, 250 mm path length
LXZ529.99.C0001	Extension cable, 8-pole connector, 10 m (32.8 ft)
LXZ529.99.C0002	Extension cable, 8-pole connector, 25 m (82 ft)
LXZ529.99.0001A	CD300 controller, 2 sensors
LXZ529.99.A002A	CD500 Controller, 4 sensors
LXZ529.99.00027	Adapter plate, sunshield for controller

DOC053.52.35176.Sep18

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