

VIPER

17SXXXXX0



VIPER measures hyperspectral attenuation and transmission coefficients in the wavelength range of 360 nm and 750 nm, enabling detailed determination of multiple parameters at the same time. The light source is provided by 5 selected, energy-saving LEDs that Warranty a long service life and stable measurement data. VIPER can be used in different media as it is available in multiple path lengths, both in stainless steel or titanium housing.

Benefits

- Without sampling and preparation of test samples
- Real time sensor
- Without reagents
- Optical window with nano coating
- LED technology

Typical applications for VIPER are water quality monitoring, color measurements of aqueous solutions or quality monitoring of drinking water. Like all TriOS sensors, VIPER is equipped with a nano-coated optical window that protects from fouling. Additional parameters can be installed by means of software if necessary at a later time.

Applications

- Drinking water monitoring
- Environmental monitoring
- Colorimetry
- Quality assurance
- Petrochemical industry
- Industrial applications
- Food industry



Technical Specifications

Measurement technology	light source	5 LED	
	detector	High-end miniature spectrometer, 256 channels 360 to 750 nm, 2.2 nm/pixel	
Measurement principle		Attenuation	
Optical path		10 mm, 50 mm, 100 mm, 150 mm, 250 mm	
Parameter		SAC ₄₃₆ Pt-Co color scale (APHA/Hazen) (390 nm, 455 nm) Colouring based on DIN EN ISO 7887-C (410 nm, 436 nm, 525 nm, 620 nm) Cr-Co color scale (380 nm, 413 nm)	
Measuring range		0.01...2.5 AU (absorption units)	
Measurement accuracy		< 0.2 %	
Turbidity compensation		Yes	
Data logger		~ 2 GB	
T100 response time		2 min	
Measurement interval		≥ 1 min	
Housing material		Stainless steel (1.4571/1.4404) or titanium (3.7035)	
Dimensions (L x Ø)		495 mm x 48 mm (with 50 mm path)	~ 19.5" x 1.9" (with 50 mm path)
Weight	stainless steel	~ 2.4 kg (with 50 mm path)	~ 5.3 lbs (with 50 mm path)
	titanium	~ 1.3 kg (with 50 mm path)	~ 2.9 lbs (with 50 mm path)
Interface	digital	Ethernet (TCP/IP)	
		RS-232 or RS-485 (Modbus RTU)	
Power consumption		≤ 3 W	
Power supply		12...24 VDC (± 10 %)	
Maintenance effort		≤ 0.5 h/month (typical)	
Calibration/maintenance interval		24 months	
System compatibility		Modbus RTU	
Warranty		1 year (EU: 2 years)	US: 2 years
INSTALLATION			
Max. pressure	with SubConn	30 bar	~ 435 psig
	with fixed cable	3 bar	~ 43.5 psig
	in FlowCell	1 bar, 2...4 L/min	~ 14.5 psig, 0.5 to 1.0 gpm
Protection type		IP68	NEMA 6P
Sample temperature		+2...+40 °C	~ +36 °F to +104 °F
Ambient temperature		+2...+40 °C	~ +36 °F to +104 °F
Storage temperature		-20...+80 °C	~ -4 °F to +176 °F
Inflow velocity		0.1...10 m/s	~ 0.33 fps to 33 fps