

VIPER

17SXXXXX0



VIPER measures spectrally resolved attenuation in the wavelength range between 360 nm and 720 nm and thus allows the detailed determination of several parameters at the same time. 5 selected and energy-saving LEDs serve as the light source, ensuring stable measurement data and a long service life. VIPER can be used in a wide variety of media, as it is available in several path lengths and in both stainless steel and titanium. Applications for VIPER include water monitoring, colour measurement of aqueous solutions or quality monitoring of

drinking water. Like every TriOS sensor, VIPER is equipped with nano-coated optical windows to prevent dirt build-up. Additional parameters can be installed later using software, if necessary. VIPER is equipped with the new TriOS G2 interface, allowing easy and fast sensor configuration via a web browser. Integration into existing process control systems and external data loggers has never been easier.

NEW! The TriOS compressed air flushing is now also available for the paths 100 mm, 150 mm and 250 mm!

Advantages

- without sampling and sample preparation
- without delay
- without reagents
- optical windows with nanocoating
- LED technology

Applications

- Drinking water monitoring
- Environmental monitoring
- Colour measurement
- Quality assurance
- Petrochemistry
- Industry
- 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
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