

MONITEK MESSENGER LD & PC SPECIFICATIONS

PERFORMANCE

Accuracy	+/- 1% F.S.	Linearity	+/- 1% F.S.
Repeatability	+/- 1% F.S.	Response time:	<1 second
Sensitivity	+/- 1% F.S.		

ENVIRONMENT

Ambient temperature	- 0°C to 45°C (14°F to 113°F)
Messenger LD	Stainless steel enclosure: NEMA 4X, IP65
Dimensions	180 mm H x 160 mm W x 114 mm D (7.1" x 6.3" x 4.4")
Weight	2.77 kg (6.1 lbs.)
Messenger PC	Stainless steel enclosure: NEMA 4X, IP65
Dimensions	375 mm H x 305 mm W x 173 mm D (14.8" x 12.0" x 6.8")
Weight	9.7 kg (21.4 lbs.)
Messenger PC	Fiberglass enclosure: NEMA 4X, IP65
Dimensions	350 mm H x 300 mm W x 173 mm D (13.8" x 11.8" x 6.8")
Weight	5.76 kg (12.7 lbs.)

UTILITIES

Power & consumption	100-240 VAC, 50/60 Hz 50 VA
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COMMUNICATIONS

Digital Outputs	RS 232, MODBUS; RS 485; USB
Analog Outputs	4 maximum, 4-20mA (self-powered)
Relays	4 (optional) SPST, 250 VAC, 4A, programmable

APPROVALS & CERTIFICATIONS

CE – Messenger LD
 CSA/NEC – General Purpose: Messenger LD, Messenger PC (SS enc.)
 CSA/NEC – Class 1, Div. 2: Messenger PC (SS enc.) with Z-Purge

MONITEK MONITURB (F, S, FS) TURBIDITY SENSOR SPECIFICATIONS

PERFORMANCE (COMPATIBLE WITH MONITEK MESSENGER LD & PC)

Accuracy	+/- 2% F.S.	Linearity	+/- 2% F.S.
Repeatability	+/- 1% F.S.	Response time:	<1 second
Calibration Interval	12 months		

PHYSICAL SPECIFICATIONS

Line Sizes	10-100 mm (1/2"-4")
Weight	Application & sensor dependent
Process Connections	DIN, ANSI, NPT, TH, Tri-Clamp, others

DESIGN SPECIFICATIONS

Sensor Types	MoniTurb F: 12° forward-scattered light MoniTurb S: 90° side-scattered light MoniTurb FS: 12° & 90° scattered light	
Detectors	Silicon photodiodes, hermetically sealed	
Sensor Material	316L SS / 1.4404 (as standard); Hastelloy C, TFMC, others available	
Windows	Sapphire	
Gasket Material	Application-specific, depending on sample temperature or chemical composition. Options include Viton, EPDM, and Kalrez	
Process Pressure	Max. 15 bar (220 psi) at ambient temperature High-pressure sensors upon request	
Process Temperature	Max. 140°C (284°F)	
Optical Pathlength	Application specific	Cable Length Application specific
Cleaning Jets	optional	Air Purge optional

MONITEK MONISPEC COLOR & TSS SENSOR SPECIFICATIONS

PERFORMANCE (COMPATIBLE WITH MONITEK MESSENGER LD & PC)

Accuracy	+/- 2% F.S.	Linearity	+/- 2% F.S.
Repeatability	+/- 1% F.S.	Response time:	<1 second
Calibration Interval	12 months		

PHYSICAL SPECIFICATIONS

Line Sizes	10-100 mm (1/2"-4")		
Weight	Application & sensor dependent		
Process Connections	DIN, ANSI, NPT, TH, Tri-Clamp, others		

DESIGN SPECIFICATIONS

Sensor Types	MoniSpec TSS: (formerly MoniSpec A) single wavelength absorbance, total suspend solids, turbidity, & concentration by absorbance MoniTurb Color: (formerly MoniSpec AD) dual-wavelength absorbance color		
Measuring Range	Application specific (Max. 3 AU)		
Detector System	390-850 nm	Detectors	Silicon photodiodes, hermetically sealed
Sensor Material	316L SS / 1.4404 (as standard); Hastelloy C, TFMC, others available		
Windows	Sapphire	Sensor Material	Application specific
Process Pressure	Max. 15 bar (220 psi) at ambient temperature High-pressure sensors upon request		
Process Temperature	Max. 140°C (284°F)		
Optical Pathlength	1 mm to 500 mm (application specific)		
Cable Length	Max. 100 m (330 ft)		
Cleaning Jets	optional	Air Purge	optional

MONITEK MONITURB & MONISPEC SENSOR APPROVALS & CERTIFICATIONS

Protection:	All optical parts protected to NEMA 4X, IP65
ATEX:	Zone 1, Zone 2
CSA/NEC:	Class 1, Div. 2, Groups ABCD Div. 1, Groups CD General Purpose