

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

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