



NAG
MARINE ★

TD-107s

OIL CONTENT MONITOR

PRODUCT NAME:

TD-107s OIL CONTENT MONITOR

MODEL CODES:

TD-107s-24 and TD-107s-WPR

PRODUCT OVERVIEW

TD-107s OIL CONTENT MONITOR

NAG Marine's TD-107s is an instrument that complies with the IMO Resolution MEPC.107(49) and has approvals from the US Coast Guard and DNV. It uses fluorescence detection technology that provides highly accurate bilge oil detection and is resistant to false positives from rust, debris, and other solids that can affect competing light-scatter devices.

- 01 The TD-107s is a compact and lightweight instrument that comes with a modular, removable remote detection smart sensor.
- 02 Pre-calibrated smart sensors are available for easy exchange by the end-user via plug-and-play connections.
- 03 NAG Marine offers full life-cycle support of every product we sell.



COMPONENTS

Enclosure	Encased in a powder-coated mild steel enclosure are the monitor electronics, featuring printed circuit boards, power terminals, and relay terminals. This enclosure is seamlessly linked to the Smart Sensor assembly via a quick-connect cable.
Monitor Terminal Blocks	Positioned within the front panel of the enclosure, these blocks facilitate the connection of power, AC/DC relay, and 4-20mA analog output.
LCD	320x240 resolution display. By default, the monitor's home screen prominently displays readings of hydrocarbon concentration along with any ongoing alarms.
Keypad	The keypad includes a standard five-point navigation star for easy left, right, up, down, and enter commands. Additionally, shortcut keys are conveniently placed for quick access to main screens and menus.
Smart Sensor Assembly	The Smart Sensor assembly is seamlessly linked to the monitor enclosure via a quick-connect cable. It comprises a transparent flow cell housed in Kynar, along with sealed optics and electronics, a humidity sensor, and a three-position flush valve.
Three-Position Ball Valve	The valve is affixed to the Smart Sensor and connected to the monitor enclosure via wiring. It facilitates regular processes, flushing, and solution injection by managing the sample inlet and outlet lines of the Smart Sensor assembly.
Luer-Lok Injection Port	The front port of the Smart Sensor is designated for injecting cleaning solutions using a syringe.
Cleanout Port	Situated atop the Smart Sensor assembly, the inlet port enables access to the flow, facilitating manual cleaning with a brush when flushing alone is insufficient.
Sample Inlet	The inlet port serves as the plumbing connection for attaching the sample intake line to the Smart Sensor assembly.
Sample Outlet	The outlet port serves as the plumbing connection for attaching the sample outline to the Smart Sensor assembly.
Flush Line Inlet	The flushing port serves as the plumbing connection for attaching a clean water line or pump to the Smart Sensor assembly.

PHYSICAL

Dimensions (H,W,D)	Enclosure (w/ mounting bracket) 9.56 x 14.25 x 5.67 in • 242.8 x 361.9 x 144 mm
Weight	14lbs (6.35 kg)
Enclosure Material	Powder-coated mild steel
Enclosure Rating	NEMA 4X, IP66
Inlet/Outlet/Flush Pipe Size	0.25 in (6.35 mm) stainless steel or plastic tubing

ELECTRICAL

Power	24 VAC/VDC (Optional 100-240 VAC power supply available upon request)
Relays	Three dry-contact relays: 250 VAC, fused at 2A or 28 VDC, fused at 1.6A NOTE: Benchmark does not recommend placing heavy inductive loads on the relays
Signal Output	One 4-20 mA analog output, fused at 50 mA, maximum impedance <= 750 ohms

OPERATING LIMITS

Water Sample Pressure	100 psig [690 kPa(g)] maximum
Water Sample Flow	Minimum: 0.03 gal/min [0.1 L/min] Maximum: 0.79 gal/min [3.0 L/min] Recommended: 0.26 gal/min [1.0 L/min]- 0.52 gal/min [2.0 L/min]
Sample Temperature	Minimum: >32 F [0 C] Maximum: <122 F [50 C]
Ambient Temperature	Minimum: >32 F [0 C] Maximum: <131 F [55 C]