

TD107s

OIL CONTENT MONITOR



OVERVIEW

The TD-107s is US Coast Guard approved and IMO Resolution MEPC.107(49) compliant. It utilizes fluorescence detection technology offering incredibly accurate bilge oil detection and superior resistance to false positives like rust, debris, and other solids that routinely registered false positives on competing light-scatter devices.

The TD-107s is small, light, and offers a modular, removable remote detection cell.. Pre-calibrated cells are available for simple swap-out by the end-user via plug-and-play connections.

FEATURES

- IMO MEPC.107(49) Compliant
- US Coast Guard Approved
- Smaller Footprint
- IP65 Enclosure
- Modular Detection Cell
- 320x240 Resolution Display
- 24 VAC/VDC optional 100-240 VAC Power Input
- 1 Button High Alarm Test Feature
- User Accessible Micro SD Card
- Up to 18 Mos. Trend Logging
- Easy Install & Maintenance
- Plug-and-Play Connection

TD-107s SPECIFICATIONS

| Components | |
|-------------------------------------|--|
| Enclosure | A powder coated mild steel enclosure houses the monitor electronics including printed circuit boards and power and relay terminals. It is connected to the Smart Sensor assembly with a quick connect cable. |
| Monitor Terminal Blocks | Located behind enclosure front panel. Power, AC/DC relay, and 4-20mA analog output connections are made on these blocks. |
| LCD | The monitor default is the home screen which displays hydrocarbon concentration readings as well as any active alarms. Users can navigate to other function screens by using the keypad. |
| Keypad | The keypad features a common five point navigation star for left, right, up, down, and enter commands. Shortcut keys are provided for main screens & menus. |
| Smart Sensor Assembly | The Smart Sensor assembly is connected to the monitor enclosure with a quick connect cable. Includes a clear flow cell in a plastic enclosure, sealed optics and electronics, a humidity sensor, and a three-position flush valve. |
| Three-Position Ball Valve | The valve is attached to the Smart Sensor and wired to the monitor enclosure. It allows normal processes, flushing, and solution injection by controlling the sample inlet and outlet lines to the Smart Sensor assembly. |
| Luer-Lok Injection Port | The port on the front of the Smart Sensor used for injecting cleaning solutions with a syringe. |
| Cleanout Port | A port located on top of the Smart Sensor assembly permits access to the flow for cleaning with a brush when flushing alone is not effective. |
| Sample Inlet | The plumbing connection for attaching the sample intake line to the Smart Sensor assembly. |
| Sample Outlet | The plumbing connection for attaching the sample out line to the Smart Sensor assembly. |
| Flush Line Inlet | 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, 14.25, 5.67 in (242.8, 361.9, 169.4 mm) |
| Weight | 14 lbs (6.35 kg) |
| Enclosure Material | Powder Coated mild steel |
| Enclosure Rating | NEMA 4x, IP 66 |
| Inlet/Outlet/Flush Pipe Size | 0.25 in (6.35 mm) stainless steel or plastic tubing. |
| Electrical | |
| Power | 24 VAC / VDC Optional 100-240VAC power supply available |
| Relays | Three dry-contact relays: 250 VAC, fused at 2 A or 28 VDC, fused at 1.6 A NOTE: Turner Designs Hydrocarbon Instruments 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 [0 C] Maximum: < 131 F [50 C] |