Maretron
Vessel Monitoring & Control Systems

# Installation Instructions

## 10231 2" FPT Cooling Water Flow Switch

**Introduction**

The Maretron 10231 is an accessory for the SIM100 Switch Indicator Module. The 10231 has a set of normally closed contacts that will open whenever a flow of cooling water of a user-settable amount is detected.

**Instructions**

Please follow these instructions to connect the 10231 to the NMEA 2000 network via a Maretron SIM100 Switch Indicator Module. The wiring diagram appears in Figure 1. The diagram shows a connection to channel #1, but connections to other channels are similar. Please refer to the original manufacturer's instructions packaged with the product for additional details including setting of the switch activation flow rate.

1. Install the two wires from the 10231 to a free switch channel on the SIM100. The two wires are interchangeable. The example in Figure 1 shows the flow switch connected to switch channel 1, terminals SW1A and SW1B.

2. Use a Maretron DSM250 display (firmware 1.3.5 or higher), or the DSM250 Viewing function of Maretron N2KAnalyzer software, or other Maretron display product capable of configuring the SIM100 to set the switch channel mode (indicated as "Channel #*x* Mode" on the DSM250) for the appropriate channel to the "No End of Line Resistor" setting. For this example, you would set "Channel #1 Mode" to "No End of Line Resistor".

3. Supply Power to the NMEA 2000 network, Verify that the switch channel indicates an "on" (normal) state using Maretron N2KView software, N2KAnalyzer, or other product capable of displaying switch indicator state.

4. Start cooling water flow through the 10231 and verify that the switch channel indicates an "off" state.

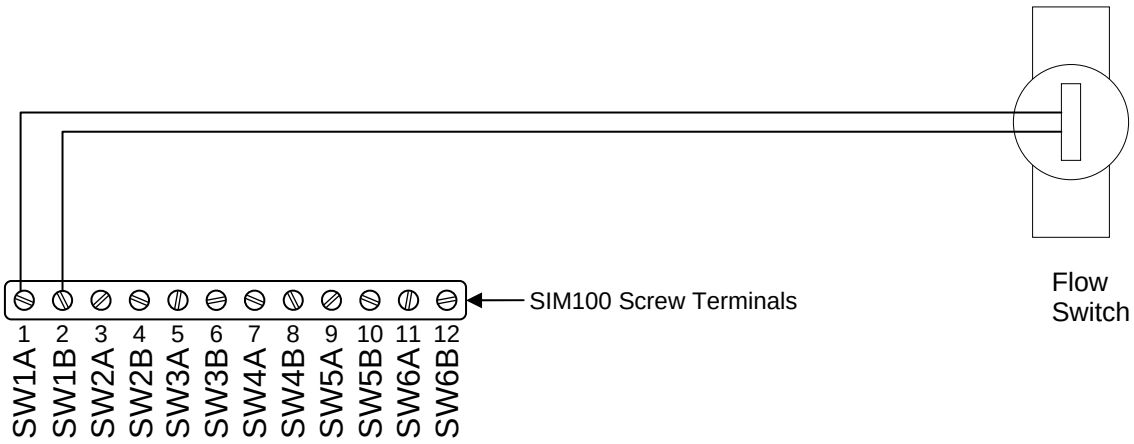


***Figure 1 - Wiring Diagram***

## Device Specifications

| Parameter | Value |
|---|---|
| Inside Diameter | 2” (50.8mm) |
| Outside Diameter | 2.75” (69.9mm) |
| Length | 5.2” (132.1mm) |
| Height | 3.53” (89.7mm) |
| Activation Flow Rate W/O Baffle | 12-16 GPM (45.4-60.6 LPM) |
| Activation Flow Rate W/Baffle | 8-10 GPM (30.3-37.9 LPM) |
| Contacts | Normally Closed |
| Connections | 2” FPT Female |
| Switching Rating | 50W |
| Switching Voltage (Max) | 300VAC / 300VDC |
| Maximum Switching | 0.5A (0.3A inductive) |
| Heat Resistance, Continuous | 210°F (99°C) |
| Maximum Pressure | 120 PSI @ 72°F<br>8.3 bar @ 22°C |
| External Fasteners | 18-8 Stainless Steel |
| Construction | CPVC Schedule 80 |
| Connection | 5’ (1.5m) Marine Grade Tinned Wire Leads |
| Springs | Hastelloy “C” Springs for Corrosion Resistance |
| Gasket | EPDM |

For installation support, please contact:

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