

# PowerView™ - Model PV101



## Features

- Tier 4I/Euro Stage IV (PV101-C)
- Tier 3/Euro Stage III and earlier (PV101-A)
- For modern electronic engines and equipment applications using SAE J1939 Controller Area Network
- Displays active and ECU-stored faults with text description for diagnosing equipment malfunctions
- Displays over 50 standard SAE J1939 parameters
- Tier 4 emissions compliant
- Software configurable with configuration tool

The **PowerView PV101** display is a multifunction tool that enables equipment operators to view standard engine and transmission parameters as well as active and stored trouble codes. The display can show a single parameter or a four-parameter simultaneous display. Diagnostic capabilities include codes with text description for most common fault conditions. The enhanced alarm indicators have ultra-bright alarm and shutdown LEDs (amber and red). The PV101-C and PV101-A have many features including:

- **Tier 4 Emissions Implementation (PV101-C only)** – Three icons indicating Active Regeneration, Inhibit Regeneration, and Diesel Particulate Filter (DPF) Restricted. Menu offers Auto DPF Regen and Request DPF Regen.
- **OEM Menu** - A password protected menu offers access to MODBUS Setup, Engine Speed Control ON/OFF, and other critical menu items that require restricted access.
- **TSC1 (Torque Speed Control) (PV101-C only)** – Allows user to set run speed via CAN if supported by engine manufacturer.
- **Additional 4-Up Screen (PV101-C only)** – Allows user to have two 4-Up screens to toggle between. Second user configurable screen is defaulted to show Tier 4 Parameters; DEF Level (Diesel Exhaust Fluid Level), DPF Active Regen Status, Exhaust Filter Outlet Temp, and Exhaust Filter Inlet Temp.
- **Multiple language options** – Russian, Czech, Brazilian Portuguese, Chinese, and Japanese models have been added to the line of existing languages (English, Spanish, French, German, and Italian).
- **Sender Input** – Select between backlight dimmer function or fuel level. Can be calibrated to use non-Murphy fuel senders.
- **Service Reminders** – 5 service reminders allow users to set hours for: Change Engine Oil, Change Air Filters, Change Hydraulic Oil, Service Engine, and Service Machine.
- **Select Source Address** – Select the exact address the PV101 will claim on the Bus.
- **Select CANbus Data Rate** – Allows user to select CANBUS data rate.
- **PV101-C Configuration Tool (PV101-C only)** – PC tool allows users to create, view, edit and download configurations for the PV101.
- **The PV101-C Display Gauges – Compatible with PVA and PVM gages, as well as additional J1939 I/O modules.**

Other components in the MurphyLink system include micro-processor-based PowerView Analog (PVA) Gages for displaying critical engine data broadcast by an electronic engine or transmission's Engine Control Unit (ECU); engine RPM, oil pressure, coolant temperature, and system voltage. A combination audible alarm/relay unit offers warning and shutdown alerts. Up to 32 components may be linked to the PowerView using a simple daisy chain wire connection scheme using RS485. The PowerView and all connected components can be powered by either 12 or 24-volt systems.

## Display Parameters

The following are some of the engine and transmission parameters displayed by the PowerView (when applicable, consult engine or transmission manufacturer for SAE J1939 supported parameters). The PowerView can display these parameters in all available languages, as well as in English or Metric units.

- |                                    |                                   |   |
|------------------------------------|-----------------------------------|---|
| • Engine RPM                       | • Oil Pressure                    | • Transmission Oil Temperature          |
| • Engine Hours                     | • Fuel Economy                    | • Transmission Gear Position            |
| • Fuel Rate                        | • Throttle Position               | • Active Service codes                  |
| • System Voltage                   | • Engine Manifold Air Temperature | • Stored Service Codes (when supported) |
| • % Engine Load at the Current RPM | • Current Fuel Consumption        | • View Engine Configuration Parameters  |
| • Coolant Temperature              | • Transmission Oil Pressure       |   |
| • Catalyst Level                   | • NMEA 2000 GPS Parameters        |   |

## Specifications

### Operating Voltage

- 8 - 32 VDC

**Reversed Polarity:** Withstands reversed battery terminal polarity indefinitely within operating temperatures.

### Environmental

**Operating Temperature:** -40° to +85°C (-40° to +185°F)

**Display Viewing Temperature:** -29° to +85°C (-20° to +185°F)

**Storage Temperature:** -40° to +85°C (-40° to +185°F)

**Environmental Sealing:** IP68, ± 5 PSI (± 34kPa)

### Power Supply Operating Current

- (@ 14VDC) 52 mA min.: 300 mA max
- (@ 32VDC) 1A max (with LCD heater)

**CAN Bus:** SAE J1939 compliant

**Case:** Polycarbonate/polyester

**Maximum Panel Thickness:** 3/8 inch (9.6 mm)

### Auxiliary RS485 Communications Port

- User configurable as Modbus MASTER or Modbus RTU SLAVE
- MASTER ACTIVE (default) drives optional PVA or PVM gages
- SLAVE ACTIVE offers user adjustable communication parameters

**Resistive Input:** (user selectable as one of the following)

- Backlighting Potentiometer: 1 K Ohm, 1/4 W
- Murphy Fuel Sender: 33 Ohm full, 240 Ohm empty set standard from factory for use with Murphy fuel sender. Programmable for use with non-Murphy fuel senders.

**Shipping Weights (all models):** 1 Lb. (450 g.)

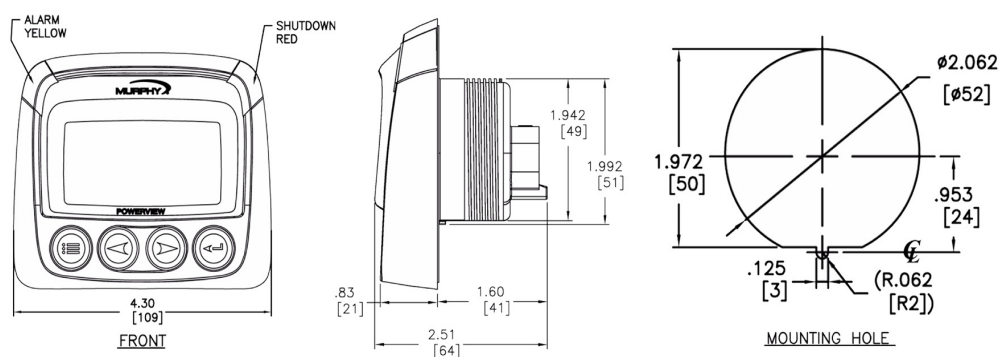
**Shipping Dimensions (all models):**

5 x 6 x 6 in. (127 x 152 x 152 mm)

**Clamp:** PBT

**Connectors:** 6-pin Deutsch DT Series

## Product Dimensions



## How to Order

Part Number	Model	Description	Languages Available
78700439	PV101-C	Murphy STD	English, Spanish, French, Italian, German
78700497	PV101-C-M01	Murphy STD Russian	English, Russian, French, German, Spanish
78700498	PV101-C-M02	Murphy STD Chinese	English, Chinese
78700499	PV101-C-M03	Murphy STD Japanese	English, Japanese
78700500	PV101-C-M04	Murphy STD Brazilian Portuguese	English, Brazilian Portuguese, French, German, Spanish
78700501	PV101-C-M05	Murphy STD Czech	English, Czech, French, German, Spanish
78700435	PV101-C Configuration Tool Kit	User Configuration Tool	
78700244	PV101-A	Murphy STD	English, Spanish, French, Italian, German
78700396	PV101-A-M01	Murphy STD Russian	English, Russian, French, German, Spanish
78700409	PV101-A-M02	Murphy STD Chinese*	English, Chinese
78700411	PV101-A-M03	Murphy STD Japanese*	English, Japanese

\*Added features not available in these language models.