PowerView® PV485

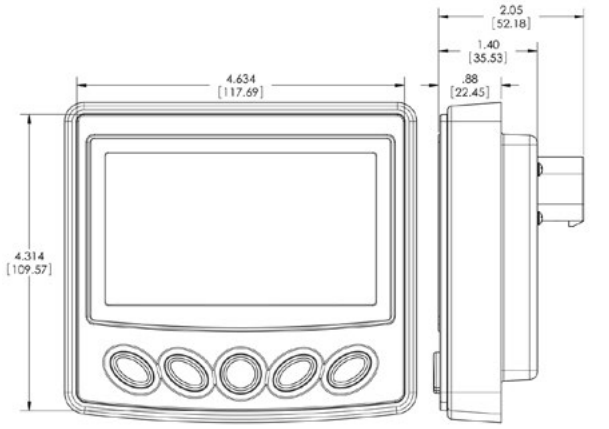
Engine and Diagnostic Display

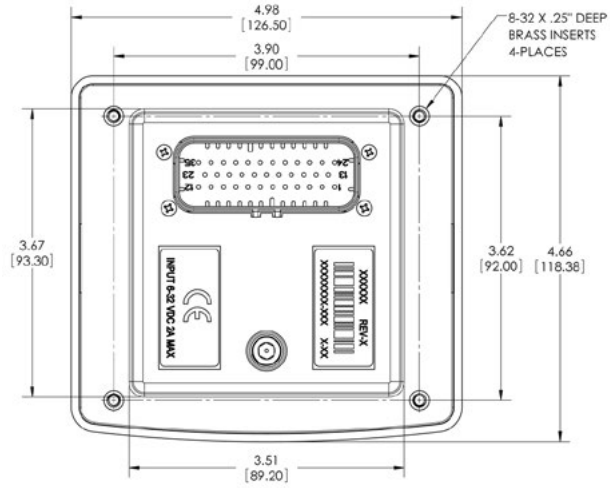
The PowerView 485 is a customizable, all-in-one color display and controller designed to meet the needs of modern electronic engines and equipment applications. Its rugged design offers a wide array of configurable I/O and supports both mechanical and J1939 electronic engines.

The PV485 also supports Tier 4 and stage IV engines, helping to make your transition to Tier 4 easier.

The PV485 controller is compatible with the PowerVision Configuration Studio® software, so custom configurations can be quickly developed. With the PowerVision Configuration Studio software, it is easy to define the user interface screens, as well as the functionality and sequence of events controlled by the PV485. You can configure equipment control such as: autostart, pressure control, data logging and alarms. You can even add custom graphics and company branding to the user interface.

Dimensions





Specifications

Technical

Display: Bonded 4.3"/109mm color transmissive TFT LCD
Resolution: WQVGA, 480 x 272 pixels, 16-bit color
Aspect Ratio: 16:9
Orientation: Landscape
Backlighting: LED, 900-1000 cd/m2 (30,000 hr lifetime)
Microprocessor: Freescale i.MX35 32bit, 532Mhz
Operating System: QNX Real-Time Operating System
Flash Memory: 256 MB
RAM: 128 Mbytes DDR2 SDRAM
Operating Voltage: 6-32 VDC, protected against reverse polarity and load dump
Power Consumption: 10W max.
CAN: (1) CAN 2.0B
Protocols: J1939, FreeForm CAN support
Connection: (1) 35-pin AMP seal connector (AMP 776231-4)
Keyboard: (5) tactile buttons
USB: (1) USB 2.0 host (full speed)
Digital Inputs: (3) Digital Inputs
Digital Outputs: (4) Low Side Open-drain, capable of sinking 500 mA
Analog Inputs: (6) total, (4) software configurable (0-5V, 4-20mA, Resistive) + Battery Voltage + 2nd Battery Voltage
Analog Outputs: (1) 0-5V
Frequency Inputs: (1) Alternator and Magnetic PIckup
Real-time clock: with battery backup

Communication:

(1) CAN 2.0B according to ISO-11898-2; J1939 and CANopen protocols; proprietary messaging

Environmental

Operating Temperature: -40°C to +85°C (-40°F to +185°F)
Storage Temperature: -40°C to +85°C (-40°F to +185°F)
Protection: IP 67, front and back
Emissions/Immunity: SAE J1113 or customer-specified; (CE) - EN61000-6-2, EN12895, ISO 13766
Vibration: Random vibration, 7.86 Grms (5-2000 Hz), 3 axes
Shock: ± 50G in 3 axes

Mechanical

Case Material: Polycarbonate/ABS

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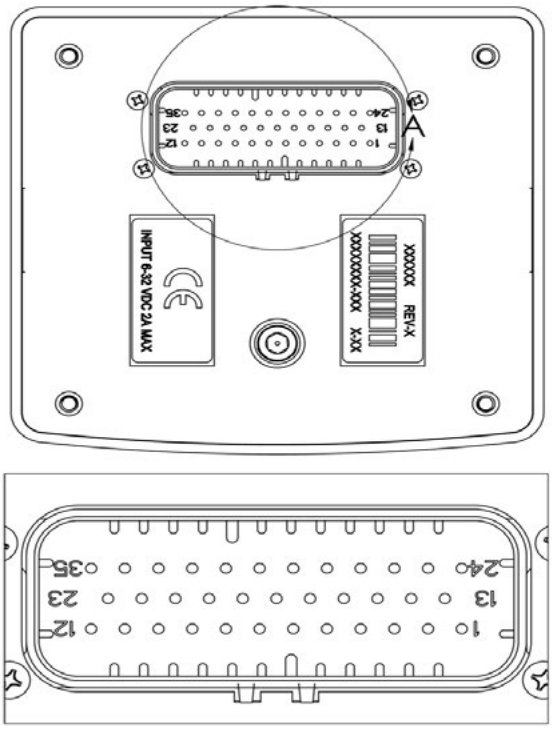
Wiring



DETAIL A
SCALE 2 : 1

Pin #	Pin Assignment	Pin Notes
1	USB D-	For reprogramming
2	USB ID	For reprogramming
3	Digital output 1 (low side, 500 mA)	For an alarm if needed
4	Digital output 3 (low side, 500 mA)	For an alarm if needed
5	Frequency input (alternator or mag)	Tach (for analog engines)
6	Digital input 1	May use for switch inputs
7	Digital input 3	May use for switch inputs
8	A/D input 2 (0-5V, 4-20 mA, resistive)	Fuel (for analog engines)
9	A/D input 4 (0-5V, 4-20 mA, resistive)	Trim (for analog engines)
10	Analog output (0-5V)	Do not use
11	N/C	Do not use
12	N/C	Do not use
13	USB shield	For reprogramming
14	CAN -	CAN low (for CAN engines)
15	Digital output 2 (low side, 500 mA)	For an alarm if needed
16	Digital output 4 (low side, 500 mA)	For an alarm if needed
17	Frequency input return	Tach ground
18	Digital input 2	May use for switch inputs
19	A/D input 1 (0-5V, 4-20 mA, resistive)	Analog input, open for now
20	A/D input 3 (0-5V, 4-20mA, resistive)	Honda trim
21	A/D ground	Ground for tach, trim, fuel
22	Analog output ground	Do not use
23	N/C	Do not use
24	USB D+	For reprogramming
25	USB Vbus	For reprogramming
26	CAN +	CAN high
27	Ignition	Ignition switched input
28	Batt +	Main power
29	Batt -	Ground
30	Batt 2+	Volts
31	N/C	Do not use
32	N/C	Do not use
33	N/C	Do not use
34	RS485-	For RS485 negative
35	RS485+	For RS485 positive

How To Order

Part Number	Model/Description	Notes
78700639	PV485	Display
78000815	Rear-Mount Bracket	Accessories
78000824	Wiring Harness, Loose Leads, 24 inches	
78090077	Programming Harness	
78700590	Programming Kit	