



POWERVIEW Analog Gages



Description

The PowerView Analog Gages (PVA) are a series of intelligent gages designed to display easy-to-read information transmitted by the PowerView. The PVA gages communicate with the PowerView via a single RS485 twisted pair MODBUS[®] RTU serial link. The gages can be daisy-chained using quick-connect harnesses with watertight connectors.

The major feature of the PVA gages is their balance between design and functionality. These modern gages offer a selection of lens and bezel styles and colors. Pages 2, 3 and 4 of this document show you the complete selection of styles available.

The PVA gages also include features such as a smooth stepper motor operation for the 270° sweep pointer, an environmentally sealed case with two Deutsch DT style connectors molded into the casing, and green LED back lighting. They are available for standard 2-1/16 in. (52 mm) and 3-3/8 in. (86 mm) diameter hole sizes. In addition their plastic cases incorporate a “D” shape allowing panel cutouts that eliminate gage rotation during installation.

The PowerView Audible Alarm (PVAA) alerts operators to fault conditions via piezoelectric alarm and relay contacts. It also has a temporary silencer button that silences the audible tone for 2 minutes on warnings and 30 seconds on shutdown conditions.

All PowerView Gages can be powered by 12 or 24 VDC systems.

PVA20 Series Models: 2 inch size gages:

- PVA20 -A = Engine Oil Pressure
- PVA20 -B = Coolant Temperature
- PVA20 -C = Voltmeter
- PVA20 -D = Percent Load at Current RPM
- PVA20 -E = Transmission Oil Pressure
- PVA20 -F = Transmission Oil Temperature
- PVA20 -G = Engine Oil Temperature
- PVA20 -H = Hydraulic Oil Temperature
- PVA20 -J = Percent Fuel Level
- PVA20 -K = Boost Pressure
- PVA20 -L = Exhaust Gas Temperature
- PVA20 -M = Intake Manifold Temperature
- PVA20 -N = Auxiliary Temperature
- PVA20 -P = Auxiliary Pressure
- PVA20 -T = Tachometer
- PVAA20 = Audible alarm

PVA SERIES

- For Modern Electronic Engines and Equipment Using SAE J1939 Controller Area Network
- Display SAE J1939 Parameters Broadcast by The PowerView System
- Cutting-Edge, Stepper Motor Technology and Robust Functionality Combined
- Microprocessor Driven for High Accuracy
- Simple Installation and Wiring Design

PVA35 Series Models: 3-1/2 inch size gages:

- PVA35 -T = Tachometer
- PVA35 -S = Speedometer

Specifications

Power Supply Input Voltage: 12/24V (8-32VDC min. & max. voltage).

Power Supply Operating Current: (@ 14 VDC) =

PVA20, PVA35: 28 mA minimum; 52 mA maximum.

PVAA20: 19 mA minimum; 46 mA maximum.

Backlight Maximum Current (not applicable to PVAA20): 24 mA.

Input: RS485 MODBUS[®] RTU data.

Output: Analog Readout.

Sound Output Level (PVAA20): 90 dB @ 30 cm

Relay Rated Load (PVAA20): 0.5 A, 125 VAC; 1 A, 24 VDC.

Relay Maximum Switching Capacity (PVAA20): 62.5 VA, 30W.

External Audible Alarm Output (PVAA20): 28 VDC, 30 mA max. (current sink).

Temporary Silence Button (PVAA20): Charge transfer technology.

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

Storage Temperature: -76° to 185°F (-60° to 85°C).

Dial: White numerals over black background.

Indicating Pointer: Stepper motor operation with 270° sweep.

Gage Accuracy: PVA20: Better than ±1.0% of scale.

PVA35: Better than ±2% of scale.

Environmentally Sealed Enclosure:

Sealing: IP68, ±5 psi (±34.4 kPa).

Case and Clamp Material: Polyester (PBT).

Lens Material: Polycarbonate.

Bezel Material: Polyester (PBT).

Maximum Panel Thickness: 3/8 in. (9.6 mm).

Connectors: 6-Pin Deutsch DT06 Series.



A-20 Style

Low Profile SAE Style

Contemporary Style

Low Curved Style

PVA20 Series – 2 inch Size Gages

AB Bezel Type



A Bezel Type



BB Bezel Type



B Bezel Type



CB Bezel Type



C Bezel Type



DB Bezel Type



D Bezel Type



PVA35 Series – 3-1/2 inch Size Gages

AB Bezel Type



A Bezel Type



BB Bezel Type



B Bezel Type



CB Bezel Type



C Bezel Type



DB Bezel Type



D Bezel Type



PVAA20 Model – 2 inch Size Audible Alarm

AB Bezel Type



A Bezel Type



BB Bezel Type



B Bezel Type



CB Bezel Type



C Bezel Type



DB Bezel Type



D Bezel Type



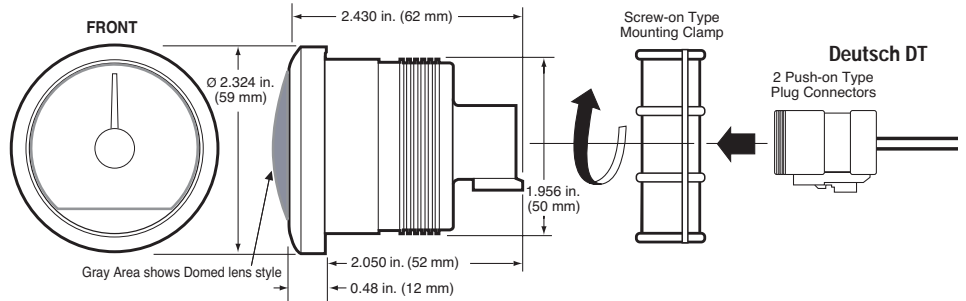
Contemporary Domed Bezel and Lens Style

EB Bezel Type



E Bezel Type

PVA20 Series – Typical Gage Dimensions

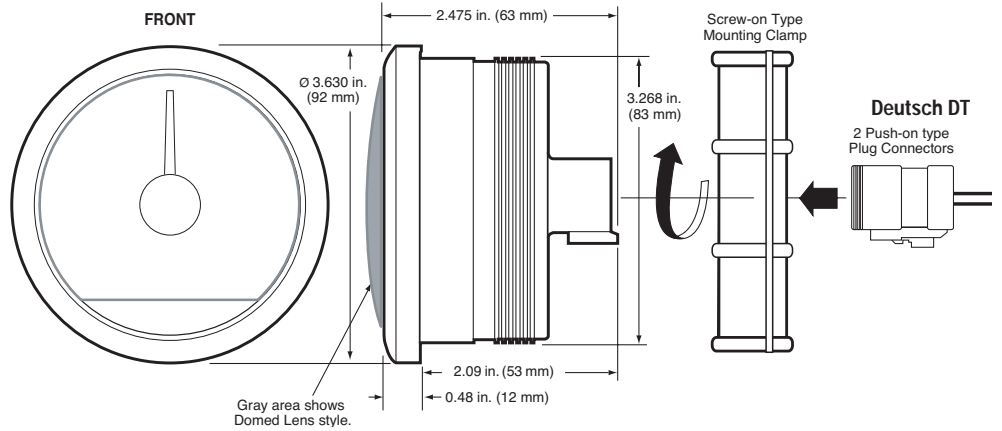


EB Domed Bezel and Lens Type



E Bezel Type

PVA30 Series – Typical Gage Dimensions

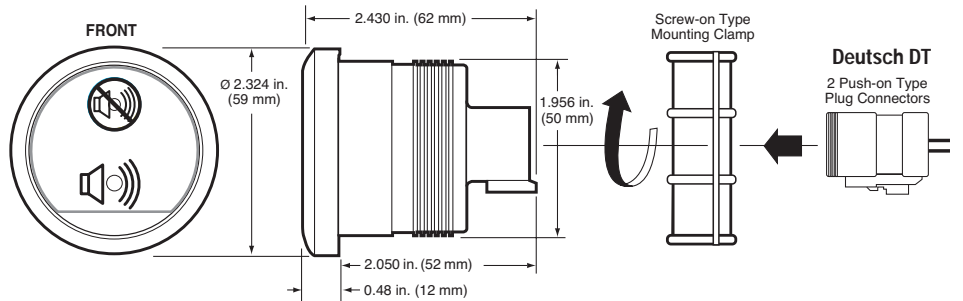


PVAA20 Model – Audible Alarm Typical Dimensions

EB Domed Bezel and Lens Type



E Bezel Type



How to Order: To order the PowerView use the model number designation diagram.

PVA20 - A - 100 - A - R1

Model

PVA20 = 2 inch size PowerView Gage
PVA35 = 3-1/2 inch size PowerView Gage
 (Tachometer or Speedometer only)
PVAA20 = 2 inch PowerView Audible Alarm

Gage Function (excludes PVAA20)

A = Engine Oil Pressure
B = Engine Coolant Temperature
C = Voltmeter
D = Percent Load at Current RPM
E = Transmission Oil Pressure
F = Transmission Oil Temperature
G = Engine Oil Temperature
H = Hydraulic Oil Temperature
J = Percent Fuel Level
K = Boost Pressure
L = Exhaust Gas Temperature
M = Intake Manifold Temperature
N = Auxiliary Temperature
P = Auxiliary Pressure
T = Tachometer
S = Speedometer

Bezel (All Models)

Bezel Type (flat lens)

A = A20 (Brushed Silver)
AB = A20 (Black)
B = Low profile SAE (Brushed Silver)
BB = Low profile SAE (Black)
C = Contemporary (Brushed Silver)
CB = Contemporary (Black)
D = Low Curved (Brushed Silver)
DB = Low Curved (Black)

Bezel Type (domed lens)

E = Contemporary Domed (Brushed Silver)
EB = Contemporary Domed (Glossy Black)

Remote Gage

R1 = Option for a second gage of identical type on the gage network.
 For example: If you are already using one PVA20-A-100-A, and a second oil pressure gage is needed, order a PVA20-A-100-A-R1.

Gage Ranges (excludes PVAA20)

100 = 100 psi/700 kPa
150 = 150 psi/1000 kPa (PVA20-A only)
7B = 7 Bar/100 psi
10B = 10 Bar/150 psi
250 = 250°F/120°C
120C = 120°C/250°F
12 = 12 VDC
24 = 24 VDC
100 = 100%
400 = 400psi/28 bar
28B = 28 Bar/400 psi
150C = 150°C/300°F
40 = 40psi/275 kPa
1600 = 1600°F/870°C
280 = 280°F/138°C
85 = 85 mph/130kmh
130K = 130kmh/85mph
3000 = 3000 RPM
6000 = 6000 RPM

Available for Gage Functions

A
A
A
A
B, F, G, H, M
B
C
C
D, J
E, P
E, P
F, G, N
K
L
N
S
S
T
T (PVA35 model only)

Wiring Harnesses and Accessories

For details see bulletin 0710169

Warranty

A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to www.fwmurphy.com/support/warranty.htm

† *MurphyLink* is a registered trademark of FWMurphy.
 All other trademarks and service marks used in this document are the property of their respective owners.

Shipping Weights

All Models: 1 lb. (450 g.)

Shipping Dimensions

All Models: 6 x 6 x 6 inch (153 x 153 x 153 mm.)

FW MURPHY

P.O. Box 470248
 Tulsa, Oklahoma 74147 USA
 +1 918 317 4100 Fax: +1 918 317 4266
 E-mail: sales@fwmurphy.com

INDUSTRIAL PANEL DIVISION

Fax: +1 918 317 4124
 E-mail: ipdsales@fwmurphy.com

MURPHY POWER IGNITION

Web site: www.murphy-pi.com

www.fwmurphy.com

CONTROL SYSTEMS & SERVICES DIVISION

P.O. Box 1819
 Rosenberg, Texas 77471 USA
 Phone: +1 281 633 4500 Fax: +1 281 633 4588
 E-mail: sales@fwmurphy.com

FRANK W. MURPHY, LTD

Church Rd Laverstock
 Salisbury SP1 1QZ UK
 Phone: +44 172 241 0055 Fax: +44 172 241 0088
 E-mail: sales@fwmurphy.co.uk
 Web site: www.fwmurphy.co.uk

COMPUTRONIC CONTROLS, LTD

41 - 43 Railway Terrace Nechells
 Birmingham B7 5NG UK
 Phone: +44 121 327 8500 Fax: +44 121 327 8501
 E-mail: info@computroniccontrols.com
 Web site: www.computroniccontrols.com

FW MURPHY INSTRUMENTS (HANGZHOU) CO. LTD

77 23rd Street
 Hangzhou Economic & Technological Development Area
 Hangzhou, Zhejiang 310018 China
 Phone: +86 571 8788 6060 Fax: +86 571 8684 8878



Printed in U.S.A.

In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.