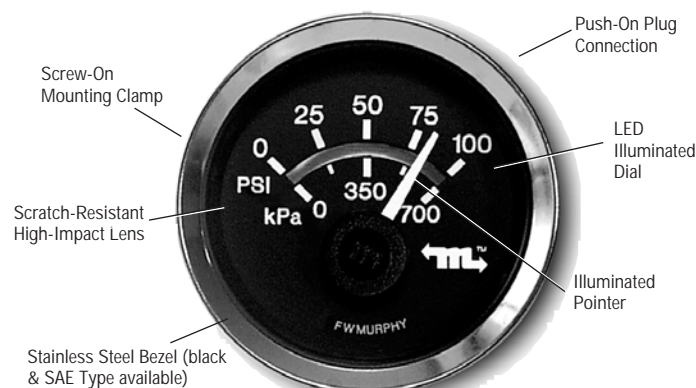


# J1939 MurphyLink™ System Analog Gages

## MLA20 Series – For Engine / Transmission Oil Pressure, Coolant / Transmission Temperature, Voltage, Percent Load



MLA20-A-100-A Engine Oil Pressure Gage Shown

## MLA20 Series • MLA35 • MLAA20

- Displays Critical Data Transmitted by the Murphy Display & Diagnostic Module (MDDM)
- Microprocessor-Driven for High Accuracy
- For Engine or Transmission Oil Pressure, Coolant or Transmission Temperature, 12 or 24 VDC Voltmeter, Percent Load, Tachometer, Audible Alarm
- LED Back Lighting
- 100% Environmentally Sealed Case

### Description

The MurphyLink™ gages are a series of instruments designed to display information transmitted by the Murphy Display and Diagnostic Module (MDDM) in a traditional analog format. Communication from the MDDM to these units is via an RS485 twisted pair proprietary serial link.

The MurphyLink™ components are environmentally sealed, LED back lit (green) and are available in a standard 2 in. (51 mm) diameter, plastic case, MLA20 Series, (metal case for the audible alarm MLAA20 models). The MLA35 Series Tachometer or Speedometer have a 3-3/8 in. (86 mm) in diameter, plastic case.

The MurphyLink™ gages can be powered by 12 or 24 VDC systems. For 24 VDC systems an MLVC2412 voltage regulator is required for back light power supply.

### Specifications

#### Power Supply:

**Input Voltage:** 12V (10-16 VDC min. & max. voltage).

24V (18-32 VDC min. & max. voltage).

**Operating Current:** (@ 14 VDC) = MLA20: 27 mA min.; 50 mA max.

MLA35: 43 mA min.; 48 mA max.

#### Backlight:

**Voltage:** 12 to 14 VDC (See NOTE below).

**Maximum Current:** 30 mA.

**NOTE:** MLVC2412 voltage regulator required for 24 VDC Systems.

**Input:** RS485 data (MurphyLink™ proprietary protocol).

**Output:** Analog Readout.

**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:

MLA20: 90° sweep; MLA35: 250° sweep.

**Gage Accuracy:** MLA20: Better than ±1.5% of scale.

MLA35: Better than ±2% of scale.

**Enclosure:** Environmentally Sealed.

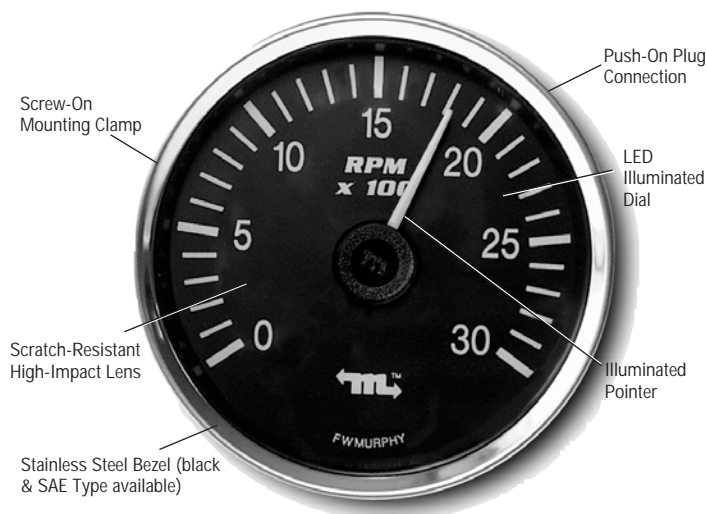
#### Material:

**Case and Clamp:** Polyester (PBT).

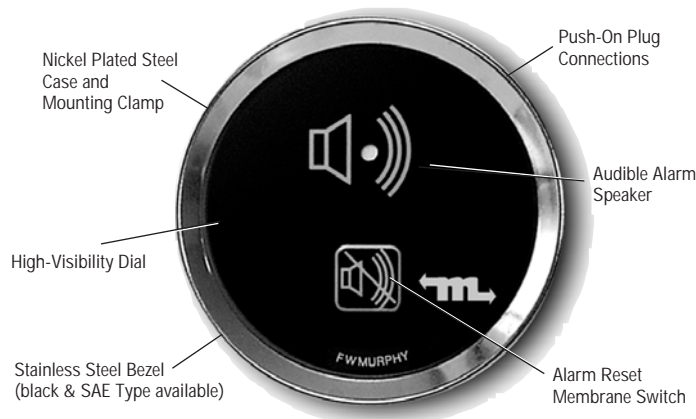
**Lens:** Polycarbonate.

**Bezel:** Stainless Steel (Black optional).

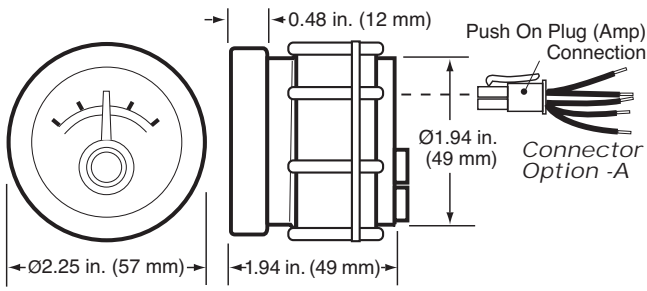
## MLA35 Series – Analog Tachometer or Speedometer



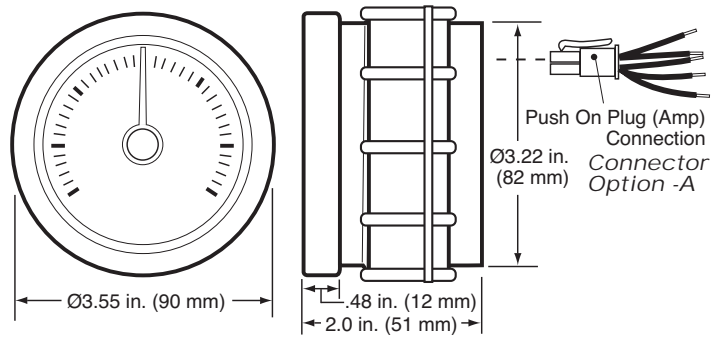
## MLAA20 Model – Audible Alarm



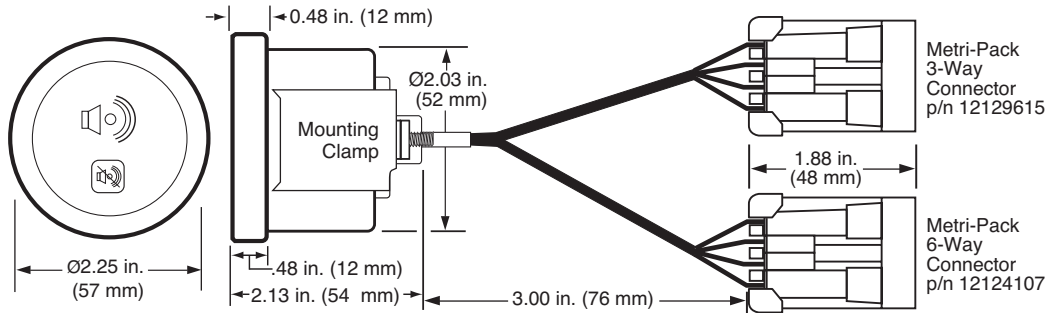
## MLA20 Series Dimensions



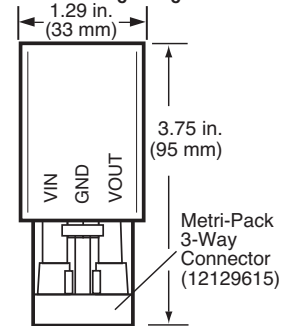
## MLA35 Series Dimensions



## MLAA20 Audible Alarm Dimensions



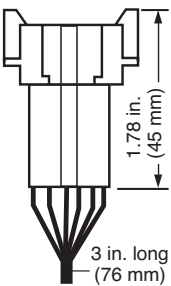
## MLVC2412 Voltage Regulator



## Connector Options

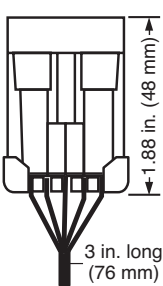
### Option -B

**DT04-6P**  
6-Way Connector



### Option -C

**12124107**  
6-Way Connector



## How to Order (Requires an MDDM for read-out)

To order MurphyLink™ gage use the part number designation diagram below.

**MLA 20 - A - 100 - A - A**

### Model

MLA = MurphyLink™ gage  
MLAA = Audible Alarm

### Size

20 = 2 in. (51 mm) dia. gage  
35 = 3-3/8 in. (86 mm) dia. gage  
(tachometer or speedometer only)

### Gage Function (excludes MLAA20)

-A = Engine Oil Pressure  
-B = Coolant Temperature  
-C = Voltmeter  
-D = Percent Load @Current RPM  
-E = Transmission Oil Pressure  
-F = Transmission Oil Temperature  
-T = Tachometer  
-S = Speedometer

### Bezel Type

Blank = A-20 Type  
A = A-20 Type Black

### Connector

A = Amp Mini Universal  
(not available for MLAA20)  
B = Deutsch™ (MLAA20 only)  
C = Metri-Pack™ (MLAA20 only)

### Gage Range (excludes MLAA20)

-100 = 100 psi/700 kPa  
-250 = 250°F (150°C)  
-12 = 12 VDC  
-24 = 24 VDC  
-100 = % Load @Current RPM  
-400 = 400 psi/28 Bar  
-3000 = RPM (250° Sweep)  
-85 = MPH (250° Sweep)

MLVC2412 =

Voltage Regulator for 24 VDC systems.

## 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](http://www.fwmurphy.com/support/warranty.htm)

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