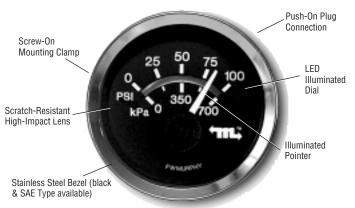
# J1939 MurphyLink™ System Analog Gages

**FWMurphy** 

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



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

## **MLA35 Series – Analog Tachometer or Speedometer**



### MLAA20 Model - Audible Alarm





# 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<sup>™</sup> 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  $\pm 2\%$  of scale.

Enclosure: Environmentally Sealed.

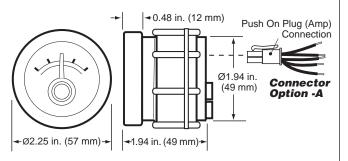
**Material:** 

Case and Clamp: Polyester (PBT).

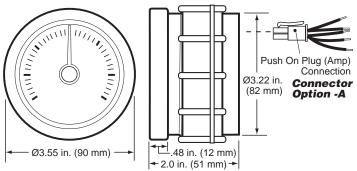
Lens: Polycarbonate.

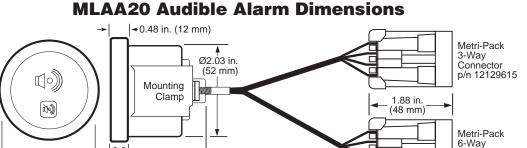
Bezel: Stainless Steel (Black optional).

### **MLA20 Series Dimensions**



### **MLA35 Series Dimensions**





3.00 in. (76 mm)

# **MLVC2412 Voltage Regulator** 1.29 in. (33 mm) → 3.75 in. (95 mm) VOUT GND $\stackrel{>}{\sim}$ Metri-Pack 3-Way Connector (12129615)

# **Connector Options**

### **Option -B**

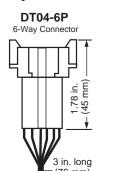
Ø2.25 in.

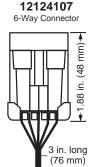
(57 mm)

## **Option -C**

🔼.48 in. (12 mm)

←2.13 in. (54 mm) →





A two-year limited warranty on materials and workmanship is given with this Murphy product. Details are available on request and are packed with each unit.

### MLVC2412 =

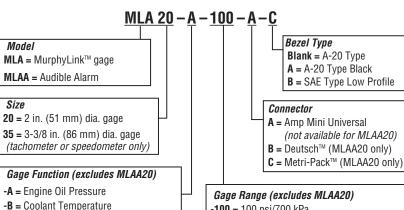
Voltage Regulator

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

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

Connector

p/n 12124107



# Warranty

for 24 VDC systems.

-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)

# murph **FWMurphy**

P.O. Box 470248 Tulsa, Oklahoma 74147 USA (918) 317-4100 fax (918) 317-4266 e-mail sales@fwmurphy.com

www.fwmurphy.com

### **CONTROL SYSTEMS & SERVICES DIVISION**

P.O. Box 1819; Rosenberg, Texas 77471; USA (281) 342-0297 fax (281) 341-6006 e-mail sales@fwmurphy.com

### MURPHY DE MEXICO, S.A. DE C.V.

Blvd. Antonio Rocha Cordero 300, Fracción del Aguaje San Luis Potosí, S.L.P.; México 78384 +52-444-8206264 fax +52-444-8206336 e-mail ventas@murphymex.com.mx www.murphymex.com.mx

### FRANK W. MURPHY, LTD.

Church Rd.: Laverstock, Salisbury SP1 1QZ: U.K. +44 1722 410055 fax +44 1722 410088 e-mail sales@fwmurphy.co.uk www.fwmurphv.co.uk

### MURPHY SWITCH OF CALIFORNIA

41343 12th Street West Palmdale, California 93551-1442; USA (661) 272-4700 fax (661) 947-7570 e-mail sales@murphyswitch.com www.murphyswitch.com

### **MACQUARRIE CORPORATION**

1620 Hume Highway Campbellfield, Vic 3061; Australia +61 3 9358-5555 fax +61 3 9358-5558 e-mail murphy@macauarrie.com.au



-C = Voltmeter

-T = Tachometer

-S = Speedometer

-D = Percent Load @Current RPM

-F = Transmission Oil Temperature

-E = Transmission Oil Pressure