

# CANdrive™

## CANbus J1939 to Electric Gage Interface



### Features

- For modern electronic engines and equipment applications using SAE J1939 Controller Area Network
- Drives standard electric gages
- User configurable compatibility with Murphy, VDO, or Datcon
- Engine fault LED option

As part of the MurphyLink® family, the **Murphy CANdrive** offers a cost effective instrument solution for modern electronic engines. CANdrive acts as an interface between ECU CANbus/J1939 transmitted data and standard electric indicating gages. CANdrive and electric gages are an alternative solution to retrofitting of engine senders, magnetic pickups and associated wiring.

CANdrive has dedicated outputs for a tachometer, oil pressure, and coolant temperature electric gages. Configurable switches allow for selectivity between 12 or 24 VDC systems, and for all gage outputs to be selected as either Murphy, VDO, or Datcon.

CANdrive is packaged in a compact, surface mounted case with epoxy encapsulation for maximum durability and environmental sealing. Electrical connection is via a 12-way automotive-type connector.

### How to Order

#### Part Number Model / description

78-70-0363	<b>CDV100F</b> , CANdrive J1939 to electric gage interface. 1x CAN status LED, connector forward. Includes CDV-PW-30 harness.
78-70-0364	<b>CDV300R</b> , CANdrive J1939 to electric gage interface. 8x status/fault LEDs, connector rearward. Includes Model CDVG sealing gasket and CDV-PW-30 harness.
78-00-0437	<b>CDV-PW-30</b> , CANdrive power and CAN harness. Length: 30 in. (0.762 m).

### Typical Connection



## Specifications

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### Power Supply

#### Operating Voltage

- 12V range (switch S5 on/up) 7 – 16 VDC
- 24V range (switch S5 off/down) 19 – 30 VDC

#### Current Consumption

- CDV100: 25mA typical
- CDV300: 50mA typical (2 LEDs lit)

### Inputs

**CANbus:** SAE J1939 protocol. Input has a 120 Ohm terminating resistor, removable by switch S4.

### Outputs

**Oil pressure / coolant temperature:** Switch selectable outputs for use with Murphy, VDO or Datcon electric gauges.

**Tachometer:** pulsed DC, approx. 121 Hz. @ 1500 RPM

### Overall Dimensions (w x h x d):

- Case 2.7 x 3.8 x 0.9 in. (68 x 96 x 22 mm)  
(allow 2 in. (50mm) depth with connector)

**Weight:** approximately 0.18 lb. (80 g)

### Environmental Sealing:

CDV100F: IP60

CDV300R: IP65 from front with sealing gasket (included)

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

## Electric Gage Compatibility

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### Output

### Compatible gages

#### Tachometer

Murphy ATA series Tachometers  
Murphy ATHA series Tach / Hourmeters

#### Oil Pressure

Murphy EG21P series Electric Pressure Gages  
Murphy EGS21P series Electric Pressure Swichgages  
VDO 0-5 bar or 0-10 bar pressure gauges  
Datcon 0-7 bar or 0-10 bar pressure gauges

#### Coolant Temperature

Murphy EG21T series Electric Temperature Gages  
Murphy EGS21T series Electric Temperature Swichgages  
VDO electric temperature gauges  
Datcon electric temperature gauges

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ISO 9001  
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Printed in U.S.A.

**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)