PowerView™ - Model PV101-A-HAZ

Instructions regarding ATEX Directive 94/9/EC

The Murphy PV101-A-HAZ has been tested in compliance with EN 60079-0:2006 and EN 60079-15:2005.

II 3G Ex nA T3 -10˚C ≤ T_a ≤ +70˚C

To ensure compliance with this ATEX standard, the following must be adhered to:

- The display apparatus and associated harness must only be operated in the ambient temperature range -10˚C to +70˚C
- No plugs shall be disconnected while the unit is energized. A warning label, of suitable material, stating 'WARNING – DO NOT SEPARATE WHILE ENERGIZED' must remain adjacent to all connections throughout the unit's service life.
- Only Murphy PV101-A-HAZ displays and Murphy approved for ATEX plugs, sockets and harness connection points may be used as replacements.

WARNING - SUBSTITUTION OF COMPONENTS MAY CAUSE IGNITION OF A COMBUSTIBLE OR FLAMMABLE ATMOSPHERE. FW Murphy must be consulted before changing any component.

- Any harness replacement wiring must be FW Murphy (P/N 78000125) or FW Murphy approved for ATEX.
- All wiring must be routed away from any sources of impact. If this is not possible metal guarding must be used.
- Routinely inspect connections of plugs and sockets also ensuring all connections are secure in their positions.

WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD. Wipe only with a damp cloth, this includes the display unit and any of its shielding.

Declaration of Conformity

Application of Council Directive: ATEX (94/9/EC)

Standards to which Conformity is declared: EN 60079-0:2006, EN 60079-15:2005

Application of Council Directive: EMC (2004/108/EC)

Standards to which Conformity is declared: See PV101 CE Declaration of Conformity

Manufacturer Name: Murphy Industries

Manufacturer Address: 5311 S. 122nd East Ave. Tulsa Ok. 74146

Type of Equipment: Display for J1939 CAN bus messages.

Model Number: PV101-A-HAZ

Serial Number(s) All

First year of manufacture under this Technical File 2010

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive and Standards, and this Declaration is supported by a Technical File Document number TF0101 located at the Factory.

Place - Tulsa, Oklahoma, USA

(Signature)

3-24-2010 (Date)

David Buntin

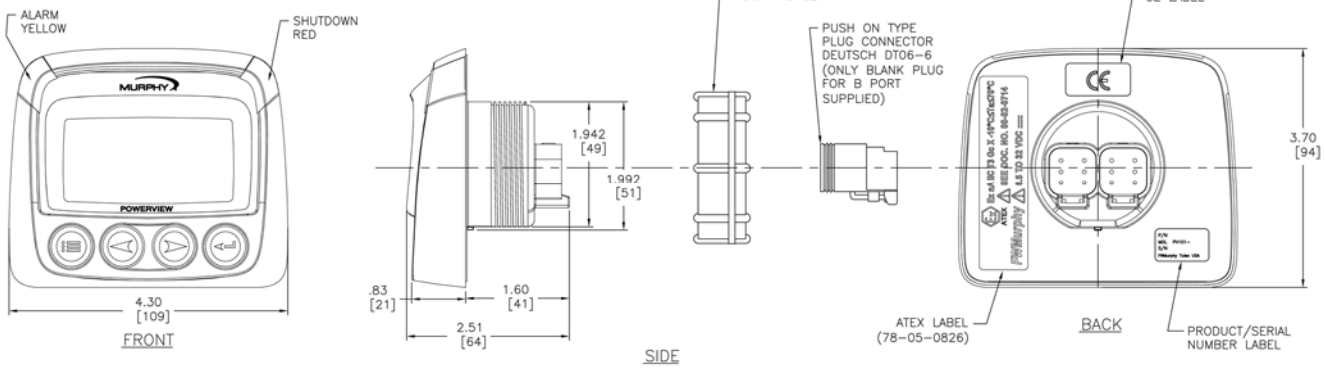
VP. Engineering, R&D

Special Instructions for Safe Use

1. The whole wiring harness must be mechanically protected from impact and UV by using suitable environmental metal guarding.
2. The unused connector port must be sealed with provided blank plug. (87-04-0013)
3. The display unit must only be powered by a DC voltage source from 6.5VDC to 32VDC and protected by a 2A fuse.
4. The display must only be replaced with Murphy part number 78-70-0248.
5. The anti-static warning label (78-05-0827) must be fixed near the display or a suitable label with the words '**WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS**' must be placed in its stead.
6. All standard practices for working in a hazardous area must be complied with. Only personnel qualified to work in this hazardous area and on this type of equipment may carry out operational and maintenance work.
7. The display unit must be protected from impact by installation in a panel or by a suitable shield. The shield shall be all metal or FW Murphy approved Alternate (78-70-0428). The shield must be capable of withstanding a 7 joule impact without damage to the display unit. Site risk assessment / local authority inspection will determine amount of shielding required.
8. Along with all instructions in this document the display unit must also be installed following the FW Murphy installation instructions and manual.

Mounting Instructions

NOTES:
1. DIMENSIONS IN [ ] ARE MILLIMETERS.
2. BEFORE REVISING THIS DRAWING ATEX COMPLIANCE MUST BE CONSIDERED. THE TECHNICAL FILE (TF) MUST BE UPDATED AFTER DRAWING IS REVISED.



SPECIFICATIONS

OPERATING VOLTAGE:
- PV101: 6.5 VDC MINIMUM TO 32 VDC MAXIMUM

REVERSED POLARITY:
WITHSTANDS REVERSED BATTERY TERMINAL POLARITY INDEFINITELY WITHIN OPERATING TEMPERATURES

ATEX OPERATING TEMPERATURE:
−10° TO 70°C (−14° TO 158°F)

STANDARD OPERATING TEMPERATURE:
−40° TO 85°C (−40° TO 185°F)

STORAGE TEMPERATURE:
−55° TO 85°C (−67° TO 185°F)

ENVIRONMENTAL SEALING:
IP68, ± 5 PSI (± 34.4 kPa)

POWER SUPPLY OPERATING CURRENT:
(@ 14VDC) 52 mA MIN; 300 mA MAX
(@ 32VDC) 1A MAX (WITH LCD HEATER)

CAN BUS:
SAE J1939 COMPLIANT

CASE:
POLYCARBONATE / POLYESTER

CLAMP:
PBT

CONNECTORS:
6-PIN DEUTSCH DT SERIES

MAXIMUM PANEL THICKNESS:
3/8 IN. (9.6 mm)

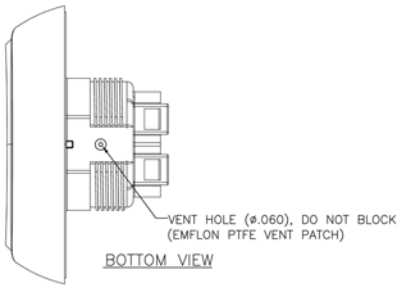
POTENTIOMETER INPUT:
1 K OHM, 1/4 W

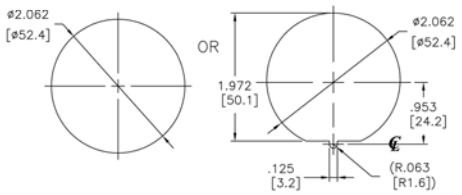
FUEL SENDER INPUT:
33 OHM FULL, 240 OHM EMPTY

SHIPPING WEIGHTS (ALL MODELS):
1 LB. (450 g.)

SHIPPING DIMENSIONS (ALL MODELS):
5 X 6 X 6 IN. (127 X 152 X 152 mm)

⚠ WARNING! – DO NOT DISCONNECT WHILE ENERGIZED.
⚠ WARNING! – POTENTIAL ELECTROSTATIC CHARGING HAZARD
WIPE UNIT ONLY WITH DAMP CLOTH

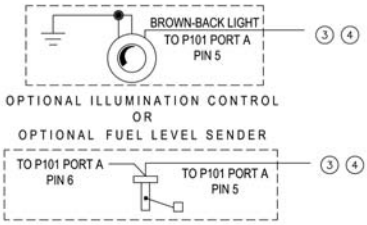




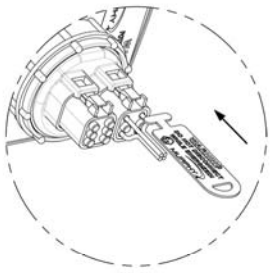
Wiring Instructions

WIRING NOTES:

1. PLACE RESISTOR BETWEEN CAN_H AND CAN_L LINE NEAR POWERVIEW (INCLUDED IN PVW-P OR FACTORY PURCHASED PANELS).
2. USE SAE J1939 COMPLIANT WIRING.
3. OPTIONAL: POTENTIOMETER, 1000 OHM, 1/4W. TO USE INPUT AS A FUEL SENDER, SEE NOTE 9.
4. OPTIONAL: USE FW MURPHY APPROVED FUEL SENDER ONLY. USE A TWO WIRE SENDER AND TERMINATE GROUND WIRE TO PORT A PIN 6. DO NOT CONNECT A POTENTIOMETER AND FUEL SENDER AT THE SAME TIME AS ERRATIC OPERATION WILL RESULT.
5. TERMINATING RESISTOR AT ECU END OF HARNESS. ***WARNING:*** TWO 120 OHM RESISTORS SHOULD BE LOCATED AT OPPOSITE ENDS OF THE J1939 CAN BUS. FAILURE TO COMPLY WILL CAUSE BUS FAILURES. ONLY TWO 120 OHM RESISTORS ARE ALLOWED ON THE J1939 CAN BUS. ECU TERMINATING RESISTOR IS TYPICALLY LOCATED IN THE HARNESS, BUT CAN BE LOCATED INSIDE THE ECU'S. FOR ECU RESISTOR LOCATION CHECK WITH OEM, EQUIPMENT SUPPLIER, OR ECU SPECIFICATION.

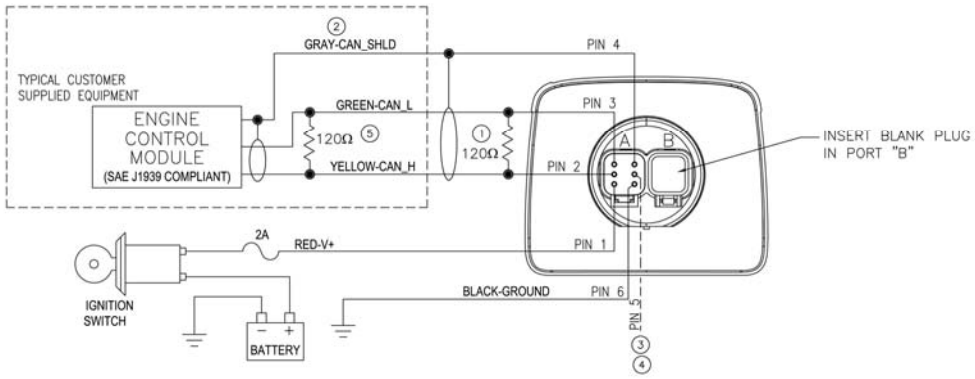


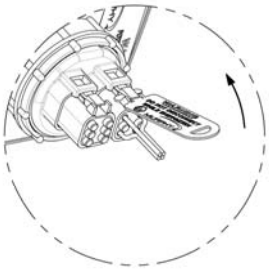
OPTIONAL WIRING



STEP 1

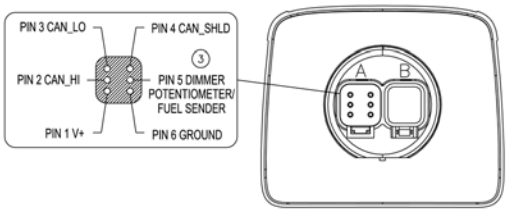
TYPICAL WIRING DIAGRAM

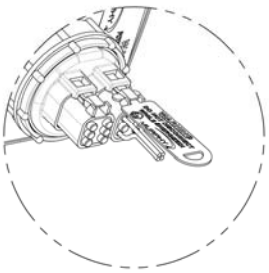




STEP 2

DEUTSCH DT06-6 STYLE CONNECTIONS





KEY INSTALLED

KEY INSTALLATION SEQUENCE
(FWM P/N 78-05-0825)