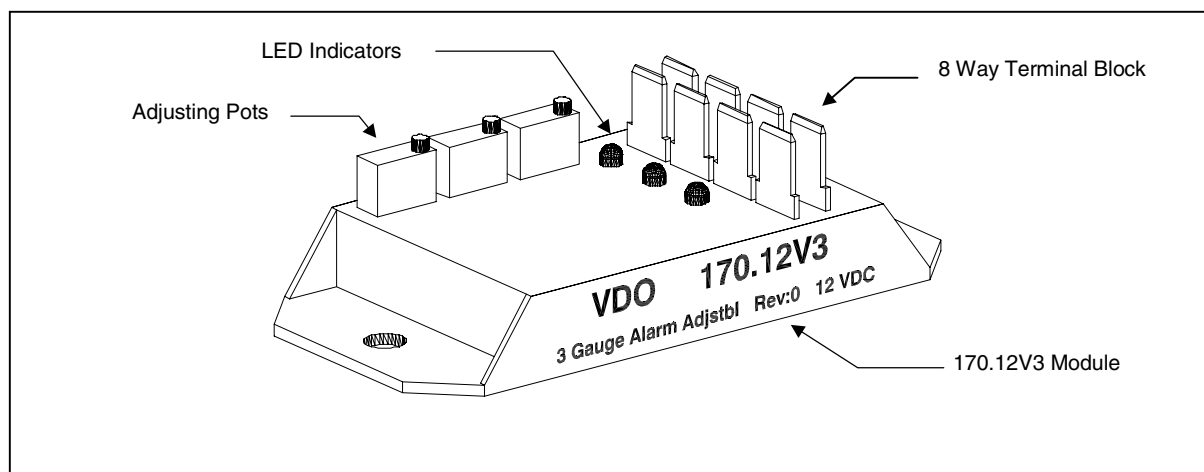


3 GAUGE ADJUSTABLE ALARM – 12VDC

P/No. 170.12V3 Connection Instructions for 12V Module



GENERAL

The 170.12V3 three gauge adjustable alarm is designed to give an alarm output when the reading on any one of three gauges passes a predetermined fault level. The unit will switch on falling pressure or rising temperature for the standard range of VDO gauges.

As long as the sensing unit is a variable resistance to ground, and the signal being measured is a variable DC voltage, this unit may be used to give an alarm output from any brand of gauge-sender combination.

Three twenty five turn potentiometers are fitted, allowing fine adjustment across the full scale for most known gauges.

Alarm output is via a transistor switch, switching the output to earth internally upon a fault condition. Typical application would be as an alarm control for marine engines, giving protection and early warning for low engine oil pressure, high engine temperature & low gearbox oil pressure.

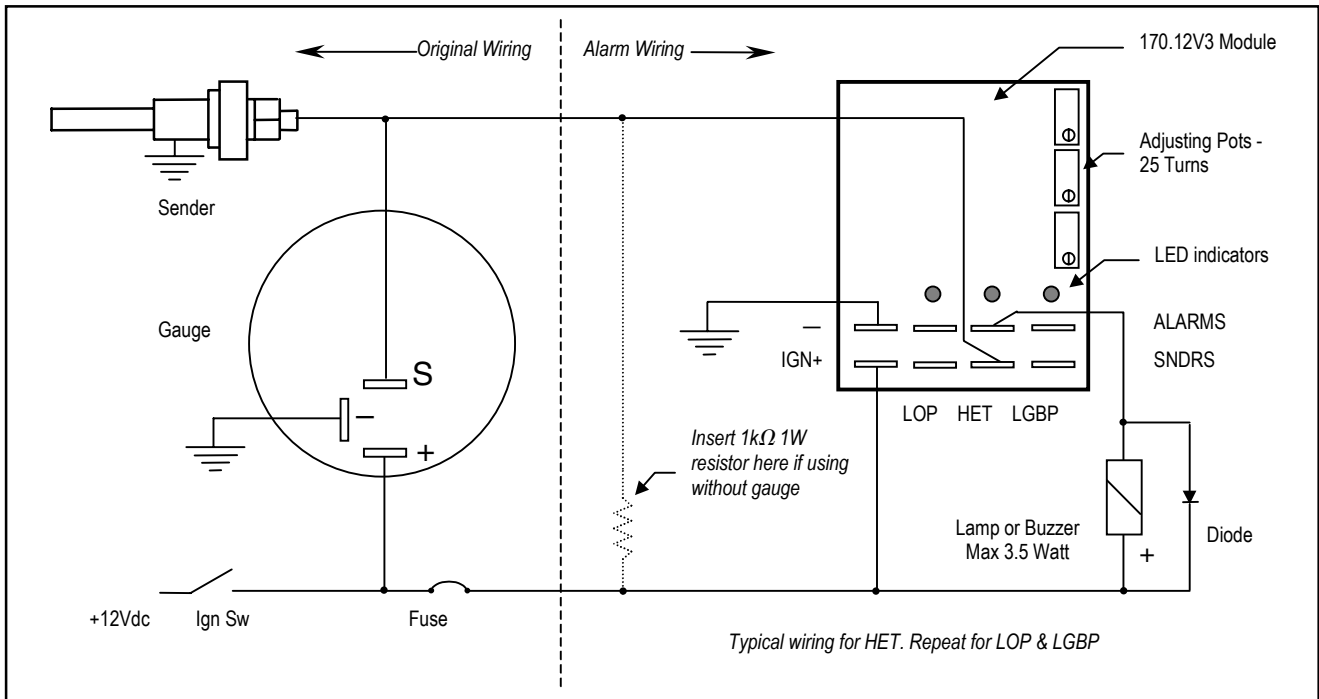
This unit may also be used without gauges if necessary ie: with sender only. Refer wiring diagram.

NOTE: This module is designed as a universal unit to suit as many automotive type applications as possible. However there may be some systems where the input or output signals are not compatible with this unit. VDO is not responsible for incorrect fitting or damage caused by or during the fitting of this module.

FITTING INSTRUCTIONS

1. Locate a convenient mounting place in the instrument panel or under the dash near the fuse panel and mount the 170.12V3 multifunction alarm module. Screws (3/16" or 5mm), double sided tape, or silicone are all acceptable. Orientation is not critical.
2. Connect "+" to a switched ignition supply line preferably via a 0.5 Amp fuse.
3. Connect "-" to a good ground or earth connection.
4. Connect the "LOP" (Low Oil Pressure), "HET" (High Engine Temp) and "LGBP" (Low Gear Box Pressure) SNDRS terminals to the corresponding sender terminal on each gauge.
Note: Do not change your gauge wiring, merely piggyback this unit to it.
5. Connect the "LOP" (Low Oil Pressure), "HET" (High Engine Temp) and "LGBP" (Low Gear Box Pressure) ALARMS terminals to the negative side of a lamp, buzzer or relay coil (12VDC 0.25A each resistive max). Note these terminals switch internally to ground. Make sure an appropriate fuse also protects the lamp, buzzer or relay.

WIRING DIAGRAM



SETTINGS

1. Check all wiring for correct connections and possible short circuits.
2. Temporarily replace each gauge sender with an appropriate variable resistance (usually 0-300Ω or 0-500Ω) such as the VDO Gauge Check ... P/No. 105.001
3. Turn key on and adjust the variable resistance so the gauge pointer reads at the required "alarm" point. Turn the corresponding adjusting pot anticlockwise until the LED is off, then slowly clockwise until the LED just comes on. Note this is a **25 turn** pot, it will not be harmed by going past each end.
4. Adjust the resistance setting up and down a few times again to fine tune the switch point.

TIPS

1. Temporarily replacing your alarm circuit with a test light can simplify the setting procedure.
2. When switching relay and solenoid coils with other electronic items around, it is recommended to fit reverse EMF diodes across all coils.
3. This unit will not work if supply to it fails or the gauge or sender fails. It is good practice to make all circuits fail safe where possible and practical.

SPECIFICATIONS

1. Dimensions: Approximately 58 x 42 x 29mm overall.
2. Voltage, Current: 12-14.2 VDC Neg Grnd, 10mA quiescent
3. Adjustment Range: 0 – 10VDC at sender terminal.
4. Output Rating: 12Vdc 0.25amp per output, resistive
5. Total Power Dissipation: 1W at 25°C, 600mW at 85°C