# MC704 SERIES MICRO PANELS

FOR MECHANICALLY GOVERNED ENGINES

### **DESCRIPTION**

The MC704 Series is a very powerful, incredibly compact micro panel used for diesel engine control, monitoring, and protection featuring LOFA's powerful First-Fault Diagnostics (FFD). After pinpointing the initial failure, FFD stores it in memory and alerts the end user via a single bright LED. FFD monitors battery charge, low oil pressure, high temperature, and one additional auxiliary contact closure input. The microprocessor-based solid state design uses high power semiconductors instead of outdated electro-mechanical relays to insure reliable and trouble free high current switching.

The MC704 Series Panels are offered in two versions for Yanmar TNV Series Engines. The MC704HP is the micro panel version without gauges and is housed in an enclosure that is 3" square. The gauge panel version, MC704HP-G4 is housed in a 6" X 9" enclosure and has four available 2-1/6" gauge openings. The Yanmar factory panel includes a coolant temperature gauge, oil pressure gauge, a tachometer, and one additional gauge opening. Both Panel versions have a built-in tamperproof LED hourmeter and they come programmed with the direct injected (DI), or the indirect injected (IDI) preheat and afterglow requirements.

The panels include a 12" wiring harness terminating into a sealed weather proof plug. This wiring solution offers a robust wiring connection that performs well in harsh environments and it provides for a direct plug-in connection to the LOFA Solid-State Power Box harness assembly. This wiring design allows for simplified installation as well as offering a flexible means to incorporate custom plug and play wiring harnesses and standard harness extensions.



Pictured Above: MC704HP Micro Panel



Pictured Above: MC704HP-G4 Gauge Panel



Pictured Above: Delphi GT Weather-proof Connector, Std. 12" Harness



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### **TECHNICAL SPECIFICATIONS**

- Engine monitoring, protection and diagnostics via First-Fault Diagnostics (FFD) for battery charge, low oil pressure, high temperature and one additional auxiliary contact closure input
- Ultra bright LEDs display First-Fault Diagnostics (FFD) highly visible in direct sunlight
- VDO Cockpit International gauges world class instruments set the Industry for quality and reliability (G4 version only)
- Automatic shutdown override eliminates pushing a button during engine starting, allowing for simplified engine cranking
- Programmable automatic preheat with afterglow controls the engine's cold starting aid when the key is turned to the run position
- Alarm output for external buzzer or beacon light provides additional indication if preheat is not required
- Keyswitch with built-in mechanical start locking
- Optional flip down weather cover available for wash down when key is removed
- Heavy-duty black anodized aluminum enclosure designed to withstand extreme industrial applications
- Simple plug and play installation customized to the specific application allows rapid equipment completion
- Standby current: 30 mA @ 12 VDC
- Operating temperature: -20° to 185° F (-30° to 85° C)
- 2-year limited warranty Oil Pressure Switch

# **Solid State Inputs**

- Oil Pressure Switch
- Temperature Switch
- Auxiliary Switch
- Solid State Outputs

# **Solid State Outputs**

- Fuel Shutdown Solenoid (50 A for 1 second/5% duty cycle, 20 A continuous)
- Starter Solenoid (50 A for 1 second/5% duty cycle,
- 12 A continuous)
- Alarm/Preheat (3.5 A continuous)
- Switched Battery (15 A continuous)

#### **Bidirectional**

- Battery Charge Indication/Alternator Excitation
- (3 A continuous output, connects to alternator D+, L, etc.)



