Specification sheet

Fire Pump Drive Engine

Digital Panel Expansion Module (DPEM)

Description

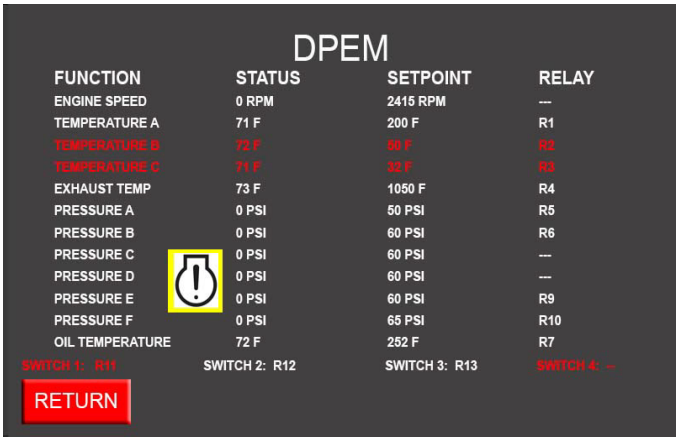
Cummins optional Digital Panel Expansion Module (DPEM) is an electronic device that works in conjunction with the Fire Pump Digital Panel (FPDP) to provide monitoring and alarming on custom inputs. The DPEM is housed in a 316 stainless steel enclosure and contains a series of terminal blocks for customer connection to specified alarm points.

Configurable Features

- Four switched inputs
- Three temperature inputs
- One exhaust temperature input
- Six pressure inputs
- J1939 parameters (when applicable)

Doc. A042J649 Rev. 1

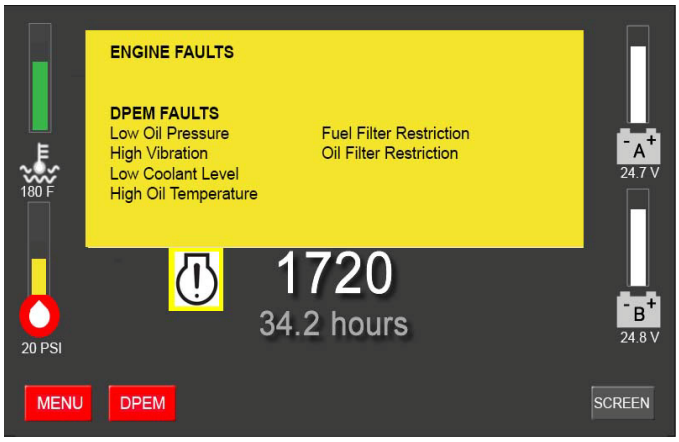
Configured by Cummins personnel, the DPEM options - function, status, alarm setpoint, and relay associated with the alarm (if applicable) - will display on the DPEM screen of the FPDP. When an analog input parameter crosses the alarm setpoint or a switched input is active, all information associated with that parameter will turn red in color:



Sample DPEM screen

Additionally, there are two other ways to alert the operator of a DPEM fault:

1. From the FPDP
The warning symbol will illuminate and the overlay will activate in yellow with the text of the active fault.



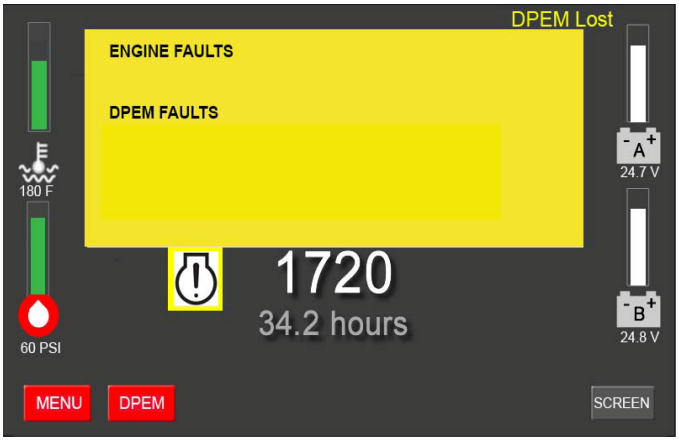
Sample DPEM Fault Screen.

2. From the DPEM/remote location

The terminal block interface inside of the DPEM has been created for connection to monitor alarms remotely. There is an LED next to each terminal block that will also illuminate if the relay is commanded closed. Each set of four relays has a common dry contact associated for integration flexibility:

- Terminal Blocks 13-16 (R1-R4) are dedicated to switched inputs, with TB-17 being the common contact.
- Terminal Blocks 18-21 (R5-R8) are dedicated to temperature inputs, with TB-22 being the common contact.
- Terminal Blocks 23-26 (R9-R12) are dedicated to pressure inputs, with TB-27 being the common contact.
- Terminal Blocks 28-31 (R13-R16) are dedicated to additional pressure inputs or J1939 setpoints, with TB-32 being the common contact.

“DPEM Lost” will appear on the FPDP HMI, if communications between the FPDP and DPEM are compromised.



Sample DPEM Fault Screen.

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