

NFPA 20 SAFETY AT YOUR FINGERTIPS



FIRE PUMP CONTROLLER D-500-MK2

- NFPA 20
- INTERNET BASED
- MULTI-PROTOCOL
- FLEXIBLE WITH PLUG-IN MODULES

FEATURES

The D-500-MK2 Fire Pump Controller is a next generation controller for single diesel fire pump sets.

The engine is operated on a switch signal, usually coming from a pressure switch.

Functional features of the controller correspond to NFPA 20 standard.

The controller supports dual independent starter batteries with dual independent crank motors.

The controller is capable of measuring and displaying the voltage and charging current of each battery-rectifier set. Charger failure alarms are also monitored and retransmitted through internet.

Cranking is attempted alternatively through each crank motor in order to achieve better readiness for operation required in safety equipment.

The controller supports a comprehensive set of protections and alarms. All fault conditions are transferrable to a central monitoring system in order to keep the system up and ready for operation all times.

In AUTO mode, all alarms (except Emergency Stop and Critical Overspeed) are disabled and the diesels runs to death.

The controller supports the NFPA 110 compliant DKG-224 annunciator for displaying alarms in an additional remote location through its RS-485 port.

The internet communication capabilities of the controller includes GSM (2G-3G-4G-NB/IOT), Ethernet and WiFi connections.

The controller comes ready for internet monitoring, control and maintenance. It supports GSM-SMS controls and commands.

- Diesel and gas engine support
- 400 event logs, full snapshot
- All parameters front panel editable
- 3 level configuration password
- Downloadable languages
- 8 configurable digital inputs
- 8 configurable digital outputs
- Input and output expansion
- 4 configurable analog inputs
- Input for second battery voltage
- Inputs for battery charge currents
- CANBUS-J1939 & MPU operation
- 3 configurable service alarms
- PLC functions
- Multiple automatic exerciser
- Automatic fuel pump control
- Fuel filling & fuel theft alarms
- Battery charge run enabled
- Fuel filling counter
- Fuel consumption counter
- Configurable through USB, RS-485, Ethernet and GPRS
- Free configuration program
- Allows SMS controls
- Ready for central monitoring ethernet, GPRS & WiFi
- GPS connectivity (USB&RS232)
- IP65 rating with standard gasket



PLUG-IN MODULES

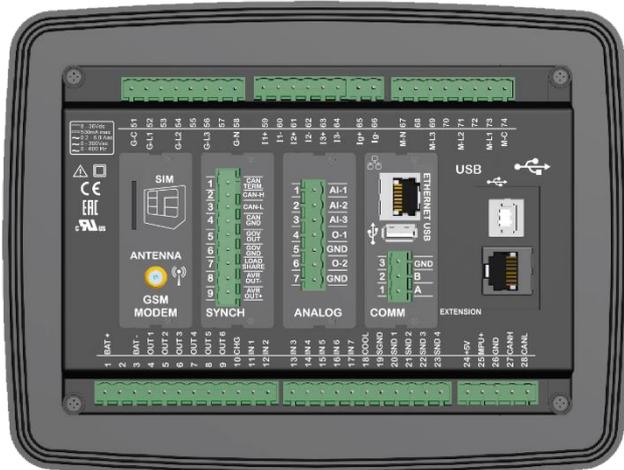
- 2G GSM Modem
- 3G GSM Modem
- 4G GSM Mode
- Wi-Fi (802.11 b/g/n)
- Ethernet 10/100 Mbits
- USB Host
- RS-232 (isolated)
- RS-485 (isolated)
- Synchro/LoadShare Module
- 3x AC Current Inputs
- 3x Analog Inputs

FUNCTIONALITIES

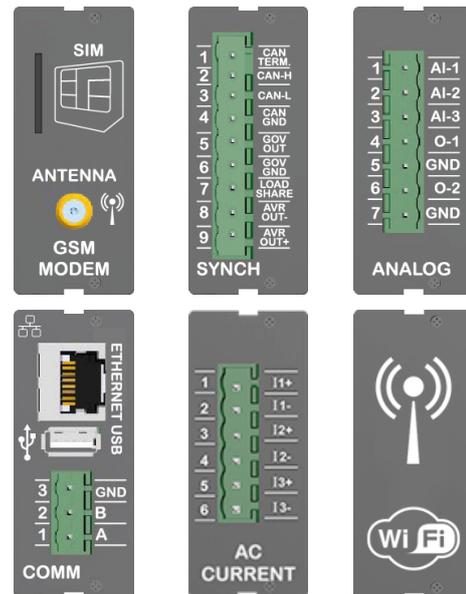
- Remote start controller
- Manual start controller
- Engine controller
- Remote display panel

COMMUNICATIONS

- Central Monitoring
- Embedded Web Server
- USB
- GPS (geo-location)
- SMS
- E-mail
- Modbus
- Modbus TCP/IP
- SNMP 1.0 with trap
- HTML
- UDP
- SNTP



Backpanel view



Plug-in modules

TECHNICAL SPECIFICATIONS

DC Supply Range: 8.0 to 36.0 V-DC.

Current consumption: 500 mA-DC max.

Digital inputs: input voltage 0 to 36 V-DC.

Analog input range: 0-5000 ohms.

DC Outputs: Protected mosfet semiconductor outputs, rated 1Amp@28V-DC

Cranking dropouts: survives 0V for 100ms.

Magnetic pickup voltage: 0.5 to 50Vpk.

Magnetic pickup frequency: 0 to 20000 Hz.

Charge Alternator Excitation: 2W.

Display Screen: 2.9", 128x64 pixels

Ethernet Port: 10/100 Mbits

USB Device: USB 2.0 Full speed

USB Host: USB 2.0 Full speed

RS-485 Port: selectable baud rate (2400-115200baud)

RS-232 Port: selectable baud rate (2400-115200baud)

Operating temperature: -20°C to 70°C (-4 to +158 °F)

With optional display heater: -40°C to 70°C (-40 to +158 °F)

Storage temperature: -40°C to 80°C (-40 to +176°F)

Maximum humidity: 95% non-condensing.

IP Protection: IP65 from front panel, IP30 from the rear (with gasket)

Dimensions: 211 x 162 x 42mm (WxHxD)

Panel Cut-out Dimensions: 176 x 121 mm minimum.

Weight: 500 g (approx.)

Case Material: High Temperature, non-flammable ABS/PC

Installation: Flat surface mounting on a Type 1 enclosure. Rear retaining plastic brackets.

CONFORMITY

EU Directives Conformity

- 2014/35/EC (low voltage)
- 2014/30/EC (electro-magnetic compatibility)

Norms of reference:

- EN 61010 (safety requirements)
- EN 61326 (EMC requirements)

UL & CSA Compatibility:

- UL 6200, Controls for Stationary Engine Driven Assemblies (File# - 20140725-E314374)
- CAN/CSA C22.2 No. 14-13 – Industrial Control Equipment

TYPICAL CONNECTIONS

