

**I – MUD** Model 9200

a **FIRMS<sup>®</sup>** modular component

"Quality by Design, Satisfaction by Performance"

### Reduce Operating Costs

Eliminate Factory Service Calls Designed to be Installed, Commissioned and Maintained by ..... Rig Personnel!

### **FEATURES**:

Single Enclosure

Mud Flow-Fill, Mud Volume and SPM

Back-Lit LCD Displays
 Large, analog and digital displays

#### • Expandable

Easily expandable to collect and display additional rig information including RPM, PSI, Rotary Torque, etc.

#### • Modular

Combine with our Intelligent J-Boxes, Gateways, IC Work Stations and other modules for complete rig monitoring and control

• Interface To Other Remote Computer Systems

## **Description:**

The Model 9200 I-Mud LCD digital indicators display the following variables: total mud volume for up to 12 pits, individual volume of any one tank, 1 of 2 or both trip tanks, mud volume gain/loss, mud flow rate, pump stroke rates for up to three pumps, two assignable total stroke displays and total stroke rate for up to three pumps. For tripping, there is a mud returns indicator. In addition, there is one operator assignable digital display. The operator assignable display has its own HIGH and LOW programmable set points. An optional ANALOG gauge is also available.

There are four programmable HIGH/LOW alarm bar graphs. These bar graphs are associated with individual tank volume, total active tank volume, volume gain/loss and return flow.. When these alarms are exceeded, the alarming bar graph and the associated display flash and the audio alarm is activated.

The unit has two operational modes, CONFIGURATION and OPERATE, both accessible from the face mounted keypad. The CONFIGURATION mode is password protected and is used to accomplish all setup tasks including assigning input channels, setting input offsets and spans, assigning analog output channels and accomplish other system setup tasks. No external computer is required.

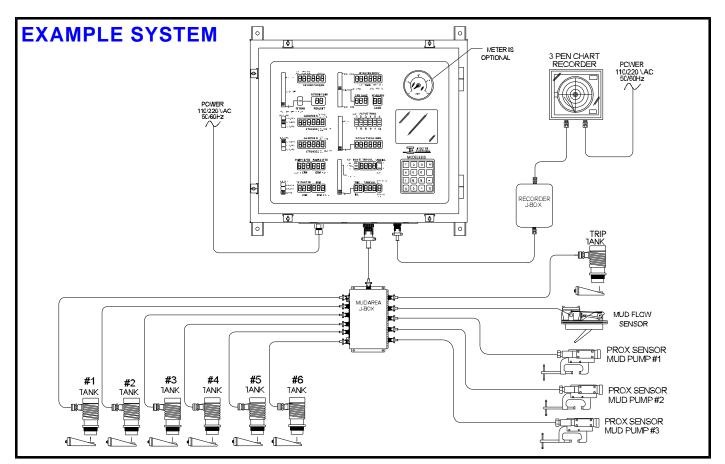
OPERATE is the normal operational mode used by the operator. In this mode the system collects and displays data. In the operate mode the operator can set time and date, activate and deactivate items, program high and low alarms, change display values, zero displays, turn back lighting on and off, and select trip in, trip out and drill modes.

The basic unit comes complete with 10 analog inputs and 4 digital inputs. It can be expanded internally to a total of 20 analog inputs. It is designed to be bulkhead mounted. Optional panel mounting hardware is available.

The model 9200 I-Mud includes RS232, RS485 and TCP/IP communication ports. These ports can be used for communication with remote computer systems.

Additional features include a ten channel analog output module, for driving recorders or other displays. Each channel can be programmed as variable voltage (0 to 10VDC or variable current up to 20ma) out, digital outputs for repeating pump and RPM inputs and intrinsically safe barriers for all channels.





# **Specifications:**

Dimensions:	24.5"W x 20.5"H x 6.5"D (62,2 x 52,0 x 16,5 cm)
Power:	
Nominal:	115/230VAC 50/60Hz
	135 to 370VDC
Brownout:	95 to 264VAC, 47 to 400HZ
Weight:	Approx. 35 lbs. (15.8kg)
Operating Temperature:	-40°to+185°F(-40°to +85°C)

# **System Flexibility:**

The 9000 series consoles contain all required items including the DAC and the computer. No external DAC or laptop computer is required. The 9200 can be ordered with the optional analog meter that can be assigned to display any variable. For example, electric torgue.

Innovative Electronics 9000 series systems are designed to be installed and commissioned by rig personnel. Our customers all over the world have reduced installation costs by successfully installing and maintaining their own systems.

## **Additional Information:**

The 9000 series systems can interface with the Innovative Electronics **FIRMS**<sup>®</sup> (Fully Integrated Rig Management System), rig computer systems, logging computer systems. The I-Mud can be supplied in various configurations depending on requirements. Systems are available with or without cables and/or junction boxes, for permanent installation or for moving from site to site. These components can be combined with other Innovative Electronics packages for complete consoles containing both hydraulic and electronic gauges and instruments.

For similar systems see MODEL 9100 I-MUD Jr. and MODEL 9300 I-DRILL

#### For Additional Information Contact:



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