



Red Eye® Net Oil Computer

Weatherford's *Red Eye* net oil computer (NOC) is used for production well testing. The NOC accepts water-cut data from the *Red Eye* water-cut meter and total liquid flow rate data from any one of a variety of flowmeters. Water cut and flow data are transmitted from the water-cut meter to the NOC over a single communication channel (Modbus® RTU over RS485) allowing determination of oil and water volume/production rates over a specified well-test period.

Flow Measurement

The NOC accepts total liquid flow from a variety of flowmeters as either an analog (4 to 20 mA) or a pulse signal via the *Red Eye* water-cut meter. Liquid flow may be measured as volumetric or mass rate, depending on the flowmeter used. The NOC converts a mass flow rate into a volumetric rate using the liquid density calculated from the water-cut reading.

Configuration (Touch-Screen Operation)

The NOC human machine interface (HMI) is a user-friendly touchpad display providing simple and intuitive configuration, operation and data retrieval functionality. The software supports up to 20 independent wells with individual test and purge times. Well tests can be configured to run one time or on a continuous basis. The NOC stores the last 20 test results which can be easily retrieved.

Remote Communications

Communication to a host system is via RS232, RS485 or Ethernet and uses Modbus RTU protocol. An RS232/RS485 communication port is provided for remote access to the NOC. Any data point accessible by Modbus registers can be read and written to by a remote host system. This communication link allows an operator to perform configuration, testing and data acquisition from a remote location.



Features

- View all process data
- Modify parameters
- Start and stop a well test
- Review test results
- Select between English or metric units

Modbus is a registered trademark of Modbus-IDA organization.



Red Eye[®] Net Oil Computer

Specifications

Enclosure	
Rating	NEMA 4X (IP66)
Certifications*	Class I, Zone 2 (ATEX) and Class I, Division 2 (FM) TUV, ATEX Category 3, FM, c-FM, FCC, EMC, CISPR
Material	Fiberglass or metallic (304 SS)
Power	
DC model	10 to 32 VDC, 11 Watts maximum
AC model	100 to 240 VAC, 11 Watts maximum
Operating temperature	
CPU (°F/°C)	-40 to 185 (-40 to 85) standard, ambient temperature
Touchpad display (°F/°C)	14 to 140 (-10 to 60) standard, ambient temperature
Two-line display (°F/°C)	-40 to 158 (-40 to 70) standard, ambient temperature
AC model power supply (°F/°C)	-4 to 131 (-20 to 55) standard, ambient temperature
User Interface*	
HMI	6 in. (15.24 cm) monochrome touchpad, 9 Watts @ 24 Vdc or two-line display used in conjunction with personal digital assistant (PDA)
Two-line display	Scrolling local display of well test details
PDA	Hand held/PDA running Windows Mobile [®] 2003 and above with RedLine [®] software
Communication Ports	
COMM1	RS485 Red Eye 2G meter connection
COMM2	RS232 or RS485 (configurable); host port
COMM3	RS232; PPP (diagnostics)
COMM4	RS232; HMI connection
Ethernet	Host communications or CDMA radio (wireless)
CAN	External modules (analog/digital input and output) expandability (not standard)
Bluetooth*	Wireless NOC operation (within 30 ft.); interfaces with Bluetooth enabled hand-held devices
Communications	
	Modbus RTU

*NOTE: Certifications, user interface and Bluetooth options may vary with model. Contact Weatherford for model specifications.

Windows Mobile and RedLine are trademarks of their respective owners.