VFD IRONHEART MODBUS SLAVE RTU REMOTE MONITORING

Below is a list of the communication configuration parameters for the Modbus Slave RTU module and registers available for remote monitoring. Please check the data sheets to see if this option is provided with your system. If custom configuration parameters are required, please provide when releasing for production.

MODBUS SLAVE RTU (485 Half-Duplex)

CONFIGURATION PARAMETERS

19200 baud rate (max. available)
8 data bits, no parity, 1 stop bit
Slave Station #1

CONNECTION TERMINALS

Terminal 37: A
Terminal 38: B
Shield: Shield

REGISTERS FOR REMOTE MONITORING

Register Description	Register Number	Register Type	Register Format
Pump 1 Run	1	Coil	Bit
Pump 2 Run	2	Coil	Bit
Pump 3 Run - *	3	Coil	Bit
Low Suction Alarm	4	Coil	Bit
Low System Pressure Alarm	5	Coil	Bit
Low Low Sys. Press. Alarm (if enabled)	6	Coil	Bit
Low Low Sys. Press Alarm Enabled	7	Coil	Bit
High System Pressure Alarm	8	Coil	Bit
VFD 1 Fault	9	Coil	Bit
VFD 2 Fault	10	Coil	Bit
VFD 3 Fault - *	11	Coil	Bit
System Pressure Transmitter Alarm	12	Coil	Bit
Suction Pressure Transmitter Alarm - *	13	Coil	Bit
Suction Pressure Transmitter Installed	14	Coil	Bit
Paddle Wheel Flow Sensor Fail - *	15	Coil	Bit
Paddle Wheel Flow Sensor Installed	16	Coil	Bit
Surge Protective Device Fail - *	17	Coil	Bit
Surge Protective Device Installed	18	Coil	Bit
General Alarm	19	Coil	Bit
PLC Power On	20	Coil	Bit
Pump 1 Out of Service	21	Coil	Bit
Pump 2 Out of Service	22	Coil	Bit
Pump 3 Out of Service - *	23	Coil	Bit
Clean / Replace Panel Air Filter Pads or VFD Filter Grates (if external mounted)	24	Coil	Bit
Pump 1 Service Hours Exceeded (if enabled)	25	Coil	Bit
Pump 2 Service Hours Exceeded (if enabled)	26	Coil	Bit
Pump 3 Service Hours Exceeded (if enabled) - *	27	Coil	Bit
Pump Service Hours Enabled	28	Coil	Bit
VFD 1 Fan Slow	29	Coil	Bit
VFD 2 Fan Slow	30	Coil	Bit
VFD 3 Fan Slow - *	31	Coil	Bit
VFD 1 Inrush Circuit Low	32	Coil	Bit

VFD 2 Inrush Circuit Low	33	Coil	Bit
VFD 3 Inrush Circuit Low - *	34	Coil	Bit
VFD 1 Control Circuit Capacitor Low	35	Coil	Bit
VFD 2 Control Circuit Capacitor Low	36	Coil	Bit
VFD 3 Control Circuit Capacitor Low - *	37	Coil	Bit
System Pressure (psig)	40001	Holding Register	Signed 16 bit
System Pressure Set Point (psig)	40002	Holding Register	Signed 16 bit
Suction Pressure (psig) - *	40003	Holding Register	Signed 16 bit
Pump 1 Run Time (hours)	40004	Holding Register	Signed 32 bit
Pump 2 Run Time (hours)	40006	Holding Register	Signed 32 bit
Pump 3 Run Time (hours) - *	40008	Holding Register	Signed 32 bit
Pump 1 Starts	40010	Holding Register	Signed 32 bit
Pump 2 Starts	40012	Holding Register	Signed 32 bit
Pump 3 Starts - *	40014	Holding Register	Signed 32 bit
Est./Measured System Flow Rate (gpm) - *	40016	Holding Register	Signed 16 bit
VFD 1 Speed (Hz x 10)	40017	Holding Register	Signed 16 bit
VFD 2 Speed (Hz x 10)	40018	Holding Register	Signed 16 bit
VFD 3 Speed (Hz x 10) - *	40019	Holding Register	Signed 16 bit
VFD 1 Output Current (A x 10)	40020	Holding Register	Signed 16 bit
VFD 2 Output Current (A x 10)	40021	Holding Register	Signed 16 bit
VFD 3 Output Current (A x 10) - *	40022	Holding Register	Signed 16 bit
VFD 1 Output Power (kW x 10)	40023	Holding Register	Signed 16 bit
VFD 2 Output Power (kW x 10)	40024	Holding Register	Signed 16 bit
VFD 3 Output Power (kW x 10) - *	40025	Holding Register	Signed 16 bit
VFD 1 Output Volts (V x 10)	40026	Holding Register	Signed 16 bit
VFD 2 Output Volts (V x 10)	40027	Holding Register	Signed 16 bit
VFD 3 Output Volts (V x 10) - *	40028	Holding Register	Signed 16 bit
Pump 1 Hours Since Last Service (if enabled)	40029	Holding Register	Signed 32 bit
Pump 2 Hours Since Last Service (if enabled)	40031	Holding Register	Signed 32 bit
Pump 3 Hours Since Last Service (if enabled) - *	40033	Holding Register	Signed 32 bit
Total Gallons Pumped (Est./Measured)	40035	Holding Register	Signed 32 bit
Gallons Pumped Today (Est./Measured)	40037	Holding Register	Signed 32 bit

* - If applicable.

Signed 32 Bit holding registers are low register first format.