

## OIL PIPELINE MONITORING

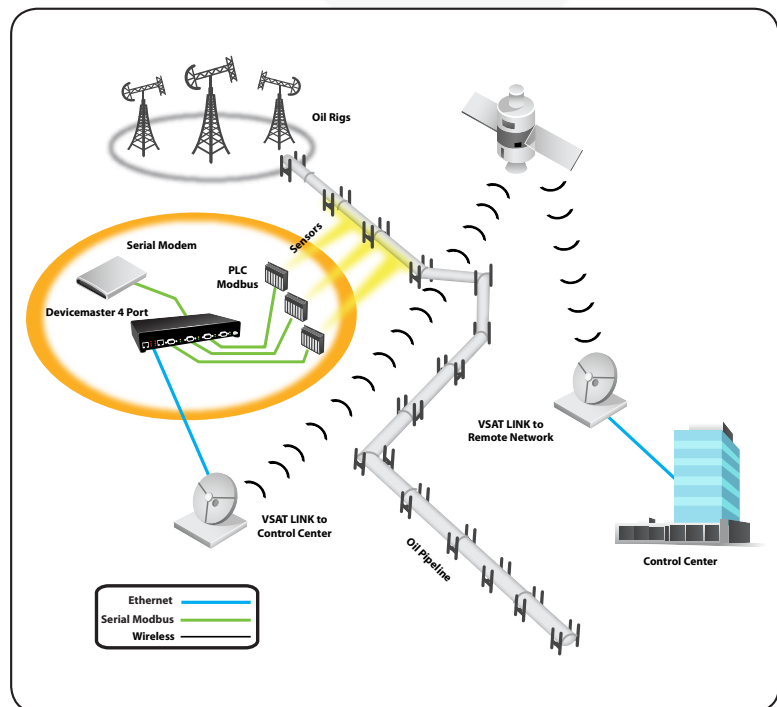
System critical automation processes, such as monitoring oil pipelines, can be very demanding on a communication infrastructure. Performing reliable real-time communication over long distances from multiple Modbus masters to large numbers of remote devices can be a major challenge. The communication equipment must be highly flexible and robust to perform such a task and the DeviceMaster UP meets that challenge.

When a major oil company asked Control to help them upgrade their current pipeline infrastructure, Control provided a solution with the DeviceMaster<sup>®</sup> UP running our Modbus Router firmware. Highly flexible and robust, the Modbus Router provided the required communication needs. Multiple Ethernet and serial Modbus masters were connected to multiple serial Modbus slaves. The flexible Modbus routing capabilities, the wide operating temperature range, and the robust operation provided by the DeviceMaster UP proved to be the perfect solution.

The process of transporting oil from the oil well to the refining plant must be monitored very closely in order to ensure the total overall health of the system. Sensors all the way along the length of the pipeline must be constantly checked to ensure safe flow rates, pressure levels and temperatures are maintained. When a problem is detected, it must be quickly dealt with to avert a possible shutdown or, in worse cases, a catastrophic failure.

Satellite links are used to connect the control center where the SCADA systems reside, to remote Ethernet networks. It is at those remote Ethernet networks where the DeviceMaster UP provides simultaneous connections between both Ethernet and dial-up modem-based serial Modbus masters to the Modbus slave devices. In this way, all the individual remote networks, or subnets, are combined to form one large network. Control's Modbus Router provides the required real-time connectivity between the Modbus controllers and devices on the network.

Control's DeviceMaster products have been implemented in to this company's pipeline process, proving to be a reliable communication product.



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# 4-Port

Part Number: 99455-8



- DualConnectPlus™ Technology – simultaneously connect both serial and Ethernet devices to PLCs and/or applications. String, RFID, and barcode data filtering eliminates redundant data while extracting the RFID and barcode parameters.
- Provide PLC connectivity – to standard serial devices with protocol support for EtherNet/IP, PROFINET, Modbus/TCP, Modbus RTU/ASCII, and TCP/IP
- Supported PLC models – EtherNet/IP: Allen Bradley ControlLogix Family, SLC 5/05, PLC-5, MicroLogix PROFINET: Siemens ET 400, 300 S7 Modbus: Modicon Quantum, Premium, Momentum, Compact, Micro, GE Fanuc Rx7i, Rx3i, 90-70, 90- 30, Versamax
- Wide - 37° to 74°C operating temperature range
- Variable power input – eliminates need for power converters
- PortVision® DX monitoring and management software
- Security Features – SSL & SSH management, SSL serial data stream encryption

At Control, we believe gateways should be intelligent, robust, and easy to use.

The DeviceMaster UP provides innovative EtherNet/IP, Modbus, and Profinet IO connectivity to a wide variety of devices. It can enable you to quickly connect PLCs, SCADA, OPC Servers and applications to devices such as barcode scanners, RFID readers, weigh scales, vision systems, printers, encoders, HVAC and sensors.

With its simplified web-based configuration pages, innovative functionality and informative diagnostic information, the DeviceMaster UP provides the functionality required to make your job easier.



**Warranty Information**  
Control offers a 30-day satisfaction guarantee and 5-year limited warranty.

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