

Solution: Custom Micro Motion<sup>®</sup>  
EtherNet/IP<sup>™</sup> Module

Country: USA

Company: Micro Motion, Inc



### Effects:

- Ability to retrofit legacy Micro Motion, Inc flowmeters.
- Easy to use pre-set configurations.
- Dynamic web server for remote diagnostics and control.

## Micro Motion Incorporated connects flow and density meters to EtherNet/IP using Anybus technology

Micro Motion, Inc is an industry leader for Coriolis precision flow and density measurement products. In 2010, when faced with the growing demand for the industrial Ethernet protocol EtherNet/IP, Micro Motion needed a way to quickly provide EtherNet/IP connectivity for new products and to retrofit existing installed flowmeters. Working with HMS Industrial Networks, Micro Motion developed a transmitter using Anybus technology to bridge both legacy and newer flowmeters to modern control systems.

Micro Motion Incorporated is a global company manufacturing Coriolis flowmeters and density measurement devices for a variety of industries including the food & beverage, oil & gas and chemical industries. A Coriolis flowmeter is a device that measures mass flow rate of a fluid without employing moving parts that tend to drift or fail over time. With over 1,000,000 devices installed world-wide, Micro Motion Coriolis devices are best-in-class for reliability, repeatability and high-performance.

### The Problem

Aware of increasing demand for EtherNet/IP connectivity and the value that it could bring to customers, Micro Motion decided that having an Ethernet solution to use in conjunction with their Coriolis meters was a necessity. However, Micro Motion had limited experience with EtherNet/IP technology development that would ensure an optimized product for their customers. To help bring a solution to the market quickly, Micro Motion sought out the help of industrial networking and communication experts.

"When we first were looking at EtherNet/IP we considered a number of different technology solutions ranging from integration of chip sets into our existing transmitter



*"We see new opportunities now that the joystick can communicate on other industrial networks in other markets."*

**Sven Holmer**

Owner and chairman, KLAB

all the way to a completely outsourced product. As we thought about how to speed up time to market in our EtherNet/IP solution, we knew that HMS would be a great resource to help us understand the relative risks and benefits of incorporating third party technology versus developing the solution entirely ourselves,” said Dave Kapolnek, Product Marketing Director at Micro Motion.

“In the end, we decided to go with a hybrid solution that utilized Anybus EtherNet/IP technology but in a product that was customized for our specific application and customers.”

### The Solution

Micro Motion was able to develop a product to retrofit existing flowmeters in customers’ plants as well as provide the EtherNet/IP option for new customers. The software was designed to communicate with all

Micro Motion transmitters through a standard configuration that provides a plug & play installation.

“Our solution for EtherNet/IP has worked very well for Micro Motion and our customers. We were able to deliver an important benefit to our customers - the ability to retrofit an existing meter to gain the value of EtherNet/IP. We were also able to achieve fast time to market with little technical risk.”

From the start of the project to first production, the solution took less than one year.

“Having a supplier such as HMS has allowed us to look at digital protocols in another way. We know that we have a potential partner to help us deliver on emerging customer needs very quickly. That allows us to study trends and perhaps take more risks than we would otherwise on emerging protocols,” concludes Dave Kapolnek.



Micro Motion  
EtherNet/IP Transmitter

2-Wire Coriolis Flow and  
Density Meter

*The Micro Motion® EtherNet/IP™ Module acts as a Modbus RTU Master to the flowmeter and collects data from the meter. The module makes the data available for Ethernet/IP connectivity to a Rockwell / Allen Bradley PLC, and it also makes it available through the web interface.*



### Learn more on [www.anybus.com](http://www.anybus.com) or [www.micromotion.com](http://www.micromotion.com)

Emerson’s Micro Motion solution is built on Anybus Communicator technology. Anybus technology enables industrial devices to communicate with any fieldbus or industrial Ethernet network.

Anybus Communicator can connect almost any automation device with a serial communication interface to fieldbus and industrial Ethernet networks. The Communicator performs an intelligent conversion between the serial protocol of the automation device and the chosen industrial network.