## SMART WIRELESS THUM™ ADAPTER

ROSEMOUNT MAGNETIC FLOWMETERS

## Verify flowmeter performance inline on your schedule without external equipment

Magnetic flowmeters are typically used in some of the toughest and most critical flow applications in the process industry. Due to the nature of these applications, users have expressed a desire to access advanced diagnostic information, but historically, it has been difficult for them to get any information beyond flow rate. The Smart Wireless THUM adapter makes it easy to access all of the advanced diagnostics and measurement functionality available in Rosemount magnetic flowmeters:

- Internal meter verification diagnostic verifies performance over time which simplifies troubleshooting and flowmeter auditing.
- Grounding and wiring diagnostics accelerates startup by ensuring that the magnetic flowmeter is installed properly the first time.
- High process noise diagnostic reduces process variability by highlighting when a higher coil
  drive frequency will be able to improve a noisy output without having to apply damping.
- Totalized flow values from the magnetic flowmeter can be communicated via the THUM adapter without the need for any additional wiring or flow computer.

Rosemount Magnetic Flowmeter with the THUM adapter delivers more advanced field intelligence for better decision-making to help you achieve unparalleled efficiency and productivity.

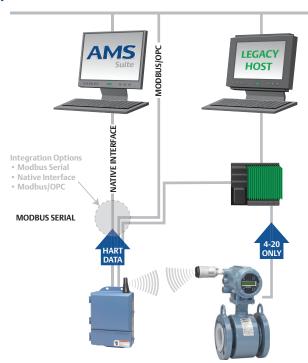


#### EASY TO USE. EASY TO INTEGRATE.

The THUM adapter allows you to wirelessly gain the full benefits of the Rosemount advanced diagnostics without the need for any additional software. All you need in addition to the THUM adapter is a Smart Wireless Gateway and a new or existing Rosemount magnetic transmitter.

All of Emerson's Smart Wireless field network devices can be integrated directly into your existing automation architecture without the need for upfront engineering, site surveys or additional software. Wired or wireless the network looks the same to your operators.

For additional ease of use, AMS® Suite: Intelligent Device Manager provides more convenient access to information that you don't have today. Emerson's Smart Wireless technologies put valuable information within reach – easily and cost effectively – to give you better insights into what's happening in your operation.



## Can advanced diagnostics and the THUM adapter tell me when my pipe is empty?

Yes, the THUM adapter can provide annunciation of empty pipe diagnostic.

# Can I complete a full meter verification of my device without a trip to the field by using the THUM adapter?

Yes, a complete verification of the meter can be completed remotely without any additional equipment.

#### Can I use my Rosemount magnetic flowmeter with the THUM adapter to access Rosemount diagnostics on another manufacturer's magnetic flowmeter sensor?

Rosemount magnetic flowmeters have universal functionality, the advanced diagnostics can be used with any manufacturer's sensors.



#### BETTER INFORMATION FOR IMPROVED PERFORMANCE

The THUM adapter can transmit up to four variables and additional HART status information at the user configurable update rate. Access to this new information enables you to more fully optimize your operations for improved performance.

#### **Selected Variables**

Flow Totalized Flow

#### **Important Status Information**

Meter Verification Universal Diagnostics

Empty Pipe Zero Flow

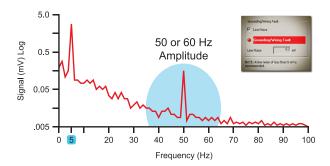
Reverse Flow Electronics Temperature
Device Alerts Ground and Wiring Diagnostic
Process Alerts High Process Noise Diagnostic

#### **TECHNICAL REQUIREMENTS**

Voltage drop across THUM adapter: 2.25 Volts at 3.5 mA; 1 Volt at 25 mA

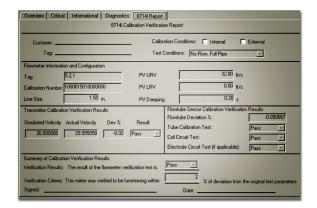
Loop resistance required: 250 Ohms

THUM adapter update rate: 8 seconds to 60 minutes



#### Simplify installation

Improper grounding is the most common installation issue with magnetic flowmeters. By monitoring the 50/60 Hz noise amplitude, the patented ground and wiring fault detection on the Rosemount magnetic flowmeters diagnostic can quickly verify if your installation is correct. Now, no matter who installs your meter, getting it right is easy.



#### Reduce maintenance and troubleshooting

With Emerson meter verification you can confirm the health of the entire flowmeter - both transmitter and sensor – without the need for additional external equipment. It's no longer necessary to remove the sensor from the line or use costly and time consuming specialized equipment to verify a meter's performance.

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