



MAJOR SYSTEM INTEGRATOR MEETS AGGRESSIVE HYPERSCALER TIMELINES WITH RAPID-DELIVERY ROSEMOUNT MAGNETIC FLOW METERS

Customer

Major system integrator supporting three hyperscale data center installations in the Northeastern United States.

Application

Critical cooling water loops for a hyperscale data center facility.

Challenge

A hyperscale data center depends on highly reliable cooling systems to maintain continuous uptime and protect mission-critical IT assets. Cooling water flow measurement is a key control and diagnostic variable, and any measurement failure or downtime can introduce unacceptable operational risk.

In this case, the project was also driven by an aggressive construction and commissioning schedule, where instrumentation delivery delays could directly impact time to operation. The system integrator required a flow measurement solution that could be delivered quickly to meet an aggressive project schedule, install easily with minimal commissioning effort, and operate reliably with limited on-site automation expertise. Supply chain predictability and vendor responsiveness were critical, as extended lead times or inconsistent delivery could jeopardize project timelines and increase costs. The selected instrumentation needed to significantly exceed performance requirements to ensure long-term accuracy, enable early detection of abnormal conditions, and provide confidence in uninterrupted cooling loop operation.

In addition, the system integrator needed a partner with the technical expertise to specify the correct instrumentation and provide long term global support for the customer's current and future data center projects.

Results

- Two-week delivery kept aggressive hyperscale construction timelines on track
- Reliable, continuous flow measurement in critical data center cooling loops
- High accuracy and performance exceeding competitive flow measurement options
- Factory-configured devices simplified installation and reduced commissioning risk
- Increased operational confidence backed by Emerson global support



Figure 1. Rosemount 8705 Magnetic Flow Meter

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Solution

The system integrator selected the Rosemount™ 8705 Magnetic Flow Sensor paired with the Rosemount™ 8712 Magnetic Flow Transmitter for cooling loop flow measurement at the hyperscale data center.

Rosemount magnetic flow meters were chosen for their proven reliability, superior accuracy, and ease of installation. The meters were provided as factory configured assemblies, enabling fast, drop in installation and simplified commissioning. Emerson's technical experts supported instrument selection to ensure the solution exceeded application requirements and delivered dependable performance in this critical cooling application.

Most importantly, Emerson was able to ship the complete, preconfigured solution in two weeks, meeting the project schedule without compromise.

Why Emerson?

The system integrator selected Emerson based on our ability to deliver high-performance flow measurement solutions quickly, reliably, and with the technical expertise required to support aggressive data center timelines. Emerson provided:

- Short lead times and rapid, dependable product availability
- Proven ability to ship complete, preconfigured solutions quickly and on schedule
- Strong supply chain coordination ensuring consistent, on-time delivery
- Factory pre-configuration reduced commissioning effort, time, and risk
- Industrial-grade design exceeds cooling loop performance requirements
- Superior accuracy and build quality compared to competitive meters
- Industry-leading reliability with a global brand reputation
- Ongoing technical and service support available worldwide

By partnering with Emerson, the integrator delivered a cooling system solution that the hyperscale data center operator can trust to run continuously, identify issues early, and operate without disruption.

For more information, visit
[Emerson.com/DataCenterMeasurement](https://www.emerson.com/DataCenterMeasurement)
[Emerson.com/MagneticFlowMeters](https://www.emerson.com/MagneticFlowMeters)

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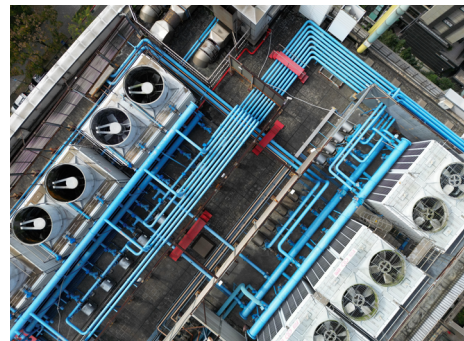


Figure 2. Data center with rooftop cooling towers.