

# Pharmaceutical Company Saves Commissioning Time and Costs

## RESULTS

- Wiring costs reduced by nearly 60%
- Reduce the risk of losing important temperature measurements by up to 80%
- Commissioning time reduced by nearly 60%
- Termination points reduced from 1,550 to approximately 150



## APPLICATION

Reactor Temperature Measurement

## CUSTOMER

Pharmaceutical company in India

## CHALLENGE

Project engineers estimated that by using traditional sensor wire direct methods, the temperature points on the project would need approximately 1,550 terminations and commissioning would take about 30 days. Simple head mounted transmitters presented similar problems and multiplexers could not provide the integrity demanded of the 185 sensing points, especially the 45 that were critical. These critical points, where the process calls for very accurate and reliable measurement of the temperatures with a minimum of interruptions, were inside the reactor. These points also needed local indication.

## SOLUTION

Emerson Process Management engineers developed a cost savings analysis comparing FOUNDATION™ fieldbus with traditional technology and presented it to the customer team. This provided the high integrity and low installation, commissioning, and operation costs the customer desired.



Appreciating that the system offered reliability and technical advantages as well as savings, the customer purchased 16 Rosemount 848T and 32 Rosemount 3244 Temperature Transmitters. The 848T Temperature Transmitter accepts eight sensor inputs, and outputs the values onto fieldbus

using a single cable. The multi-drop capability of fieldbus cuts wiring costs even further.

*“We are very satisfied with the 3244 and 848T Temperature Transmitters. They have been working fine and trouble-free since commissioning and start-up.”*

Sr. Operation and Maintenance Manager

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The ambient temperature limits and RFI immunity compliance of the field-hardened 848T allows it to be mounted close to process points under the most demanding operating conditions. As a result, the length of sensor cables run to each point is kept to a minimum, reducing installation costs by as much as 70% per point. In this case, 1,550 terminations were also reduced to approximately 150. Using the two-way communication capability of fieldbus, devices can be checked and configured from a convenient remote location. This feature reduces commissioning time by 60%. As a result, the customer completed commissioning in just seven days, less than a third of the estimated time.

The sensing points in the reactor, which required high integrity, were fitted with Rosemount 3244MV Temperature Transmitters, which also have a fieldbus output. The transmitters can warn operators and maintenance staff of sensor drift or failure by comparing inputs from two independent sensors. It also offers Hot Backup<sup>®</sup> which automatically switches to the backup sensor if the primary sensor fails. This feature reduces the risk of losing important temperature measurements by up to 80%.

With savings on cabling and two-way communication to the field devices, project engineers estimate a reduction of nearly 60% in cabling costs and commissioning time without compromising the integrity of the measurements. The fieldbus system not only fulfilled its promises of lower installation and commissioning costs, but also provides the customer with a state-of-the-art instrumentation and control package that is simple to maintain, operate, and develop.

*NOTE: The Rosemount 3244MV Temperature Transmitter has been phased out and replaced by the Rosemount 3144P Temperature Transmitter.*

## RESOURCES

### Rosemount 848T

<http://www.emersonprocess.com/rosemount/products/temperature/m848t.html>

### Rosemount 3144P

[http://www.emersonprocess.com/rosemount/products/temperature/m3144p\\_ff.html](http://www.emersonprocess.com/rosemount/products/temperature/m3144p_ff.html)

### Emerson Process Management's Life Sciences Industry Web Page

<http://www.emersonprocess.com/lifesciences>

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