

# Enhanced oil storage safety

## TMS31 delivers cost savings and improved quality in lubricant oil management

### Benefits at a glance

- Cost savings
- Enhanced safety
- Improved efficiency
- Reliable technology



Endress+Hauser's iTHERM MultiSens TMS31 multipoint thermometer temperature assemblies transformed lubricant oil management, delivering cost savings and improved quality in the Oil & Gas industry

**In the competitive landscape of the oil and gas industry, a leading producer recognized the critical need for enhanced temperature monitoring across 200 lubricant oil tanks equipped with heating coils. By implementing Endress+Hauser's advanced multipoint temperature assemblies and radar level devices, the company significantly improved operational efficiency, ensured product quality and achieved substantial cost savings.**

**The challenge** The company's previous tank gauging systems utilized a combination of temperature and pressure sensors for hydrostatic level readings. This setup required bi-annual recalibration, which not only incurred a hefty cost of approximately \$15,000 per assembly but also demanded significant downtime for removal, recalibration and reinstallation. With a total expenditure of around \$3 million every two years, the financial burden

challenged the operational budget and raised reliability concerns regarding the monitoring systems. Additionally, the risk of overheating the lubricant oil posed potential safety hazards and product quality issue.

**Our solution** To tackle these challenges, the company turned to Endress+Hauser's innovative iTHERM MultiSens TMS31 multipoint thermometer temperature assemblies, paired with Micropilot FMR62 radar level devices. The iTHERM MultiSens TMS31 multipoint thermometer temperature assemblies provided two-point temperature measurements, allowing for precise monitoring of temperatures both above and below the internal steam coils. This dual measurement capability ensured that the heating coils operated within safe limits, preventing overheating and protecting the integrity of the lubricant oil. The integration of these advanced systems eliminated the need for costly recalibrations, as



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the iTHERM MultiSens TMS31 multipoint thermometer temperature assemblies are designed for long-term stability and accuracy. The data collected by the iTHERM MultiSens TMS31 multipoint thermometer temperature assemblies was transmitted to Micropilot TMT162 transmitters, providing real-time insights into temperature variations and trends. This comprehensive monitoring empowered the company to proactively identify and address potential issues before they escalated, thereby safeguarding product quality and operational safety.

**Results** The deployment of Endress+Hauser's temperature monitoring solutions led to substantial improvements in the company's operations. The elimination of bi-annual recalibration costs resulted in significant financial savings, allowing the company to redirect resources towards other critical areas of operation. Furthermore, the enhanced monitoring capabilities provided by the iTHERM MultiSens TMS31 multipoint thermometer temperature assemblies enabled the company to maintain optimal temperature conditions, thereby reducing the risk of product fouling and ensuring the quality of the lubricant oil.

Overall, the successful implementation of these advanced measurement systems not only optimized operational processes but also reinforced the company's commitment to innovation and safety in the oil and gas sector. By embracing cutting-edge technology, the company strengthened its position in the industry, setting a benchmark for excellence and efficiency.



Endress+Hauser's iTHERM  
MultiSens TMS31 multipoint  
thermometer

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