

# Hx SYSTEM

Heat Exchanger Performance Monitoring & Predictive Analytics



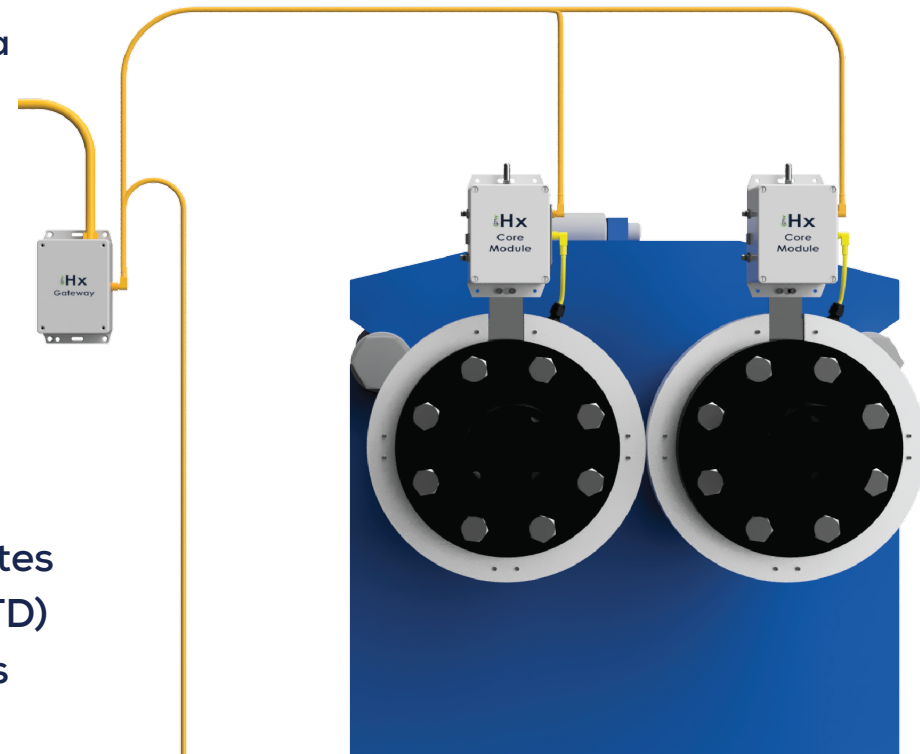
## Cloud Enabled | Easy to Install Hardware | Flexible Configurations

The Hx System is a versatile solution of sensors & electronics that offers remote & real-time performance monitoring & predictive analytics for heat exchangers.

- Real-time data dashboard
- Predict performance changes based on past & current data
- Flexible connectivity (Wired or Wireless)
- Power w/battery or DC wall adapter
- Adaptable w/existing plant instrumentation
- May be optioned with additional flowmeters
- Eliminate process downtime w/wafer flange or clamp-on sensor mounts for seamless installs/removals

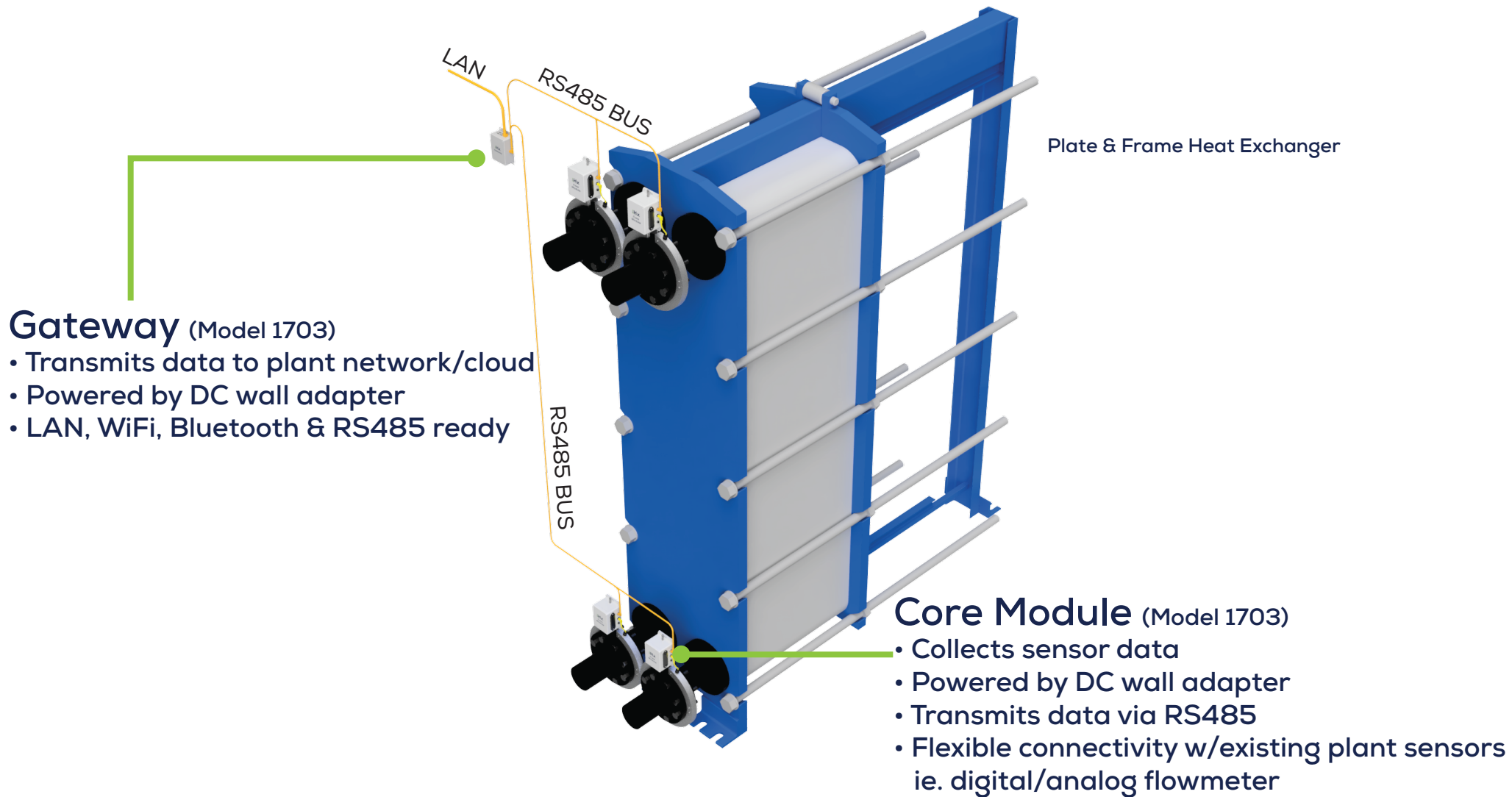
## Measurable Parameters

% Change in Relative Performances | Heat Transfer Rates  
Thermal Efficiencies | Log Mean Temp. Difference (LMTD)  
Fouling Factors (flowrate data required) | User Defined KPIs



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## Typical Wired Configuration



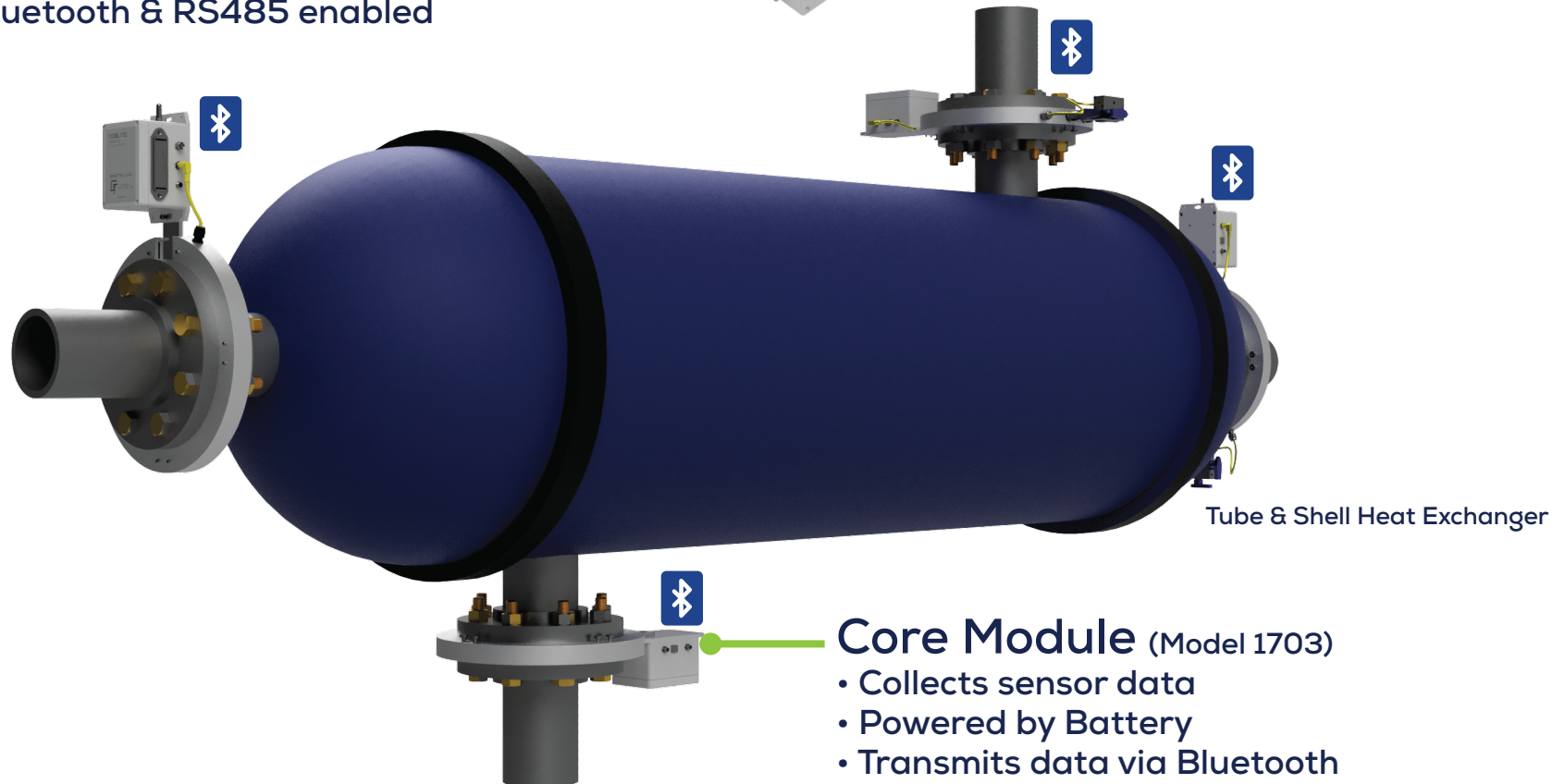
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## Typical Wireless Configuration



### Gateway (Model 1703)

- Transmits data to plant network/cloud
- Powered by DC wall adapter
- LAN, WiFi, Bluetooth & RS485 enabled



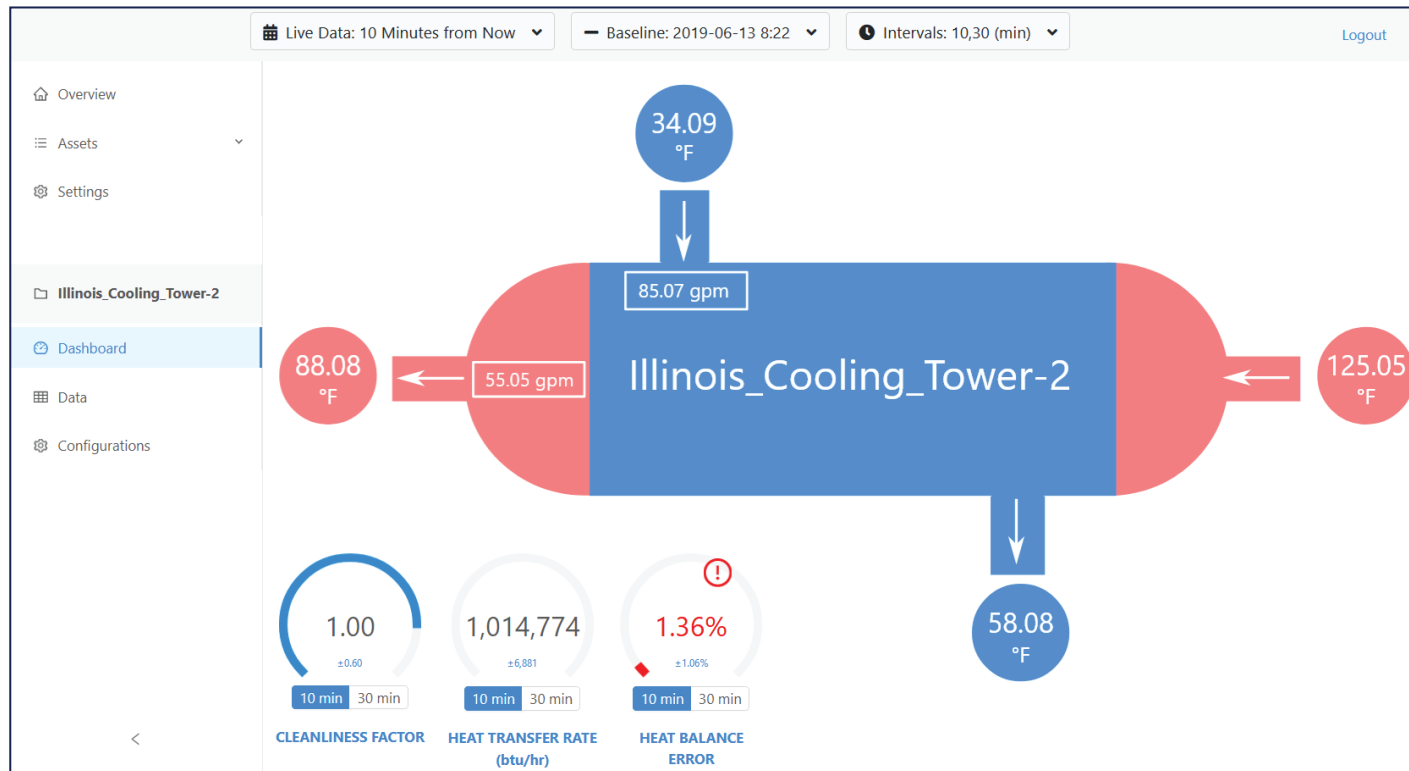
Tube & Shell Heat Exchanger

### Core Module (Model 1703)

- Collects sensor data
- Powered by Battery
- Transmits data via Bluetooth
- Flexible connectivity w/existing plant sensors  
ie. digital/analog flowmeter

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## Software Dashboard



- Intuitive design
- Customizable to suit user needs
- Configurable alerts & alarms