Remote monitoring

Simplify remote equipment monitoring with Connect Edge

Enhanced sample security and streamlined asset management

thermo scientific

Monitoring laboratory equipment is crucial for proactively protecting product and samples, as well as for enhancing lab management efficiency and uptime.

The Thermo Scientific™ Connect Edge system offers continuous remote monitoring and asset management, safeguarding the integrity of your essential products and samples. Connect Edge seamlessly collects critical data from laboratory equipment, instruments, and critical environments while minimizing upfront costs, hardware requirements, and concerns.

Connect Edge

Connect Edge can be implemented as a cloud-based remote monitoring system or facilitate data integration with your on-premises system using Open Platform Communication Unified Architecture (OPC UA™).

- **Cloud:** remotely monitor the live status of your devices in the cloud anytime, anywhere with the Thermo Fisher™ Connect Platform secured by Amazon Web Services™ (AWS™) or the InstrumentConnect mobile app

- **OPC UA:** use your Connect Edge gateway to send instrument telemetry directly to your on-site system via OPC UA

  The Connect Edge gateway can be used as a server capable of collecting and transmitting laboratory device data to customer-managed on-premises systems such as LIMS and SCADA using OPC UA, a universal communication protocol; this seamless integration capability simplifies data collection and eliminates organizations from incurring costly individual device customizations; and this application can help support 21 CFR Part 11 for customer premises-based systems, providing secure and reliable data for integration.

Features	Cloud	OPC UA
Multi vendor instrument monitoring	•	•
Advanced monitoring for Thermo Scientific™ laboratory equipment (on-board telemetry data, system-based diagnostic data)	•	•
View live device status 24/7 via mobile and cloud applications	•	
Industry-leading security protocols	•	•
Store documents in the document repository (25 GB included)	•	
Equipment alarms and notifications	•	•
Create custom alarms with monitors	•	•
Utilize OPC UA to send device data to your own management system		•
Supports 21 CFR Part 11 compliance*		•

* When implemented with customer's 21 CFR–compliant system.

Data security

At Thermo Fisher Scientific, security and privacy are our top priorities. The Connect Platform, hosted in AWS and built in collaboration with our corporate **Cybersecurity Program**, is developed with various data security approaches and controls to help protect against intrusion or data compromise. Security controls follow industry standard practices and include data encryption, network firewalls, and data backups and recovery. In addition, Thermo Fisher Scientific maintains a secure product development lifecycle program comprising custom security assessments, source code management, and penetration testing. Security assessment findings are reviewed, evaluated, and prioritized by the Product Development team for remediation based on criticality and a business risk management process.

Please view our **security quick reference guide** for further information on the security controls and practices implemented within the Connect Platform.

Getting connected in two steps

1. **Determine type (Ethernet/Wi-Fi*) and quantity of gateway(s) needed based on network topology preference.**

   Each gateway can support multiple pieces of equipment. This flexibility allows laboratories to tailor their operations to specific requirements.**

Gateway

2. **Select the compatible adapter for your laboratory equipment.**

   Device adapters plug into Thermo Scientific™ laboratory equipment to extract and transmit telemetry and alarms to the Connect Edge gateway via Wi-Fi or Ethernet.

   Sensor adapters bridge data between non–Thermo Scientific laboratory equipment, paired with independent sensors, and the Connect Edge gateway via Wi-Fi or Ethernet. Sensors sold separately.
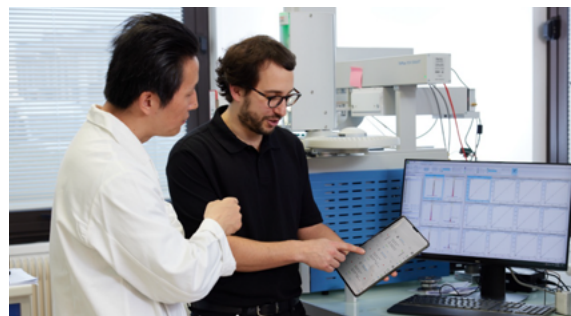

Sensor adapter   Device adapter

Installation services

Our field service engineers are ready to help prepare your lab for the future. While our systems are designed to be self-installable, we recognize that this may not be a fit for everyone. Installation packages include everything necessary to set up your connected lab.†

Thermo Scientific and multi vendor laboratory equipment supported

- **Advanced monitoring for over 700 Thermo Scientific laboratory equipment models:** unlock advanced monitoring exclusively for Thermo Scientific products, including freezers, biosafety cabinets, refrigerators, ULT freezers, CO_2 incubators, and environmental chambers; on-board telemetry and diagnostic data pulled directly from Thermo Scientific laboratory equipment can increase uptime by providing comprehensive historical reports, offering valuable health snapshots for asset managers and field service engineers

  - **Freezers, refrigerators, and ultra-low temperature (ULT) freezers:** telemetry and alarms for up to 51 parameters, including warm/cold temperature event, door event, power failure, second-stage sump temperature, and heat plate temperature

  - **CO_2 incubators and environmental chambers:** telemetry and alarms for up to 36 parameters, including temperature, CO_2, and O_2 values and setpoints, device disconnect fan error, sensor breakage, fan error, and temperature high/low

  See a complete list of compatible Thermo Scientific equipment by model number at **thermofisher.com/edgecompatible**

- **Reliable monitoring for multi vendor laboratory equipment:** independent sensors measure temperature, humidity, CO_2, current, and door status for non–Thermo Scientific equipment; these sensors are available calibrated to Standard 9001 or Accredited 17025 specifications

* Availability varies by region.

** Ask your sales representative for details.

† Installation services may not be available in all regions.

Ordering information

Gateway and subscription packages

Cloud subscription package with Wi-Fi/Ethernet gateway*

Description	Cat. No.
Cloud subscription for 3 devices, 2 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM3D2YGW
Cloud subscription for 5 devices, 2 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM5D2YGW
Cloud subscription for 10 devices, 2 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM10D2YGW
Cloud subscription for 3 devices, 3 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM3D3YGW
Cloud subscription for 5 devices, 3 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM5D3YGW
Cloud subscription for 10 devices, 3 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM10D3YGW
Cloud subscription for 3 devices, 5 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM3D5YGW
Cloud subscription for 5 devices, 5 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM5D5YGW
Cloud subscription for 10 devices, 5 years (includes Connect Edge gateway kit Wi-Fi/Ethernet, power supply with regional power adapters, Ethernet cable, and Wi-Fi antenna)	EDGM10D5YGW

Cloud subscription package with Ethernet-only gateway*

Description	Cat. No.
Cloud subscription for 3 devices, 2 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM3D2YEGW
Cloud subscription for 5 devices, 2 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM5D2YEGW
Cloud subscription for 10 devices, 2 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM10D2YEGW
Cloud subscription for 3 devices, 3 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM3D3YEGW
Cloud subscription for 5 devices, 3 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM5D3YEGW
Cloud subscription for 10 devices, 3 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM10D3YEGW
Cloud subscription for 3 devices, 5 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM3D5YEGW
Cloud subscription for 5 devices, 5 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM5D5YEGW
Cloud subscription for 10 devices, 5 years (includes Ethernet-only (global) Connect Edge gateway kit, power supply with power adapters, and Ethernet cable)	EDGM10D5YEGW

* Visit thermofisher.com/connectedge for country availability.

Subscriptions

Cloud subscription for standalone or add-on devices (hardware sold separately)

Description	Cat. No.
Cloud subscription for 1 device, 1 year	EDGM1D1Y
Cloud subscription for 1 device, 2 years	EDGM1D2Y
Cloud subscription for 1 device, 3 years	EDGM1D3Y
Cloud subscription for 1 device, 5 years	EDGM1D5Y
Cloud subscription for 3 devices, 2 years	EDGM3D2Y
Cloud subscription for 5 devices, 2 years	EDGM5D2Y
Cloud subscription for 10 devices, 2 years	EDGM10D2Y
Cloud subscription for 3 devices, 3 years	EDGM3D3Y
Cloud subscription for 5 devices, 3 years	EDGM5D3Y
Cloud subscription for 10 devices, 3 years	EDGM10D3Y
Cloud subscription for 3 devices, 5 years	EDGM3D5Y
Cloud subscription for 5 devices, 5 years	EDGM5D5Y
Cloud subscription for 10 devices, 5 years	EDGM10D5Y

OPC UA license for OPC UA (hardware sold separately)

Description	Cat. No.
OPC UA license for OPC UA, 1 device	EDGI1D
OPC UA license for OPC UA, 5 devices	EDGI5D
OPC UA license for OPC UA, 20 devices	EDGI20D

Hardware

Gateways*

Description	Cat. No.
Connect Edge gateway kit Ethernet-only; includes Connect Edge gateway, power supply with regional power adapters, and Ethernet cable	EDGEKTETHE01
Connect Edge gateway kit Wi-Fi; includes Connect Edge gateway, power supply with regional adapters, Ethernet cable, and Wi-Fi antenna	EDGEKTWIFI01

* Visit thermofisher.com/connectedge for country availability.

Adapter kits*

Description	Cat. No.
Wi-Fi device adapters	
Wi-Fi device adapter kit with RS485; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket (ULT freezer, other), 3.7 m cable, power supply, country converters	EDGEKTADPT01B
Wi-Fi device adapter kit with TTL; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket (refrigerator, freezer, other), 3.7 m cable, power supply, country converters	EDGEKTADPT02B
Wi-Fi device adapter kit with RS232; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket (incubators, other), 3.7 m cable, power supply, country converters	EDGEKTADPT03B
Wi-Fi device adapter kit with USB; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket (incubator, other), 3.7 m cable, power supply, country converters	EDGEKTADPT04B
Wi-Fi device adapter kit for TSG/FBG/CHG refrigerators and freezers; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket, 3.7 m cable, power supply, country converters	EDGEKTADPT01TB
Wi-Fi device adapter kit for Forma Steri-Cult incubator; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket, 3.7 m cable, power supply, country converters	EDGEKTADPT01SB

Ethernet-only device adapters	
Ethernet-only device adapter kit with RS485; one per device required; includes bracket (ULT freezer, incubator, other), 3.7 m cable, power supply, country converters	EDGEKTADPT51B
Ethernet-only device adapter kit with TTL; one per device required; includes bracket (refrigerator, freezer, other), 3.7 m cable, power supply, country converters	EDGEKTADPT52B
Ethernet-only device adapter kit with RS232; one per device required; includes bracket (incubator, other), 3.7 m cable, power supply, country converters	EDGEKTADPT53B
Ethernet-only device adapter kit with USB; one per device required; includes bracket (incubator, other), 3.7 m cable, power supply, country converters	EDGEKTADPT54B
Ethernet-only device adapter kit for TSG/FBG/CHG refrigerators/freezers; one per device required; includes bracket, 3.7 m cable, power supply, country converters	EDGEKTADPT51TB
Ethernet-only device adapter kit for Forma Steri-Cult incubator; one per device required; includes bracket, 3.7 m cable, power supply, country converters	EDGEKTADPT51SB
Sensor adapters	
Wi-Fi sensor adapter for independent sensors; ports for up to six analog sensors and one digital sensor; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device); includes 3.7 m cable, power supply, country converters	EDGEKTADPT05
Ethernet sensor adapter for independent sensors; ports for up to six analog sensors and one digital sensor; includes 3.7 m cable, power supply, country converters	EDGEKTADPT55

* Visit thermofisher.com/connectedge for country availability.

Regional adapter kits (power adapter not included)*

Description	Cat. No.
Wi-Fi device adapters	
Wi-Fi device adapter kit with RS485; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket (ULT freezer, other), 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT01PB
Wi-Fi device adapter kit with TTL; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket (refrigerator, freezer, other), 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT02PB
Wi-Fi device adapter kit with RS232; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket (incubators, other), 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT03PB
Wi-Fi device adapter kit with USB; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket (incubator, other), 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT04PB
Wi-Fi device adapter kit for TSG/FBG/CHG refrigerators and freezers; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device required); includes bracket, 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT01TPB
Wi-Fi device adapter kit for Forma Steri-Cult incubator; one per device required; includes bracket, 3.7 m cable, power supply, country converters	EDGEKTADPT1SPB
Ethernet-only device adapters	
Ethernet-only device adapter kit with RS485; one per device required; includes bracket (ULT freezer, incubator, other), 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT51PB
Ethernet-only device adapter kit with TTL; one per device required; includes bracket (refrigerator, freezer, other), 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT52PB
Ethernet-only device adapter kit with RS232; one per device required; includes bracket (incubator, other), 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT53PB
Ethernet-only device adapter kit with USB; one per device required; includes bracket (incubator, other), 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT54PB
Ethernet-only device adapter kit for TSG/FBG/CHG refrigerators/freezers; one per device required; includes bracket, 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT51TPB
Ethernet-only device adapter kit for Forma Steri-Cult incubator; one per device required; includes bracket, 3.7 m cable; excludes 5-volt USB DC power supply	EDGEKTADPT51SPB
Sensor adapters	
Wi-Fi sensor adapter for independent sensors; ports for up to six analog sensors and one digital sensor; convert to Ethernet by adding optional Cat. No. EDGEKTADPT99 (one per device); includes 3.7 m cable; excludes 5-volt SB DC power supply	EDGEKTADPT05P
Ethernet sensor adapter for independent sensors; ports for up to six analog sensors and one digital sensor; includes 3.7 m cable; excludes 5-volt SB DC power supply	EDGEKTADPT55P

* Visit thermofisher.com/connectedge for country availability.

Sensors

Description	Cat. No.
Standard calibration ISO 9001 sensors	
Temperature/RH sensor; standard calibration: 37°C at 90% RH; includes 24 V round cable (3.7 m), IP65	EDGEKTSENRC002
Digital temperature sensor; –55°C to 125°C; CAL A; standard calibration: –40°C, –20°C, 0°C; includes 3.7 m flat PFTE cable, IP68	EDGEPTSENTC006A
Digital temperature sensor; –55°C to 125°C; CAL B; standard calibration: 0°C, 37°C, 100°C; includes 3.7 m flat PFTE cable, IP68	EDGEPTSENTC006B
Digital temperature/RH sensor; –55°C to 125°C; standard calibration: 23°C at 50% RH; includes 3 m round cable, IP68	EDGEPTSENRC007A
Digital temperature/RH sensor; –55°C to 125°C; standard calibration: 37°C at 90% RH; includes 3 m round cable, IP68	EDGEPTSENRC007B
PT100 4–20 mA sensor; –200°C to 200°C; Class B; standard calibration: –196°C, –80°C, 0°C; includes 3.7 m round cable	EDGEPTSENTC001
PT100 4–20 mA sensor; –100°C to 316°C; Class A; standard calibration: –80°C, –40°C, 0°C; includes 3.7 m round cable	EDGEPTSENTC008
Standard calibration ISO 9001 sensor kits	
T/RH/CO_2 kit: includes temperature/RH sensor with 24 V round cable (3 m), CO_2 sensor with round cable (3.7 m); standard calibration: 37°C at 90% RH	EDGEKTCRHC
Cold kit: includes 4–20 mA PT100 (3.7 m round cable), dry contact door switch, and 50A current transducer; standard calibration: –80°C, –40°C, 0°C	EDGEKTCCLD
LN2 kit: includes 4–20 mA PT100 (3.7 m round cable) and dry contact door switch; standard calibration: –196°C, –80°C, 0°C	EDGEKTCLN2
Accredited calibration ISO 17025 sensors	
Temperature/RH sensor; accredited calibration: 37°C at 90% RH; includes 24 V round cable (3.7 m), IP65	EDGEKTSENRA002
CO_2 sensor with 24 V round cable (3.7 m); accredited calibration: 23°C (with compensation for 37°C) at 5% CO_2, ±0.1% CO_2, at 0–8% CO_2, ±0.2% CO_2, at 8–20% CO_2, ±0.4% CO_2	EDGEKTSENCA003
Digital temperature sensor; –55°C to 125°C; CAL A; accredited calibration: –40°C, –20°C, 0°C; includes 3.7 m flat PFTE cable, IP68	EDGEPTSENTA006A
Digital temperature sensor; –55°C to 125°C; CAL B; accredited calibration: 0°C, 37°C, 100°C; includes 3.7 m flat PFTE cable, IP68	EDGEPTSENTA006B
Digital temperature/RH sensor; –55°C to 125°C; accredited calibration: 23°C at 50% RH; includes 3 m round cable, IP68	EDGEPTSENRA007A
Digital temperature/RH sensor; –55°C to 125°C; accredited calibration: 37°C at 90% RH; includes 3 m round cable, IP68	EDGEPTSENRA007B
PT100 4–20 mA sensor; –200°C to 200°C; Class B; accredited calibration: –196°C, –80°C, 0°C; includes 3.7 m round cable	EDGEPTSENTA001
PT100 4–20 mA sensor; –100°C to 316°C; Class A; accredited calibration –80°C, –40°C, 0°C; includes 3.7 m round cable	EDGEPTSENTA008
Accredited calibration ISO 17025 sensor kits	
T/RH/CO_2 kit: includes temperature/RH sensor with 24 V round cable (3 m), and CO_2 sensor with round cable (3.7 m); accredited calibration: 37°C at 90% RH	EDGEKTARHC
Cold kit: includes 4–20 mA PT100 (3.7 m round cable), dry contact door switch, and 50A current transducer; accredited calibration: –80°C, –40°C, 0°C	EDGEKTACLD
LN2 kit: includes 4–20 mA PT100 (3.7 m round cable) and dry contact door switch; accredited calibration: –196°C, –80°C, 0°C	EDGEKTALN2
Non calibrated	
Dry contact door switch sensor with 3.7 m cable for –25°C to 70°C (–15°F to 160°F) conditions	EDGEPTSENDU004
Current transducer 50A with 3.7 m cable for –10°C to 70°C (–14°F to 158°F) conditions	EDGEPTSENAU005
4–20 mA sensor cable	EDGEPTSEN420CB
Dry contact sensor cable	EDGEPTSENDCCB

Replacement components and hardware

Description	Cat. No.
Connect Edge device adapter mounting bracket	EDGEPTBRKT001
Connect Edge gateway AC plug—Australia	EDGEPTPWRS13
Connect Edge gateway AC plug—China	EDGEPTPWRS14
Connect Edge gateway AC plug—India	EDGEPTPWRS15
Connect Edge gateway 24 W power supply	EDGEPTPWRS01
Connect Edge gateway 2.45/5.8 GHz antenna	EDGEPTANTD01
Humidity and temperature sensor 24 V round cable (3.7 m)	EDGEPTSEN08CB
CO_2 sensor 24 V round cable (3.7 m)	EDGEPTSEN12CB

Connect Edge system services

Professional installation	Cat. No.
Installation of one Connect Edge gateway kit, includes account activation and travel within major metropolitan areas	INSCEGTWY
Installation of one Connect Edge adapter kit, includes travel if purchased with Cat. No. INSCEGTWY	INSCEADPT
Installation and configuration for one sensor adapter (per device) with up to six analog sensors and one digital sensor; travel included for major metropolitan areas (Zone 1) if purchased with Cat. No. INSCEGTWY; not applicable to frozen ULT freezer installation	CEINSSNSRB
Orientation for Connect Edge, remote session, to review software and hardware function for up to 2 hours; installation sold separately	CEORIENTRM
Frozen ULT sensor installation, combine with CEINSSNSRB	FRZNULT-SNSRINST

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