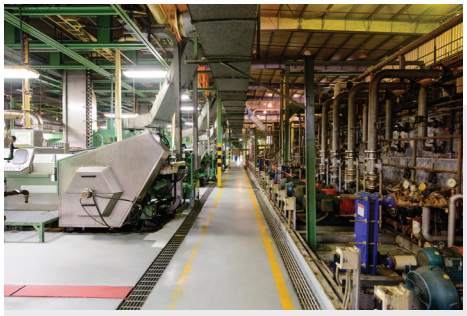
INDUSTRIAL INTERNET OF THINGS (IIOT) EDGE GATEWAY

FLIR Bridge™

FLIR Bridge is an IIoT edge gateway that makes it easy to keep an eye on key data from multiple condition monitoring sensors and FLIR automation thermal cameras using preferred software platforms including Pi Historian and OPC UA. With the ability to monitor and analyze the state of important assets in one place, industrial plants, factories, and facilities can improve asset health and make better-informed decisions to keep operations running. By adding FLIR Bridge to a condition monitoring program, businesses can reduce maintenance costs and improve productivity, reliability, and safety.



AGGREGATE DATA IN ONE LOCATION

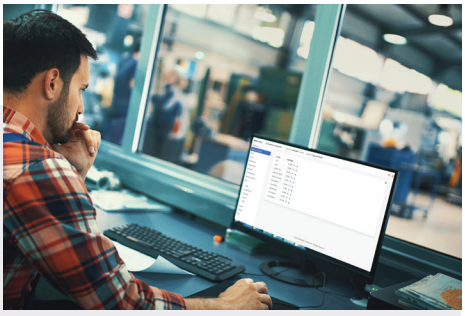
The FLIR Bridge collects data from multiple FLIR Automation Smart Sensor cameras and third-party sensors into a single hub

- Collect data from FLIR automation smart sensor cameras including the A50/A70, A400/A500/A700, AX8, A310, A310f, and A500f/A700f
- Connect to any sensor that outputs data in one of many common industrial protocols such as REST API, MQTT, Modbus, and OPC UA
- Easily integrate FLIR Bridge into existing asset monitoring systems with auto discovery of FLIR automation thermal cameras

STREAMLINE DATA PROCESSING

Control sensor data in FLIR Bridge by applying filters or mathematical equations before sending the information to third-party asset software

- Create at-the-edge alarms and alerts and apply powerful analysis tools on incoming data
- Output processed or raw data, or both simultaneously
- Reduce data volume to save bandwidth or create space for many sensor inputs
- Prevent data loss even when connectivity is poor or intermittent with the built-in buffer



OPTIMIZE DECISION SUPPORT

Make better-informed decisions with flexible data routing and reporting

- Deliver data to multiple on-premises and cloud destinations
- Easily scale asset monitoring with the ability to collect data from thousands of different sensors
- Use powerful and comprehensive analysis tools on incoming data with enhanced on-the-edge analytics

SPECIFICATIONS

General description	FLIR Bridge	FLIR Bridge Pro
FLIR cameras supported	AX8, A310, A310f, A50/A70 Smart Sensors, A400/A500/A700 Smart Sensors, A500f, A700f	
Third-party sensor support	Yes, multiple types	
Included software		
Software	Sensor-to-cloud SW solution that enables the flow of sensor data to third-party systems	
Number of sensors connected simultaneously	5	Limited by bandwidth and CPU power only. Number of sensors depends on the poll rate and data types
South plug-ins (sensors)	FLIR cameras, CSV, HTTP, Modbus, MQTT, OPC-UA, Open weathermap, and much more added continuously	
North plug-ins (cloud)	Google Cloud Platform IoT Core, HTTP, KAFKA, OPC-UA, ThingSpeak, Splunk	
Analytic filter plug-ins	Delta, mathematical expressions, Fast Fourier Transform, Python scripts, and much more added continuously. Pre-built analytical filters list available via online documentation. Bridge also allows customer user coded and ML models to be loaded.	
Notification plug-ins	Logic and mechanism plugins to determine if a condition has been met, what information to output, and where to output the notification.	
Camera discovery	Manual or automatic discovery	
System specification		
Computer type	Fanless palm-size IPC	Fanless palm-size IPC
CPU	Intel Atom E3815 single core 1.46GHz	4-core ARM® Cortex®-A57 CPU, 8MB L2 + 4MB L3
Memory	4 GB DDR3L onboard	4GB LPDDR 4x onboard
Storage	32 GB eMMC onboard	16GB eMMC onboard
Resolution	Full HD	4K (3840 × 2160)
Operating system	Linux Ubuntu 18.04	Linux Ubuntu 18.04

Connections	FLIR Bridge	FLIR Bridge Pro
LAN	2x RJ45 Gigabit Ethernet	
USB	1x USB 3.0	1x USB 3.0, 1x USB 2.0
Display output	1x HDMI, supports 1920 × 1080 @ 60 Hz	1x HDMI (Max. resolution 3840 × 2160 @ 60 Hz)
Wi-Fi	WIFI 802.11 a/b/g/n/ac (2.4GHz/5GHz) 2T2R and BT4.2 includes 2 Antennas	
Power system		
Power requirements	10 ~ 30 VDC	19-24 V (1.5A-1.18A)
Power supply	Not included, sold separately. T131368 for standard, T131370 for Pro	
Power connector	2 pin terminal block	
Environmental data		
Storage temperature	-40°C to 85°C (-40°F to 185°F)	
Operating temperature	0°C to 50°C (32°F to 122°F)	-10°C to 60°C (14°F to 140°F)
Relative humidity	10% to 95% at 40°C, non-condensing	
Physical data		
Weight	0.5 kg	1.2 kg
Size (L × W × H)	100 × 70 × 30 mm	147 × 118 × 52 mm
Packaging contents	Industrial computer with preloaded software, Wi-Fi antennas, QR code with link to documentation, plug-in block for power	