P/N: SV87-KIT

Copyright

Document identity

Website

http://www.flir.com

Customer support

http://support.flir.com

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Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.

General description

The FLIR SV87-KIT Vibration Monitoring Solution, continuously monitors key mechanical assets, alerting users to abnormal conditions in advance of periodic maintenance. Early warnings can help prevent serious machine problems and even help predict costly device failures. The fixed sensors continuously check the pumps, motors etc. preventing workers from needing to frequently visit dangerous locations. Results are displayed in real time on Windows® PCs, smartphones and other mobile devices. All this without having to be at the machine on the factory floor.

Data from these vibration and temperature data sensors attached to the assets are sent via Bluetooth®. The GW65 gateway sends this data to the Windows® application and mobile apps via Wi-Fi®. Users can see current data from each sensor, historic data and trending charts. Professionals can set alerts for specific thresholds in acceleration, g-forces and temperatures. When a user defined vibration or temperature threshold is exceeded, a warning alert or email is issued. Vibration data can be exported from the Windows application to a CSV file.

This FLIR SV87-KIT contains one gateway and four sensors. Additional GW65 Gateways and SV87 Sensors are available to expand the monitoring system. Access to configuration and visualization software is also included.

Key features:

- Early detection and warnings of conditions that could cause expensive equipment problems
- Continuous automatic 24/7 monitoring of key assets
- Includes software for iOS®, Android™, Windows®
- Visualizes current, historic, min/max/live data and trending charts on connected smartphones or Windows PCs
- 4 sensors included in the FLIR SV87-KIT
- Gateway consolidates sensor data and stores it in case of Wi-Fi outage. LEDs indicate power, sensor alarm and Wi-Fi status
- Windows app can export data to CSV file
- Automatic alerts or emails triggered when user set vibration or temperature thresholds are exceeded
- Reduces the need to visit dangerous locations

Supported Operating Systems:

- iOS App: 9.0 or above
- Android App: 7.0 or above
- Windows® App: Windows 10 with Intel® Core™ i3 processor or better

GW65 Remote Monitoring Gateway

General description

The GW65 Remote Monitoring Gateway is part of the Vibration Monitoring solution. It receives vibration and temperature data from sensors via Bluetooth® and sends data to Windows App and mobile apps using Wi-Fi®. The gateway also stores the data to its internal memory in case of Wi-Fi® outage.

This Monitoring Gateway is supplied with four AC connectors for US/EU/UK/Australia/NZ power outlets. It works on 100-240 V AC, 50/60 Hz.

Environmental	
Operating Temperature Range	-25°C to 65°C (-13°F to 149°F)
Storage Temperature Range	-25°C to 65°C (-13°F to 149°F)
Relative Humidity	10 to 95% non-condensing
Altitude	2000 m

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Environmental	
IP Rating	IP40
Drop Test	1 m
Certification	ETL, IC, FCC, CE, RCM

Storage	
Data Storage	32 MB (approx. 5 days of data for 4 sensors OR 20 days with 1 sensor)

Power system	
AC power input	100-240 V AC, 50/60 Hz

Indicators	
LED	LEDs indicate power, sensor alarm and Wi-Fi® status

Data communication interfaces	
Bluetooth® Range (during a session)	65 m, line-of-sight
Wi-Fi Type	IEEE 802.11 b/g/n
Wi-Fi Frequency Band	2.4 GHz

Physical data	
Weight	66 g (0.15 lbs.)
Size (L × W × H)	5.41 x 4.94 x 4.94 cm (2.11 x 1.93 x 1.93 in)

Warranty and service	
3-year warranty	www.flir.com/testwarranty

Shipping information	
Packaging, type	Cardboard box
Included	• 1 Gateway for Vibration Monitoring Solution • 4 Gateway AC connectors for US/EU/UK/AUS power outlets
Packaging, weight	135 g (0.30 lbs.)
Packaging, size	16.50 x 7.00 x 6.50 cm (6.44 x 2.73 x 2.54 in)
EAN-13	0793950438725
UPC-12	793950438725
Country of origin	Taiwan

SV87 Vibration/Temperature Remote Sensor

General description
Vibration / Temperature Remote Sensor
This is a battery powered remote Vibration/Temperature sensor for the Vibration Monitoring Solution. It collects vibration and temperature readings every 90 seconds. This data is automatically sent to the Remote Monitoring Gateway via Bluetooth®.

Measurement	
Sensitivity Range	±32 g
Frequency Range	10 Hz to 1 kHz
Velocity Data	mm/s or in/s derived from FFT
Capture Rate	One data point/90 sec
Contact Temperature Range	-30°C to 80°C (-22°F to 176°F)

FLIR SV87-KIT: Vibration Monitoring Solution

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Environmental	
Operating Temperature Range	-30°C to 80°C (-22°F to 176°F)
Storage Temperature Range	-30°C to 80°C (-22°F to 176°F)
Relative Humidity	10 to 95% non-condensing
Altitude	2000 m
IP Rating	IP67 (IEC 60529)
Drop Test	1 m
Certification	ETL, IC, FCC, CE, RCM

Power	
Battery type	3.6 V Lithium battery
Battery life	4 years (varies by usage)
Battery status	Low battery LED indicator

Data communication interfaces	
Bluetooth® Range (during a session)	65 m, line-of-sight
Bluetooth® Type	BLE 4.2

Physical data	
Weight (including battery)	62 g (0.14 lbs.)
Size (L × W × H)	6.5 x 2.5 x 2.7 cm (2.54 x 0.98 x 1.05 in)

Warranty and service	
3-year warranty	www.flir.com/testwarranty

Shipping information	
Packaging, type	Cardboard box
Included	1 Vibration / Temperature Remote Sensor for Vibration Monitoring Solution including adhesive tape.
Packaging, weight	64 g (0.14 lbs.)
Packaging, size	7 x 2.95 x 2.95 cm (2.73 x 1.15 x 1.15 in)
EAN-13	0793950438701
UPC-12	793950438701
Country of origin	Taiwan

Supplies & accessories:

- GW65; Remote Monitoring Gateway
- SV87; Vibration/Temperature Remote Sensor

Wuhan Lixing (Torch) Power Sources Co., Ltd.
Material Safety Data Sheet （MSDS）

LX-QR-824-40

I. Description and Company data

Name: Lithium metal battery (ER14505 3.6V 2400mAh 8.64Wh)
Manufacturer Information: 　　Name: Wuhan Lixing (Torch) Power Sources Co., Ltd.
Chemical System: Lithium thionyl chloride battery
Product nominal voltage: 3.6V
Designated for recharge: No

II. Chemical Component/Hazardous Ingredients

(　)Simple　　　　　　（ Yes ）Admixture
Chinese Name：锂-亚硫酰氯电池
English Name：Lithium thionyl chloride cylindrical battery
CAS N0．：1313-13-9
UN NO.: 3090
Material Component (%)：：
Lithium：3-4(wt%) (0.87fg for ER18505M, 0.48g for ER14335, 0.4g for ER14250, 0.75g for ER14505，1.56g for ER26500, 3g for ER34615)

Material	CAS No.	Approximate Percent (wt %)
thionyl chloride	7719-09-7	25.5
Carbon black	1333-86-4	2.95
Teflon	9002-84-0	0.236
Lithium	7439-93-2	3.36
Lithium Aluminum Tetrachloride	14024-11-4	3.61
Sulfur Dioxide	7446-09-5	1.81
Copper Powder	7440-50-8	0.236
Stainless Steel	7439-89-6	56.2
Glass fiber membrane	65997-17-3	0.2
other		5.9

NOTE: The battery should not be opened or exposed to heat because exposure of the ingredients contained within could be harmful under some circumstances.

III. Possible Hazardous

检 验 报 告

Test Report

样品名称： 锂-亚硫酰氯柱式电池 ER14505 3.6V 2400mAh

Name of Sample: Li/SOCL2 Cylindrical Batteries ER14505 3.6V 2400mAh

委托单位： 武汉力兴（火炬）电源有限公司

Consignor: WUHAN LIXING（TORCH）POWER SOUCES CO.,LTD

上海化工研究院检测中心

Shanghai Research Institute of Chemical Industry Testing Centre