



FLIR SV88™ and SV89™

Vibration Monitoring Solution Kit



www.flir.com/SV88-Kit
www.flir.com/SV89-Kit

Key Features:

- Precise measurements of GRMS, VRMS, peak, crest factor, kurtosis, skewness, standard deviation, and FFT analysis provides users with detailed insights into the vibrational characteristics of their equipment to prevent costly downtime.
- Wireless capability enhances flexibility in installation, allowing for easy deployment in various industrial environments.
- Rugged, IP66 rating ensures reliable performance in demanding conditions subject to moisture, dust, or debris.
- Multi-communication protocols (Modbus, MQTT, OPC UA) for integration with advanced analysis tools.

Main Applications:

- Condition monitoring of critical equipment: By continuously analyzing vibrations from rotating equipment, it enables the necessary insights to utilize predictive maintenance strategies.
- Fault detection of vibration patterns indicative of potential faults such as: misalignment, bearing defects, or gear damage.
- Data-driven decision making for reliability-centered maintenance to help identify patterns, trends, potential failure modes and the severity of detected issues.

VIBRATION SENSOR SPECIFICATIONS

| | SV88 | SV89 |
|---|--|-----------------------------------|
| Measurement & Analysis | | |
| Sensitivity range | ±16 g | ±50 g |
| Frequency range | 10 Hz to 5 kHz | 10 Hz to 10 kHz |
| Capture rate | Configurable: 1 min (min) ~ 1 day (max) | |
| Temperature range | Display measurement trend of contact temperature -20°C to 80°C (-4°F to 176°F) | |
| Output data | SV88 (5 KHz, X/Y/Z): 19,200 raw data | SV89 (10 KHz, Z): 12,800 raw data |
| Vibration analysis data | Grms, Vrms (ISO10816), Peak, Crest Factor, Kurtosis, Skewness, Standard deviation, FFT | |
| Memory | 1 MB Flash | |
| Connections & Communications | | |
| Wi-Fi type | IEEE 802.11n | |
| Range (during a session) | Up to 50 m (160 ft), line of sight | |
| Communication protocol | TCP Socket | |
| Mounting | Bolt/screw (1/4" × 28 UNF) or TA88 Magnetic mount (optional) | |
| General Information | | |
| Warranty | 3 years | |
| Certifications | ETL/FCC/IC/CE/UKCA/RCM | |

| | SV88 | SV89 |
|-----------------------------|--|------|
| Environmental Data | | |
| Operating temperature range | -20°C to 80°C (-4°F to 149°F) | |
| Storage temperature range | -20°C to 80°C (-4°F to 149°F) | |
| Relative humidity | 10% to 95% relative humidity, non-condensing | |
| Operating altitude | 2000 m (6,562 ft) drop test | |
| Drop test | 1 m (3 ft) | |
| IP rating | IP66 | |
| Power | | |
| Battery type | LS17500 3.6 V 3600 mAh Li battery (replaceable) | |
| Battery life | Min 2 years subject to sampling rate and installation environments | |
| LED indicators | Low battery LED | |
| Physical Data | | |
| Size (L × W × H) | Sensor: 29 × 25 × 14 mm (1.14 × .98 × .55 in) | |
| Weight | Sensor : 187 g (6.6 oz) | |

For more information and to find your local support number, visit:
FLIR.com/contact/instruments-support
www.FLIR.com



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GATEWAY SPECIFICATIONS

| GW66 | |
|---|--|
| System | |
| Processor | ARM Cortex-A7 |
| Memory | DDR3L 512 MB |
| Storage | 32 MB NOR Flash |
| Realtime clock | On chip RTC |
| LED indicators | WAN, LAN, 2.4 GHz, 5 GHz dual band dual concurrent |
| Connections & Communications | |
| Wi-Fi type | IEEE 802.11 b/g/n: |
| Communication protocol | MQTT, Modbus, OPC UA |
| Operating systems | Built-in webserver (Linux) |
| Output data | Vibration analysis data: Grms, Vrms, (ISO10816), Peak, Crest Factor, Kurtosis, Skewness, Standard Deviation, FFT |
| Ethernet | LAN, WAN |
| Environmental Data | |
| 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% relative humidity, non-condensing |
| Input/Output | |
| Ethernet | 1 x 10/100/1000 Base-TX MDI/MDIX for LAN 1 x 10/100/1000 Base-TX MDI/MDIX for WAN |
| Power Supply | |
| PoE input | 802.3 at standard PoE (PD) @ WAN port |
| Power input | 12 VDC |
| AC input | TA87 universal power adaptor: 100 V to 240 V AC, 50/60 Hz (optional) |

| Environmental and Mechanical | |
|------------------------------|--|
| IP rating | IP40 |
| Mounting | Wall-mount or DIN-rail mount |
| Operation temperature | -40°C to 75°C (-40°F to 167°F) |
| Storage temperature | -40°C to 85°C (-40°F to 185°F) |
| Physical Data | |
| Packaging size (L x W x H) | 285 x 147 x 100 mm |
| Packaging weight | 3.3 lbs |
| Size (L x W x H) | Gateway: 57.3 x 39.3 x 46.1 mm (2.25 x 1.55 x 1.81 in) |
| Weight | Gateway: 645 g (22.75 oz) |

Specifications subject to change. For the most up-to-date specifications, please visit flir.com.

For more information and to find your local support number, visit:
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www.FLIR.com

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