

SKF Multilog On-line System IMx-C

For integration into control enclosures and
customized solutions



The SKF Multilog On-line System IMx-C can be used as a part of a customized condition monitoring system. It can be built into a customer control enclosure or combined with special enclosures and unique power supplies to suit customers needs.

Together with SKF @ptitude Monitoring Suite, the SKF Multilog IMx-C provides a complex system for early fault detection and prevention, automatic recognition to be able to correct existing or impending conditions, and advanced condition-based maintenance to improve machine reliability, availability and performance.

- True simultaneous measurements of all channels
- True synchronous measurements programmable up to 16 analogue channels
- Multi-parameter gating
- Multiple acceleration enveloping filters
- Four relay contacts
- Adaptive alarm levels
- Data buffering in non-volatile memory when communication is down
- Compatible with SKF @ptitude Monitoring Suite
- One offset mounting bracket to minimize mounting errors

Key features

- For control system integration
- 16 dynamic or DC inputs
- Eight digital or speed inputs



General description

The SKF Multilog On-line System IMx-C is a key component in an advanced condition monitoring system. It is a robust measurement unit designed for tough industrial environments.

Each SKF Multilog IMx-C is equipped with 16 analogue signal inputs. The dynamic signal inputs are configurable for a variety of sensors. Signals such as acceleration, velocity and displacement, or other parameters, are easily adopted. Each input can be configured for standard accelerometers, proximity probes, 4 to 20 mA, or ± 25 V. In addition to the analogue channels, eight digital channels may be used for measuring speed, trigger or digital status, such as indicating when a measurement can take place. Several measurement points may be attached to one channel and both AC and DC measurements can be measured on the same channel. Individual warning and alarm conditions may be set for each measurement point. Warning and alarm levels may be controlled by machine speed or load.

The SKF Multilog IMx-C performs as a machine condition monitoring system with several other units together in a network with the SKF @ptitude Monitoring Suite. The system can run in an existing LAN together with other computers, printers, servers, etc., or over the Internet. The unit's unique built-in hardware auto-diagnosis system continuously checks all sensors, cabling and electronics for any faults, signal interruption, shorts or power failure. System alarms are automatically generated for any problems found. In the case of power failure, the SKF Multilog IMx-C will automatically restart when the power returns.

Technical data

Environmental

- Dimensions (height x width x depth): 170 x 358 x 120 mm (6.7 x 14.1 x 4.7 in.)
- Weight: 4 kg (8.8 lbs.)
- IP rating: IP 20
- Temperature range: -30 to +70 °C (-20 to +160 °F)

Power supply

- 24 V DC (20 to 28 V DC)
- Power consumption: 30 W

Analogue inputs

- 16 analogue differential inputs
- Individual 24 V power supply, maximum 40 mA/channel
- Sensor power controlled by DIP switches for each channel
- Input range: ± 25 V

Digital inputs

- Eight digital Opto-isolated inputs
- Individual 24 V power supply for four channels, maximum 40 mA/channel

Outputs

- Four relay contacts

Analogue measurement

- 24-bit AD conversion enables continuous transient capture (no gain or AC/DC switching necessary)
- True simultaneous sampling (no multiplexing)
- Parallel sampling of different channels with different sampling rates
- Frequency range: From DC to 40 kHz
- Dynamic range: 120 dB
- Signal-to-noise ratio: 90 dB
- Cross-talk rejection: 100 dB
- Accuracy amplitude: $\pm 2\%$ (up to 20 kHz), $\pm 5\%$ (20 to 40 kHz)
- Accuracy phase: $\pm 3^\circ$ (up to 100 Hz)

Digital measurement

- Frequency range: 0,1 Hz to 12,5 kHz
 - Required pulse width:
 - >4 μ s for electrical positive
 - >40 μ s for electrical negative
- Accuracy frequency: 0,05% of measurement value (typically 0,01% up to 2,5 kHz)
- Pulse counting

Signal processing

- Time waveform
- Vector analysis with circular alarms
- FFT: 100 to 6 400 lines
- Acceleration enveloping
- Integration/Differentiation in frequency domain
- Window function: Hanning, uniform
- Customer formulated mathematical equations
- Dynamic alarm levels, active range determined on multiple parameters
- Data storage on time, event or alarm condition
- Data buffering in flash memory when communication link is down
- Detection of sensor and cable fault
- Watchdog and self testing

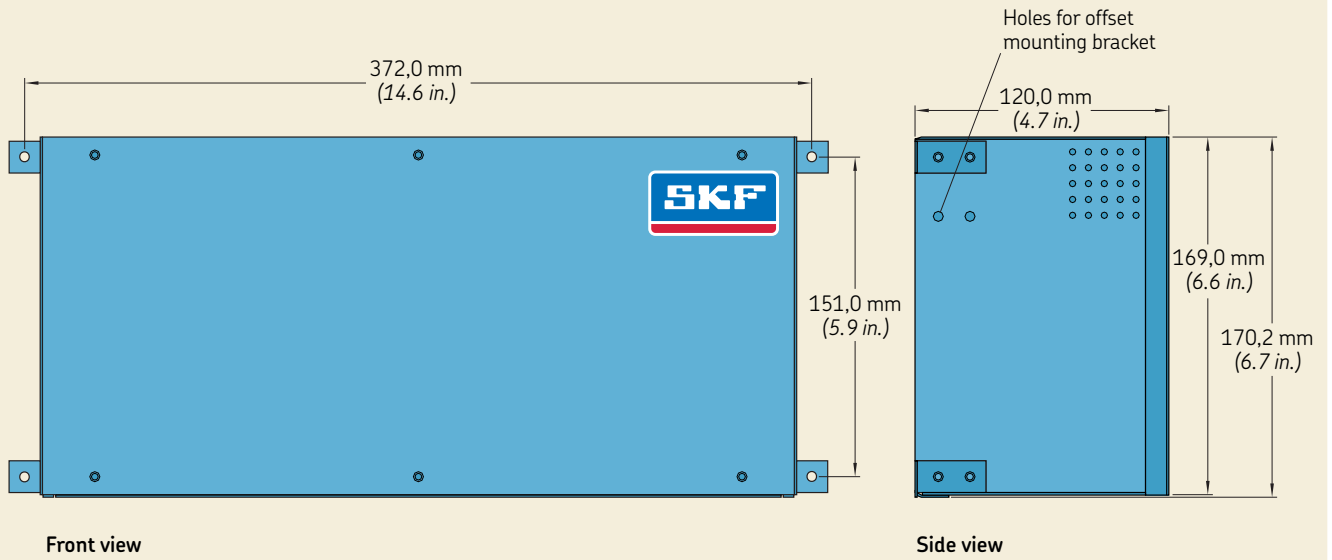
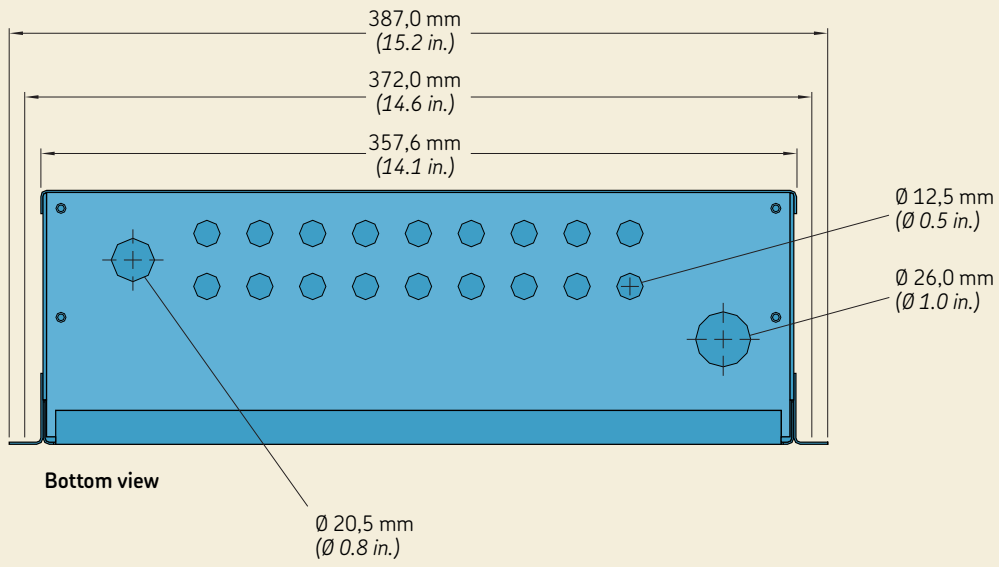
Interface

- Ethernet: 100 MB RJ45, TCP/IP
- RS 232 service interface
- Ethernet switch for daisy chaining
- RS 485

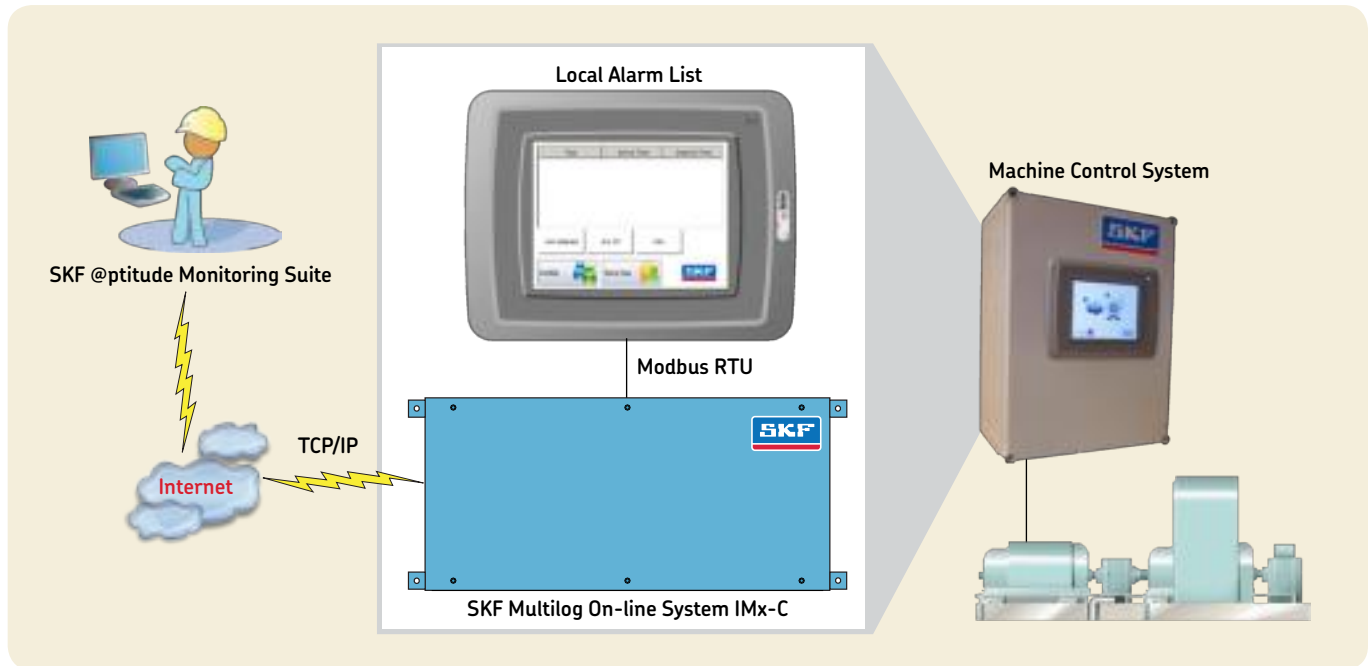
Miscellaneous

- Calibration, traceable to BIPM
- CE certified according to EN61000-6-4 and EN61000-6-2

Dimensions



Typical system with local display



Ordering information

- SKF Multilog On-line System IMx-C (one unit) [CMON 2011]
- For ordering multiple units, use the ordering table below:

Ordering information

CMON 2011 SKF Multilog On-line System IMx-C

Part number	CMON 2011-xxx
xxx	Number of SKF Multilog IMx-C units
050	50 units
100	100 units
200	200 units

Installation and training

Installation and training available through your local SKF supplier or representative.

Product Support Plans (PSP)

A range of Product Support Plans is available to protect your investment. Contact your local SKF sales representative for additional information.

Please contact:

SKF Condition Monitoring Center – Luleå
 Aurorum 30, SE-977 75 · Luleå, Sweden
 Tel: +46 (0)31 337 1000 · Fax: +46 (0)920 134 40

Web: www.skf.com/cm

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Patents: US 4,768,380 · US 5,679,900 · US 5,845,230 · US 5,854,553 · US 5,992,237 · US 6,006,164 · US 6,199,422 · US 6,202,491 · US 6,275,781 · US 6,489,884 · US 6,513,386 · US 6,633,822 · US 6,789,025 · US 6,792,360 · WO/2003/048714 · US 5,633,811 · US 5,870,699 · US 6,437,692 · US 7,103,511 · US 7,697,492

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