

# SKF Microlog Analyzer Accessories Catalog



# Foreword

Unmatched versatility, reliability and functionality have made the SKF Microlog Analyzer series of data collectors the premier choice for portable, handheld condition monitoring units.

Designed to help users establish or upgrade an existing condition monitoring program, SKF Microlog Analyzers handle the tasks required to perform predictive maintenance on rotating machinery in countless industries.

## Data capture from a range of sources

SKF Microlog Analyzers automatically collect both dynamic (vibration) and static (process) measurements from almost any source, including handheld and magnetically mounted accelerometers, permanently mounted vibration sensors or on-line monitoring systems. Temperature measurements can be collected with a non-contact infrared sensor or with a contact probe.

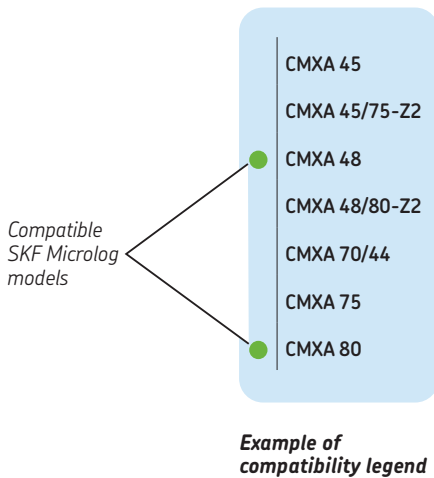
## State-of-the-art operating technology

With robust, high-speed data processors and optimum data storage capacity, SKF Microlog Analyzers are equipped to operate within today's most advanced computerized maintenance management systems. Units can be purchased with a range of individual modules and accessories for specific types of analysis required to meet their plant's monitoring needs.



## Product compatibility

Every product listed in this catalog contains a legend that shows which SKF Microlog models are compatible with that product. An example of the legend is shown below. For example, a product that contains the legend below would be compatible with SKF Microlog models CMXA 48 and CMXA 80.



**Note:** The “CMXA 45/75-Z2” designation in the legend refers to both CMXA 45-Z2 and CMXA 75-Z2 ATEX Zone 2 certified models.

The “CMXA 48/80-Z2” designation in the legend refers to both CMXA 48-Z2 and CMXA 80-Z2 ATEX Zone 2 certified models.

## SKF Microlog models

The accessories in this catalog are applicable to the following SKF Microlog models:

- **CMXA 44:** SKF Microlog Analyzer MX series
- **CMXA 45:** SKF Microlog Advisor Pro
- **CMXA 45-Z2:** SKF Microlog Advisor Pro, certified for use in ATEX Zone 2 hazardous areas
- **CMXA 48:** SKF Microlog Consultant
- **CMXA 48-Z2:** SKF Microlog Consultant, certified for use in ATEX Zone 2 hazardous areas
- **CMXA 70:** SKF Microlog Analyzer GX series
- **CMXA 75:** SKF Microlog Analyzer GX series
- **CMXA 75-Z2:** SKF Microlog Analyzer GX series, certified for use in ATEX Zone 2 hazardous areas
- **CMXA 80:** SKF Microlog Analyzer AX series
- **CMXA 80-Z2:** SKF Microlog Analyzer AX series, certified for use in ATEX Zone 2 hazardous areas

**Note:** For use of accessories in hazardous areas, reference the product safety instructions. Accessories listed as compatible with the CMXA 45/75/48/80 models may also be used with the corresponding Z2 (ATEX Zone 2 certified) models in areas known to be **non-hazardous**. Please consult your site safety officer for clarification.

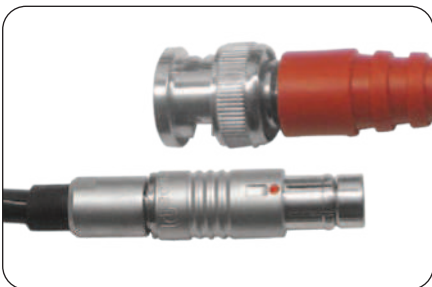


# Contents



## Accelerometers

7



## Cables

17



## Hardware

27



## Power

37



## Miscellaneous accessories

41



# Accelerometers



General purpose, low profile, side exit industrial accelerometer, CMSS 2200 and CMSS 2200-M8 .....	8
CSA approved, general purpose industrial accelerometer, CMSS 793-CA .....	10
ATEX approved, intrinsically safe (IS), general purpose industrial accelerometer, CMSS 793-EE .....	12
Small footprint accelerometer with integral cable, CMSS 2111 .....	14
Medium duty magnetic base, CMSS 908-MD .....	15

# CMSS 2200 / CMSS 2200-M8

## General purpose, low profile, side exit industrial accelerometer

The CMSS 2200 and CMSS 2200-M8 industrial accelerometers, with their side exit and two pin connector, offer a low profile for machinery with limited clearance. The sensor mounts in any orientation.



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

### Features

- Rugged, economical and all around general purpose sensor
- 100 mV/g sensitivity to optimize use in multiple applications
- Exceptional bias voltage (BV) stability at elevated temperatures
- Designed for exceptional low noise level over a wide temperature range
- Meets stringent CE, EMC requirements
- Low profile with captive mounting bolts (1/4-28, M6 x 1,00 or M8 x 1,25) provided
- Corrosion resistant and hermetically sealed
- Reverse polarity wiring protection

### Specifications

#### Dynamic

- Sensitivity: 100 mVg
- Sensitivity precision:  $\pm 10\%$  at 25 °C (75 °F)
- Measurement range: 80 g peak
- Frequency range:
  - $\pm 10\%$ : 1,0 to 5 000 Hz
  - $\pm 3$  dB: 0,7 to 10 000 Hz
- Amplitude linearity: 1%
- Resonance frequency, mounted, minimum 22 kHz
- Transverse sensitivity:  $\leq 5\%$  of axial

#### Electrical

- Power requirements:
  - Voltage source: 18 to 30 V DC
  - Constant current diode: 2 to 10 mA, recommended 4 mA
- Electrical noise: 2,0 Hz; 20  $\mu\text{g}/\sqrt{\text{Hz}}$
- Output impedance:  $< 100 \Omega$
- Bias output voltage: 12 V DC
- Grounding: Case isolated, internally shielded

#### Environmental

- Temperature range:  $-50$  to  $+120$  °C ( $-60$  to  $+250$  °F)
- Vibration limit: 500 g peak
- Shock limit: 5 000 g peak
- Base strain sensitivity: 200  $\mu\text{g}/\mu\text{strain}$
- Electromagnetic sensitivity, equivalent g, maximum: 70  $\mu\text{g}/\text{gauss}$
- CE: According to the generic immunity standard for Industrial Environment EN50082-2
  - Acceptance criteria: The generated “false equivalent g level” under the above test conditions should be less than 2 mg measured peak to peak



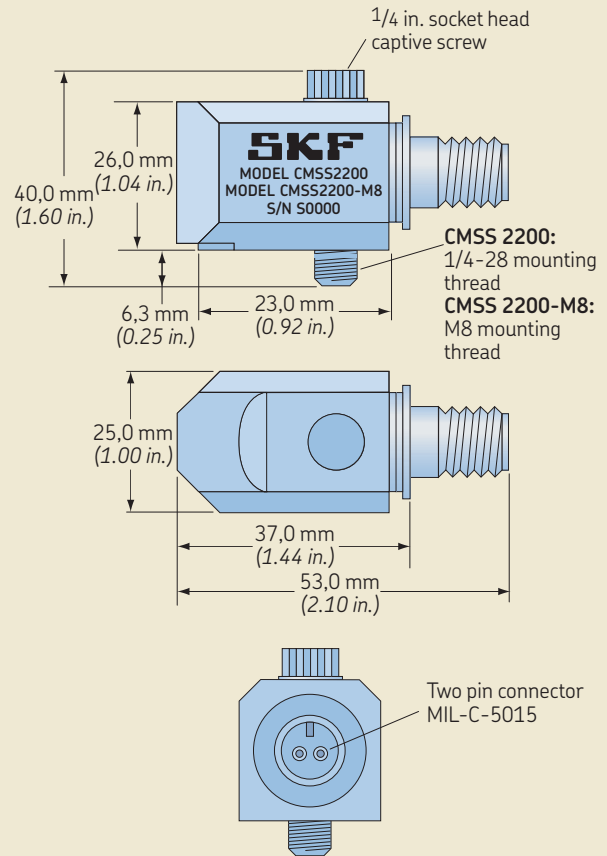
## Physical

- Dimensions: See drawing
- Weight: 145 g (5.1 oz.)
- Mounting: See ordering information
- Mounting torque: 3,4 Nm (30 in. lbs.)
- Case material: 316L stainless steel
- Sealing: Hermetic
- Connections:
  - Pin A: Signal/Power
  - Pin B: Common
  - Mating connector: Two pin, IP 68, locking collar or twist lock
- Recommended cable: Two conductor, shielded, fluorine based polymer jacket, 100 pF/m (30 pF/ft.)
  - CMAC 5209, CMAC 5209-06S or CMAC 5209-10
- Recommended magnetic base: CMSS 908-MD

**Note:** Specifications conform to ISA-RP-37.2 (1 to 64) and are typical values referenced at 25 °C (75 °F), 24 V DC supply, 4 mA constant current and 100 Hz.

**Note:** This accelerometer is not recommended for use in hazardous environments.

## Dimensions



## Ordering information

- CMSS 2200 Industrial accelerometer with side exit MIL-C-5015 two pin connector
- CMSS 2200-M8 M8 mounted industrial accelerometer with side exit MIL-C-5015 two pin connector

# CMSS 793-CA

## CSA approved, general purpose industrial accelerometer

The CMSS 793-CA is an industrial standard acceleration sensor with a top exit, two pin connector and agency approvals.

### Features

- Class I, Division 1 certification
- Ground isolated
- Rugged construction
- Corrosion resistant and hermetically sealed for installation in high humidity areas
- ESD protection
- Reverse wiring protection

### Specifications

#### Dynamic

- Sensitivity,  $\pm 5\%$ , 25 °C (75 °F): 100 mVg
- Measurement range: 80 g peak
- Frequency range:
  - $\pm 5\%$ : 1,5 to 5 000 Hz
  - $\pm 10\%$ : 1,0 to 7 000 Hz
  - $\pm 3$  dB: 0,5 to 15 000 Hz
- Amplitude non-linearity: 1%
- Resonance frequency: 25 kHz
- Transverse sensitivity:  $\leq 5\%$  of axial
- Temperature response:
  - -50 °C (-60 °F): -10%
  - +120 °C (+250 °F): +5%

#### Electrical

- Power requirements:
  - Voltage source: 18 to 30 V DC
  - Constant current diode: 2 to 10 mA
- Electrical noise:
  - Broadband:
    - 2,5 Hz to 25 kHz: 600  $\mu$ g
  - Spectral:
    - 10 Hz: 8  $\mu$ g/ $\sqrt$ Hz
    - 100 Hz: 5  $\mu$ g/ $\sqrt$ Hz
    - 1 000 Hz: 5  $\mu$ g/ $\sqrt$ Hz
- Output impedance:  $\leq 100 \Omega$
- Bias output voltage: 12 V DC
- Grounding: Case isolated, internally shielded



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

#### Environmental

- Temperature range: -50 to +120 °C (-60 to +250 °F)
- Vibration limit: 500 g peak
- Shock limit: 5 000 g peak
- Base strain sensitivity: 0,0005 g/ $\mu$  strain

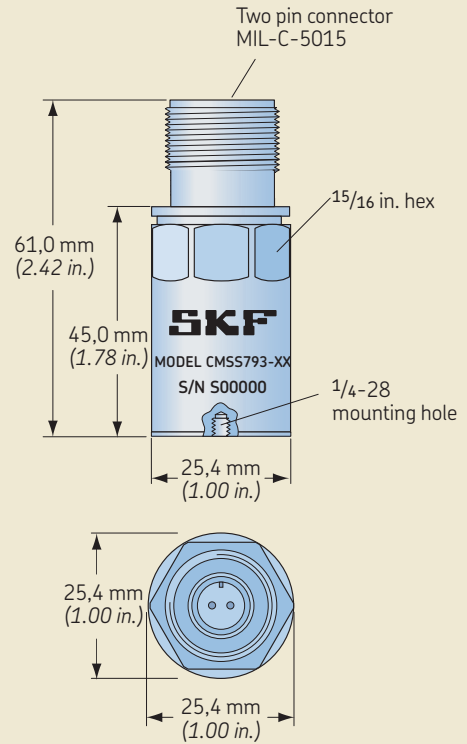
#### Agency approvals

- Canadian Standards Association (CSA)
  - Class I, Division 1, Groups A, B, C, D
  - Class II, Division 1, Groups E, F, G
  - Class III, Division 1

## Physical

- Dimensions: See drawing
- Weight: 112 g (4.0 oz.)
- Mounting: 1/4-28 tapped hole
- Case material: 316L stainless steel
- Sealing: Hermetic
- Sensing element design: PZT ceramic / compression
- Connections:
  - Shell: Ground
  - Pin A: Power/Signal
  - Pin B: Common
  - Output connector: MIL-C-5015 style two pin
  - Mating connector: R6 type
- Recommended cable: CMAC 5209, CMAC 5209-06S or CMAC 5209-10
- Recommended magnetic base: CMSS 908-MD

## Dimensions



## Ordering information

- CMSS 793-CA CSA approved, general accelerometer with top exit two pin connector

# CMSS 793-EE

## ATEX approved, intrinsically safe (IS), general purpose industrial accelerometer

The CMSS 793-EE is an industrial standard acceleration sensor with a top exit C5015 two pin connector and agency approvals.

### Features

- Intrinsically safe certification
- Ground isolated
- Rugged construction
- Corrosion resistant and hermetically sealed for installation in high humidity areas
- ESD protection
- Reverse wiring protection

### Specifications

#### Dynamic

- Sensitivity,  $\pm 5\%$ , 25 °C (75 °F): 100 mVg
- Measurement range: 80 g peak
- Frequency range:
  - $\pm 5\%$ : 1,5 to 5 000 Hz
  - $\pm 10\%$ : 1,0 to 7 000 Hz
  - $\pm 3$  dB: 0,5 to 15 000 Hz
- Amplitude non-linearity: 1%
- Resonance frequency: 25 kHz
- Transverse sensitivity:  $\leq 5\%$  of axial
- Temperature response:
  - -50 °C (-60 °F): -10%
  - +120 °C (+250 °F): +5%

#### Electrical

- Power requirements:
  - Voltage source: 18 to 30 V DC
  - Constant current diode: 2 to 10 mA
- Electrical noise:
  - Broadband:
    - 2,5 Hz to 25 kHz: 600  $\mu$ g
  - Spectral:
    - 10 Hz: 8  $\mu$ g/ $\sqrt$ Hz
    - 100 Hz: 5  $\mu$ g/ $\sqrt$ Hz
    - 1 000 Hz: 5  $\mu$ g/ $\sqrt$ Hz
- Output impedance:  $\leq 100 \Omega$
- Bias output voltage: 12 V DC
- Grounding: Case isolated, internally shielded



CMXA 45
● CMXA 45/75-Z2
CMXA 48
● CMXA 48/80-Z2
CMXA 70/44
CMXA 75
CMXA 80

#### Environmental

- Temperature range: -50 to +120 °C (-60 to +250 °F)
- Vibration limit: 500 g peak
- Shock limit: 5 000 g peak
- Base strain sensitivity: 0,0005 g/ $\mu$  strain

#### Agency approvals

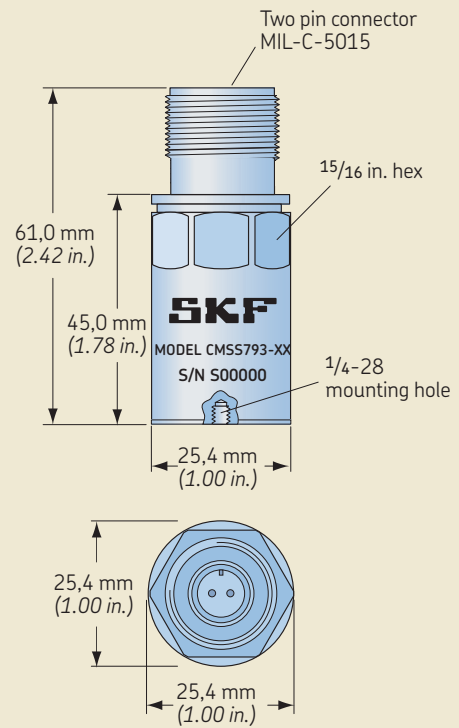
- Intrinsically safe -50 to +120 °C (-60 to +250 °F) for:
  - ATEX Zone 0
  - II 1 G
  - Ex ia IIC T4 Ga

**Note:** Must be installed per drawing 11535, revision F.

## Physical

- Dimensions: See drawing
- Weight: 112 g (4.0 oz.)
- Mounting: 1/4-28 tapped hole
- Case material: 316L stainless steel
- Sealing: Hermetic
- Sensing element design: PZT ceramic / compression
- Connections:
  - Shell: Ground
  - Pin A: Power/Signal
  - Pin B: Common
  - Output connector: MIL-C-5015 style two pin
  - Mating connector: R6 type
- Recommended cables:
  - For ATEX Zone 2 CMXA 45, 48, 75, 80: CMAC 5209
- Recommended magnetic base: CMSS 908-MD

## Dimensions



## Ordering information

- CMSS 793-EE ATEX approved, general accelerometer with top exit two pin connector

# CMSS 2111

## Small footprint accelerometer with integral cable

The CMSS 2111 is a small footprint accelerometer that includes an integrated 2 m (6.56 ft.) cable along with a magnetic mount. This accelerometer is capable of working to a depth of 5 m (16.4 ft.) (additional cable length required).

### Specifications

#### Dynamic

- Sensitivity ( $\pm 10\%$ ): 100 mVg
- Measurement range:  $\pm 50$  g
- Frequency range ( $\pm 3$  dB): 0,5 to 10 000 Hz
- Non-linearity:  $\pm 1\%$
- Resonance frequency: 22 kHz
- Transverse sensitivity:  $\leq 7\%$

#### Electrical

- Power supply:
  - Voltage source: 18 to 28 V DC
  - Constant current diode: 2 to 20 mA
- Electrical noise:
  - Broadband:
    - 1 Hz to 10 kHz: 350  $\mu$ g
  - Spectral:
    - 10 Hz: 8  $\mu$ g/ $\sqrt$ Hz
    - 100 Hz: 5  $\mu$ g/ $\sqrt$ Hz
    - 1 kHz: 4  $\mu$ g/ $\sqrt$ Hz
- Output impedance:  $< 150 \Omega$
- Bias output voltage: 8 to 12 V DC
- Discharge time constant:  $\leq 0,3$  s
- Settling time (within 1% of bias):  $\leq 2,0$  s

#### Environmental

- Temperature range:  $-55$  to  $+120$  °C ( $-65$  to  $+250$  °F)
- Shock limit: 5 000 g peak
- Enclosure rating: IP 68



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

#### Physical

- Dimensions (hex  $\times$  height): 14  $\times$  64 mm (0.55  $\times$  2.52 in.)
- Weight (with cable): 99 g (3.5 oz.)
- Cable length: 2 m (6.56 ft.)
- Mounting: Magnet
- Case material: Stainless steel
- Cable type: Polyurethane
- Sealing: Molded
- Sensing element design: Ceramic, shear
- Connections:
  - Molded integral cable (top)
  - Fischer type 103 six pin



#### Ordering information

- CMSS 2111 Small footprint accelerometer with an integrated cable and a magnetic mount.

# CMSS 908-MD

## Medium duty magnetic base

The CMSS 908-MD is a multi-purpose magnetic base designed for industrial vibration monitoring applications. The low profile magnet has a 1/4-28 mounting hole to allow compatibility with SKF accelerometers and provides a solid mechanical connection to the machine.

### Specifications

- Diameter: 35 mm (1.38 in.)
- Height: 19 mm (0.75 in.)
- Mounting hole: 1/4-28
- Pull strength: 23 kg (50 lbs.)

### Accelerometer compatibility

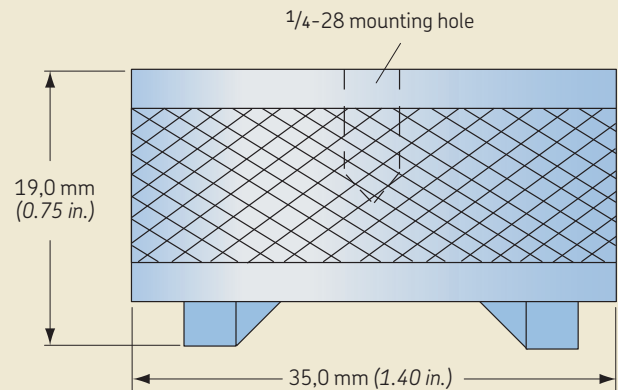
The CMSS 908-MD medium duty magnetic base is compatible with the following accelerometers:

- CMSS 2200 / CMSS 2200-M8: General purpose, low profile, side exit industrial accelerometer
- CMSS 793-CA: CSA approved, general purpose industrial accelerometer
- CMSS 793-EE: ATEX approved, intrinsically safe (IS), general purpose industrial accelerometer



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

### Dimensions



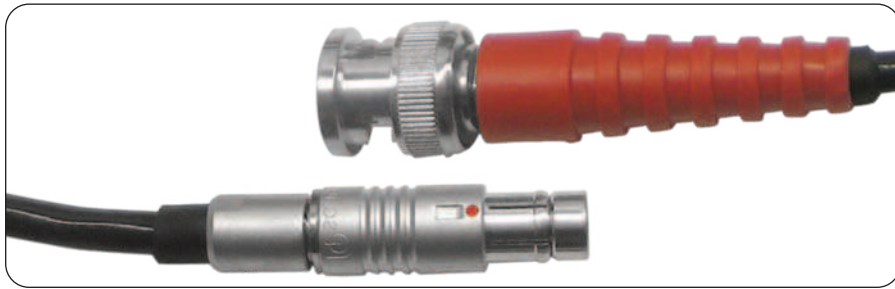
### Ordering information

- CMSS 908-MD Medium duty magnetic base.





# Cables



Cable recommendations .....18

## Accelerometer cables

Splitter, four channel straight cable, CMAC 5079 .....19

Accelerometer coiled cable, 2 m (6.56 ft.), CMAC 5209 .....19

## Tachometer cables

BNC tachometer straight cable, CMAC 5211 .....20

Laser tachometer kit straight cable, 2 m (6.56 ft.), CMAC 5214 .....20

## Extension cables

CH1 signal input straight extension cable, 5 m (16.4 ft.), CMAC 5036 .....21

CH1 signal input straight extension cable, 10 m (32.8 ft.), CMAC 5037 .....21

Tachometer straight extension cable, 10 m (32.8 ft.), CMAC 5044 .....22

## Miscellaneous cables

Cable converter, two pin MIL to BNC, CMAC 3715 .....23

Signal input straight cable, CMAC 5023 .....23

Power/Trigger splitter straight cable, CMAC 5032 .....24

Audio headphone straight cable, CMAC 5078 .....24

Signal input straight cable, CMAC 5088 .....25

USB communication/power splitter straight cable, CMAC 5095 .....25

Signal input straight cable (BNC cable), CMAC 5093 .....26

# Cable recommendations

The following tables shows which cables are recommended for the accelerometers and hardware found in this catalog.

**Cables recommended for accelerometers**

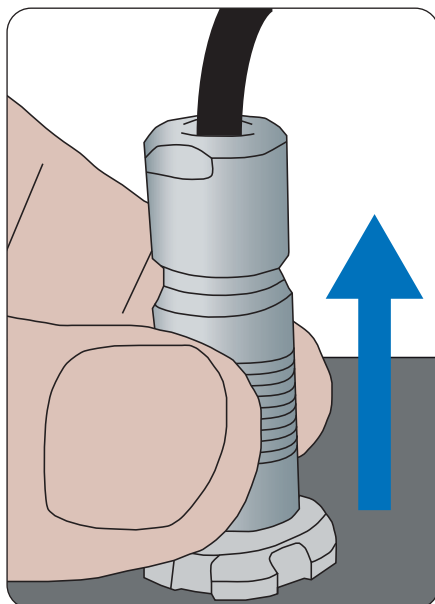
Accelerometer model number	Accelerometer description	Cable model number	
		CMAC 5209	
CMSS 2200	General purpose, low profile, side exit industrial accelerometer	●	
CMSS 2200-M8	General purpose, low profile, side exit industrial accelerometer	●	
CMSS 793-CA	CSA approved, general purpose industrial accelerometer	●	
CMSS 793-EE	ATEX approved, IS, general purpose industrial accelerometer	●	

**Cables recommended for hardware, etc.**

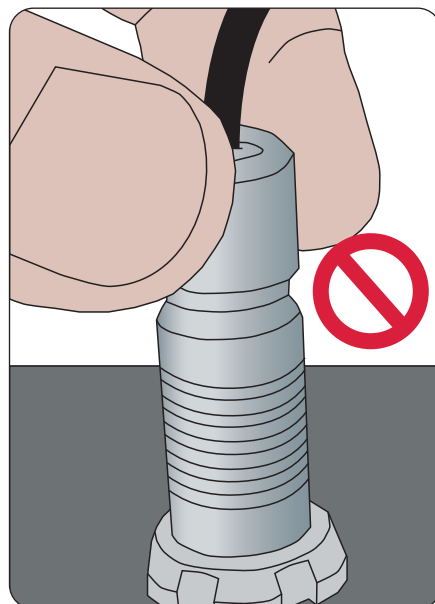
Hardware model number	Product description	Cable model number					
		CMAC 5023	CMAC 5044	CMAC 5078	CMAC 5088	CMAC 5095	CMAC 5214
CMAC 5030K	Laser tachometer kit		●				●
CMAC 5030K-Z2	Laser tach. kit, ATEX certified		●				●
CMAC 5059	Modal analysis hammer kit	●			●		
CMAC 5090	Universal power supply					●	

## Important

SKF Microlog connectors use a locking mechanism for secure connections. To disconnect Fischer cables from the SKF Microlog connectors, pull on the **lower** portion of the connector, as illustrated below.



**Correct way to disconnect cables**



**Wrong way to disconnect cables**

## CMAC 5079

### Splitter, four channel straight cable

The CMAC 5079 cable is used for connecting to either CH1 or CH2 on the CMXA 80 and CMXA 48. If connected to CH1, lead A gives channel 1 and lead B gives channel 4. If connected to CH2, lead A gives channel 2 and lead B gives channel 3.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

### Specifications

- Connectors: Two Fischer type 103 six pin female sockets to one Fischer type 103 six pin male
- Length: 45 cm (1.5 ft.) straight

**Note:** Two cables are required to collect four channel measurements

**Note:** For CMXA 45 and CMXA 75, this cable can be used in CH2 only to give three single axis simultaneous accelerometer inputs. A single accelerometer is connected to CH1 giving channel 1, then the cable into CH2 giving the same inputs as for CH2 of the CMXA 80.



#### Ordering information

- CMAC 5079 Splitter, four channel straight cable.

## CMAC 5209

### Accelerometer coiled cable, 2 m (6.56 ft.)

The CMAC 5209 coiled cable connects to the CH1 or CH2 input connector at one end and to an accelerometer at the other end. The accelerometer connection is a two pin MIL connector.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

### Specifications

- Connectors: Fischer type 103 six pin to two pin MIL
- Length: 2 m (6.56 ft.) coiled



#### Ordering information

- CMAC 5209 Accelerometer coiled cable, 2 m (6.56 ft.).

## CMAC 5211

### BNC tachometer straight cable

The CMAC 5211 cable connects to the power connector at one end (using the power connector's tachometer input pin) and to any male BNC connector on the other end. It can be used with any tachometer signal source that does not require the SKF Microlog to power it.

### Specifications

- Connectors: Fischer type 103 seven pin trigger I/P to BNC
- Length: 1 m (3.28 ft.) straight



#### Ordering information

- CMAC 5211 BNC tachometer straight cable.

## CMAC 5214

### Laser tachometer kit straight cable, 2 m (6.56 ft.) for CMAC 5030K

The CMAC 5214 laser tachometer cable connects the tachometer to the SKF Microlog.

The CMAC 5214 cable, which is also included in the CMAC 5030K and CMAC 5030K-Z2 laser tachometer kits, allows the user to place the tachometer on a stationary surface up to 2 m (6.56 ft.) away from the SKF Microlog.

### Specifications

- Connectors: Fischer type 103 seven pin to four pin socket
- Length: 2 m (6.56 ft.) straight



#### Ordering information

- CMAC 5214 Laser tachometer kit straight cable, 2 m (6.56 ft.).

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

## CMAC 5036

### CH1 signal input straight extension cable, 5 m (16.4 ft.)

The CMAC 5036 cable, which is used for the CH1 signal input, is a straight extension cable that is 5 m (16.4 ft.) long. This cable can be used with single channel and triax sensors.

#### Specifications

- Connectors: Fischer type 103 six pin female to Fischer type 103 six pin male
- Length: 5 m (16.4 ft.) coiled

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5036 CH1 signal input straight extension cable, 5 m (16.4 ft.).

## CMAC 5037

### CH1 signal input straight extension cable, 10 m (32.8 ft.)

The CMAC 5037 cable, which is used for the CH1 signal input, is a straight extension cable that is 10 m (32.8 ft.) long. This cable can be used with single channel and triax sensors.

#### Specifications

- Connectors: Fischer type 103 six pin female to Fischer type 103 six pin male
- Length: 10 m (32.8 ft.) straight

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5037 CH1 signal input straight extension cable, 10 m.

## CMAC 5044

### Tachometer straight extension cable, 10 m (32.8 ft.)

The CMAC 5044 straight extension cable is for use with the CMAC 5030K and CMAC 5030K-Z2 laser tachometer kits. This cable is 10 m (32.8 ft.) long and can be used in conjunction with the CMAC 5211 cable.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

### Specifications

- Connectors: Fischer type 103 seven pin female to Fischer type 103 seven pin male
- Length: 10 m (32.8 ft.) straight



#### Ordering information

- CMAC 5044 Tachometer straight extension cable, 10 m (32.8 ft.).

## CMAC 3715

### Cable converter, two pin MIL to BNC

The CMAC 3715 adapter, when combined with the CMAC 5209 accelerometer cable, allows the SKF Microlog to connect to any male BNC connector. This is useful for reading buffered outputs from protection systems, switch boxes or process signal sources.

The adapter does not block DC signals, so the user must be careful to avoid applying power to a buffered signal output.

### Specifications

- Connectors: Two pin MIL to BNC
- Length: 8,5 cm (3.35 in.)



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

## CMAC 5023

### Signal input straight cable

The CMAC 5023 cable connects to the SKF Microlog CH1 or CH2 signal input connector at one end (using the input connector's CH1 input pin) and to any male BNC connector at the other end. This lightweight cable can also be used in the CMAC 5056 and CMAC 5059 modal analysis hammer kits.

**Note:** Refer to CMAC 5088 for a heavy duty version of this cable.

### Specifications

- Connectors: Fischer type 103 six pin CH1 I/P to BNC
- Length: 1 m (3 ft.) straight



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

#### Ordering information

- CMAC 3715 Cable converter, two pin MIL to BNC.

#### Ordering information

- CMAC 5023 Signal input straight cable.

## CMAC 5032

### Power/Trigger splitter straight cable

The CMAC 5032 cable allows the connection of the tachometer, instrument power and USB communications (via the CMAC 5095 cable) simultaneously.

#### Specifications

- Connectors: One Fischer type 103 seven pin plug to two Fischer type 103 seven pin sockets
- Length: 30 cm (11.8 in.)
- Cable: Eight-core 24 AWG screened cable

- CMXA 45  
CMXA 45/75-Z2
- CMXA 48  
CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5032 Power/Trigger splitter straight cable.

## CMAC 5078

### Audio headphone straight cable

The CMAC 5078 cable connects headphones to the SKF Microlog.

#### Specifications

- Connectors: Fischer type 103 seven pin to female audio
- Length: 20 cm (7.9 in.) straight

- CMXA 45  
CMXA 45/75-Z2
- CMXA 48  
CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5078 Audio headphone straight cable.



## CMAC 5088

### Signal input straight cable

The CMAC 5088 cable is a heavy duty version of the CMAC 5023 cable. The CMAC 5088 cable connects to the SKF Microlog CH1 or CH2 signal input connector at one end (using the input connector's CH1 input pin) and to any male BNC connector at the other end.

**Note:** Refer to CMAC 5023 for a lightweight version of this cable.

### Specifications

- Connectors: Fischer type 103 six pin CH1 I/P to BNC
- Length: 2 m (6.56 ft.) straight



#### Ordering information

- CMAC 5088 Signal input straight cable.

## CMAC 5095

### USB communication/power splitter straight cable

The CMAC 5095 four-core shielded USB cable has a standard USB Type A plug. The cable is used for USB communications and power without the docking station.

The USB Type A plug is used to connect to the PC, while the in-line DC jack socket connects to the CMAC 5090 universal power supply and the Fischer plug connects to the SKF Microlog,

### Specifications

- Connectors: USB Type A and a standard 2,1 mm (0.083 in.) in-line DC jack socket to Fischer SE103A057-130 plug
- Length: 2 m (6.56 ft.) straight



#### Ordering information

- CMAC 5095 USB communication/power splitter straight cable.

## CMAC 5093

### Signal input straight cable (BNC cable)

The CMAC 5093 cable has a BNC connector on one end to connect to the CMAC 5091 microphone and a Fischer connector on the other end to connect to the SKF Microlog.

- CMXA 45  
CMXA 45/75-Z2
- CMXA 48  
CMXA 48/80-Z2  
CMXA 70/44
- CMXA 75
- CMXA 80

### Specifications

- Connectors: Fischer type 103 six pin to BNC
- Length: 51 cm (20 in.) coiled



#### Ordering information

- CMAC 5093 Signal input straight cable (microphone cable).

# Hardware



Laser tachometer kit, CMAC 5030K . . . . .	28
Laser tachometer kit – ATEX certified, CMAC 5030K-Z2 . . . . .	29
Modal analysis hammer kit, CMAC 5056 . . . . .	30
Modal analysis hammer kit, CMAC 5059 . . . . .	34

# CMAC 5030K

## Laser tachometer kit

The CMAC 5030K laser tachometer kit contains a small tachometer for easy mounting. Along with the tachometer, this kit includes a bracket for mounting the tachometer directly to the SKF Microlog using the camera mount located on the bottom of the SKF Microlog. The kit also includes a two-meter cable to connect the tachometer to the SKF Microlog and a small tripod for a stationary mounting of the tachometer during the measurement. The key features of this laser tachometer kit include:

- Operating frequency up to 250 000 r/min
- Long optical range, up to 2 m (6.56 ft.)
- Wide angle of operation, up to 80°
- On target indicator standard
- Protection rating: IP 67

### Specifications

- Material: Stainless steel body
- Color: Silver
- Laser type: Class 2
- Optical range: 100 to 2 000 mm (0.33 to 6.56 ft.)
- Power: 1 mW maximum
- Current consumption: 45 mA maximum
- Cable: Fischer seven pin type 103 to four pin socket, 2 m (6.56 ft.)
- Wavelength: 635 nm (25 in.)
- Angle of incidence: ±80°
- Speed range: 0,1 to 250 000 r/min
- Power input: 5 V DC or 8-24 V DC versions at 30 mA typically
- Operating temperature: -10 to +40 °C (15 to 105 °F)
- IP rating: IP 67
- Housing types: M20 threaded or plain body plus fixing slots
- Connections: Integral connector
- Dimensions: 70 × 20 mm (2.76 × 0.79 in.)
- Weight: 70 g (2.5 oz.)

### Kit contents

- Compact laser tachometer
- Mounting bracket
- Reflective tape strips
- Mini mounting tripod
- CMAC 5214: Tachometer interface cable, 2 m (6.56 ft.)



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



**Compact laser tachometer**



**Mounting bracket**



**Reflective tape strips**



**Mini mounting tripod**



**CMAC 5214 tachometer interface cable**

### Ordering information

- CMAC 5030K Laser tachometer kit. Each kit includes a compact laser tachometer, mounting bracket, cable and mini tripod.

# CMAC 5030K-Z2

## Laser tachometer kit – ATEX certified

The CMAC 5030K-Z2 laser tachometer kit contains a small tachometer that is ATEX certified; the sensor is designed for use in hazardous areas with certified hazardous area equipment. This kit is primarily designed for phase-related rotational speed applications, including very high speed monitoring.

Along with the tachometer, this kit includes a bracket for mounting the tachometer directly to the SKF Microlog using the camera mount located on the bottom of the SKF Microlog. The kit also includes a two-meter cable to connect the tachometer to the SKF Microlog and a small tripod for a stationary mounting of the tachometer during the measurement.

The key features of this laser tachometer kit include:

- Tachometer is ATEX certified
- Operating frequency up to 250 000 r/min
- Long optical range, up to 2 m (6.56 ft.)
- Wide angle of operation, up to 80°
- On target indicator standard
- Protection rating: IP 67
- Integral connector
- Stainless steel housing
- Threaded or plain housing options
- Reverse polarity and short circuit protected

### Specifications

- Material: Stainless steel housing
- Color: Silver
- Optical range: 100 to 2 000 mm (0.33 to 6.56 ft.)
- Cable: Fischer seven pin type 103 to four pin socket, 2 m (6.56 ft.)
- Angle of incidence:  $\pm 80^\circ$
- Speed range: 0,1 to 250 000 r/min
- Power input: 5 V DC at 30 mA typically
- Operating temperature:  $-10$  to  $+40$  °C (15 to 105 °F)
- IP rating: IP 67
- Housing types: M20 threaded or plain body plus fixing slots
- Connections: Integral connector
- Dimensions: 70 × 20 mm (2.76 × 0.79 in.)
- ATEX certification: BAS02ATEX3259X
  - Ex II 3 G
  - EEx nL IICT6

### Kit contents

- Compact laser tachometer
- Mounting bracket
- Reflective tape strips
- Mini mounting tripod
- CMAC 5214: Tachometer interface cable, 2 m (6.56 ft.)



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



**Compact laser tachometer**



**Mounting bracket**



**Reflective tape strips**



**Mini mounting tripod**



**CMAC 5214 tachometer interface cable**

### Ordering information

- CMAC 5030K-Z2 Laser tachometer kit – ATEX certified. Each kit includes a compact laser tachometer, mounting bracket, cable and mini tripod.

# CMAC 5056

## Modal analysis hammer kit

### Features

- Frequency range up to 8 kHz
- Peak force 2 200 N (500 lb. ft.)
- Output 2,25 mV/N (10 mV/lb. ft.)
- Mass extender to provide additional force

These calibrated modal hammer kits may be used for impulse testing of the dynamic behavior of mechanical structures by striking the object with the hammer and measuring the resulting response with the accelerometer. The hammer imparts a constant force over a broad frequency range, which depends on the type of tip used.

The hammer has an integral, constant current quartz force sensor mounted on the striking end of the hammer head. The sensor converts the impact force into electrical signal for display and analysis.

It is designed with rigid quartz crystals and a built-in, microelectronic, unity gain amplifier. Due to the laser-welded construction of the sensor element, operation is reliable in adverse environments.

The striking end of the hammer has a threaded hole for installation of a variety of impact tips that are included in the kit. The tip transfers the impact force to the sensor and protects the sensor face from damage. Tips of different stiffness allow the variation of the pulse width and correspondingly the frequency content of the force.

Modal analysis and modeling is also available by fixing the accelerometer at one location, impacting the structure at one point and then moving the accelerometer to other points of interest. When used with the FRF module, the following modal parameters can be calculated and displayed:

- Apparent mass / acceleration
- Impedance/Mobility
- Stiffness/Compliance



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

### Specifications

#### CMAC 5056 Accelerometer (353B04)

##### Dynamic

- Sensitivity ( $\pm 5\%$ ): 1,02 mV/(m/s<sup>2</sup>) (10 mVg)
- Measurement range:  $\pm 4\ 905\ \text{m/s}^2$  peak ( $\pm 500\ \text{g peak}$ )
- Frequency range:
  - $\pm 5\%$ : 1 to 7 000 Hz
  - $\pm 10\%$ : 0,7 to 11 000 Hz
  - $\pm 3\ \text{dB}$ : 0,35 to 20 000 Hz
- Resonant frequency:  $\geq 38\ \text{kHz}$
- Broadband resolution (1 to 10 000 Hz): 0,03 m/s<sup>2</sup> RMS (0,003 g RMS)
- Non-linearity:  $\leq 1\%$
- Transverse sensitivity:  $\leq 5\%$

##### Electrical

- Excitation voltage: 18 to 30 V DC
- Constant current excitation: 2 to 20 mA
- Output impedance:  $\leq 100\ \Omega$
- Output bias voltage: 8 to 12 V DC
- Discharge time constant: 0,5 to 2,0 s
- Settling time (within 10% of bias):  $< 5\ \text{s}$
- Spectral noise:
  - 1 Hz: 3 200  $\mu\text{g}/\sqrt{\text{Hz}}$
  - 10 Hz: 700  $\mu\text{g}/\sqrt{\text{Hz}}$
  - 100 Hz: 180  $\mu\text{g}/\sqrt{\text{Hz}}$
  - 1 kHz: 64  $\mu\text{g}/\sqrt{\text{Hz}}$

### Environmental

- Overload limit (shock):  $\pm 98\,100\text{ m/s}^2$  pk ( $\pm 10\,000\text{ g}$  pk)
- Temperature range (operating):  $-55$  to  $+120\text{ }^\circ\text{C}$  ( $-65$  to  $+250\text{ }^\circ\text{F}$ )
- Base strain sensitivity:  $\leq 0,0005\text{ g}/\mu$  strain

### Physical

- Size (hex  $\times$  height):  $12,7 \times 29,0\text{ mm}$  ( $0.50 \times 1.14\text{ in.}$ )
- Weight:  $10,5\text{ g}$  ( $0.38\text{ oz.}$ )
- Sensing element: Quartz
- Sensing geometry: Shear
- Housing material: Titanium
- Sealing: Welded hermetic
- Electrical connector: 10-32 coaxial jack
- Electrical connection position: Top
- Mounting thread: 10-32 female

## Kit contents

The CMAC 5056 hammer kit can be used on structures with a mass of 210 g (7.6 oz.) and above.

The accelerometers that are included with the CMAC 5056 kit are constant current, low impedance, voltage-mode sensors. Microelectronic, built-in amplifiers standardize sensitivities within a few percent of nominal value.

### CMAC 5056 kit include

- Calibrated hammer
- Cable – BNC to Fischer six pin (for a sturdier cable CMAC 5023, may be used)
- Red hammer tips (two)
- White hammer tip
- Black hammer tips (two)
- Steel tip
- Blue tip covers (two)
- Petro wax
- Screws threaded on both ends (two)
- Hammer extender
- Carrying case
- 353B04 Accelerometer
- Magnetic accelerometer base
- Cable – Fischer six pin to Microdot



**Calibrated hammer**



**353B04 accelerometer**



**Hammer extender**



**Magnetic accelerometer base**



**Red hammer tip**



**White hammer tip**



**Black hammer tip**



**Steel tip**



**Blue tip cover**



**Petro wax**



**Screw (threaded on both sides)**





*Microdot to Fisher cable*



*BNC to Fischer cable*



*Carrying case (contents may vary)*

**Ordering information**

- CMAC 5056 Modal hammer kit – for use on structures with a mass of 210 g (7.6 oz.) and above. Includes hammer, accelerometer, magnetic mount, adhesive mounting base with Petro wax, two cables, carrying case, certificate of conformance and calibration certificate.

# CMAC 5059

## Modal analysis hammer kit

This calibrated modal hammer kit may be used for impulse testing of the dynamic behavior of mechanical structures by striking the object with the hammer and measuring the resulting response with an accelerometer. The hammer imparts a constant force over a broad frequency range, which depends on the type of tip used.

The hammer has an integral, constant current quartz force sensor mounted on the striking end of the hammer head. The sensor converts the impact force into electrical signal for display and analysis.

It is designed with rigid quartz crystals and a built-in, microelectronic, unity gain amplifier. Due to the laser-welded construction of the sensor element, operation is reliable in adverse environments.

The striking end of the hammer has a threaded hole for installation of a variety of impact tips that are included in the kit. The tip transfers the impact force to the sensor and protects the sensor face from damage. Tips of different stiffness allow the variation of the pulse width and correspondingly the frequency content of the force.

Modal analysis and modeling is also available by fixing the accelerometer at one location, impacting the structure at one point and then moving the accelerometer to other points of interest. When used with the FRF module, the following modal parameters can be calculated and displayed:

- Apparent mass / acceleration
- Impedance/Mobility
- Stiffness/Compliance

## Specifications

### Dynamic

- Sensitivity ( $\pm 15\%$ ): 0,23 mV/N (1 mV/lbf)
- Measurement range:  $\pm 22\ 240$  N peak ( $\pm 5\ 000$  lbf peak)
- Resonant frequency:  $\geq 12$  kHz
- Non-linearity:  $\leq 1\%$



CMXA 45

CMXA 45/75-Z2

● CMXA 48

CMXA 48/80-Z2

● CMXA 70/44

● CMXA 75

● CMXA 80

### Electrical

- Excitation voltage: 20 to 30 V DC
- Constant current excitation: 2 to 20 mA
- Output impedance:  $< 100\ \Omega$
- Output bias voltage: 8 to 14 V DC
- Discharge time constant:  $\geq 1\ 400$  s

### Physical

- Sensing element: Quartz
- Sealing: Hermetic
- Hammer mass: 1,1 kg (2.4 lb.)
- Head diameter: 5,1 cm (2.0 in.)
- Tip diameter: 5,1 cm (2.0 in.)
- Hammer length: 37 cm (14.5 in.)
- Electrical connection position: Bottom of handle
- Electrical connector: BNC jack

## Kit contents

- Calibrated hammer
- Super soft plastic, gray tip
- Medium plastic, red tip
- Hard plastic, black tip
- CMAC 5088: Cable – BNC to Fischer six pin
- Carrying case



*Hammer*



*Gray hammer tip*



*Red hammer tip*



*Black hammer tip*



*Carrying case*



*CMAC 5088 cable*

#### Ordering information

- CMAC 5059 Modal hammer kit. Includes hammer, three tips, cable, carrying case, certificate of conformance and calibration certificate.



# Power



Battery (CMXA 45, CMXA 70, CMXA 75), CMAC 5031 . . . . .	38
Battery (CMXA 48, CMXA 80), CMAC 5092 . . . . .	39
Universal power supply, CMAC 5090 . . . . .	40

# CMAC 5031

## Battery

The 7,2V Lithium-Ion 2,6 Ah rechargeable battery pack provides customers with eight hours of continuous data collection or 20 hours idle. The charging time is 2,5 hours.



- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80

## Specifications

### Electrical

- Nominal voltage: 7,2V
- Nominal capacity: 2,6 Ah
- Operating time:
  - Eight hours continuous data collection
  - 20 hours idling in a process product
- Charge time: 2,5 hours

### Environmental

- Temperature range:
  - Charging: 0 to 45 °C (30 to 115 °F)
  - Rapid charge: 10 to 45 °C (50 to 115 °F)
  - Discharging: -20 to +60 °C (-5 to +140 °F)
  - Storage:
    - 1 week: -20 to +50 °C (-5 to +120 °F)
    - 6 months: -20 to +35 °C (-5 to +95 °F)

### Physical

- Dimensions: 70,5 × 38,5 × 20,5 mm (2.78 × 1.52 × 0.81 in.)
- Weight: 103 g (3.6 oz.)
- Drop tested to MIL810E, 2 m (6.6 ft.) when installed in a CMXA 70 or CMXA 75

### Approvals

- Emissions: EN61000-6-4:2001 Severity Level Class A
- Immunity: EN61000-6-2:2001 Severity Level Class A
- CSA: Class I, Division 2 Gas groups A, B, C and D (Canadian and US standards) when installed in a CMXA 70 or CMXA 75
- ATEX: EX II 3 G Ex ic IIC T4 Gc T<sub>a</sub> = -10 to +50 °C (15 to 120 °F) when installed in a CMXA 75
- IECEx: Ex ic IIC T4 Gc T<sub>a</sub> = -10 to +50 °C (15 to 120 °F) when installed in a CMXA 75
- Transportation: UN Directive ST / SG / AC.10/11 Rev.5, sub-section 38.3
- Equivalent Lithium content: 1,47 g (0.0519 oz.)

### Ordering information

- CMAC 5031 Battery.

# CMAC 5092

## Battery

Lithium-Ion rechargeable battery pack provides customers with ten hours of continuous data collection.

The battery can be charged in the instrument.

## Specifications

### Electrical

- Nominal voltage: 7,4 V
- Nominal capacity: 68,82 Wh/9,3 Ah
- Operating time:
  - Ten hours continuous data collection
- Charge time: Eight hours (in suspend mode)

### Environmental

- Temperature range:
  - Charging: 10 to 45 °C (50 to 115 °F)
  - Discharging: -10 to +60 °C (15 to 140 °F)
  - Storage (1 year): -20 to +20 °C (-5 to +70 °F)

### Physical

- Dimensions: 110,3 × 19,5 × 72,0 mm (4.34 × 0.77 × 2.83 in.)
- Weight: 290 g (10.2 oz.)

### Approvals

- Transportation UN Directive ST / SG / AC.10 / 11 / Rev.5, sub-section 38.3
- Equivalent Lithium content: <2 g (0.0705 oz.)



CMXA 45

CMXA 45/75-Z2

● CMXA 48

● CMXA 48/80-Z2

CMXA 70/44

CMXA 75

● CMXA 80

### Ordering information

- CMAC 5092 Battery.

# CMAC 5090

## Universal power supply

The CMAC 5090 universal power supply delivers power to the SKF Microlog while charging the battery when inside the instrument. It also features a connector to mate with the USB/splitter cable (CMAC 5095). Since this universal power supply can support 100 to 240 V input, it also comes with USA, UK, AUS and EURO adapter plugs.

Not be used in Hazardous environments (non-IS)

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



### Ordering information

- CMAC 5090 Universal power supply, includes four plug adapters.



# Miscellaneous accessories



Shoulder strap (CMXA 45, CMXA 70, CMXA 75), CMAC 5010 . . . . .	42
Shoulder strap (CMXA 48, CMXA 80), CMAC 5073 . . . . .	42
Shoulder strap, leather, hazardous areas, CMAC 5113 . . . . .	43
Hand strap (CMXA 45, CMXA 70, CMXA 70-Z2, CMXA 75), CMAC 5020 . . . . .	43
Hand strap (CMXA 48, CMXA 80), CMAC 5072 . . . . .	44
Soft case (CMXA 48, CMXA 80), CMAC 5071. . . . .	44
Rubber boot, CMAC 5015 . . . . .	45

## CMAC 5010

### Shoulder strap

This shoulder strap fastens directly to the rubber boot (CMAC 5015) or to the instrument itself. The strap features a metal plate to hold the sensor/magnet.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



## CMAC 5073

### Shoulder strap

The CMAC 5073 shoulder strap is adjustable and features a removable steel plate that has been designed to hold a few transducers (if fitted with a magnetic mount). This plate is attached via two heavy-duty press studs and can be removed if not required. The strap also has a safety breakaway. The breakaway strength is adjustable and may be set to break easily or not so easily – to user preference.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5010 Shoulder strap.

#### Ordering information

- CMAC 5073 Shoulder strap.

## CMAC 5113

### Shoulder strap, leather, hazardous areas

The CMAC 5113 shoulder strap is part of the SKF Microlog ATEX certification; it may be affixed to the SKF Microlog while in use in a hazardous area.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5113 Shoulder strap, leather, hazardous areas.

## CMAC 5020

### Hand strap

The hand strap is provided in all kits and is designed for easier and safer operations of the instrument. It enables the operator to hold onto the unit with one hand and still press the keypad and fire buttons. The hand strap fastens directly to the rubber boot or instrument. It does not include a stylus, although it is equipped with a stylus holder.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5020 Hand strap.

## CMAC 5072

### Hand strap (2 pieces)

The hand strap is provided in all kits and is designed for easier and safer operations of the instrument. It enables the operator to hold onto the unit with one hand and still press the keypad and fire buttons. The hand strap fastens directly to the instrument.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5072 Hand strap.

## CMAC 5071

### Soft case

The CMAC 5071 soft case includes a plastic protective sleeve and a pouch that snaps to the back of the sleeve to hold cables, etc. These two pieces are only sold together.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 70/44
- CMXA 75
- CMXA 80



#### Ordering information

- CMAC 5071 Soft case, includes protective sleeve and pouch.

# CMAC 5015

## Rubber boot

This protective rubber boot (sleeve) is designed to provide additional protection to the SKF Microlog. While it is made out of heavy-duty rubber, the shoulder strap (CMAC 5010) should also be purchased.

**Note:** The CMAC 5015 is shipped with the SKF Microlog CMXA 51-IS to meet the IECEx requirements.

- CMXA 45
- CMXA 45/75-Z2
- CMXA 48
- CMXA 48/80-Z2
- CMXA 51-IS
- CMXA 70/44
- CMXA 75
- CMXA 80

## Specifications

- Temperature range: -60 to +130 °C  
(-75 to +265 °F)
- Material: Santoprene 8000 rubber
- Weight: 130 g (4.6 oz.)
- Dimensions: 20,0 × 12,5 cm  
(7.9 × 4.9 in.)



### Ordering information

- CMAC 5015 Rubber boot.

# Product index

Model number	Description	CMXA 45	CMXA 45/75-Z2	CMXA 48	CMXA 48/80-Z2	CMXA 70/44	CMXA 75	CMXA 80	Page
CMAC 3715	Cable converter, two pin MIL to BNC	●		●		●	●	●	23
CMAC 5010	Shoulder strap	●				●	●		42
CMAC 5015	Rubber boot	●	●			●	●		45
CMAC 5020	Hand strap	●	●			●	●		43
CMAC 5023	Signal input straight cable	●		●		●	●	●	23
CMAC 5030K	Laser tachometer kit	●		●		●	●	●	28
CMAC 5030K-Z2	Laser tachometer kit – ATEX certified	●	●	●	●	●	●	●	29
CMAC 5031	Battery	●	●			●	●		38
CMAC 5032	Power/Trigger splitter straight cable	●		●		●	●	●	24
CMAC 5036	CH1 signal input straight extension cable, 5 m (16.4 ft.)	●	●	●	●	●	●	●	21
CMAC 5037	CH1 signal input straight extension cable, 10 m (32.8 ft.)	●	●	●	●	●	●	●	21
CMAC 5044	Tachometer straight extension cable, 10 m (32.8 ft.)	●	●	●	●	●	●	●	22
CMAC 5056	Modal analysis hammer kit – for structures 210 g (7.6 oz.) and above			●		●	●	●	30
CMAC 5059	Modal analysis hammer kit			●		●	●	●	34
CMAC 5071	Soft case			●				●	44
CMAC 5072	Hand strap			●	●			●	44
CMAC 5073	Shoulder strap			●	●			●	42
CMAC 5078	Audio headphone straight cable	●		●			●	●	24
CMAC 5079	Splitter, four channel straight cable	●	●	●	●		●	●	19
CMAC 5088	Signal input straight cable	●		●		●	●	●	25
CMAC 5090	Universal power supply	●	●	●	●	●	●	●	40
CMAC 5092	Battery			●	●			●	39
CMAC 5093	Signal input straight cable (microphone cable)	●		●			●	●	26
CMAC 5095	USB communication/power splitter straight cable	●	●	●	●	●	●	●	25
CMAC 5113	Shoulder strap, leather, hazardous areas	●	●			●	●		43
CMAC 5209	Accelerometer coiled cable, 2 m (6.56 ft.)	●	●	●	●	●	●	●	19
CMAC 5211	BNC tachometer straight cable	●		●		●	●	●	20
CMAC 5214	Laser tachometer kit straight cable, 2 m (6.56 ft.)	●	●	●	●	●	●	●	20
CMSS 2111	Small footprint accelerometer with integral cable	●		●		●	●	●	14
CMSS 2200	General purpose, low profile, side exit industrial accelerometer	●		●		●	●	●	8
CMSS 2200-M8	General purpose, low profile, side exit industrial accelerometer with M8 studs	●		●		●	●	●	8
CMSS 793-CA	CSA approved, general purpose industrial accelerometer	●		●		●	●	●	10
CMSS 793-EE	ATEX approved, intrinsically safe, general purpose industrial accelerometer		●		●				12
CMSS 908-MD	Medium duty magnetic base	●	●	●	●	●	●	●	15





[www.skf.com/cm](http://www.skf.com/cm)

© SKF, MICROLOG, and MULTILOG are registered trademarks of the SKF Group.

Bluetooth is a registered trademark of Bluetooth SIG, Inc.

ICP is a registered trademark of PCB Group, Inc.

Intel and Intel XScale are registered trademarks of Intel Corporation in the United States and other countries.

Marvell is a registered trademark of Marvell or its affiliates.

Microsoft, Windows, ActiveSync, Excel, PowerPoint, SQL Server, Windows Server and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and / or other countries.

Oracle is a registered trademark of Oracle Corporation.

All other trademarks are the property of their respective owners.

© SKF Group 2021

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB CM/P1 11643/9 EN · July 2021