



# CAN Accessories

for CSM measurement modules



# CSM CAN Accessories

A wide range of accessories is available for CSM measurement modules and data loggers, such as the USB to CAN interface CSMcan, system and signal cables, plugs, sockets, mounting material, antennas, as well as memory cards.

This document provides an overview on accessories for CSM's CAN measurement modules. Further accessory datasheets are available for ECAT measurement modules, UniCAN data loggers and exhaust measurement technology.

The system cables, for the engine compartment-mounted CSM MiniModules (CAN bus and EtherCAT®/ Ethernet networking as well as power supply), are specifically made for this purpose. They are designed for high interference resistance and the lowest possible internal resistance of the supply lines as well as wide operating temperature ranges. The cables are flexible and well chemical-resistant including fuel and oil.

Do you have special wishes and requirements? Please do not hesitate to contact us.



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# CAN Cables and Connectors

## Interface Cables

### K85

IC, LOB 5p, DS 9p / B

Connection cable between CAN socket/measurement module and CAN interface; cable includes a 1 m power supply line

#### Connectors

**A** Plug LEMO 0B 5-pole code G  
**B** Socket D-SUB 9-pole and banana plug

ART0201077	K85-0060	Length: 0.6 m
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### K73

IC, LOB 5p, DS 9p / B

Connection cable between CAN socket/measurement module and CAN interface; cable includes a 1 m power supply line

#### Connectors

**A** Plug LEMO 0B 5-pole code G  
**B** Socket D-SUB 9-pole and banana plug

ART0201051	K73-0250	Length: 2.5 m
ART0201074	K73-0300	Length: 3 m
ART0201071	K73-0500	Length: 5 m
ART0201524	K73-1000	Length: 10 m
ART0201545	K73-2000	Length: 20 m

### K176

IC, LOB 5p, DS 9p / B, R

Connection cable for CAN interfaces; cable includes a 1 m power supply line and a 120 Ohm CAN termination resistor (yellow cable marking)

#### Connectors

**A** Plug LEMO 0B 5-pole code G  
**B** Socket D-SUB 9-pole and banana plug

ART1050101	K176-0060	Length: 0.6 m
ART1050102	K176-0250	Length: 2.5 m
ART1050103	K176-0500	Length: 5 m
ART1050104	K176-1000	Length: 10 m

### K181

IC, LOB 5p, open

Connection cable for CAN interfaces; including power supply wires

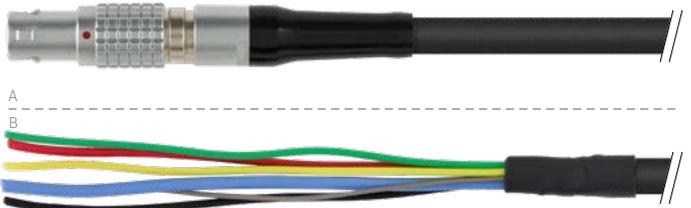
#### Connectors

**A** Plug LEMO 0B 5-pole code G  
**B** open cable end

ART1050105	K181-0060	Length: 0.6 m
ART1050112	K181-0500	Length: 5 m



K85, K73, K176



**K191 (replacement for K77)**

IC, L0B 5p, L1B 8p / B, R

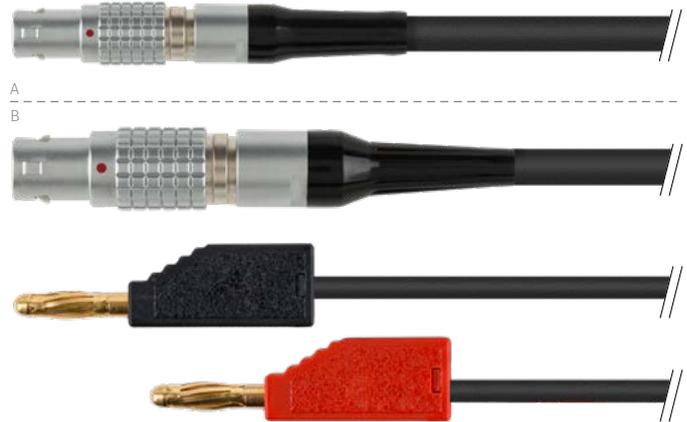
Connection cable for ETAS CAN interfaces ES690, ES590/91 and ES592/93-D/95 including 1 m power supply line and 120 Ohm CAN termination resistor

**Connectors**

**A Plug** LEMO 0B 5-pole code G

**B Plug** LEMO 1B 8-pole code C and banana plug

ART1050108	K191-0060	Length: 0.6 m
ART1050109	K191-0250	Length: 2.5 m
ART1050110	K191-0500	Length: 5 m
ART1050111	K191-1000	Length: 10 m

**K45**

IC, DS 9p, L1B 8p

Connection cable for ETAS CAN interfaces ES690, ES590/91 and ES592/93-D/95

**Connectors**

**A Plug** D-SUB 9-pole

**B Plug** LEMO 1B 8-pole code C

ART0202049	K45-0100	Length: 1 m
ART0202048	K45-0200	Length: 2 m
ART1200101	K45-0500	Length: 5 m

**K623**

IC, L0B 5p, DS 9p

Connection cable for CAN interfaces; power supply via D-SUB included

**Connectors**

**A Plug** LEMO 0B 5-pole code G

**B Socket** D-SUB 9-pole

ART1050802	K623-0250	Length: 2.5 m
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## Connection Cables

### K92

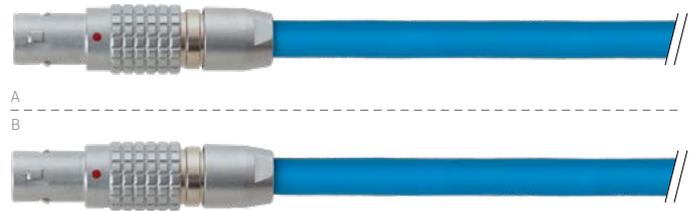
CC, LOB 5p, LOB 5p

Daisy chain cable for cascading  
CAN measurement modules

#### Connectors

A Plug LEMO 0B 5-pole code G  
B Plug LEMO 0B 5-pole code G

ART0201133	K92-0015	Length: 0.15 m
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### K70

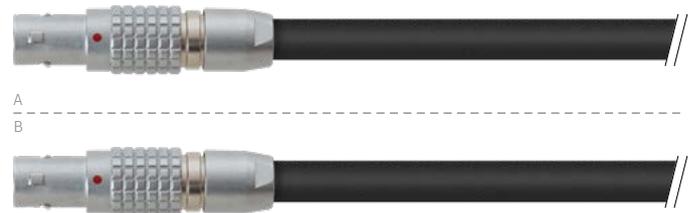
CC, LOB 5p, LOB 5p

Daisy chain cable for cascading  
CAN measurement modules

#### Connectors

A Plug LEMO 0B 5-pole code G  
B Plug LEMO 0B 5-pole code G

ART0201070	K70-0025	Length: 0.25 m
ART0201054	K70-0050	Length: 0.5 m
ART0201055	K70-0100	Length: 1 m
ART0201056	K70-0200	Length: 2 m
ART0201052	K70-0300	Length: 3 m
ART0201057	K70-0500	Length: 5 m
ART0201058	K70-1000	Length: 10 m
ART1040100	K70-2000	Length: 20 m



### K72

CC, LOB 5p, LOB 5p / B

Daisy chain cable for cascading CAN measurement modules,  
including 3 m power supply line for intermediate power supply

#### Connectors

A Plug LEMO 0B 5-pole code G  
B Plug LEMO 0B 5-pole code G and banana plug

ART0201060	K72-0250	Length: 2.5 m
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## Cable Coupler

### K71

CC, LOB 5p, LOB 5p

Cable coupler for connecting two CAN connector cables

#### Connectors

A Socket LEMO 0B 5-pole code G  
B Socket LEMO 0B 5-pole code G

ART0201059	K71-0020	Length: 0.2 m
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## Sensor Cables

### K134

SC, L0B 6p, open

Cable between signal input/measurement module and sensor

#### Connectors

A Plug LEMO 0B 6-pole code A

B open cable end

ART1060100	K134-0025	Length: 0.25 m
ART1060109	K134-0100	Length: 1 m
ART0201202	K134-0200	Length: 2 m
ART0201206	K134-0300	Length: 3 m
ART1060105	K134-0500	Length: 5 m
ART1060106	K134-0800	Length: 8 m



### K106

SC, L0B 6p, B

Cable between signal input/measurement module and sensor with positive and negative sensor excitation

#### Connectors

A Plug LEMO 0B 6-pole code A

B Banana plugs and connectors

ART0201169	K106-0120	Length: 1.2 m
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### K100

SC, L0B 6p, B

Cable between signal input/measurement module and sensor with positive sensor excitation

#### Connectors

A Plug LEMO 0B 6-pole code A

B Banana plugs and connectors

ART0201150	K100-0120	Length: 1.2 m
ART0201167	K100-0300	Length: 3 m
ART1060101	K100-0500	Length: 5 m



**K114**

SC, L0B 6p, B, R

Cable between signal input/measurement module and a sensor with integrated shunt for measurements with 20 mA sensors

**Connectors**

A Plug LEMO 0B 6-pole code A

B Banana plugs and connectors

ART0201178	K114-0120	Length: 1.2 m
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**K110**

SC, L0B 6p, BNC

Cable between signal input/measurement module and sensor

**Connectors**

A Plug LEMO 0B 6-pole code A

B Plug BNC

ART0201155	K110-0020	Length: 0.2 m
ART0201154	K110-0120	Length: 1.2 m
ART1060102	K110-0200	Length: 2 m
ART1060103	K110-0500	Length: 5 m

**K622**

SC, L0B 6p, L0B 6p

Sensor extension cable

**Connectors**

A Plug LEMO 0B 6-pole code A

B Socket LEMO 0B 6-pole code A

ART1060108	K622-0200	Length: 2 m
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**K356 /350**

SC, L1B 8p, open, 1/4, TEDS

Quarter bridge completion cable (350 Ohm) in 3-wire connection with preconfigured TEDS

**Connectors**

A Plug LEMO 1B 8-pole code G

B open cable end

ART1420101	K356-0200 /350	Length: 2 m
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**K356 /120**

SC, L1B 8p, open, 1/4, TEDS

Quarter bridge completion cable (120 Ohm) in 3-wire connection with preconfigured TEDS

**Connectors**

A Plug LEMO 1B 8-pole code G

B open cable end

ART1420102	K356-0200 /120	Length: 2 m
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### K642

SC, L1B 8p, open, TR

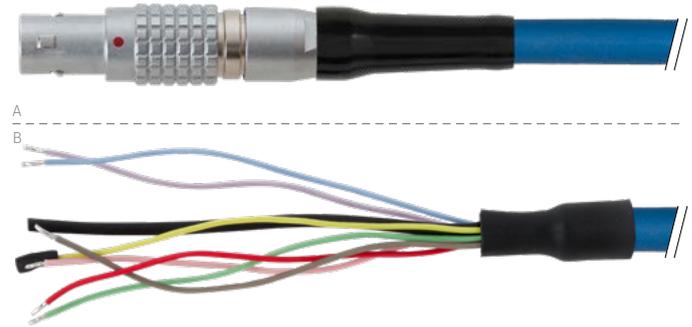
Cable between signal input/measurement module and sensor, programmable TEDS chip integrated in the cable

#### Connectors

A Plug LEMO 1B 8-pole code G

B open cable end

ART1420112	K642-0120	Length: 1.2 m
ART1420113	K642-0500	Length: 5 m
ART1420115	K642-1000	Length: 10 m



### K643

SC, L1B 8p, B, TR

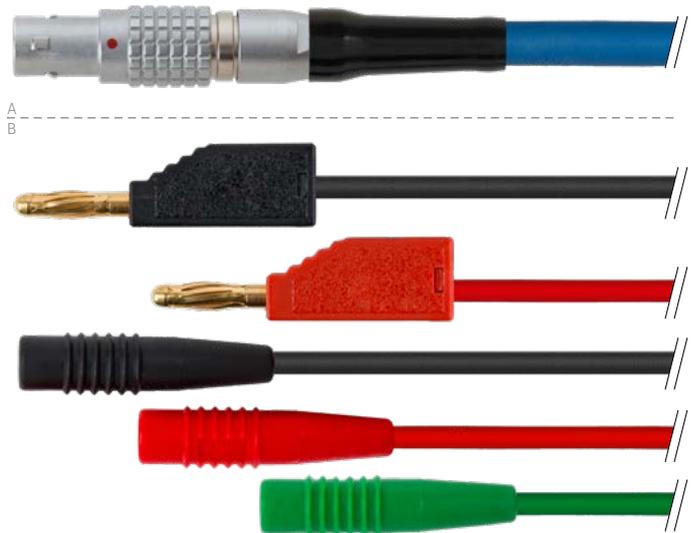
Cable between signal input/measurement module and sensor, programmable TEDS chip integrated in the cable

#### Connectors

A Plug LEMO 1B 8-pole code G

B Banana plugs and connectors

ART1420500	K643-0120	Length: 1.2 m
ART1420501	K643-0500	Length: 5 m



## Thermo MC Module Signal Cables

### K162

SC, L2B 16p, open

Thermocouple cable for connecting THMC 8/THMC 16 measurement modules

#### Connectors

A NiCr-Ni multi-connector LEMO 2B 16-pole code G

B 8 × open cable end

ART0201092	K162-0200	Length: 2 m
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### K163

SC, L2B 16p, TH Type K

Thermocouple cable for connecting THMC 8/THMC 16 measurement modules

#### Connectors

A NiCr-Ni multi-connector LEMO 2B 16-pole code G

B 8 × type K miniature thermo connectors

ART1060601	K163-0100	Length: 1 m
ART0201149	K163-0200	Length: 2 m



## OUT Module Signal Cable

### K124

SC, L1B 2p, open

Signal cable for OUT module

#### Connectors

A Plug LEMO 1B 2-pole code A

B open cable end

ART0201187	K124-0200	Length: 2 m
ART0201188	K124-0500	Length: 5 m
ART0201189	K124-1000	Length: 10 m



## Plugs

### K74

CAN termination resistor, 120 Ohm

Plug LEMO 0B 5-pole code G

ART0201050	K74
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### K87

Blind plug LEMO 0B, code A for protecting signal input connectors

ART0201087	K87
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### K166

Blind plug for protecting Thermo signal inputs

ART0201526	K166
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### Protection Plug

LEMO 1B Code A

Blind plug LEMO 1B, code A for protecting signal inputs

ART1030601	Protection Plug
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### LEMO 0B Plug 6-pin

Code-A plug for customized cable assembly e. g. for ADMM signal inputs; suitable for cross sections from 3.3 mm to 4.2 mm, incl. black bend relief

ART0201088	Plug 6-pin
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## HV Sensor Cables

### K901

SC, R2P 8p, open

Connection cable between an HV analog measurement module and four sensors (without sensor supply) with measurement voltages up to 90 V, shielding per channel for suppressing interferences

#### Connectors

**A** multi-connector LEMO Redel 2P 8-pole code B  
**B** 4 × open cable end, 2 wires + shield each

ART1423800	K901-200	Length: 2 m
ART1423801	K901-300	Length: 3 m



### K910

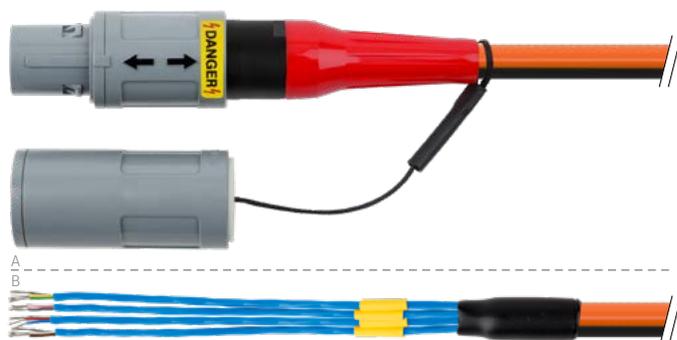
SC, R2P 8p, open

Connection cable between an HV analog measurement module and four sensors (without sensor supply) with measurement voltages up to 1,000 V, shielding per channel for suppressing interferences

#### Connectors

**A** multi-connector LEMO Redel 2P 8-pole code D  
**B** 4 × open cable end, 2 wires + shield each

ART1423700	K910-0200	Length: 2 m
ART1423701	K910-0300	Length: 3 m



### K920

SC, R2P 8p, open

Connection cable between an HV analog measurement module with sensor supply and two sensors

#### Connectors

**A** multi-connector LEMO Redel 2P 8-pole code C  
**B** 2 × open cable end, 4 wires each

ART5810400	K920-0200	Length: 2 m
ART5810401	K920-0300	Length: 3 m



### K950

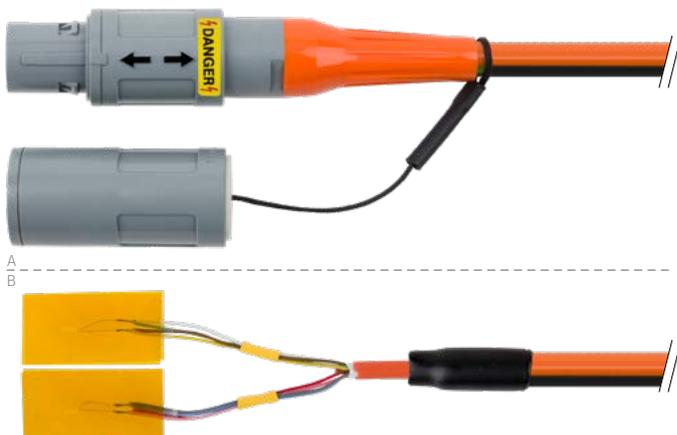
SC, R2P 8p, PT100

Connection Cable between an HV-PT measurement module and 2 × HV PT100 sensors

#### Connectors

**A** multi-connector LEMO Redel 2P 8-pole code C  
**B** 2 × PT100 sensor

ART5810200	K950-0250	Length: 2.5 m
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**K940**

SC, R2P 8p, STC

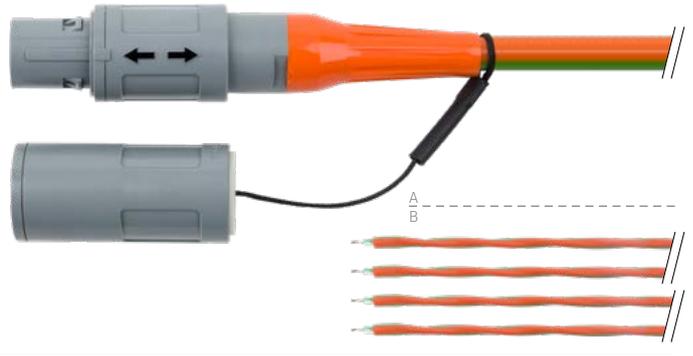
Surface thermocouple cable for use in high-voltage environments; 4x high-voltage sensor, type K, non-insulated measuring tips

**Connectors**

**A** NiCr-Ni multi-connector LEMO Redel 2P 8-pole code B

**B** 4 x non-insulated measuring tip

ART5810100      K940-0240      Length: 2.4 m

**K941**

SC, R2P 8p, STC, i10

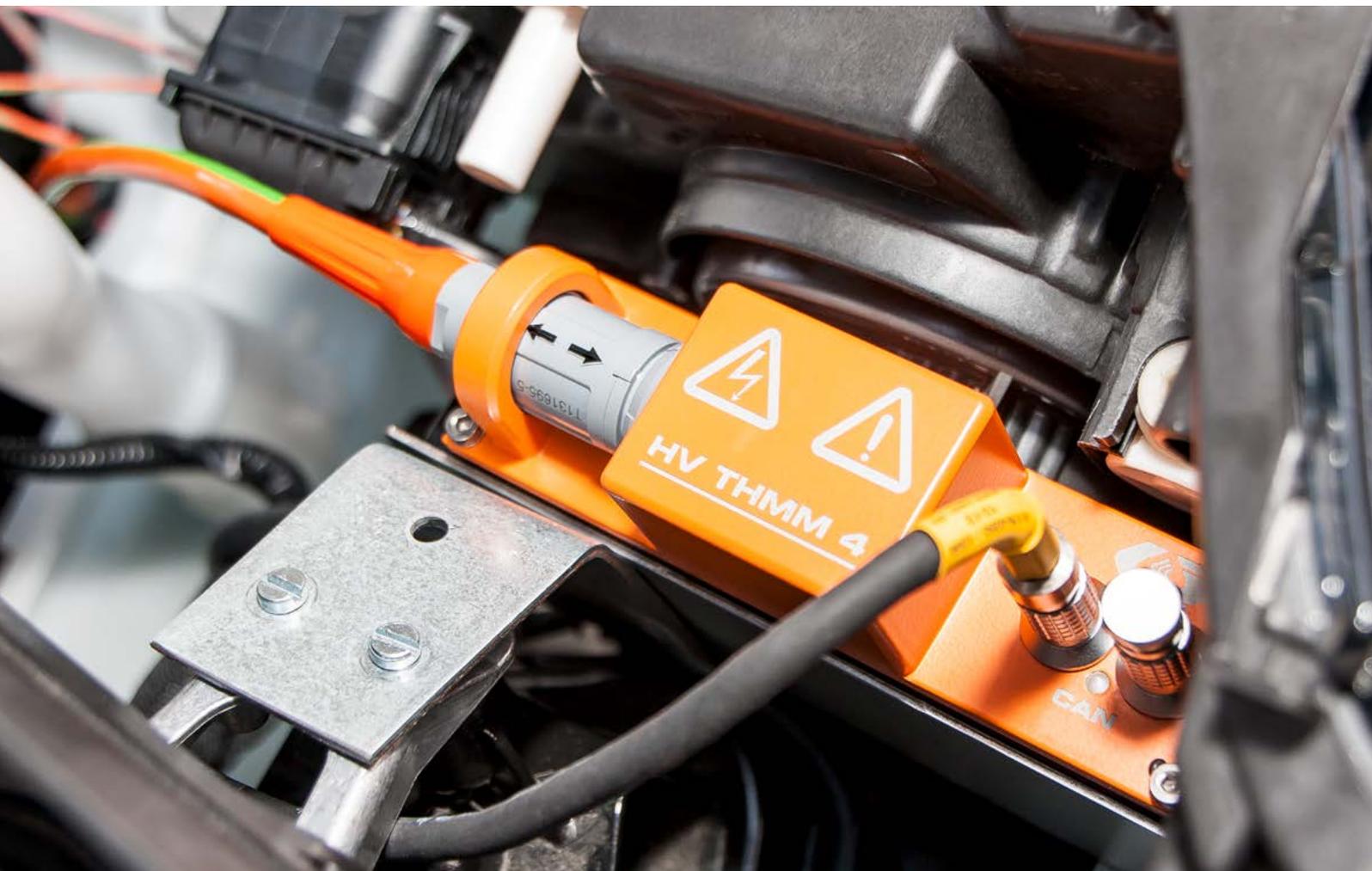
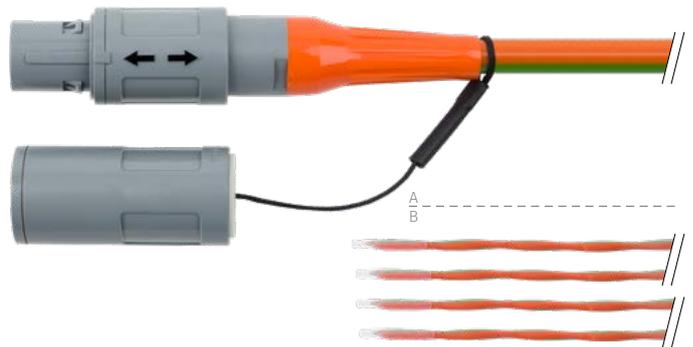
Surface thermocouple cable for use in high-voltage environments; 4 x high-voltage sensor, type K, insulated measuring tips with heat-shrink sleeve protection

**Connectors**

**A** NiCr-Ni multi-connector LEMO Redel 2P 8-pole code B

**B** 4 x insulated measuring tip

ART5810105      K941-0240      Length: 2.4 m



## PCMM Cables and Plugs

### K300

for PCMM Power In  
Power supply cable for  
Power Control MiniModule

#### Connectors

A Socket Fischer S104 3-pole  
B Banana plugs

ART0202850 K300-0200 Length: 2 m



### K301

for PCMM Power Out  
Voltage output cable for  
Power Control MiniModule

#### Connectors

A Plug Fischer S104 3-pole  
B Banana sockets

ART0202851 K301-0100 Length: 1 m



### K302

PCMM Config/Ext Plug  
Configuration plug (Fischer, 7-pole) for PCMM to determine  
which supply line is switched by which signal

ART0202852 K302



### K303

PCMM Test Plug  
Test plug (Fischer, 2-pole) for PCMM; this plug switches  
the power supply on, regardless of configuration and  
switching signals

ART0202853 K303



### K304

PCMM Config/Ext Plug  
Configuration plug (Fischer, 7-pole) for PCMM:  
KEY\_ON (Kl. 15) switches the logger connected to terminal  
POWER\_LOGGER; the control signal (LOG\_SIGNAL) from the  
logger switches terminal POWER\_OUT\_SWITCHED.

ART1030700 K304



### K89

CC, LOB 5p, F102 7p  
Connection cable between CAN module and PCMM

#### Connectors

A Plug LEMO 0B 5-pole code G  
B Plug Fischer F102 7-pole

ART0201138 K89-0050 Length: 0.5 m



# Mounting Components

## Mounting Material MiniModules

### Mounting Angle SCS female

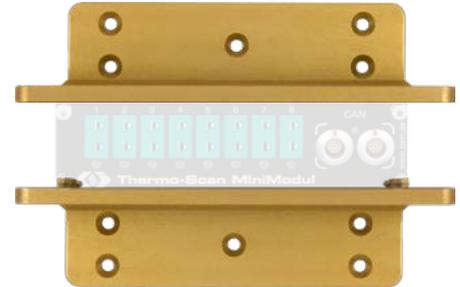
Mounting angle SCS (female) for mounting MiniModules in Slide Case Small (SCS) housings

ART1240101 Mounting Angle SCS female

### Mounting Angle SCS male

Mounting angle SCS (male) for mounting MiniModules in Slide Case Small (SCS) housings

ART1240100 Mounting Angle SCS male



### Mounting Angle SCL female

Mounting angle SCL (female) for mounting MiniModules in Slide Case Large (SCL) housings

ART0201548 Mounting Angle SCL female

### Mounting Angle SCL male

Mounting angle SCL (male) for mounting MiniModules in Slide Case Large (SCL) housings

ART0201547 Mounting Angle SCL male



### Adapter Plate Slide Case

Adapter plate SCL (female) on SCS (male) for connecting differently-sized MiniModules in Slide Case housings

ART0201541 Adapter Plate Slide Case

### Adapter Plate Slide Case

Adapter plate SCL (male) on SCS (female) for connecting differently-sized MiniModules in Slide Case housings

ART0201540 Adapter Plate Slide Case



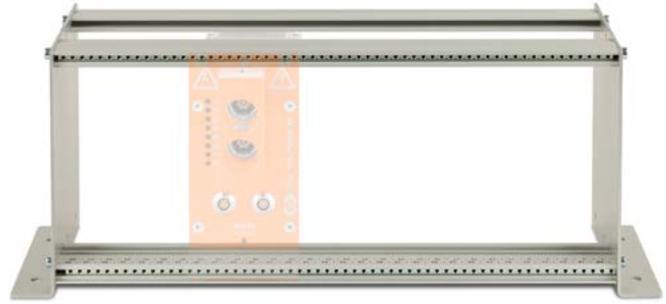
## Mounting Material Test Bench Modules (TBM)

### 19" Mounting Frame

19" frame for mounting 19" test bench modules

Height: 3 U (approx. 133 mm)

ART1340100	3 U × 24 HP	approx. 133 mm × 122 mm
ART1340101	3 U × 60 HP	approx. 133 mm × 305 mm
ART1340102	3 U × 84 HP	approx. 133 mm × 427 mm
ART1340103	3 U × 95 HP	approx. 133 mm × 483 mm

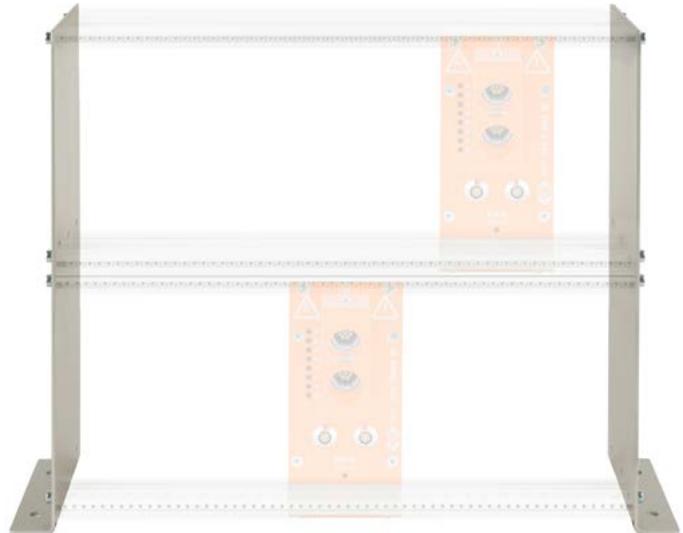


### 19" Mounting Angle

Mounting angle kit for mounting two 19" mounting frames above one another. This allows the vertical arrangement of two 19" mounting frames.

Height: 6 U (approx. 266 mm)

ART1340201	6 U	approx. 266 mm
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## CAN Interface

### CSMcan

1ch CAN High Speed Interface

Single-channel USB interface, data transfer rate up to 2 Mbit/s. For CAN-based CSM measurement modules in combination with measurement software vMeasure CSM and configuration tool CSMconfig.

ART1321000	CSMcan	approx. 65 × 40 × 20 mm
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## Sales contacts worldwide

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### Sales Partners

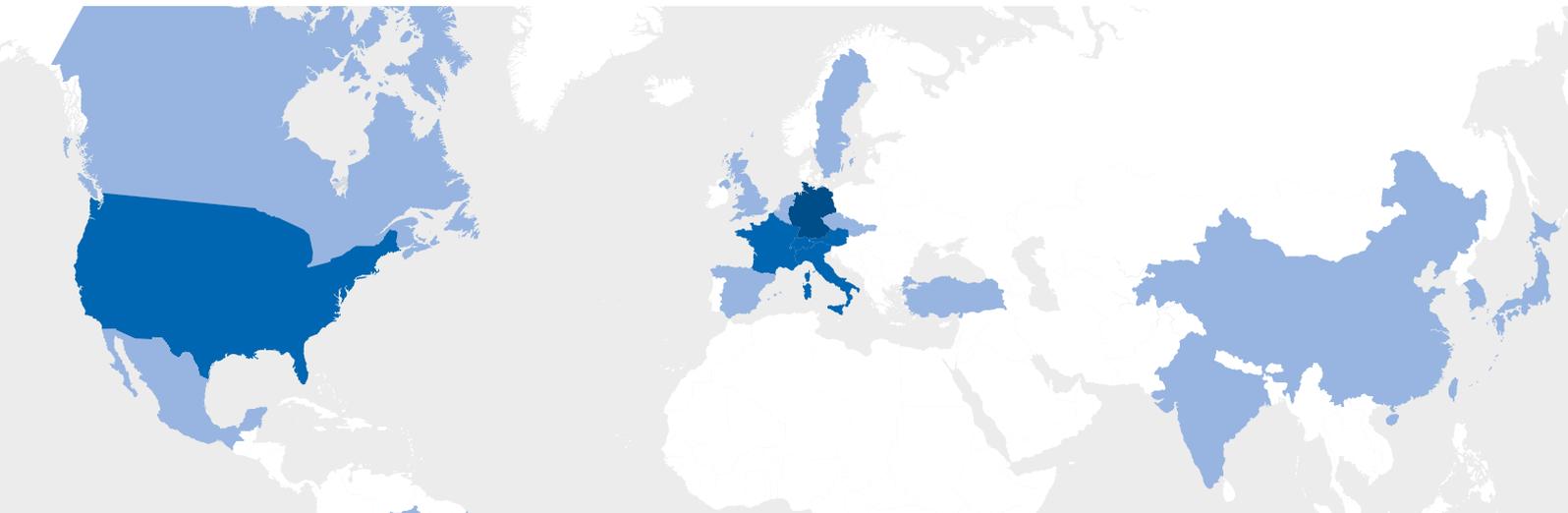
Our sales partners guarantee worldwide availability. The contact details can be found on our website on the page »Contact«.

#### Europe:

Belgium  
Great Britain  
Netherlands  
Sweden  
Slovakia  
Czech Republic  
Turkey

#### Asia:

China  
India  
Japan  
Korea



## Service & Support

Do you have specific questions or technical suggestions for the optimal use of the CSM measurement technology? Feel free to contact us, our Service & Support is at your disposal.

Take advantage of our telephone hotline:

**+49 711-77 964-444**

Or contact us over our website: [www.csm.de](http://www.csm.de) and look for the heading »Support«.



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