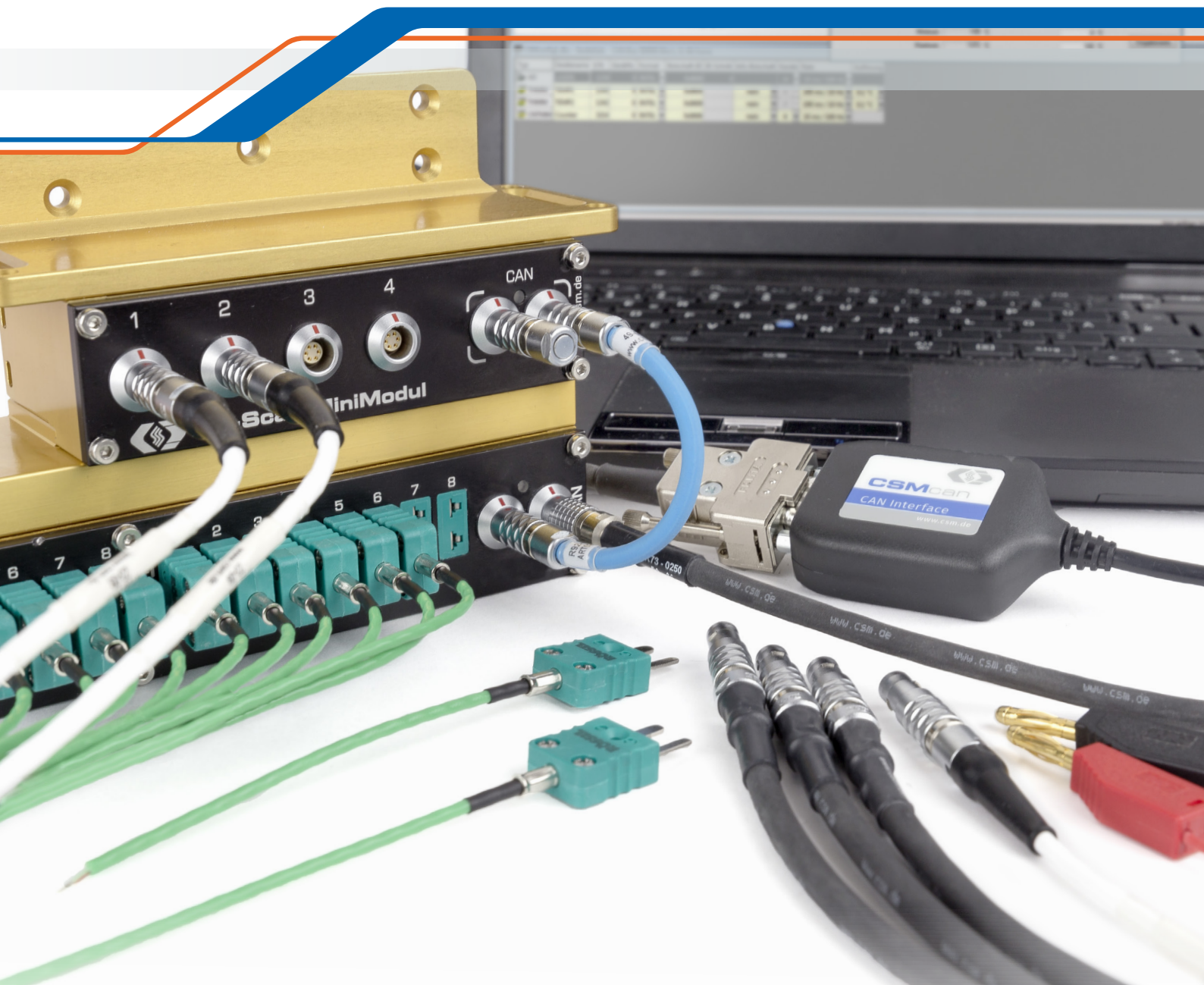


CAN Accessories

for CSM measurement modules



CSM 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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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	

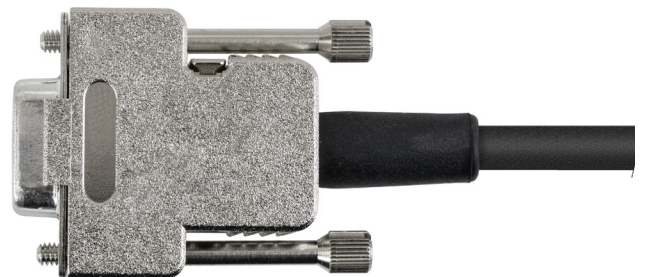
ART0201051	K73-0250	Length: 2.5 m
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ART0201074	K73-0300	Length: 3 m
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ART0201071	K73-0500	Length: 5 m
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ART0201524	K73-1000	Length: 10 m
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ART0201545	K73-2000	Length: 20 m
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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
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ART1050102	K176-0250	Length: 2.5 m
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ART1050103	K176-0500	Length: 5 m
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ART1050104	K176-1000	Length: 10 m
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K181

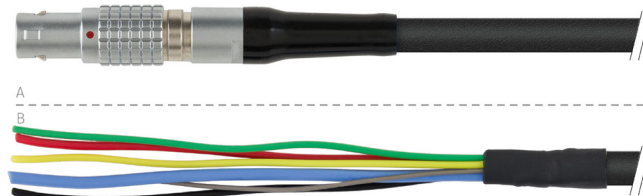
IC, L0B 5p, open

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

**K191**

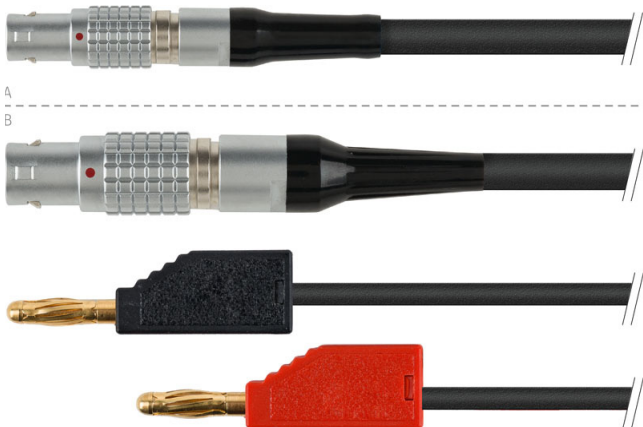
IC, L0B 5p, L1B 8p/B,R

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**

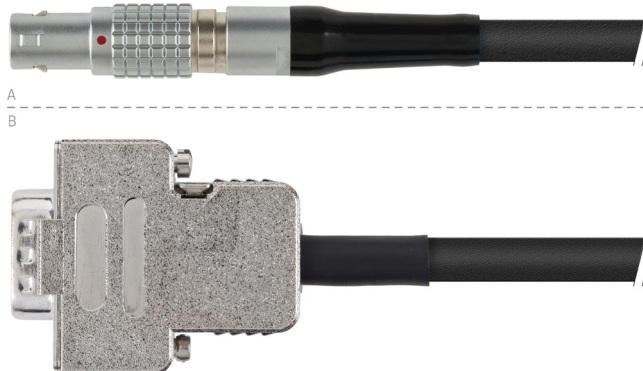
CC, DS 9p, L1B 8p

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

Connectors

A Plug LEMO 1B 8-pole code C
B Plug D-SUB 9-pole

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
ART1411210	K623-1000	Length: 10 m



Connection Cables

K92

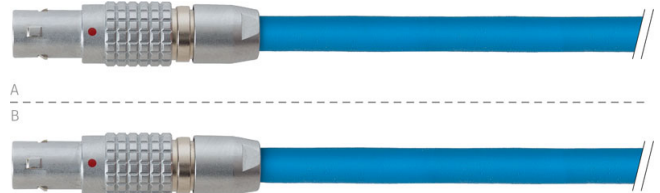
CC, L0B 5p, L0B 5p

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

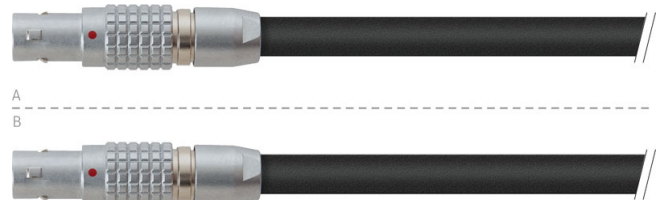
CC, L0B 5p, L0B 5p

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

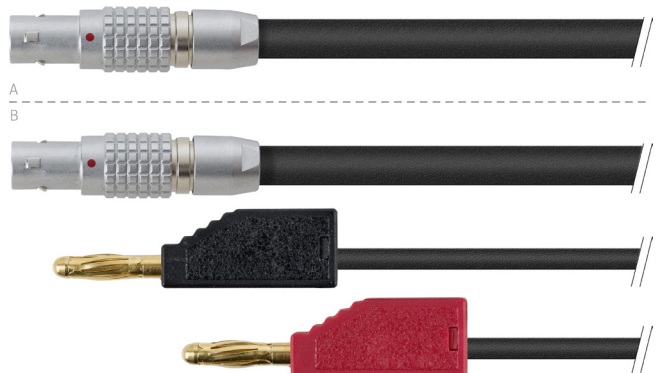
CC, L0B 5p, L0B 5p/B

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

ART1400411	K72-0065	Length: 0.65 m
ART0201060	K72-0250	Length: 2.5 m



Cable Coupler

K71

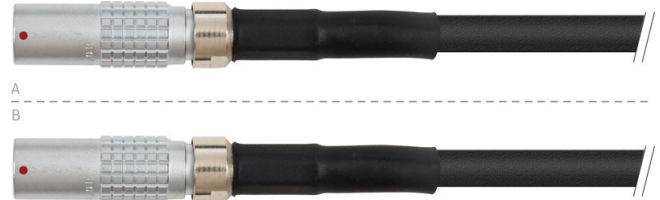
CC, L0B 5p, L0B 5p

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
ART1060110	K134-1000	Length: 10 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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K110

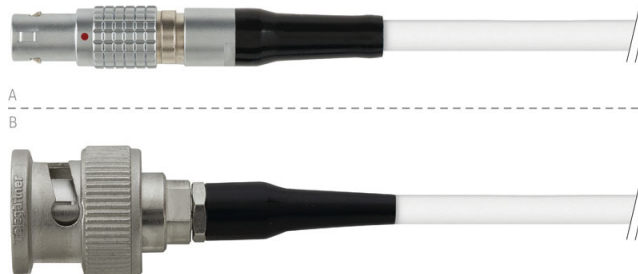
SC, L0B 6p, BNC

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
ART0201170	K110-0150	Length: 1.5 m
ART1060102	K110-0200	Length: 2 m
ART1060103	K110-0500	Length: 5 m

**K139**

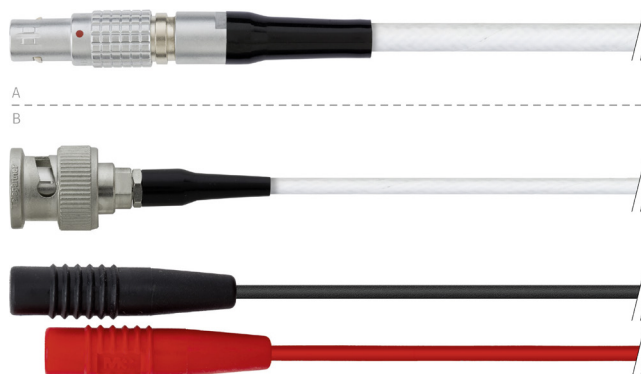
SC, L0B 6p, BNC/B

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

Connectors

A Plug LEMO 0B 6-pole code A
B Plug BNC and banana connectors

ART1060104	K139-0120	Length: 1.2 m
ART1421901	K139-0300	Length: 3 m

**K196**

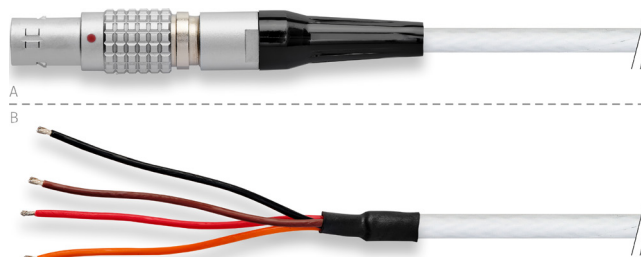
SC, L0B 6p, open, R

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

Connectors

A Plug LEMO 0B 6-pole code A
B open cable end

ART1062000	K196-0200	Length: 2 m
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K622

EC, 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
ART1430500	K622-0500	Length: 5 m

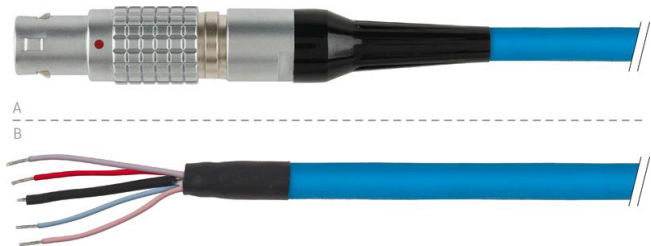
**K356/350**

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
ART1420105	K356-0500/350	Length: 5 m



K356/350, K356/120

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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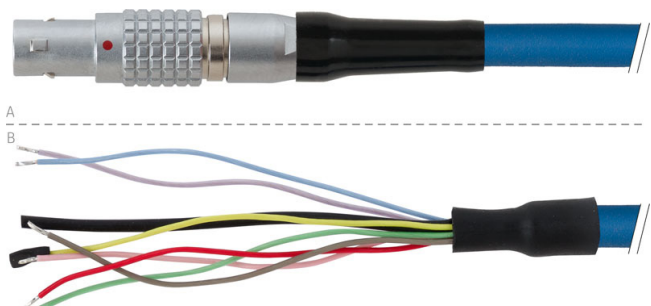
K642

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

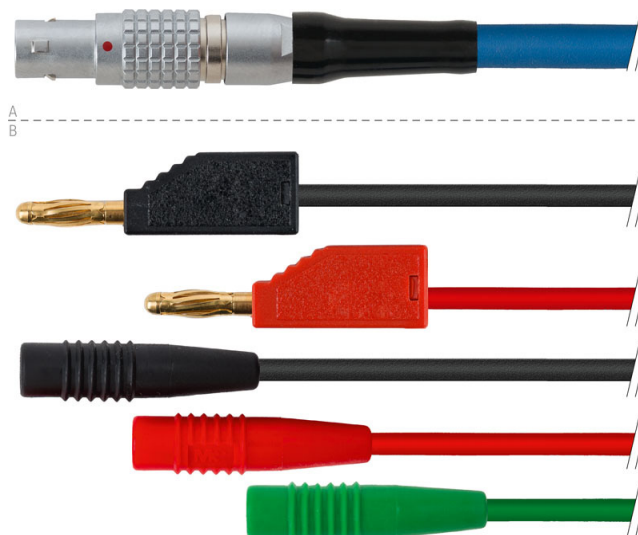
SC, L1B 8p, B, TR

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



K673

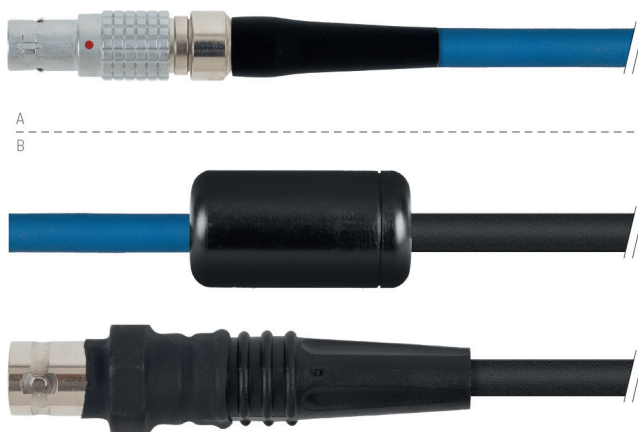
SC, L0B 6p, BNC, IEPE_B, TR

Cable between signal input/measurement module AD8 pro MD2 and IEPE sensor, programmable TEDS integrated in the cable

Connectors

A Plug LEMO 0B 6-pole code A
B Socket BNC

ART1422800	K673-0050	Length: 0.5 m
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Signal Cable OUT Module

K124

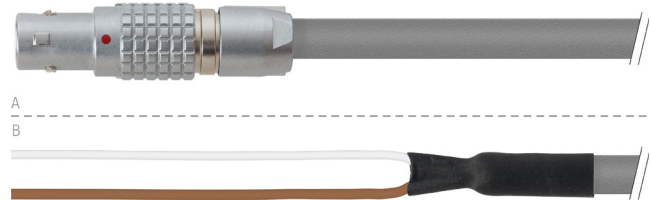
SC, L1B 2p, open

Signal cable for OUT module

Connectors

A Plug LEMO 1B 2-pole code A
B open cable end

ART0201187	K124-0200	Length: 2 m
ART0201190	K124-0400	Length: 4 m
ART0201188	K124-0500	Length: 5 m
ART0201189	K124-1000	Length: 10 m



Signal Cable Thermo MC Module

K162

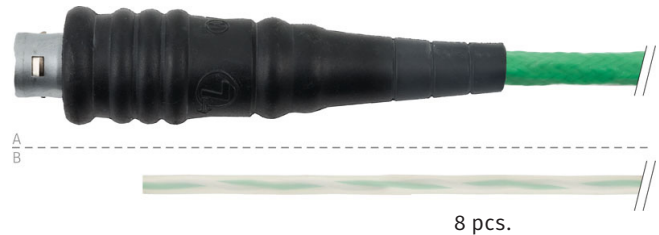
SC, L2B 16p, open

Thermocouple cable for connecting THMC 8 or THMC 16 measurement modules

Connectors

A NiCr-Ni multiconnector LEMO 2B 16-pole code G
B 8 x open cable end

ART0201092	K162-0225	Length: 2.25 m
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K163

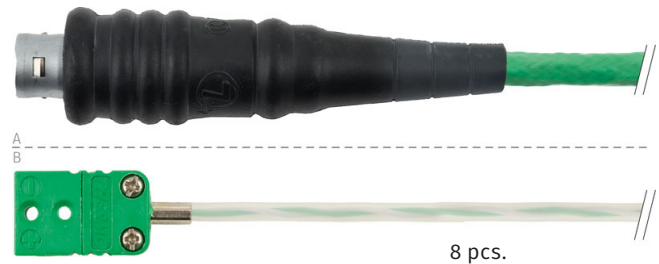
SC, L2B 16p, TC_K

Thermocouple cable for connecting THMC 8 or THMC 16 measurement modules

Connectors

A NiCr-Ni multiconnector LEMO 2B 16-pole code G
B 8 x type K miniatur thermo connectors

ART1060601	K163-0125	Length: 1.25 m
ART0201149	K163-0225	Length: 2.25 m



HV Accessories

K902

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 x open cable end, 2 wires + shield each

ART1423803	K902-0200	Length: 2 m
ART1423804	K902-0300	Length: 3 m



K903

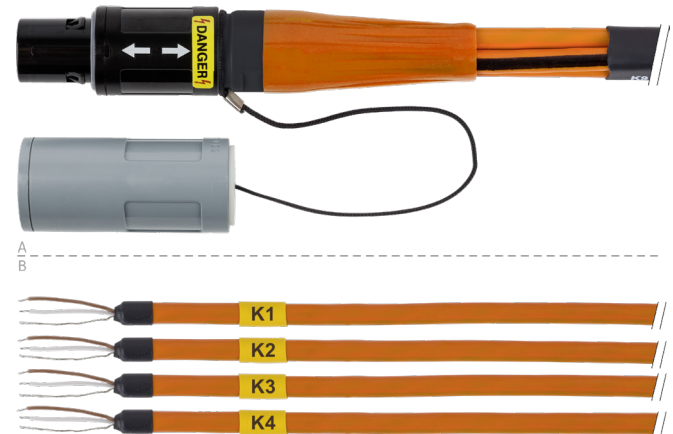
SC, R2P 8p, open

Connection cable (4 x HV single channel analog 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, HV-safe single cable form plug end

Connectors

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

ART1423806	K903-0200	Length: 2 m
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K912

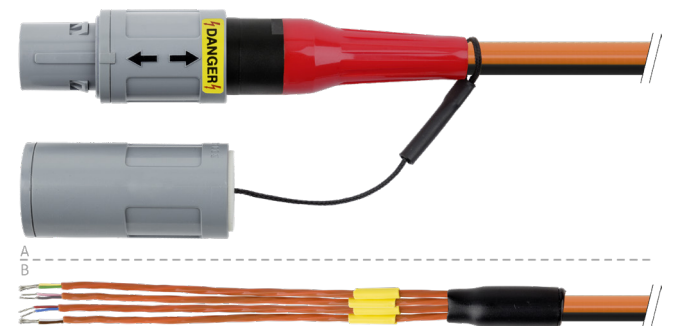
SC, R2P 8p, open

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 x open cable end, 2 wires + shield each

ART1423703	K912-0200	Length: 2 m
ART1423704	K912-0300	Length: 3 m



K913

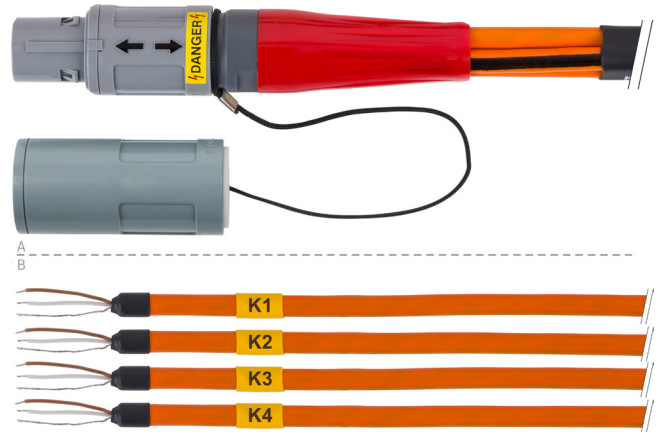
SC, R2P 8p, open

Connection cable (4 x HV single channel analog 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, HV-safe single cable form plug end

Connectors

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

ART1423706	K913-0200	Length: 2 m
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**K920**

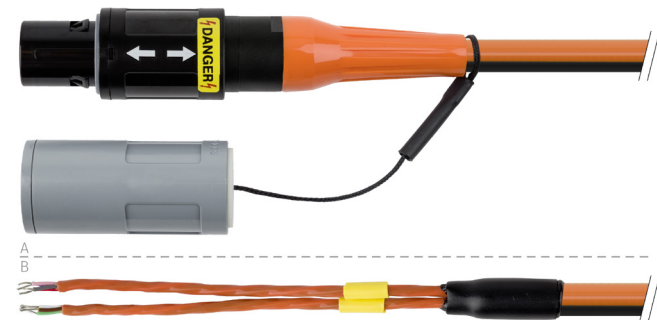
SC, R2P 8p, open

Connection cable between an HV analog measurement module (with sensor supply) or an HV PT measurement module and two sensors

Connectors

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

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

**K950**

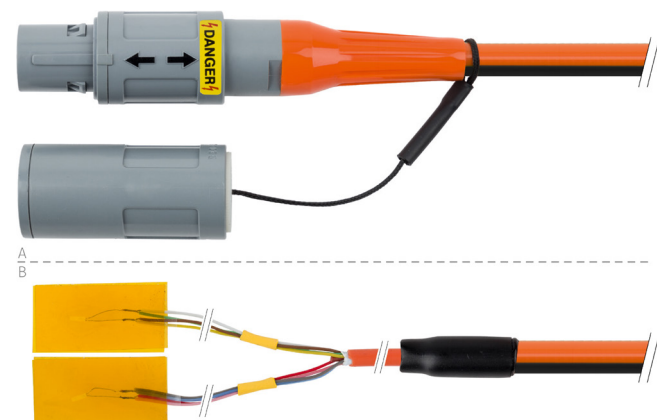
SC, R2P 8p, PT100

Resistance temperature sensor for use in high-voltage environment: 2 x HV PT100 sensors

Connectors

- A** Multi-connector LEMO Redel 2P 8-pole code C
B 2 x PT100 sensor

ART5810200	K950-0250	Length: 2,5 m
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K951

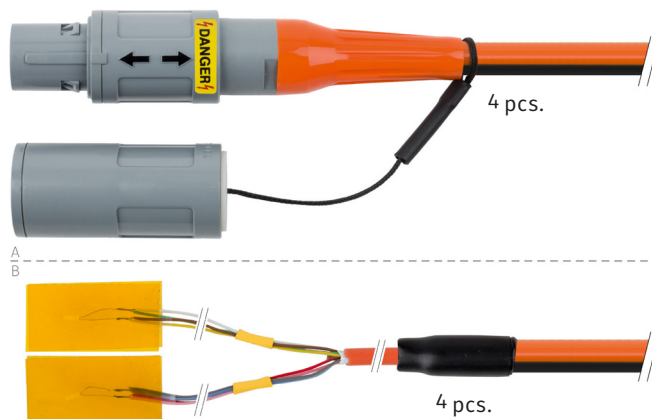
SC, R2P 8p, PT100

Resistance temperature sensor for use in high-voltage environment, 8 x HV PT100 sensors

Connectors

- A** 4 x multi-connector LEMO Redel 2P 8-pole code C
B 8 x PT100 sensor

ART5810202	K951-0250	Length: 2.5 m
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**K940**

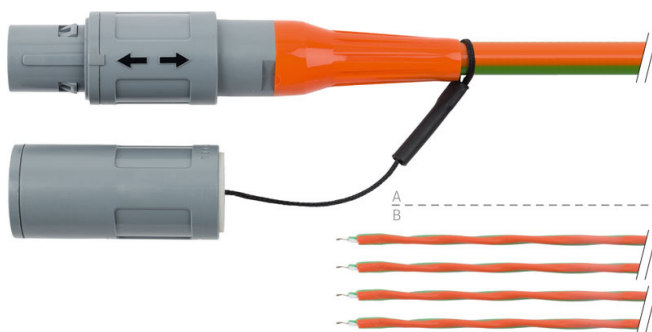
SC, R2P 8p, STC

Surface thermocouple cable for use in high-voltage environments, 4 x 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
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**K941**

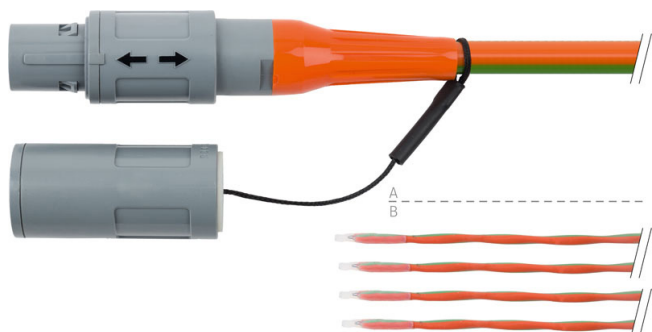
SC, R2P 8p, STC, i10

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
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Plugs

CAN Termination Plug

CAN termination resistor, 120 Ohm

ART0201050	LEMO	L0B 5-pole, code G
ART0201537	LEMO	L0B 9-pole, code A
ART0201068	Fischer	F102 7-pole, code 1



Protection Plug

Blind plug for protection signal inputs

ART0201087	LEMO	L0B, code A
ART1030601	LEMO	L1B, code A



ART0201526	Miniature thermo	TC
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Cable assembly

Plug for customized cable assembly (solder contact)
e. g. for ADMM signal inputs, suitable for cross sections from 3.3 mm to 4.2 mm, incl. black bend relief

ART0201088	LEMO	L0B, plug 6-pin, code A
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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 and configuration tool CSMconfig.

ART1321000	CSMcan	ca. 65 x 40 x 20 mm
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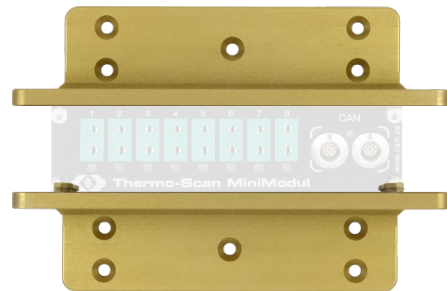


Mounting Material for Slide Case

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

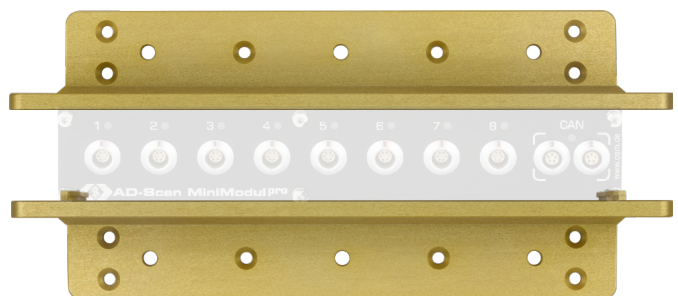
Mounting angle SCS (male) for mounting MiniModules in Slide Case Small (SCS) housings

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

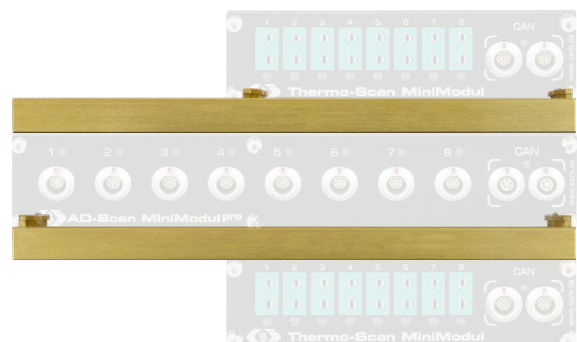
Adapter plate SCL (female) on SCS (male) for connecting differently-sized MiniModules in Slide Case housings

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



Protocol Converter

XCP-Gateway pro

SCL, L1B 8p, L0B 5p, L0B 2p

The protocol converter XCP-Gateway pro allows the linking of CSM EtherCAT® measurement modules to the data protocol XCP-on-Ethernet, thus combining the advantages of data acquisition via EtherCAT® with the flexibility of the wide spread standard XCP-on-Ethernet.

XCP-Gateway pro features two CAN interfaces for connecting CSM CAN bus measurement modules, allowing the integration of their measurement data into the protocol XCP-on-Ethernet

Protocol converter with:

1 x ECAT (EtherCAT®) interface for CSM modules

2 x CAN interface for CSM modules

1 x Sync connector (Vector)

ART1120405

XCP-Gateway pro



XCP-Gateway 4S pro

SCL, L1B 8p, L0B 5p

The protocol converter XCP-Gateway 4S pro allows the linking of up to 4 CSM EtherCAT® and up to 2 CSM CAN measurement chains to the XCP-on-Ethernet measurement data protocol.

Temperature information from CSM High-Voltage Breakout Modules can be transferred via EtherCAT®. All connected measurement modules receive their power supply from the XCP-Gateway 4S pro. The configuration of both EtherCAT® and CAN measurement modules is done in CSMconfig.

Protocol converter with:

1 x ECAT (EtherCAT®) interface for CSM modules

2 x CAN interface for CSM modules

ART1122005

XCP-Gateway 4S pro



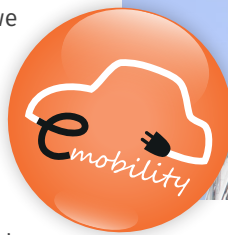
About us

CSM Computer-Systeme-Messtechnik GmbH

CSM is a leading, highly innovative manufacturer of distributed networked, robust measurement technology and data loggers for use on test benches and in vehicles. We have been setting technological standards in this field for more than 40 years. Our products are successfully used worldwide by almost all well-known manufacturers of passenger cars and commercial vehicles as well as their suppliers and service providers.

Permanent innovation and long-term satisfied customers are our guarantee for success. With our high-voltage safe measurement and breakout modules, developed for fast and synchronous measurements on electric and hybrid vehicles, we actively accompany our customers' transition to, or entry into electromobility.

Together with our partner Vector Informatik, we offer harmonized solutions for measurement data acquisition and analysis based on CSM measurement hardware and Vector's interfaces and software, such as the E-Mobility Measurement System: A scalable complete solution for analyzing, calibrating, testing, validating and also homologating electric and hybrid vehicles.



Measurement Technology for E-Mobility

We accompany you on the way to the future



Service & Support

Do you have special questions or technical requests of the use of the CSM measurement technology ? Our Service & Support is at your disposal.

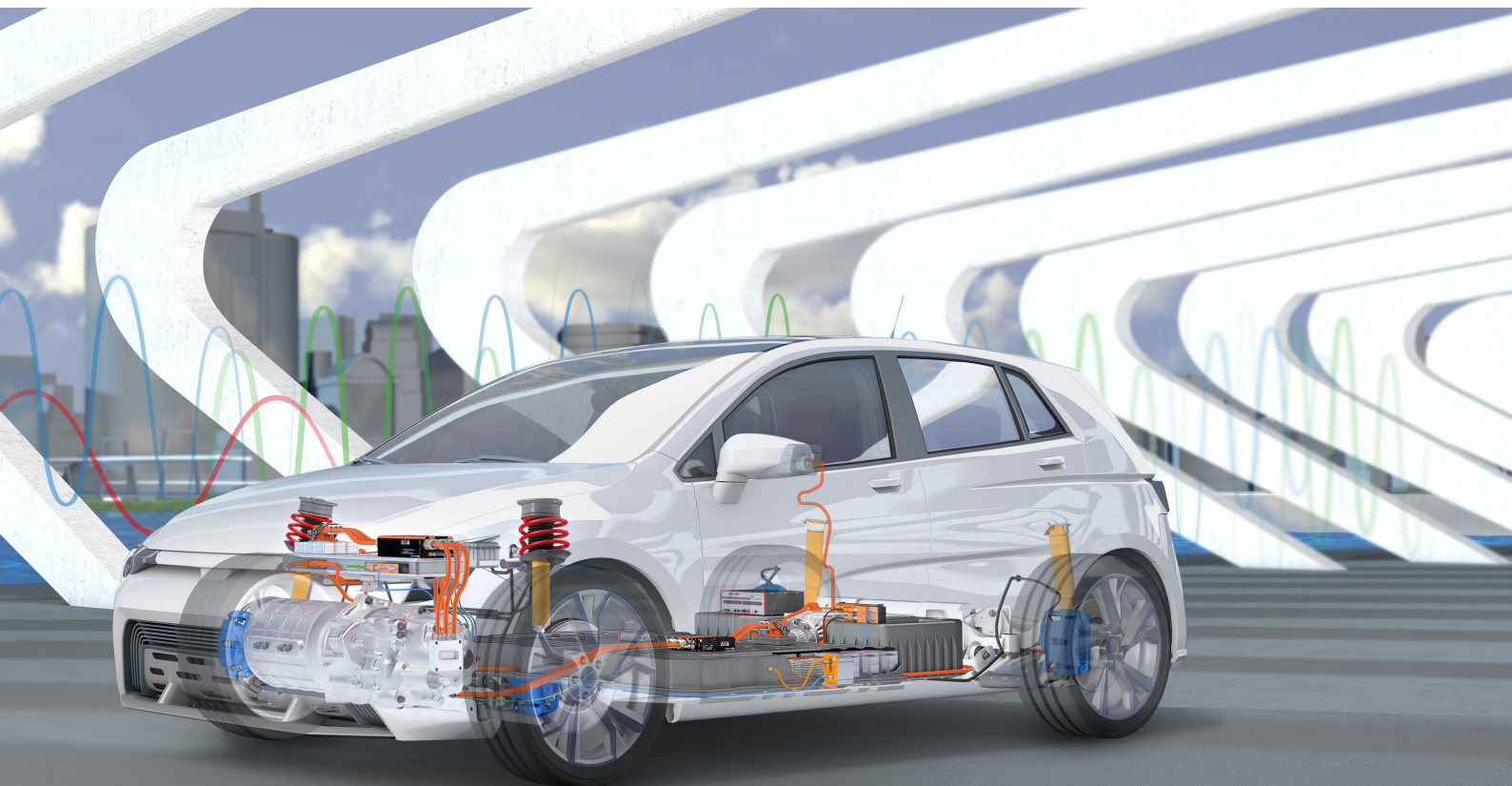
Please contact us via our website:
www.csm.de/en/service-support

All Products, Data and Information at a Glance

Our website www.csm.de provides you with further information about the CSM measurement modules and data loggers. Make use of our solutions for the development and testing of passenger cars, commercial and special vehicles, construction and agricultural machinery, cranes, wind turbines, airplanes, ships etc.

- ▶ Overview of the entire product portfolio
- ▶ Application examples
- ▶ Direct download: the latest CSM software versions
- ▶ Easy access to data sheets and product information

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