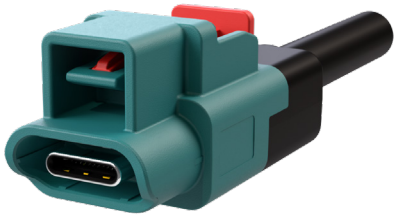
MD connector system based on USB Type-C

C-KLIC

Your Advantages

- **Multifunctionality**
  (Including direct power supply to connected devices or charging at up to 100 W @ 5 A / Power Delivery Mode)
- **Space, cost and weight savings**
  (Replacement for up to 6 cables)
- **Engineering and manufacturing from a single source**
  (Custom adaptations and automated, modular manufacturing)



Technical Information

Electrical	
Rated voltage (max.)	< 20 V
Rated current on power pins	1.25 A / pin (5 A @ 4x V_{bus} parallel)
Crosstalk (NEXT)	≤ -50 dB up to 9 GHz
Contact resistance	max. 40 mOhm / pin
Transmission rate	supports USB 3.2 Gen2x2
Insulation resistance	min. 100 MOhm

Mechanical	
Mating cycles	tested to 100
Mating force	≤ 45 N
Unmating force	≤ 40 N
Retention force latch	≥ 110 N
Keying efficiency	≥ 135 N

Environmental	
Cable assembly	-40 °C to +105 °C
PCB connector	-40 °C to +105 °C
Protection class	IP 67 (C-KLIC SD)

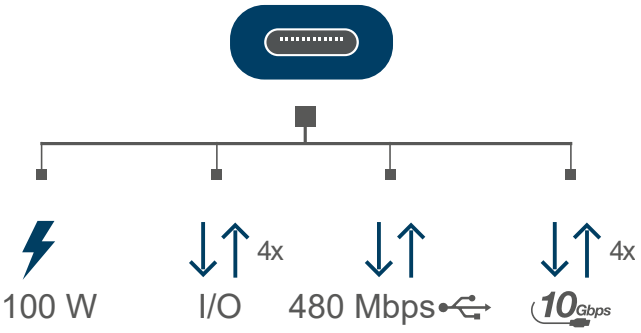
Qualification
Testing based on:
LV 214 / USCAR for connectors
LV 124 / USCAR for cable assemblies

Applications

User interface for passengers (e.g., Apple CarPlay, Android Auto)	
Display / Infotainment	Surround view
Board to board	On-Board Diagnostics

Protocols and Signals

USB Protocols (USB 2.0 [480 Mbps] to USB 3.2 Gen2x2 [10 Gbps], USB-PD [100 W])	
PCIe Protocols	DisplayPort
HDMI Protocols	Ethernet Protocols
Alternative Data Protocols (4x 10 Gbps max.)	



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Subject to modifications, errors excepted.
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MD in a Nutshell



Cable Assembler

with 50 years of experience



Flexible Volume Supplier

More than 180 million products in over 20,000 variants every year and more than 450 car models from over 90 OEMs



Automotive Supplier

for more than 30 years



Independent, integrated technology leader

with an in-house mechanical engineering department for production equipment



Leading Global Specialist

for data transmission solutions in vehicles



Globally Accredited Test Laboratories

as a quality factor for standard-compliant methodology and reliable evaluations



Over 5,000 employees

worldwide with a global manufacturing and distribution network



Foundation Company

with a clear focus on the sustainable preservation of the company, constant innovation and secure jobs

Do you have any questions or need a data transmission solution in vehicles?

Please contact us: product-info@md-elektronik.com

www.md-elektronik.com