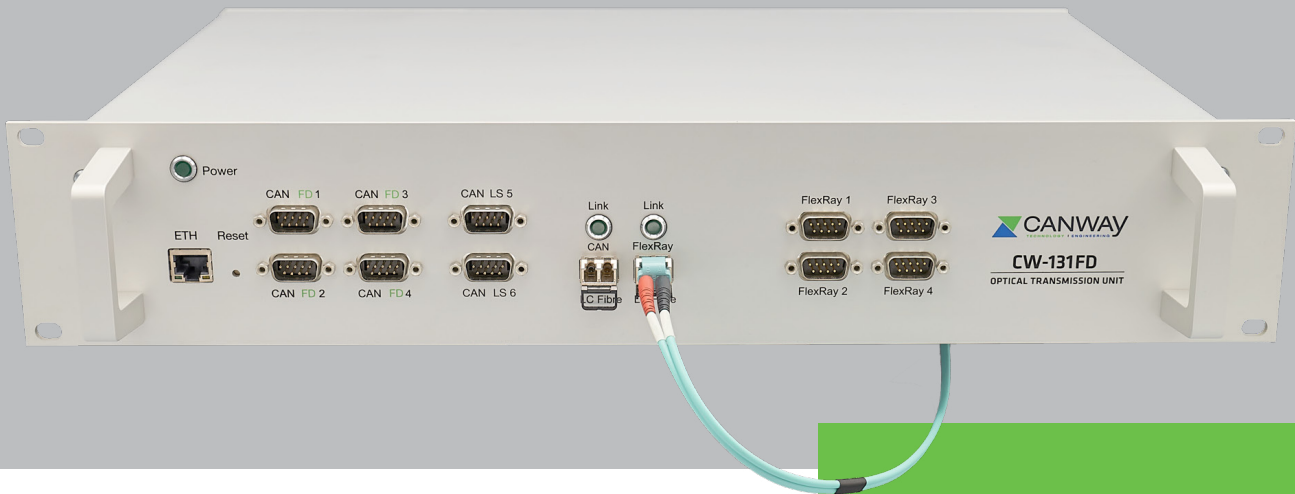


CW-131FD

OPTICAL TRANSMISSION UNIT FOR CAN FD AND FLEXRAY™



The CW-131FD Optical Transmission Unit provides bidirectional optical transmission of automotive network data over distances - up to 500 m. Overall, it is possible to connect 4 CAN FD/HS (flexible datarate/highspeed), 2 CAN LS (lowspeed) and 4 FlexRay™ (channel A and B) buses.

Hereby, CW-131FD operates as an active CAN node to guarantee proper transmission, even when used outside specified cable length restrictions. CAN-bus settings can be configured by a webbased configuration software, accessed easily via ethernet connection. FlexRay™ transmission starts up instantly and ensures deterministic timing - plug-n-play.

All bus data is transmitted via a fiber optic cable (FOC), comprising 4 fibers. Due optical transmission best galvanic isolation and noise immunity is provided for connected devices.

CW-131FD system runs stand-alone and consists of two identical TX/RX units interconnected via fiber optic cable. It is primarily designed to exchange data between two distant located test bench systems - e.g. hardware-in-the-loop simulator systems. Therefore, CW-131FD features a 19" housing ideal for most test bench applications. Moreover, it is well suited for testing purposes in an EMC chamber, too.

PERFORMANCE CHARACTERISTICS

- Bidirectional, optical transmission of 4 FlexRay™, 4 CAN FD/HS and 2 CAN LS bus data
- Transmission distance of up to 500 m (depending on FOC damping, cable length and bus system)
- Best galvanic isolation and noise immunity due optical transmission
- Transmission of FlexRay™ with deterministic timing
- Plug-n-play operation of FlexRay™ busses
- Intelligent operation as active CAN-node ensures long distance transmission
- Webbased configuration software for CAN bus settings

OPTICAL TRANSMISSION

Wave length	850 nm
Laser	Class 1, eye-safe, hot-pluggable
Fiber optic cable	4 fibers (Type: OM3)
FOC propagation time	approx. 5 ns per meter
Connector	LC
Transmission bandwidth	1,2 GHz

FLEXRAY™-INTERFACE

Number	4
Type	Channel A and B, system startup support of FlexRay™-network
Datarate	10 Mbit/s
Termination	-
Propagation delay	300 ns typ. (without FOC)
Connector	9 pin. D-Sub connector per port

CAN-INTERFACE

Number	6
Type	4 CAN FD ISO 11898-2:2015 (Flexible Datarate; Downward compatible to CAN HS) 2 CAN ISO 11898-3 (Lowspeed) CAN-protocol version 2.0 A and 2.0 B, supports SAE J1939 (29-Bit-identifier)
Data rate	CAN FD: Up to 8 Mbit/s; CAN LS: up to 125 kbit/s
Termination	-
Propagation delay (without FOC)	150 µs
Connector	D-Sub 9 pin connector per port

POWER SUPPLY

Supply voltage	100 VAC to 240 VAC
Power consumption	max. 1 A at 100 VAC

ENVIRONMENTAL CONDITIONS

Temperature range operation	-20 °C to +70 °C
Temperature range storage	-20 °C to +85 °C
Relative humidity	35 % to 85 % non condensing
Protection class	IP40

GENERAL INFORMATION

Housing	19" aluminum-housing (2 U), further housings on request
Weight	3,9 kg

Scope of service	Bidirectional transmission of FlexRay™, CAN FD, CAN HS and CAN LS Transmission distance up to 500 m Galvanically isolation through optical transmission Plug-n-play FlexRay™ operation, no configuration required Webbased intuitive configuration software for CAN FD and CAN LS settings
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FURTHER DEVICES OF CW-100 SERIES

CW-101 CAN-USB-Interface	CANnect Gateway for CAN, CAN FD, LIN and Ethernet
CW-102 CAN-Ethernet-Interface	CW-140 Programmable Interface for CAN and LIN
CW-114 FlexRay™-Repeater	CW-141 CANdiagnostic tool for CAN-Bus and CCP