

# CAN-CR120/HV



The CAN repeater CAN-CR120/HV with integrated bus termination resistors and two CAN/CAN FD interfaces can be used to improve the load capacity of the CAN bus with nodes, to establish a physical coupling of CAN/CAN FD bus systems or to insert a galvanic isolation up to 3 kV for higher protection of the CAN segments.

It creates the necessary flexibility to optimize the structure of CAN/CAN FD networks and to free CAN networks from the restriction to the bus structure. It can be used to implement tree or star topologies as well as for stub lines. Integrated bus termination resistors prevent reflections on the line ends and ensure optimum communication.

The CAN-CR120/HV separates a defective segment from the rest of the network, allowing the remaining network to continue working.

## FEATURES AND BENEFITS

- CAN and CAN FD interfaces in one device
- Cost savings due to simple wiring
- Almost no influence on real-time behavior
- Greater flexibility in CAN network design
- Separates a defective segment, allowing the remaining network to continue working
- Increased system reliability
- 2 x CAN/CAN FD channels
- Galvanic isolation
- Protection of segments up to 3 kV
- With bus termination resistors

<b>ORDER NUMBER</b>	<b>1.01.0210.20010</b>
Display	2 x CAN status LED (duo LED for communication and errors), Power LED
CAN channels (high-speed)	2
CAN FD/CAN channels	2
CAN bus interface	ISO 11898-2 with CAN choke, 2 x screw terminals
CAN bit rates	Up to 1 Mbit/s
CAN FD bus interface	ISO CAN FD and nonISO CAN FD

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CAN FD bit rates	Arbitration rate: up to 1000 kBit/s, data rate: up to 8000 kBit/s (verified by testing). User defined bit rates are possible.
CAN bus termination resistors	120 Ohm switchable via DIP switch
Galvanic isolation	3 kV DC/1 sec, 1500 V AC/1 min; CAN 1, CAN 2 and power supply are galvanically isolated from each other.
CAN propagation delay (typical)	Typ. 175 ns (35 m bus length)
Power supply	+9 V to +36 V DC
Power consumption at 24 V	Typ. 70 mA, max. 100 mA
Operating temperature	-20 °C to +70 °C
Weight	111 g
Dimensions	22.6 x 99 x 113 mm
Storage temperature	-40 °C to +85 °C
Protection class	IP20
Relative humidity	10 to 95 %, non-condensing
Certification	CE, FCC
Housing material	Polyamid



ACCESSORIES	ORDER NUMBER
Termination adapter for CAN/CAN FD (D-Sub male to female)	1.04.0075.03000
CAN cable 2.0 m (D-Sub male to female)	1.04.0076.00180
CAN Y cable 0.22 m	1.04.0076.00001
CAN Y cable 2.1 m	1.04.0076.00002

## PIN ALLOCATION

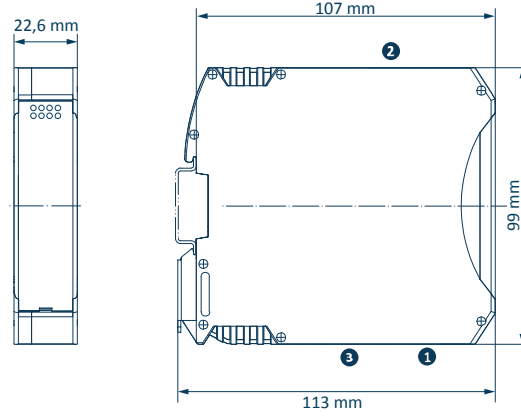
### POWER CONNECTOR ③

⊙ 1	□	V+ (+9 V to +36 V DC)
⊙ 2	□	V-
⊙ 3	□	PE
⊙ 4	□	PE

### CAN (FD) CONNECTORS ① ②

⊙ 1	□	CAN-High
⊙ 2	□	CAN-Low
⊙ 3	□	CAN-GND
⊙ 4	□	Shield

## TECHNICAL DRAWING



CONNECTORS  
1 = CAN 1  
2 = CAN 2  
3 = POWER