

CANbridge NT 420



The CANbridge NT 420 is a CAN to CAN bridge/gateway with CAN FD support that can be used to easily connect up to four CAN or two CAN FD systems. It facilitates message exchange by allowing rules and functions to be implemented to control these messages.

The CANbridge NT 420 thus enables easy coupling of CAN and CAN FD networks, conversion of networks with different bit rates or frame formats (11/29 bit identifiers), and manipulation, evaluation, filtering and routing of CAN messages.

It is equipped with a powerful microcontroller that can perform message filtering, ID translation and data multiplexing (e.g. required for converting CAN FD to CAN messages) and can also handle bursts with higher data rates without message loss.

FEATURES AND BENEFITS

- Easy coupling of CAN and CAN FD systems and devices
- Allows system expansion and tree/star topologies
- Cost savings due to simple wiring
- Increased system reliability
- 4 x CAN channels, thereof 2 x channels switchable to CAN FD
- Line protection by galvanic isolation
- Powerful filter, ID translation, data mapping and multiplex functionality
- Execution of pre-defined actions using event-triggered "action rules"
- Windows configuration tool for easy configuration via USB or Ethernet

ORDER NUMBER	1.01.0331.42000
CAN channels (high-speed)	4
CAN FD/CAN channels	2
CAN bus interface	CAN high speed according to ISO 11898-2:2016; CAN/CAN FD according to ISO 11898-1:2015
CAN bit rates	5 to 1000 kBit/s
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	None
Galvanic isolation	1 kV DC for 1 sec
Power supply	9 V to 36 V DC with overvoltage and polarity protection

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Messages per second (send/receive)	30000-40000 msg/s
USB interface	Mini USB port to connect the device for configuration
Power consumption at 24 V	Typ. 110 mA
Power consumption at 12 V	Typ. 220 mA
Weight	Approx. 150 g
Dimensions	113.6 x 99 x 22.6 mm
Operating temperature	-40 °C to +85 °C
Storage temperature	-40 °C to +85 °C
Protection class	IP20
Relative humidity	10 to 95 %, non-condensing
Certification	CE, FCC, UL
Housing material	Polyamide
LED	Status LED, Power LED, CAN LEDs 1-4 and User LED. The User LED can be configured with user defined settings via action rules.
Operating systems	Windows 11, Windows 10 (32/64), Windows 8 (32/64), Windows 7 (32/64), Linux



ACCESSORIES	ORDER NUMBER
Termination adapter for CAN/CAN FD (D-Sub plug to socket)	1.04.0075.03000
CAN cable 2.0 m (D-Sub plug to socket)	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

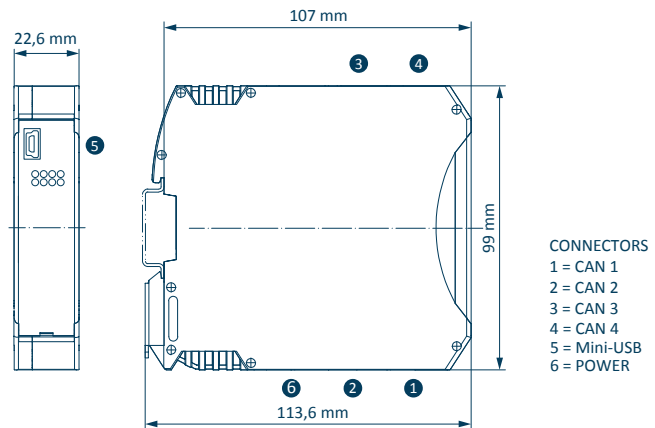
CAN CONNECTORS ① ② ③ ④

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

POWER CONNECTOR ⑥

⊘ 1	□	V+ (+9 V to +36 VDC)
⊘ 2	□	V-
⊘ 3	□	PE
⊘ 4	□	PE

TECHNICAL DRAWING



SOFTWARE SUPPORT

The configuration of the CANbridge NT and the firmware upload is done with an intuitive to operate Windows configuration tool via USB. With the tool, the configuration of filter, mapping, multiplexer or translation rules can be carried out very easily, without programming skills.