CM202
CANopen Master Module

CANopen based on the Controller Area Network (CAN) has now developed to become the leading fieldbus system for industrial automation. Proven millions of times over and perfectly mature, it offers the ideal basis for secure, easy, and yet flexible networking tasks.

The CAN master module CM202 can operate either one or two separated networks. Both connections can be configured independently as NMT master or slave. In an M1 controller up to four CANopen master modules CM202 can be operated.

• Up to 4 CANopen master modules per M1 controller
• 2 independent CAN buses per CANopen master module
• Can be used as NMT master or slave
• Transfer rate 10 Kbaud to 1 Mbaud
• Bus length to 5000 m (signal repeater required)
• Galvanic isolation
• Short circuit proof

Item	Item-No.
CM202	00009698-00
CM202 CC	00016404-00

CM202

CANopen master

Max. number of masters	4 per M1 controller
Number of CAN buses	2 per module
Max. number of nodes	64 per CAN bus
Protocol	CANopen to CiA DS 301
Device profile	In accordance with CiA DS 405
Firmware	Reloadable (FLASH technology)
Current consumption	320 mA / 5 VDC

CAN interface

Transfer rate	10 k to 1 Mbaud
Bus length	Max. 5000 m
Connection	2x 9-pin D-Sub female connectors
Pin assignment	In accordance with CiA DS 102 / 4
Signal level	In accordance with CiA DS 102 / 4
Galvanic isolation, interfaces to the system	500 V

CANopen features in compliance with CiA Product Guide

CANopen master	Yes
CANopen slave	Yes
Extended boot-up	No
Minimum boot-up	Yes
COB ID distribution	Per SDO, no DBT
Node ID distribution	Yes (no LMT)
No. of TxPDOs	128
No. of RxPDOs	128
PDO modes	Sync, async, RTR, event
Variable PDO mapping	Yes
Emergency message	Yes client (master), server (slave)
Life guarding	yes (heartbeat and / or node guarding)
No. of SDOs	4 server, 64 client
Device profile	301, 302, 405

Approvals / Certificates

General	CE, cULus, CCC
Marine	DNV GL, LR, ABS, BV

Ambient conditions

Ambient conditions	Standard	ColdClimate (❄)
Operating temperature	-30 to +60 °C	
Rel. humidity operation	5 to 95 % without condensation	5 to 95 % with condensation
Storage temperature	-40 to +85 °C	
Rel. humidity storage	5 to 95 % with condensation	
Pollution degree	2 (without condensation; according to IEC 60664-1)	2 (according to IEC 60664-1)

Order Codes

Item	Item No.	Description
CM202	00009698-00	CAN fieldbus master module; 2x CAN/CANopen; up to 1Mbit/s; Master/Slave configurable; CANsync; isolated
CM202 CC	00016404-00	Like CM202; ColdClimate (❄)
Accessories		
KZ 51/03 B	00012052-00	Terminal 03-pins grid 5,08; cage clamp terminal with labeling strip
K-CAN/xm		Cabel CAN with x m length (x = user-defined) male <> female, without terminating resistor
K-CAN/0.5m	00008684-03	Cabel CAN with 0.5 m length
K-CAN/1.0m	00008684-08	Cabel CAN with 1.0 m length
K-CAN/2.0m	00008684-04	Cabel CAN with 2.0 m length
K-CAN/5.0m	00008684-06	Cabel CAN with 5.0 m length
S-CAN/1B	00009383-00	Connector CAN-terminator, 37 mm high, 120 Ω, female