

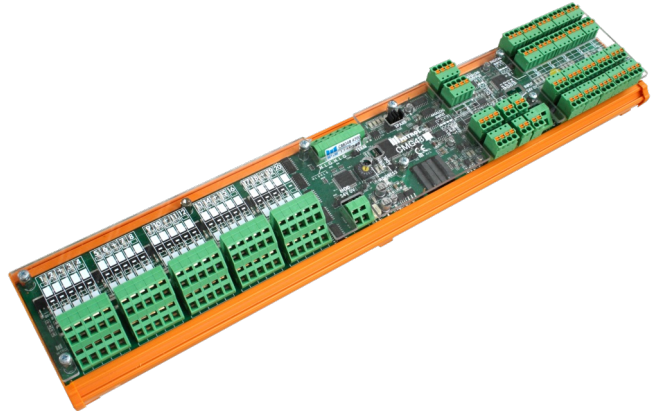
CMG48 Module

CANBUS MODULE WITH 48 STANDARD CONNECTIONS: 20 DIGITAL INPUT, 20 DIGITAL OUTPUT, 4 ANALOG INPUTS, AND 4 ANALOG OUTPUTS

CMG48 is an open frame CanBus module with CanOpen protocol mountable on a standard DIN rail, designed to provide all these connection points:

- 20 optocoupled digital inputs
- 20 optocoupled digital power outputs
- 4 analog inputs
- 4 analog outputs

Here is the section grouped list of all the available connections.



General

2 groups of spring-cage connectors are available:

- 2 connectors for module 24 V power supply
- 6 connectors for CanBus line (CANH, CANL, and GND_CAN input; CANH, CANL, and GND_CAN output)

Digital inputs

To these inputs can be connected push-buttons, limit switches, proximity sensors, photocells, etc.

2 groups of spring-cage connectors are available:

- 2 connectors for channels 24 V power supply, isolated from the module
- 60 connectors for channels connection, with 3 points for every channel. This is the meaning of each clip
 - 0V
 - input
 - 24 V

2 wires devices, typically limit switches, can be connected directly, without additional connectors.

3-wires devices, like photoelectric cells and proximity sensors, can be connected directly to the 3 points respecting their own meaning, without any extra connector.

Channels power supply is protected by an electronic fuse against accidental shortcircuits.

Digital outputs

Digital outputs can be connected to contactors coils, small solenoids of hydraulic or pneumatic valves, etc.

It is possible to drive all 20 outputs together, with a maximum current of 2A each.

50 spring-cage connectors are available, distributed on 2 plans, grouped in 5 independent subgroups of 10 connectors. Each subgroup has 5 couples of connectors: 4 for channels output and 1 (centered) for the power source. Every subgroup is galvanically independent from the others.

Having 2 connectors for each output, each device can be connected directly, without any additional connectors.

The channel protection signal is also readable.

Analog inputs

The analog input mode can be changed by software, allowing the module to read differential tension signals with dynamics 0/10 V or +10/-10 V, current signals with dynamics 4/20 mA or 0/20 mA and potentiometers directly powered by a reference voltage source, protected from short circuits. Optionally it is possible to read PT100 temperature transducers.

One group of connectors is available:

- 16 connectors grouped in 4 independent subgroups of 4 connectors each.
This is the meaning of each clip for every subgroup (depending by the mode):
 - Positive reference voltage for potentiometers / Pole PT100.
 - Differential voltage input negative pole / Current input negative pole / Pole PT100.
 - Differential voltage input positive pole / Current input positive pole / potentiometer center terminal.
 - Potentiometer 0V reference

Analog outputs

One group of connectors is available:

- 8 connectors grouped in 4 independent subgroups of 2 connectors.
This is the meaning of each clip for every subgroup:
 - Output signal referred to 0 V.
 - 0 V reference.

Technical specifications

Dimensions (H x W x D)	88x410x65 mm
Mounting	Standard DIN rail
Power supply	24 V (18 – 36 V)
Module power consumption	170 mA
Digital input channels	20
Digital output channels	20
Analog input channels	4
Analog output channels	4
Optocoupling	Standard on digital channels
Digital channels power supply	24 V (18 – 36 V)
Digital input channel current	5 mA
Digital ON level	$V_{inp} > 13\text{ V}$
Digital OFF level	$V_{inp} < 5\text{ V}$
Digital output channels power supply	24 V (18 – 36 V)
Digital output channel current	2 A
Maximum total output current for digital channels	40 A (together)
Protection	Short-circuit Overload (over 2.5 A)
Differential voltage analog input	0/10 V or +10/-10 V
Differential current analog input	4/20 mA or 0/20 mA
Potentiometer minimum resistance	1 kOhm
Potentiometer voltage reference	10 V
ADC converter resolution	12 bit
Analog output voltage	+10/-10 V
DAC converter resolution	12 bit
Minimum output load	10 kOhm
CanBus Baud Rate	125 kbps / 250 kbps / 500 kbps / 1 Mbps
Marking	CE
Operating temperature	0 – 55 °C
Storage temperature	-20 – 85 °C
Warehousing humidity	Max 85% non-condensing
CanOpen Standards	DS301 - DS401