CCM1100S Compact Controller Module

- 38 Configurable I/O
- Programmable
- Designed for 12 VDC and 24 VDC
- Real Time Clock

CCM1100S is compact and versatile I/O controller. It has 38 configurable I/O lines.

The unit has a built-in Real-Time Clock, which can be used for logging events with a time stamp. In addition to flash there is also battery backed memory for storing fast changing information.

As an option the unit can be equipped with a RF interface (for instance for remote control).

Technical Information

- 9-32V DC Operating voltage range
  (Protected against reverse polarity)
- -40…+85°C operating temperature range
- 32-bit microprocessor
- 96 kB RAM
- 1 MB flash memory
- 84 B battery backed memory
- IP67 aluminium housing
- Weight 0.7 kg
- Main dimensions 109 mm(w) x 140 mm(h) x 35 mm(d)
- One 44 pin AMP Super Seal connector
- CAN Interface 2.0B, ISO 11898
- Serial port interface RS232
- Real time clock (RTC)

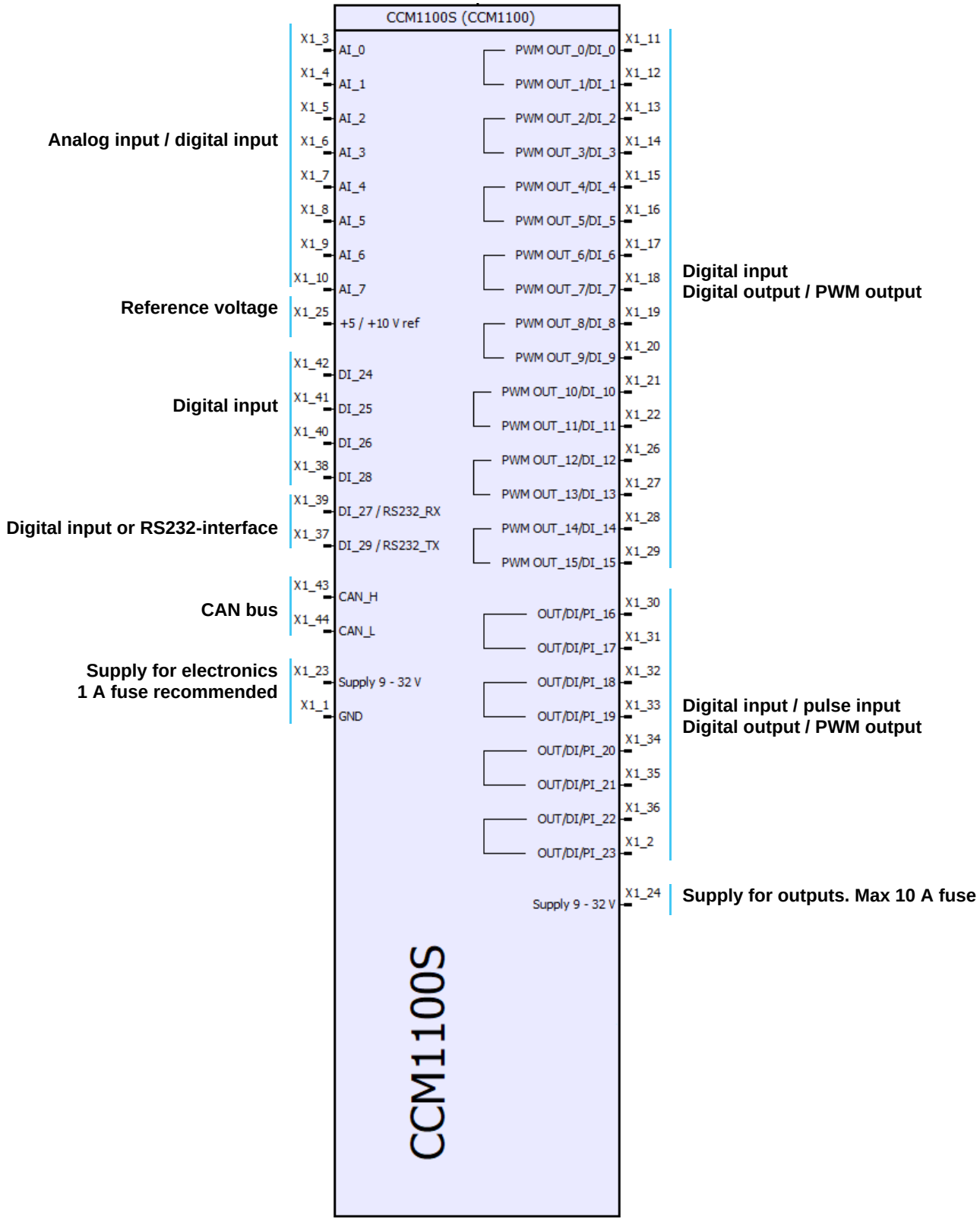
I/O Interface

- Total of 38 configurable IO-lines
- Separate supply for outputs and electronics
- The I/O interface is protected against short to GND and to supply voltage
- Configurable reference voltage: 5 V / 10 V, max 150 mA

Amount	Configurability	Details
16	Digital input Digital output PWM output	Low < 2 V, High 6,5 V, max. 100 Hz High side driver, max 3 A High side driver, max 3 A
8	Digital input Analog input	Low < 1,5 V, High > 3 V, max 100 Hz 12-bit AD-converter 0-10,3 V, 69 kΩ 0-22 mA, 150 Ω
8	Digital input Pulse input Digital output PWM output	Low < 2 V, High 6,5 V, max. 100 Hz Low < 2 V, High 6,5 V, max. 20 kHz High side driver, max 3 A High side driver, max 3 A
6	Digital input*	Low < 2 V, High 6,5 V, max. 100 Hz

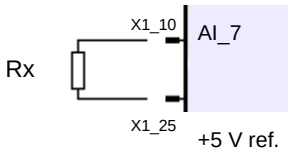
*). Two of the digital input pins are available for RS232 use (optional).

Wiring Diagram



Node ID

Voltage at AI_7	Node ID offset	Rx
0V	1	open
0.9V	9	330 kΩ
1.7V	3	150 kΩ
2.6V	11	68 kΩ
3.5V	5	33 kΩ
4.3V	13	11 kΩ
5.2V	7	closed



As default the unit's node address is set by voltage level at AI_7.

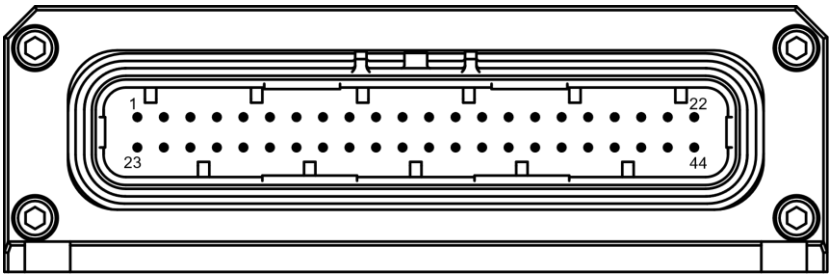
Node ID = Base Node ID (103) + Node ID offset. See CANopen profile for further details.

Quadrature encoders

In CCM1100S there are four separate quadrature encoders. Quadrature input signals (pairs) are compared to each other and with that information module is able to know direction. Available pins are:

Pair	Pin A	Pin B
1	X1_30	X1_31
2	X1_32	X1_33
3	X1_34	X1_35
4	X1_36	X1_2

Connector

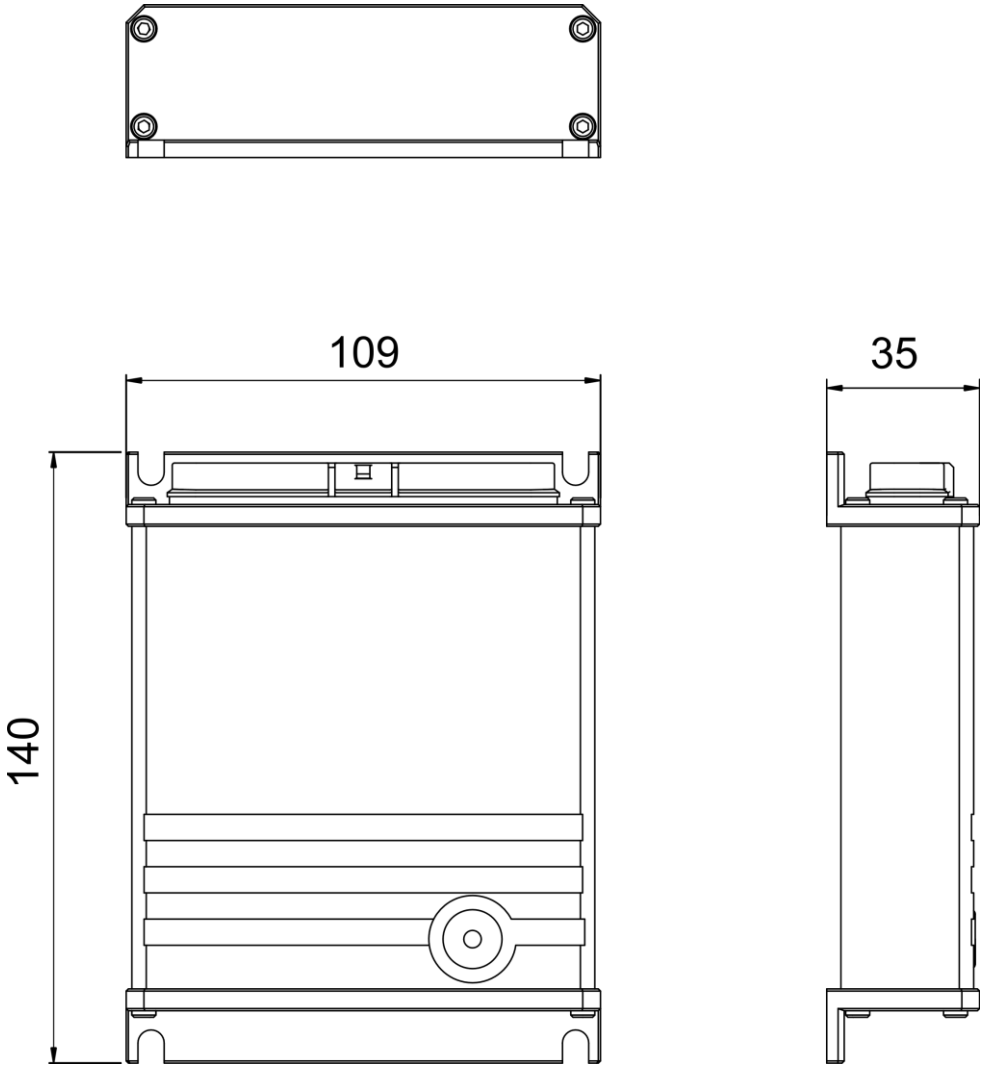


Superseal connector

	Superseal connector needed:
X1: Super Seal Connector Plug Housing	Ø1.6-2.2 mm - AMP 1376886-1 Ø 2.0-2.4 mm - AMP 2-1447232-6
Receptacle Contact (0.75 – 1.25mm^2)	AMP 3-1447221-3
Filler Plug *)	AMP 4-1437284-3 Deutsch 0413-204-2005

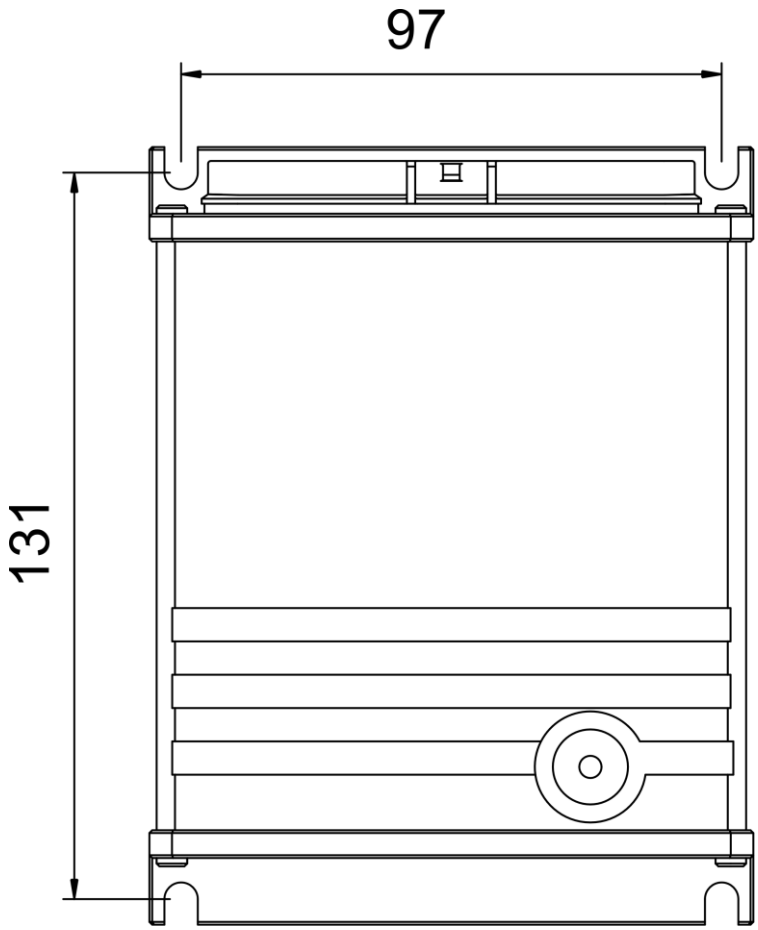
*) Filler plugs must be used on empty cavities to reach waterproofness

Dimensions



Mounting

CCM1100S is mounted on a flat surface with four M5 screws.



NOTE! Extra care should be paid on grounding of HCM2010S. It is recommended to use star lock washer under fastening bolt. Also, extra attention should be paid that lock washer goes through the paint layer.

The preferred mounting position is connectors pointing downwards. If the unit is mounted connectors pointing to the side, then it is vital to leave some loose cable with a downward cue to prevent the ingress of moisture through connector.