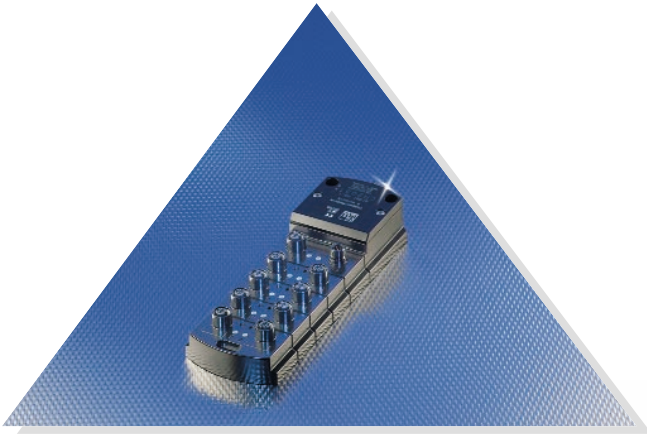


Compact module with 8 inputs and 8 outputs.



Decentralised signal processing in mobile machines.

- ▲ Configurable input/output function.
- ▲ Universal M12 connector for quick and reliable wiring.
- ▲ Robust metal housing with protection rating IP 67.
- ▲ Baud rate and node number can be set via a coding switch.
- ▲ CAN interfaces with CANopen protocol.



Compact module metal

For use as decentralised I/O modules, the robust metal compact modules can be used at any point of the vehicle. They are equipped with the universal M12 connectors common in the industry. An extensive line of connection cables allow direct, easy and reliable connection of sensors and actuators. Networking of the CAN interface can also be carried out via the M12 connectors with ready-to-use drop cables.

Due to the high protection rating and the robust metal housing the modules can be installed in areas with dirt and splashing water.



Decentralised I/O module in a construction machine

fluid sensors and diagnostic systems

position sensors and object detection systems

networking, identification and control systems

**I/O modules
with CANopen interface**

Products

Description	Order no.
Compact module metal 8 inputs / 8 outputs (configurable)	CR2032

Functions and advantages

By means of decentralised I/O modules from the ecomat mobile system binary and analogue sensors and actuators can be connected to a controller via the CAN bus. The number of cables is considerably reduced.

Moreover the I/O modules offer additional functions for preprocessing of the signals.

Advantages and customer benefits

• **The M12 connection technology**

Our range of connection cables offers the correct, ready-to-use cable for every application. Whether straight or angled cable output – all cables ensure the protection rating IP 67 and allow safe handling.

The connection to CAN can also be carried out by means of ready-to-use cables. The CAN drop cables fulfil the specifications of bus wiring and can be handled as easily and safely as the conventional M12 connection cables.

Unused sockets for sensors and actuators can be safely sealed with blanking plugs.

• **Configurability**

The module provides a high degree of flexibility due to the configuration of the inputs and outputs. As regards the inputs, you can choose between analogue and digital inputs. The function of the analogue inputs can be configured as current input 0...20 mA or as voltage input 0...10 V and 0...32 V. The outputs can be used as digital and PWM outputs.

• **CANopen**

The profile DSP 401 has been defined for digital and analogue I/O modules. The input/output functionality of the module is defined via the object directory of the unit. The setting of the baud rate and node number can be carried out via CANopen commands or integrated coding switches in the terminal chamber for the supply of the power outputs.

Applications





Distributed systems in construction machines

Nodes for input / output signals on spreaders

Technical data

Compact module metal	
Housing	diecast zinc, cathodic immersion
Device connection	M12 connector, 5-pole for sensors, actuators and CAN cage clamps for power supply
Protection rating	IP 67
Operating voltage [V DC]	10...32
Current consumption [mA]	< 50 (at 24 V DC) without external load
Operating temperature [°C]	-40...85
Number of inputs (analogue / digital)	8 / 4
Number of outputs (digital / PWM)	8
Max. switching current of the outputs [A]	2
Interface	CAN (ISO 11898 V 2.0)
Protocol	CANopen (CiA DS 301 V4) DS 401 profile
Standards and tests (extract)	CE, e1 (RL 95/54/EC), approval for railway applications (EN 50155)

Connectors and splitter boxes

Type	Description	Order no.
	Connection cable M12 plug / M12 socket, 2 m	E11459
	Connection cable M12 plug / M12 socket, 5 m	E11460
	CAN drop cable M12 plug / M12 socket, 0.3 m	E11591
	CAN drop cable M12 plug / M12 socket, 2 m	E11593