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CAN bus coupler

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CANopen bus coupler

Bus coupler DDC 701 and DDC 71x



Function

Bus coupler DDC 701 / DDC 71x

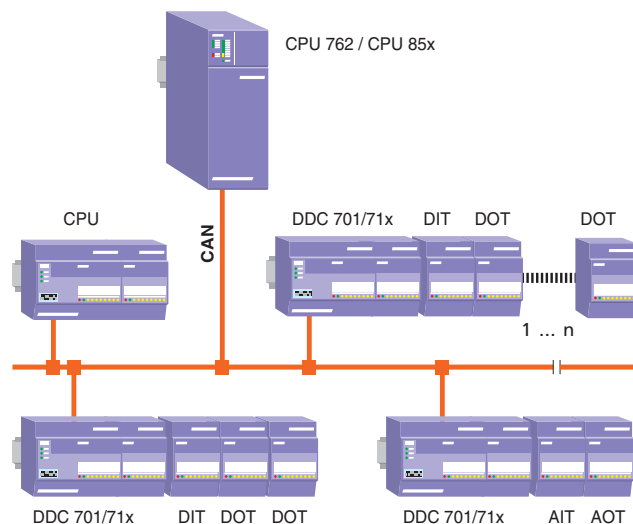
The modules DDC 701 / DDC 71x work with a supply and signal voltage of 24 Vdc. They serve as decentral nodes in a CAN network. Eight digital inputs and eight digital outputs are already integrated on the module. Up to 6 expansion modules (DDT / DIT / DOT / AOT) or max. 4 analog input modules (AIT) can be added. The digital and analog extension modules can be mixed among themselves.

The modules DDC 701 / DDC 71x support all communication modes of SeleCAN and CANopen and can, due to the simple structure of its protocol, easily be included in manufacturer specific CAN systems. The parametering of the node module ensues via DIP switches.

Characteristics and benefits

- CAN bus coupler with 8 digital inputs and 8 digital outputs.
- Decentral use in the system or in the control cabinet.
- Flexible expansion with the analog and digital I/O modules DDT, DIT, DOT, AIT and AOT.
- Interoperability thanks to the manufacturer independent CANopen protocol according to layer 7, hence it follows the open CAN interface to the decentralized periphery and to the distributed CAN system.
- Reduction of the wire expenses, easy and fast installation.
- On request 1-wire, 2-wire, 3-wire or 4-wire technique. The well known series terminals are not necessary anymore.
- Connection technology with integrated pluggable spring cage terminals. Spring terminal blocks are also available as an option.
- Optional additional potential terminals.
- Fast installation by snapping on a standard mounting rail.
- Easy exchange of the modules in case of service work without necessity to disconnect every single wire.
- Easy to program with the CAP 1131 tool.

Connection of the decentral periphery to CAN



n = depending of type of extension modules

Technical data	Type DDC 701	Type DDC 711	Type DDC 712
Expandable	Yes	Yes	Yes
CAN interface	1 (SeleCAN)	1 (SeleCAN)	1 (Canopen)
Communication profile		CiA DS 301/V3.x	CiA DS 301/V4.x
Supply voltage UC	24 Vdc	24 Vdc	24 Vdc
Power consumption	typ. 2,5 W	typ. 2,5 W	typ. 2,5 W

Digital inputs	8	8	8
Display	Green LED	Green LED	Green LED
Input voltage US	24 Vdc (typ. 6 mA)	24 Vdc (typ. 6 mA)	24 Vdc (typ. 6 mA)

Digital outputs	8	8	8
Display	Orange LED	Orange LED	Orange LED
Output current	0,5 A (24 Vdc)	0,5 A (24 Vdc)	0,5 A (24 Vdc)
Protective circuit	Protection diode	Protection diode	Protection diode

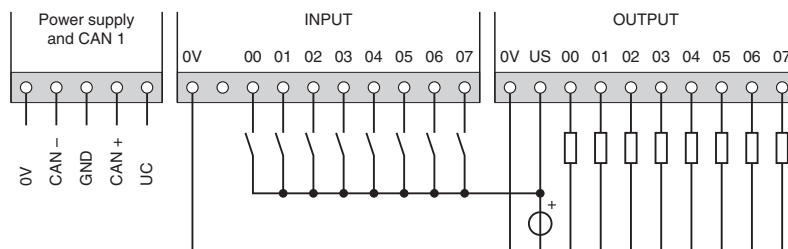
General			
Ambient temperature (operation)	0 ... +55 °C	0 ... +55 °C	0 ... +55 °C
Connection technique	see chapter 9	see chapter 9	see chapter 9
Protection mode	IP 40	IP 40	P 40
Dimensions (W x H x D)	155 x 85 x 58 mm	155 x 85 x 58 mm	155 x 85 x 58 mm
Weight	360 g	360 g	360 g

Potential separation			
CAN ↔ I/O, US, UC	Yes	Yes	Yes
UC ↔ I/O, CAN	Yes	Yes	Yes
I/O ↔ I/O	common ground	common ground	common ground

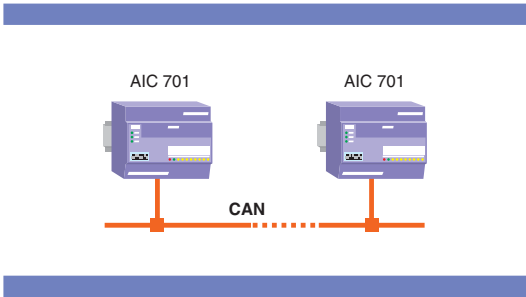
Ordering data			
Article number	44120008	44120080	44120084

Detailed information in system manual article number 43930129

Connection



Bus coupler AIC 7x1 and AIC 7x2



- Easy and fast installation.
- Cost reduction on wiring material.
- Signal and supply terminals for 4-wire sensors.
- Expandable at any time (option) by bus extension in the CAN net.
- High security thanks to automatic recognition of line break downs.
- Digital data transmissions guarantee high noise immunity for analog signals.
- Interoperability due to open protocols on ISO/OSI layer 7.
- Fast installation by snapping on a standard mounting rail.
- Easy exchange of the modules in case of service work without necessity to disconnect every single wire.
- Connection technology with integrated pluggable spring cage terminals. Spring terminal blocks are also available as an option.
- Easy to program with the CAP 1131 tool.

AIC 7x1 and AIC 7x2 with analog inputs

FTA-IGA **3.4**

CAN bus coupler

Bus coupler AOC 7x1



Characteristics and benefits

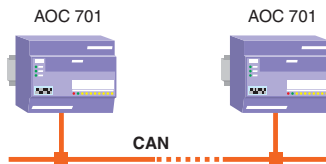
- Easy and fast installation.
- Reduction of the wiring costs.
- Signal terminals and supply terminals for 3-wire sensors.
- Expandable at any time (option) by bus extension in the CAN net.
- High security thanks to automatic recognition of line break downs.
- Digital data transmissions guarantee high noise immunity for analogue signals.
- Interoperability due to open protocols on ISO/OSI layer 7.
- Fast installation by snapping on a standard mounting rail.
- Easy exchange of the modules in case of service work without necessity to disconnect every single wire.
- Connection technology with integrated pluggable spring cage terminals. Spring terminal blocks are also available as an option.
- Easy to program with the CAP 1131 tool.

Function

AOC 7x1 with analog outputs

The output modules can be added directly on the system; multiwire connecting cables between system and controller are eliminated.

The connection to the central unit is ensued via the fast CAN bus. Depending of application two protocols are available: The open available SeleCAN protocol, developed by Selectron, is provided for an optimal communication with SELECONTROL® control components. The CAL protocol, defined by the CAN user organisation CiA, with the module profile CANopen, comes into consideration in applications where interoperability with alien systems is necessary.



Technical data		AOC 7x1
Protocol		
SeleCAN		AOC 701
CANopen		AOC 711 (CiA DS 301/V3.x)
Supply voltage UC		24 Vdc
Power consumption max.		6,1 W

Analog outputs		4
Signal ranges		
		0 ... 10 V / ± 10 V / 0 ... 20 mA
Resolution		
		11 Bit + sign
Basic limit of error		
		0 ... 10 V: $\pm 0,3$ % / 0 ... 20 mA: $\pm 0,4$ %
Error limit of use 0 ... 55 °C		
		$\pm 0,5$ %
Total conversion time		
		2 ms
Ripple on the output signal		
		1 mVeff
Load resistance		
voltage output U		0 ... 10 V: ≥ 2 kW
current output I		0 ... 20 mA: ≤ 300 W
Short-circuit resistance, voltage output		
		yes

General	
Ambient temperature (operation)	0 ... +55 °C
Connection technique	see chapter 9
Protection mode	IP 40
Dimensions (W x H x D)	100 x 85 x 58 mm
Weight	230 g

Potential separation	
US \leftrightarrow Logic, CAN	yes
O \leftrightarrow Logic, CAN	yes
O \leftrightarrow O	no

Ordering data		
Article number	AOC 701	44120019
	AOC 711	44120020

Detailed information in system manual article number 43930129

Connection

