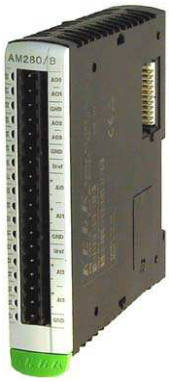
Automation by innovation.

KeConnect C2

C2-AM 280/B Analog hybrid module



- Analog hybrid module
- Signal form: currency
- Sensor failure detection
- Resolution up to 14 Bit

Brief description

The C2-AM 280/B is an analog input/output module of the Keba module system. The module is added directly on to a central control unit. A bus link module is used to operate this module with all product lines of the KeControl system.
This hybrid module allows connecting up to 4 analog inputs/outputs each.

The analog inputs process input signals in the range 0-20mA and/or via software configured 4-20mA at a resolution of 14 Bit. A sensor failure is notified to the superior central processor module and can be evaluated in the application. Analog outputs create signals in the range 0-20mA and/or 4-20mA with a resolution of 12 Bit. A micro-controller converts the measurement values of the analog inputs/outputs with the calibration data and forwards the corrected values to the superior automation device and to the outputs.

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Technical Data

General information

Supply voltage logic:	+5 V DC
Ratings 5V at K-Bus:	max. 0.3 W
Supply voltage analog device:	+24 V DC
Ratings 24V at K-Bus:	max. 3.6 W
Addressing at K-Bus:	via 16-digit address switch, on the side
Connection terminals:	Open terminals, grid dimensions 5.08 mm

Analog inputs

Number of inputs:	4
Type:	Current input
Signal range:	0 – 20 mA or 4 – 20 mA
Maximum measurement signal:	-0.8 mA to 20.8 mA
Input type:	Differential
Galvanic isolation:	No
Scan repeat cycle:	1 ms
Input impedance at signal range:	< 200 Ω
Input filter characteristic – order:	First order
Input filter characteristic – transfer impedance:	250 Hz
Digital resolution:	14 Bit
Transformation method:	Successive approximation
Monotonicity without error codes:	Yes
Synchroneity control:	± 13.5 V
Synchroneity suppression:	>80 dB
Value of the lowest-value Bit (LSB):	1.35 µA
Maximum permitted continuous load (without damage)	± 30 V
Typ. temp. coefficient measurement error:	± 5 ppm of scale end value / °C
Max. temp. coefficient measurement error:	± 20 ppm of scale end value / °C
Biggest error at 25°C:	± 0,01% of scale end value

Analog outputs

Number of outputs:	4
Type:	Current output
Signal range:	0 – 20 mA
Galvanic isolation:	No
Conversion cycle:	1 ms
Digital resolution:	12 Bit
Value of the lowest-value Bit (LSB):	5,39 µA
Monotonicity:	Yes
Load resistance:	≤ 600 Ω
Differential non-linearity:	≤ ± 1 LSB
Settling time at change over the full range (at ohmic load):	≤ 50 µs
Typ. temp. coefficient analog output error:	± 20 ppm of scale end value / °C
Max. temp. coefficient analog output error:	± 30 ppm of scale end value / °C
Biggest error at 25°C:	± 0.15% of scale end value

Interfaces

System bus-interface:	Parallel Bus-interfaces, plug-in on side

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Dimensions:

Footprint:	
Module height:	120 mm
Mounting depth:	100 mm
Front panel width:	22.5 mm
Module width (incl. K-Bus plug):	32.5 mm
Weight	135 g

EC directives

Guideline 2004/108/EG	EU guideline on electromagnetic compatibility
Guideline 2002/95/EG	RoHS-guideline

Standards:

EN 61131-1:2003	Stored-program controls - Part 1
EN 61131-2:2003	Stored-program controls - Part 2
UL 508, 2005	Industrial Control Equipment

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