

Analog Isolation Amplifier **flexible** and **precise**

Analog isolation amplifier of the **cores** series

The **cores** series convinces with flexible use in process and industrial automation.

They ensure a defined separation of measurement and process signals from the control system. And it protects against voltage drops.

Analogue isolation amplifiers also convert signals into standardized signal levels.

cores combines a highly precise signal conversion with a very small housing and fulfils actual demands for such products.

The Advantages:

- Digital conversion (up to 16 Bit)
- Highest accuracy (0.1 %) and linearity
- Fastest reaction time (from 11 ms)
- 3 or 4 way galvanic isolation
- High isolation voltage
- Compact housing (also as thin as 6.2 mm)
- Universal functions settable
- Wide temperature range



Analog Isolation Amplifier

<p>cores C1 UI-B</p> <ul style="list-style-type: none"> • Analog Isolation Amplifier • 3 way isolation • Input: voltage / current, output: voltage / current • High accuracy by digital conversion • Width 6.2 mm • Spring clamp connection • Wide temperature range 	<table border="1"> <thead> <tr> <th>Type</th> <th>Part No.</th> </tr> </thead> <tbody> <tr> <td>cores C1 UI-B</td> <td>82.003.0110.0</td> </tr> <tr> <td colspan="2">Technical data</td> </tr> <tr> <td>Input range (adjustable)</td> <td>0/1 ... 5 V DC or 0/2 ... 10 V DC 0/4 ... 20 mA DC</td> </tr> <tr> <td>Output range (adjustable)</td> <td>0/1 ... 5 V DC or 0/2 ... 10 V DC 0/4 ... 20 mA DC or 20 ... 4/0 mA DC active or passive</td> </tr> <tr> <td>Galvanic isolation</td> <td>yes, 3 way isolation</td> </tr> <tr> <td>Isolation voltage</td> <td>1500 V AC</td> </tr> <tr> <td>Accuracy</td> <td><0.1%, 14 Bit resolution</td> </tr> <tr> <td>Supply voltage range</td> <td>19.2 ... 30 V DC</td> </tr> <tr> <td>Power consumption</td> <td>max. 500 mW</td> </tr> <tr> <td>Connection type</td> <td>Spring clamp</td> </tr> <tr> <td>Wire range solid/fine-stranded</td> <td>0.2 - 2.5 mm² (AWG 24–14)</td> </tr> <tr> <td>Degree of protection / Mounting rail</td> <td>IP 20 / TH 35 (EN60715)</td> </tr> <tr> <td>Dimensions (mm) W x H x D</td> <td>6.2 x 93.1 x 102.5</td> </tr> <tr> <td>Temperature range</td> <td>-20 ... +65 °C</td> </tr> <tr> <td>Approvals (pending)</td> <td>CE </td> </tr> </tbody> </table>	Type	Part No.	cores C1 UI-B	82.003.0110.0	Technical data		Input range (adjustable)	0/1 ... 5 V DC or 0/2 ... 10 V DC 0/4 ... 20 mA DC	Output range (adjustable)	0/1 ... 5 V DC or 0/2 ... 10 V DC 0/4 ... 20 mA DC or 20 ... 4/0 mA DC active or passive	Galvanic isolation	yes, 3 way isolation	Isolation voltage	1500 V AC	Accuracy	<0.1%, 14 Bit resolution	Supply voltage range	19.2 ... 30 V DC	Power consumption	max. 500 mW	Connection type	Spring clamp	Wire range solid/fine-stranded	0.2 - 2.5 mm ² (AWG 24–14)	Degree of protection / Mounting rail	IP 20 / TH 35 (EN60715)	Dimensions (mm) W x H x D	6.2 x 93.1 x 102.5	Temperature range	-20 ... +65 °C	Approvals (pending)	CE 
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Analog Isolation Amplifier

cores C2 UI-A

- Analog Isolation Amplifier
- 3 way isolation
- Input: current, output: current
- High accuracy by digital conversion
- Width 17.5 mm
- Screw clamp pluggable
- Wide temperature range



Type	Part No.
cores C2 UI-A	82.003.0210.0
Technical data	
Input range (adjustable)	0 ... 20 mA DC active or passive
Output range (adjustable)	0 ... 20 mA DC active or passive
Galvanic isolation	yes, 3 way isolation
Isolation voltage	1500 V AC
Accuracy	<0.1%
Reaction time	<40 ms
Supply voltage range	9 ... 40 V DC, 19 ... 28 V AC
Power consumption	max. 2.5 W
Connection type	Screw clamp pluggable
Wire range solid/fine-stranded	0.14 - 2.5 mm ² (AWG 26-14)
Degree of protection / Mounting rail	IP 20 / TH 35 (EN60715)
Dimensions (mm) W x H x D	17,5 x 100 x 112
Temperature range	-20 ... +60 °C
Approvals (pending)	CE

cores C2 M-A

- Analog Isolation Amplifier
- 3 way isolation
- Input: voltage, current, thermo coupler, potentiometer, output: voltage, current
- High accuracy by digital conversion
- Width 17.5 mm
- Screw clamp pluggable
- Wide temperature range



Type	Part No.
cores C2 M-A	82.003.0200.0
Technical data	
Input range (adjustable)	75 mV ... 20 V in 9 ranges (bipolar) 0 ... 20 mA (bipolar) J, K, R, S, T, B, E, N Thermo coupler Pt100, Pt500, Pt1000, Ni100. 3 or 4 wire 500 Ohm ... 10 kOhm Potentiometer 500 Ohm ... 25 kOhm Rheostat
Output range (adjustable)	0 ... 20 mA oder 4 ... 20 mA 0 ... 5V oder 0 ... 10V oder 1 ... 5V oder 2 ... 10V
Galvanic isolation	yes, 3 way isolation
Isolation voltage	1500 V AC
Accuracy	<0.1%, 12 or 16 Bit resolution
Reaction time	<35 ms (at 12 Bit) and <140 ms (at 16 Bit)
Supply voltage range	10 ... 40 V DC, 19 ... 28 V AC
Power consumption	max. 2.5 W
Connection type	Screw clamp pluggable
Wire range solid/fine-stranded	0.14 - 2.5 mm ² (AWG 26-14)
Degree of protection / Mounting rail	IP 20 / TH 35 (EN60715)
Dimensions (mm) W x H x D	17,5 x 100 x 112
Temperature range	-10 ... +60 °C
Approvals (pending)	CE

cores C2 M2-A

- Analog Isolation Amplifier
- 4 way isolation
- 2 analogue outputs
- Input: voltage, current, thermo coupler, potentiometer, output: voltage, current
- High accuracy by digital conversion
- Width 17.5 mm
- Screw clamp pluggable
- Wide temperature range



Type	Part No.
cores C2 M2-A	82.003.0250.0
Technical data	
Input range (adjustable)	0 ... +10V 0 ... 20mA active or passive J, K, R, S, T, B, E, N Thermo coupler Pt100, Pt500, Pt1000, Ni100. 2, 3, 4 wire 1 ... 100 kOhm Potentiometer 500 Ohm ... 25 kOhm Rheostat
Output range (adjustable)	0 ... 20 mA or 4 ... 20 mA active or passive 0 ... +10 V
Galvanic isolation	yes, 4 way isolation
Isolation voltage	1500 V AC
Accuracy	<0.1%, 14 Bit resolution
Reaction time	<11 ms
Supply voltage range	10 ... 40 V DC, 19 ... 28 V AC
Power consumption	max. 2 W
Connection type	Screw clamp pluggable
Wire range solid/fine-stranded	0.14 - 2.5 mm ² (AWG 26-14)
Degree of protection / Mounting rail	IP 20 / TH 35 (EN60715)
Dimensions (mm) W x H x D	17,5 x 100 x 112
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