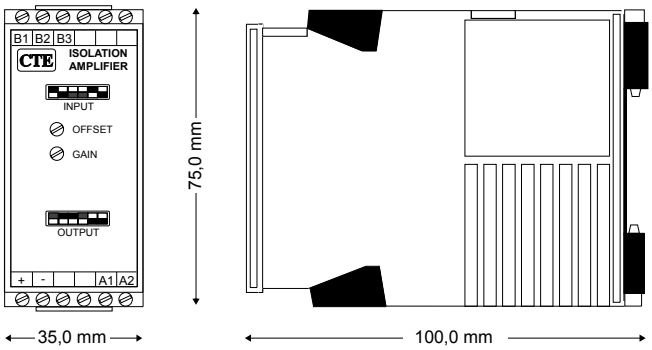


ISOLATION AMPLIFIER

Type: AISA

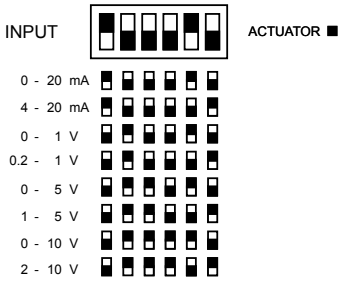
FEATURES

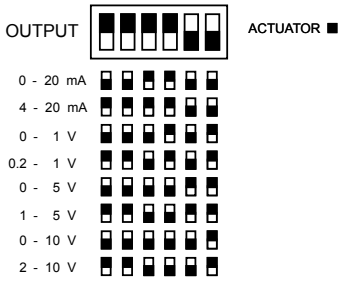
- **Galvanic separation > 4kV**
- **8 programmable input ranges**
- **8 programmable output ranges**
- **Excellent linearity**
- **Small outlines**

Description:
The isolation amplifier is buildt with a linear optocoupler. It is designed for galvanic separation and conversion between different standards of analog input and output signals. Linearized optic transmission is used to achieve high accuracy.

Application:
To interface between different kinds of analog sensors and receiving instruments, such as indicators, recorders, alarm units and PLCs.

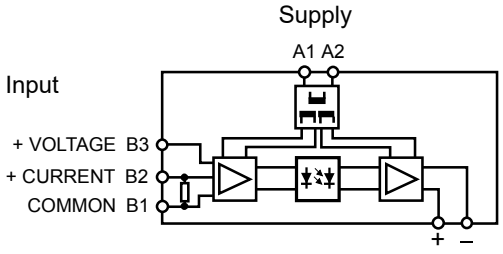
PROGRAMMABLE FEATURES



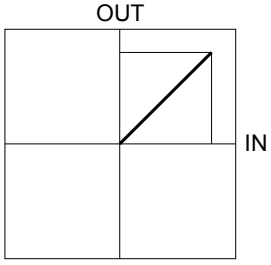


CONNECTION DIAGRAM

Rail mounting

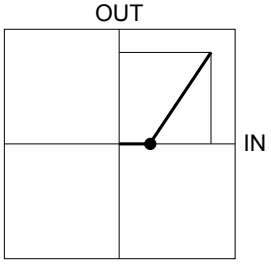


OUTPUT CHARACTERISTICS



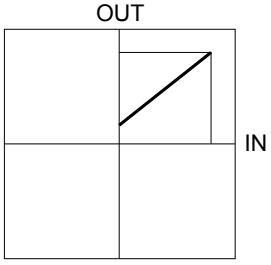
Input: 0 - 20 mA, 0 - 1 V, 0 - 5 V, 0 - 10 V

Output: 0 - 20 mA, 0 - 1 V, 0 - 5 V, 0 - 10 V



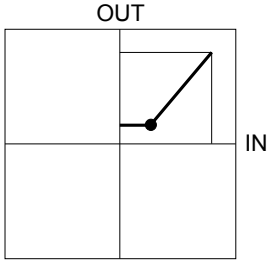
Input: 4 - 20 mA, 0.2 - 1 V, 1 - 5 V, 2 - 10 V

Output: 0 - 20 mA, 0 - 1 V, 0 - 5 V, 0 - 10 V



Input: 0 - 20 mA, 0 - 1 V, 0 - 5 V, 0 - 10 V

Output: 4 - 20 mA, 0.2 - 1 V, 1 - 5 V, 2 - 10 V



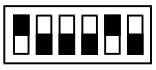
Input: 4 - 20 mA, 0.2 - 1 V, 1 - 5 V, 2 - 10 V

Output: 4 - 20 mA, 0.2 - 1 V, 1 - 5 V, 2 - 10 V

Thiim A/S
Transformervej 31
2860 Søborg - Denmark
Tel.: +45 4485 8000
Fax: +45 4485 8005
Web: www.thiim.com
Mail: thiim@thiim.com

SPECIFICATIONS

INPUT

Programmable with dipswitch	Range					
	0	- 20	mA	Max. input	100	mA
	4	- 20	mA	Max. input	100	mA
	0	- 1	V	Max. input	50	V
	0.2	- 1	V	Max. input	50	V
	0	- 5	V	Max. input	50	V
	1	- 5	V	Max. input	50	V
	0	- 10	V	Max. input	50	V
	2	- 10	V	Max. input	50	V

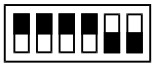
Adjustable type "A"

Offset potmeter.	± 100 % off full scale.
Gain potmeter.	10 - 110 % off full scale.
Input resistance	
Voltage	Approx. 28 kΩ
Current	10 Ω

PERFORMAMCE PARAMETERS

TIMING	
Response time	< 100 msec.
ELECTRICAL	
Precision	Class 0.5 according to DIN / EN60688
Linearity	< 0,2 %
Ripple	< 0.5 % pp
Temp. dependence	± 0.05 % / % °C
Supply dependence	± 0.01 % / % ΔU

OUTPUT

Programmable with dipswitch	Range			Load	
	0	- 20	mA	Max. Ω	500
	4	- 20	mA	Max. Ω	500
	0	- 1	V	Min. Ω	100
	0.2	- 1	V	Min. Ω	100
	0	- 5	V	Min. Ω	250
	1	- 5	V	Min. Ω	250
	0	- 10	V	Min. Ω	1000
	2	- 10	V	Min. Ω	1000

The output amplifier is protected against open and short circuit.

SUPPLY

AC and DC with isolated switchmode supply	18-360 VDC and 20-264 VAC
AC supply range with transformer	24 V (From 20 to 28 V) 110 V (From 99 to 140 V) 230 V (From 198 to 264 V) 400 V (From 342 to 484 V)
Frequency range	45 to 440 Hz (transformer)
Power consumption	2.5 VA, 1.1 W

GENERAL

Temperature range	- 25 °C to + 55 °C	
Humidity	Up to 90 % RH non-condensing	
Dielectric test voltage	Between input and output	3000 VAC
	Between input and supply	4000 VAC
	Between supply and output	4000 VAC
Weight	0.12 kg	

CE

	International Standards
EMC directive 2014/30/EU:	EN50081 - Emission
	EN50082 - Immunity
Low voltage	EN60255 - Electrical Relays
directive 2014/35/EU:	EN60688 - Measuring transducers

ORDERING INFORMATION

EXAMPLE: AISA B230 D A 3 C

TYPE	
Analog isolation amplifier	AISA
SUPPLY VOLTAGE	
18-360 VDC and 20-264VAC	E400
20-28 VAC	B024
99-140 VAC	B110
198-264 VAC	B230
342-484 VAC	B400
ADJUSTMENT	
Input offset & gain adjustable	A
Input offset & gain fixed	D
HOUSING	
Rail mounting (without transformer)	A
SIZE	
35 mm.	3
CODE END	C

We reserve the right to make changes for product improvement.