

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 built 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:

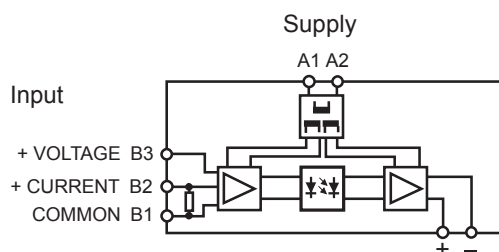
To interface between different kinds of analog sensors and receiving instruments, such as indicators, recorders, alarm units and PLCs.

PROGRAMMABLE FEATURES

INPUT	ACTUATOR
0 - 20 mA	■
4 - 20 mA	■
0 - 1 V	■
0.2 - 1 V	■
0 - 5 V	■
1 - 5 V	■
0 - 10 V	■
2 - 10 V	■

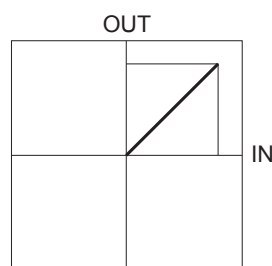
CONNECTION DIAGRAM

Rail mounting



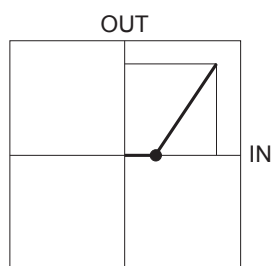
OUTPUT	ACTUATOR
0 - 20 mA	■
4 - 20 mA	■
0 - 1 V	■
0.2 - 1 V	■
0 - 5 V	■
1 - 5 V	■
0 - 10 V	■
2 - 10 V	■

OUTPUT CHARACTERISTICS



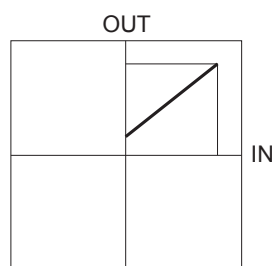
Input: 0 - 20 mA, 0 - 1 V,
0 - 5 V, 0 - 10 V

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



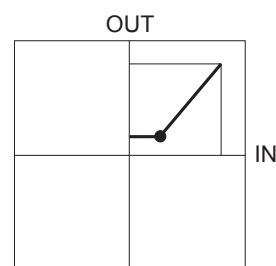
Input: 4 - 20 mA, 0.2 - 1 V,
1 - 5 V, 2 - 10 V

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

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.
Gain potmeter.

± 100 % off full scale.
10 - 110 % off full scale.

Input resistance
Voltage
Current

Approx. 28 kΩ
10 Ω

PERFORMANCE 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 18-360 VDC and 20-264 VAC
with isolated switchmode supply

AC supply range 24 V (From 20 to 28 V)
with transformer 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



EMC directive 89/336:

International Standards
EN50081 - Emission
EN50082 - Immunity

Low voltage directive 73/23:

EN60255 - Electrical Relays
EN60688 - Measuring transducers

ORDERING INFORMATION

EXAMPLE:

TYPE

Analog isolation amplifier

SUPPLY VOLTAGE

18-360 VDC and 20-264VAC
20-28 VAC
99-140 VAC
198-264 VAC
342-484 VAC

ADJUSTMENT

Input offset & gain adjustable

Input offset & gain fixed

HOUSING

Rail mounting (without transformer)

SIZE

35 mm.

CODE END

