

ISOLATION AMPLIFIER

Type: UISA and UISB

FEATURES

- Galvanic separation > 4kV
- 16 programmable input ranges
- 8 programmable output ranges
- Excellent accuracy and linearity

Description:

The isolation amplifier UISA is developed to meet high demands for accuracy, quality and flexibility. With 16 selectable DC voltage inputs and 8 selectable standard outputs, it covers a broad range of applications. As an option, the units can be supplied with adjustable gain and offset. The gain adjustment can be set to expand 10% of the input range to the full output range, and the offset can offset the range up to $\pm 100\%$. By using the full offset an increasing signal on the input, can be converted to a decreasing signal on the output. UISB is a reduced version with 4 to 20 mA output only.

Operation:

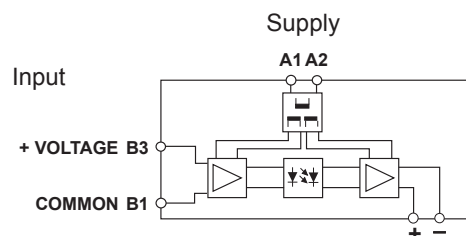
By means of a high performance linearized optic transmission (class. 0.2), the input and the output is galvanic separated with an isolation voltage of more than 4kVac. The UISA and UISB is designed to be used with a range of dc and ac supply voltages, that all include galvanic isolation of more than 4kVac from the supply to both the Input and the output circuitry.

Application:

To interface and monitor DC voltages and convert the actual voltage to a standard signal being used as an input to a PC, a PLC or any other electronic device for control or alarm purpose.

CONNECTION DIAGRAM

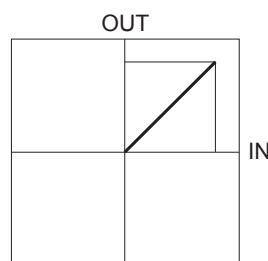
Rail mounting



PROGRAMMABLE FEATURES

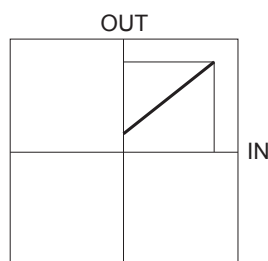
INPUT	OUTPUT ACTUATOR
0 - 30 V	0 - 20 mA
0 - 60 V	4 - 20 mA
0 - 90 V	0 - 1 V
0 - 120 V	0.2 - 1 V
0 - 150 V	0 - 5 V
0 - 180 V	1 - 5 V
0 - 210 V	0 - 10 V
0 - 240 V	2 - 10 V
0 - 270 V	
0 - 300 V	
0 - 330 V	
0 - 360 V	
0 - 390 V	
0 - 420 V	
0 - 450 V	
0 - 480 V	

OUTPUT CHARACTERISTICS



Input: 0 - Set Range

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



Input: 0 - Set Range

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

SPECIFICATIONS

INPUT

Programmable with dipswitch
Version 3048 0 to 30, 60, 90, 120, 150, 180, 210, 240, 270,
300, 330, 360, 390, 420, 450, and 480Vdc
Max. Input 630Vdc

Adjustable type "A"
Offset potmeter. $\pm 100\%$ off full scale.
Gain potmeter. 10 - 110 % off full scale.

Input resistance B1 to B3 Approx. 3.0 M 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 $\pm 0.05\%$ / % °C

Supply dependence $\pm 0.01\%$ / % 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 85 to 127 V)
230 V (From 187 to 264 V)
400 V (From 323 to 457 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 4000 VAC
Between input and supply 4000 VAC
Between supply and output 4000 VAC
Weight 0.12 kg



International Standards
EMC directive 89/336: EN50081 - Emission
EN50082 - Immunity
Low voltage directive 73/23: EN60255 - Electrical Relays
EN60688 - Measuring transducers

ORDERING INFORMATION

EXAMPLE:

TYPE
8 selectable outputs
Fixed output: 4-20mA

INPUT
Set range from 30V to 480V

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

