

## LOOP ISOLATOR

Type: AITB

### FEATURES

- **4 - 20 mA Loop powered isolator**
- **Prevent lightning from spreading over the system**
- **Working voltage up to 1000 V<sub>RMS</sub>**
- **Transient overvoltage up to 8000 V<sub>peak</sub>**
- **Excellent linearity**
- **Small outlines, 17,5 mm. wide**

### Description:

The loop isolator is designed to separate one 4 - 20 mA loop into two galvanically separated 4-20 mA loops in order to prevent signal distortion and instrumentation damages due to electrical noise, voltage spikes and ground loop currents.

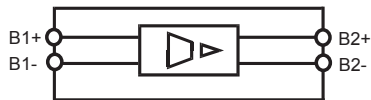
The insulation is based on a high performance linear optocoupler with an excellent linearity and a low coupling capacitance.

### Application:

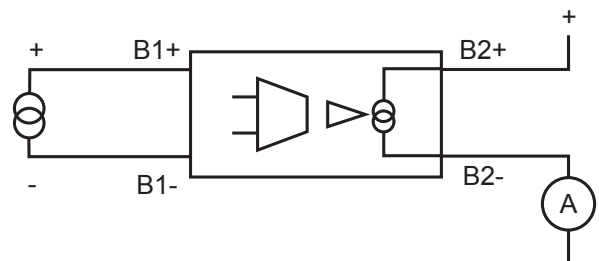
For use in instrumentation with current loop I/O as used by PLCs, sensors, recorders, indicators, alarm units etc.

### CONNECTION DIAGRAM

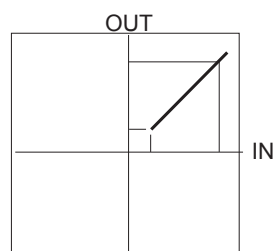
Rail mounting



### FUNCTION DIAGRAM



### INPUT/OUTPUT CHARACTERISTICS



Input: 4 - 20 mA

Output: 4 - 20 mA

## SPECIFICATIONS

### INPUT

4 - 20 mA  
Loop supplied

Max. input 100 mA  
Voltage drop, Max. 7 V

### PERFORMANCE PARAMETERS

**TIMING**  
Response time < 10 msec.

**ELECTRICAL**  
Precision Class 0.5 according to DIN / EN60688  
Linearity < 0.02 %  
Temp. dependence  $\pm 0.02\%$  / °C  
Supply dependence  $\pm 0.01\%$  / % DU

### OUTPUT

Loop supplied  
4 - 20 mA  
Max. load

Loop voltage, 8 - 32 V  
Max. voltage, 36 V  
600  $\Omega$ . @ 20 V Loop voltage

### ISOLATION CHARACTERISTICS

Capacitance < 1 pF, input/output

Safety approval According to:  
  
UL1577 ( 5 kVRMS/1 min. rating )  
  
VDE 0884/06.92 (  $V_{iORM} = 1$  kVRMS )  
  
BSI: BS415; 1990  
BS7002; 1992  
BS EN60950; 1992  
EN41003; 1991

### GENERAL

Temperature range - 25 °C to + 55 °C  
Humidity Up to 90 % RH non-condensing  
Weight 0.044 kg



EMC directive 89/336:

International Standards  
EN50081 - Emission  
EN50082 - Immunity

Low voltage directive 73/23:

EN60255 - Electrical Relays  
EN60688 - Measuring transducers

## ORDERING INFORMATION

**TYPE**  
Loop isolator

**HOUSING**  
Rail mounting

**SIZE**  
17,5 mm.

**CODE END**

