

Z109UI2-1

mA - V CONVERTER WITH GALVANIC ISOLATION AND Micro USB INTERFACE

Highlights

- **Power supply: 9..40 Vdc, 19..28Vac 50- 60 Hz**
- **Transducer power supply: 2 wires, 20 Vdc stabilized, 20 mA max protected from short circuit**
- **Input: voltage (bipolar) from 100 mV to 20 V in 9 scales), Current (bipolar up to 20 mA)**
- **Retransmitted output: voltage (0..10/ 2...10 V), current (0...20 / 4..20mA) active or passive**
- **Accuracy: 0.1% (for input in voltage / current)**
- **Sampling frequency/ Resolution: 240 sps(@11bit+sign) at 15 sps(@15bit+sign)**
- **Operating temperature: - 10..60°C**
- **Isolation: 1,500 @3 points**
- **Configuration: By DIP switch, software (Windows PC), App (Android)**
- **Connection: Micro USB port on the front of the module**
- **Certifications: CE, UL**

Z1090UI2-1 is a voltage to current converter with 3-point isolation 1500 Vac and sensor power supply in 2-wire technique (20 Vdc stabilized, 20 mA max, protected against short circuit).

Measurement and retransmission of the data is done on isolated analog output, with voltage output or in active/passive current.

Through DIP-switches are selectable type of input, START-END, output mode (zero elevation, inversion, scale), output type (mA or V).

Heir to the Z109UI2, Z109UI2-1 converter has on the front side the communication port in format Micro USB (replacing the 3.5 mm jack port). Through the Micro USB it is possible to configure the module not only via PC but also via mobile app "EASY Setup App".





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TECHNICAL DATA

GENERAL DATA

| | |
|-----------------------|--|
| Power supply | 10..40 Vdc; 19..28 Vac |
| Power transducers | Yes, 2-wire, 20 Vdc stabilized, 20 mA max |
| Power consumption | 1,6W (@24Vdc, 20mA output); 2,5W (max) |
| Isolation | 1.500 Vac (3 ways) |
| Protection degree | IP20 |
| Pollution degree | 2 |
| LED status indicators | Power supply Off Scale, Burn Out or Internal Failure Dip switch setting error |
| Response time | 35..140 ms |
| Interfaces | Micro USB (front panel) |
| Accuracy class | 0,1% (V/mA input) - 0,3% (voltage output) |
| Thermal drift | 0,01%/°K |
| Settings | DIP switch Jumper Software PC Windows (EASY SETUP) APP Android (EASY SETUP APP) |
| Data memory | EEPROM, retention time 40 years |
| Operating temperature | -10..+60°C |
| Dimension (wxhxd) | 100 x 112 x 17,5 mm |
| Connection | 3-way removable terminals, pitch 5.08 mm, section 2,5 mm ² |
| Case | PA6 black colour |
| Mounting | 35 mm DIN rail (IEC/EN 60715) |
| Weight | Approx 200 g |
| Approvals | CE, UL UR CSA |
| Norms | EN 61000-6-4, EN 61000-6-2, EN 61010-1 |

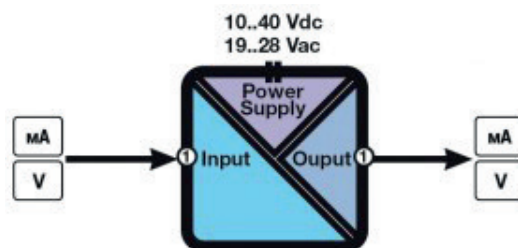
INPUT DATA

| | |
|--------------------|---|
| Channels | 1 |
| Voltage | Bipolar from 100 mV up to 20 V in 9 scales, input impedance 1 M Ω , resolution max 15 bit + sign |
| Current | Bipolar up to 20 mA, input impedance ~ 50 Ω , resolution max 1 μ A |
| Sampling frequency | 240 sps (@11bit+sign) |
| Response time | 35 ms (@11bit) |

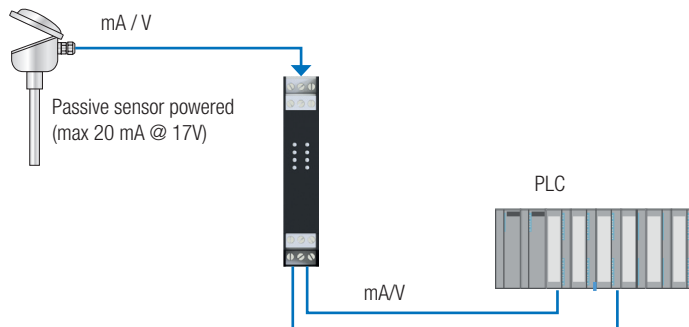
OUTPUT DATA

| | |
|------------|--|
| Channels | 1 |
| Voltage | 0..5, 0..10, 1..5, 2..10 V, min load resistance 2 k Ω |
| Current | 0..20, 4..20 mA, max load resistance 600 Ω |
| Resolution | 2,5 μ A/ 1.25 mV |

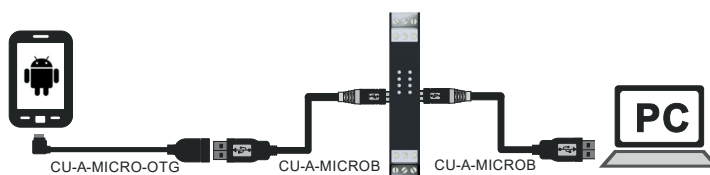
ISOLATION DIAGRAM



APPLICATION EXAMPLE



CONFIGURATION VIA USB INTERFACE



ORDER CODES

| Code | Description |
|------------------|--|
| Z109UI2-1 | mA - V converter with galvanic isolation and Micro USB interface |
| CU-A-MICROB | Communication cable USB-Micro USB, 1 mt |
| CU-A-MICRO-OTG | Adapter cable Micro USB OTG - USB Type A female for mobile devices |
| EASY SETUP | Plug&play suite configurators for programmable instruments |
| EASY SETUP APP | App iOS / Android Suite Complete EASY SETUP |
| Z-POWER-115-15VA | DIN rail transformer 19 Vac, 115 / 15 VA with thermal fuse |
| Z-POWER-230-15VA | DIN rail transformer 19 Vac, 230 / 15 VA with thermal fuse |
| Z-POWER-230-25VA | DIN rail transformer 19 Vac, 230 / 25 VA with thermal fuse |
| Z-SUPPLY | Single-phase switching power supply 24V @ 1.5 A |