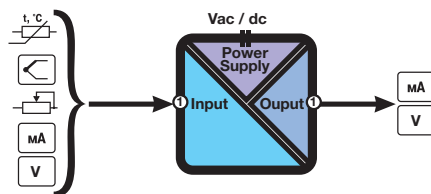




# Z109REG2

## HIGH PERFORMANCE UNIVERSAL CONVERTER

Z109REG2 is an advanced universal converter able to manage all analog signals (mA, V, PT100, Pt1000, Pt500, Ni100, TCs, Ohm) and convert / isolate it into mA/V standard signals. The device can be configured through dip-switches, PC software or handheld device. A digital contact is available as ALARM or STROBE (multiplexing). It can be requested with low or high power supply. A 3-way galvanic isolation among Power supply // input // output circuits assures the integrity of your datas.



### TECHNICAL SPECIFICATIONS

#### Electrical Specifications

|                   |  |
|-------------------|--|
| Power supply      | 10..40 Vdc / 19..28 Vac / 50-60 Hz                                   |
| Power consumption | 2,5 W  |
| Isolation         | 1.500 Vac (3 way)  |
| Power transducers | Yes  |
| Status Indicators | Power supply, error, data transmission, data reception, input status |
| Protection Degree | IP20   |

#### Thermomechanical Specifications

|                       |   |
|-----------------------|---|
| Operating Temperature | -10..+60 °C   |
| Dimension (W x H x D) | 17.5 x 100 x 112 mm   |
| Accuracy              | 0,1%  |
| Response time         | 35 ms (11 bit)..140 ms (16 bit)   |
| Setting               | Dip- switches<br>EASY_Z109 (PC software)<br>Test-3 (hand held calibrator) |
| Mounting              | 35 mm DIN rail guide  |

#### Input

|                 |   |
|-----------------|---|
| Channel Numbers | 1   |
| Voltage         | (mV, V)<br>Bipolar from 75 mV to 20 V<br>Resolution 15 bit + sign   |
| Current         | Bipolar up to 20 mA<br>Resolution 1 µA  |
| Rtd             | Pt100, Pt500, Pt1000, Ni100, KTY81, KTY84, NTC<br>Measure 3, 4 wires<br>Range: -200..600 °C<br>Resolution 0,1°C |
| Thermocouple    | Type J, K, R, S, T, E, B, N<br>Resolution 2,5 µV  |
| Potentiometer   | 500 Ω ..10 kΩ   |
| Rheostat        | 500 Ω ..25 kΩ   |
| Strobe          | Alternative to the relay output   |

#### Output

|                 |  |
|-----------------|--|
| Channel Numbers | 1  |
| Voltage         | 4 scales: 0..1, 0..5, 0..10, 2..10 V<br>Min load resistance: 2.000 Ω |
| Current         | 2 scales: 0/4..20 mA (active/passive)<br>Max load resistance: 600 Ω  |
| Relay           | Alternative to the strobe NC / NA in case of alarm                   |

#### Standard

|          |  |
|----------|--|
| Approval | CE, UL-CSA   |
| Norms    | EN 50081-2; EN 55011; EN 50082-2; EN 61000-2-2/4; EN 50140/141; EN 61010-1 |

### ORDER CODES

| Code       | Description  |
|------------|--|
| Z109REG2   | High performance universal converter, Power supply 10..40 Vdc / 19..28 Vac |
| Z109REG2-H | High performance universal converter, Power supply 85..265 Vac/Vdc         |

### ACCESSORIES & SOFTWARE



PM001601

Programming cable



TEST-3

Handheld configurator



EASY SETUP

Programming software



### ANALOG UNIVERSAL INPUT

mA, V, Ohm,  
RTD, TC

### HIGH CLASS ACCURACY

0,1%

### FAST RESPONSE TIME

35 ms  
(11 bit + segno)

### WIDE OPERATING TEMPERATURE

-20..+60°C

### TRANSDUCER POWER SUPPLY

20 Vcd, 20 mA

### HIGH RESOLUTION

16 bit

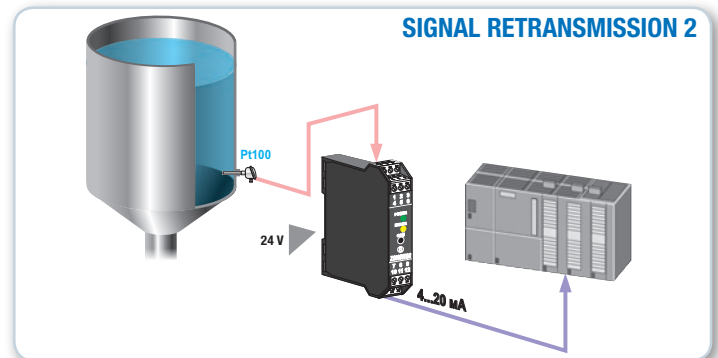
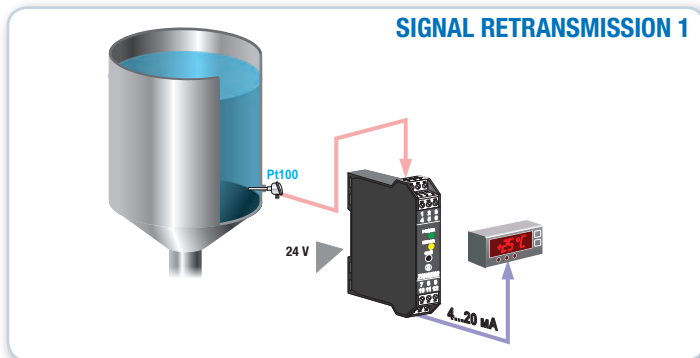
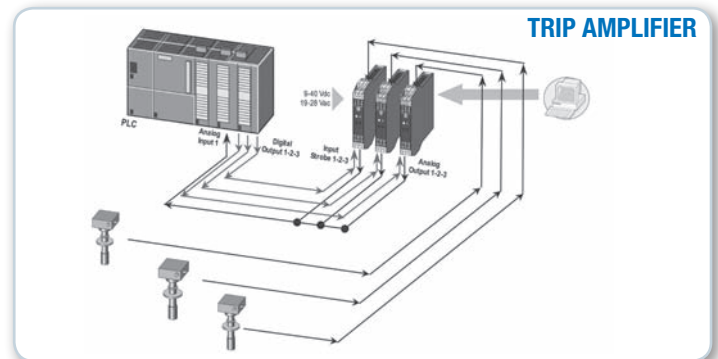
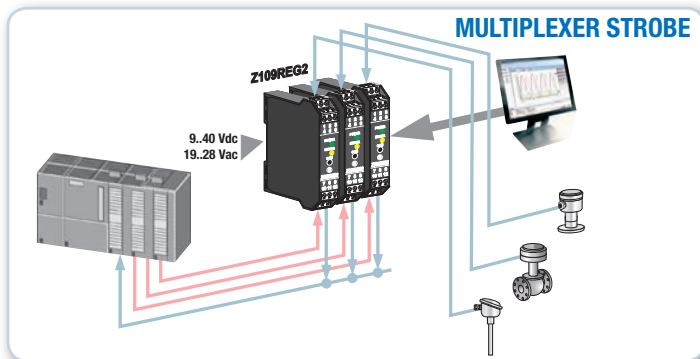
### AUXILIARY CONTACTS

Strobe Input SPDT  
relay Output

### APPROVALS



## APPLICATION NOTE



## CONFIGURATION

### 1- DIP-SWITCHES

- Input type
- Zero and Span
- Output type
- Scale inversion



### 2- HANDHELD

- Min / max range scale; digital filter; square root extraction
- Fault sensor
- Analog scale; error analog output value
- Rejection frequency (50 – 60 Hz)
- Sampling time / Resolution
- Measure 2, 3, 4 wires for RTD
- Relay alarm control, strobe configuration



### 3 - SOFTWARE

- Min / max range scale; digital filter; square root extraction
- Fault sensor
- Analog scale; error analog output value
- Rejection frequency (50 – 60 Hz)
- Sampling time / Resolution
- Measure 2, 3, 4 wires for RTD
- Relay alarm control, strobe configuration

