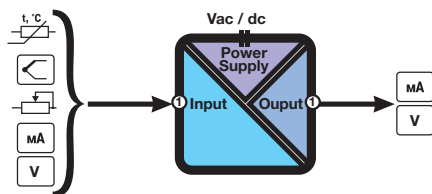




# Z109REG2

## 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 EASY_Z109 (PC software) Test-3 (hand held calibrator)
Mounting	35 mm DIN rail guide

#### Input

Channel Numbers	1
Voltage	(mV, V) Bipolar from 75 mV to 20 V Resolution 15 bit + sign
Current	Bipolar up to 20 mA Resolution 1 μA
Rtd	Pt100, Pt500, Pt1000, Ni100, KTY81, KTY84, NTC Measure 3, 4 wires Range: -200..600 °C Resolution 0,1°C
Thermocouple	Type J, K, R, S, T, E, B, N Resolution 2,5 μV
Potentiometer	500 Ω ..100 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 Min load resistance: 2.000 Ω
Current	2 scales: 0/4..20 mA (active/passive) 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

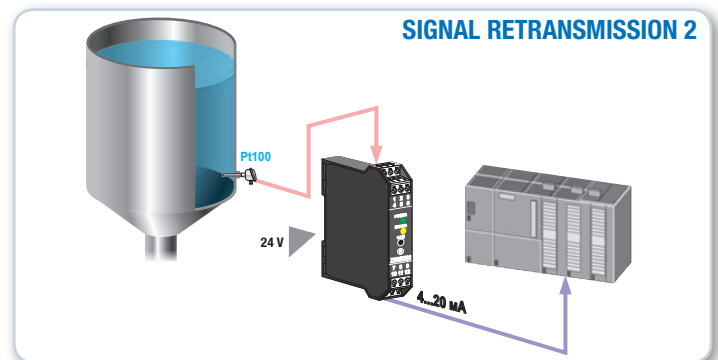
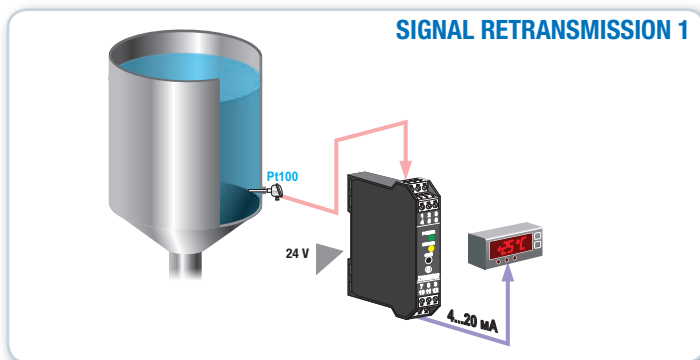
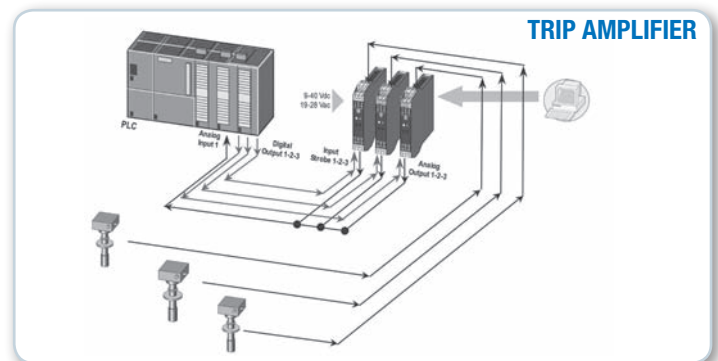
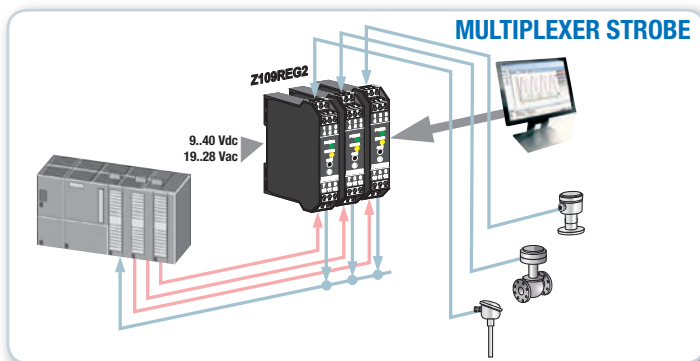
### AUXILIARY CONTACTS

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



via Germania, 34 • 35127 Padova - (I) - Tel. +39 049 87.05.359 (.408)  
Fax +39 049 87.06.287 • www.seneca.it • info@seneca.it

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