

# Ziegler

Redefine Innovative Metering

## Ziegler ZI - 11



© Ziegler Instruments Order No. Ziegler ZI - 11 Data sheet-E1\_R0-921113-05-2013-EN



## Application

The purpose of the Ziegler ZI-11 is to electrically isolate input, output and power supply.

The isolator fulfills all requirements and regulation concerning electromagnetic compatibility EMC and safety acc to IEC 61010 . It was developed and is manufactured and tested in strict accordance with quality assurance standard ISO 9001.

The device has single channels and provides single independent isolating amplifiers in an extremely small space.

## Product Features

Electric Isolation

- Electrically isolated analog output prevents interference voltage and current. Solves grounding problem in meshed signal networks.
- High electric isolation between input and output 2.3 kV, and power supply versus all other circuits 3.7 kV.

## Function

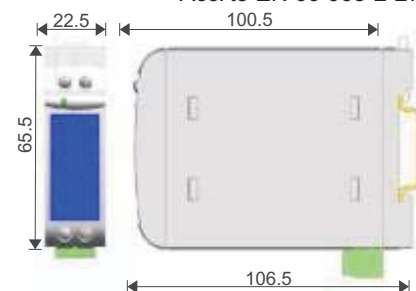
Simple dc isolator serves to electrically isolate input dc signal in the range 0 – 20 mA or 4-20 mA or 0-10V or 2-10V is then converted to signal 0 – 20 mA or 4-20 mA or 0-10V or 2-10V finds its application for isolate input and output.

## Technical Specifications

Measuring inputs :	
DC current standard ranges	1) 0...20mA 2) 4...20mA 3) 1...5mA
DC voltage standard ranges	1) 0...10V 2) 2...10V 3) 1...5V
Measuring outputs :	
DC current standard ranges	1) 0...20mA 2) 4...20mA
Burden voltage	12V
External Resistance	$R_{ext\ max.} [k\Omega] = 12V / I_{AN} [mA]$ $I_{AN}$ =Output circuit full scale value
DC voltage standard ranges	1) 0...10V 2) 2...10V
Burden	$R_{ext\ min.} [k\Omega] = U_{AN} [V] / 5\ mA$ $U_{AN}$ =Output circuit full scale value
Current limiter at $R_{ext} = 0$	Approx. 30mA for voltage output
Voltage limiter at $R_{ext} = \infty$	Approx. 15V for current output
Residual ripple in Output current	< 0.5% p.p.
Response time	< 50 ms
Power supply :	
Rated operating voltage	65 to 300 V DC/AC
Rated operating frequency	45 to 400 Hz
Power input	$\leq 1.6\ W$ resp. $< 3.4\ VA$
Accuracy data (Acc to IEC 60770)	
Basic Accuracy	Limit error $< \pm 0.2\ \%$ including linearity and reproducibility errors.

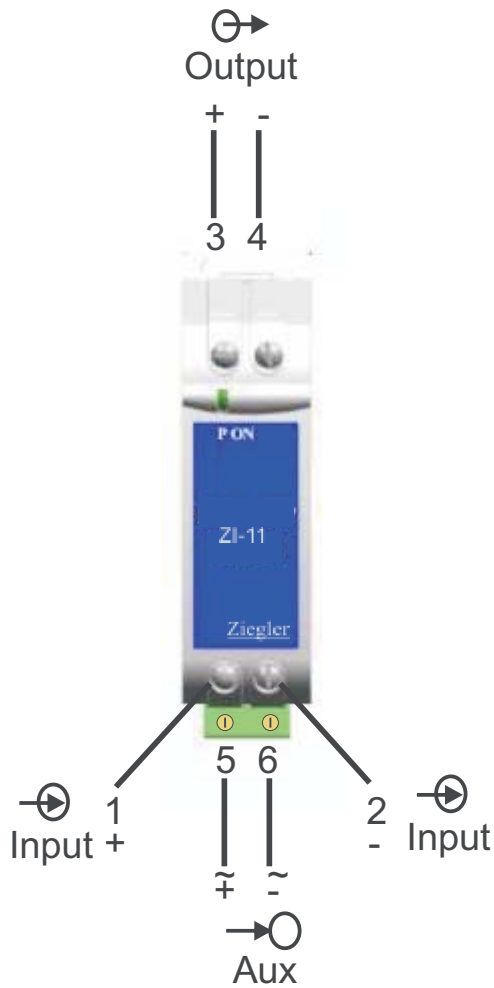
Reference conditions	23 C $\pm$ 2 C
Ambient temperature	Current: 0.5 * Rext max.
Output burden	Voltage: 2 * Rext min.
Influence factors	
Temperature	$\pm 0.15\%$ per 10 C
Burden influence	$< \pm 0.1\ \%$ for current output $< \pm 0.1\ \%$ for voltage output
Switch-on drift	$< \pm 0.2\%$
Longtime drift	$< \pm 0.3\%$ / 12 months
Regulations	
Electromagnetic Compatibility Protection	Acc. to IEC 61326 - 1 For Housing : IP40 Terminals : IP20
Electrical standards	Acc. to IEC 61010 -1 / EN 61 010 -1
Supply voltage	65 TO 300V DC/AC
Contamination level	2
Over voltage category	III for power supply. II for measuring input and measuring output.
Double Insulation	- Power supply versus all other circuit. - Measuring input versus measuring output.
Test Voltage	Power supply versus : -All 3.7 kV, 50 Hz 1 min Measuring inputs versus : -Measuring output 2.3 kV ,50 Hz 1min
Ambient Temperature	Climate case 3Z acc. to VDI /VDE 3540
Climatic rating	
Commissioning Temperature	-10 °C to 55 °C
Operating Temperature	-20 °C to 55 °C
Storage temperature	-40 °C to 70 °C
Annual mean relative humidity	< 75% standard Climatic rating.
Installation Data	
Mechanical Housing	Lexan 940 (polycarbonate) Flammability Class V-0 acc. to UL 94 self extinguishing, non dripping, free of halogen. Rail mounting / wall mounting Approx. 0.15kg
Mounting position	
Weight	
Connection Terminal	
Connection Element	Conventional Screw type terminal with indirect wire pressure
Permissible cross section of the connection lead	4.0 mm single wire or 2 x 2.5mm Fine wire.
Permissible Vibrations	2 g acc. to EN 60 068-2-6
Shocks	3 x 50 g 2 shocks each in 6 directions Acc. to EN 60 068-2-27

Dimensions



Note : All Dimensions are in mm

## Electrical connections



Connection	Terminal details	
	+	-
Measuring input	+	1
	-	2
Measuring output	+	3
	-	4
Auxiliary Supply	~, +	5
	~, -	6

## Ordering Information

PRODUCT NAME- INPUT RANGE CODE-OUTPUT RANGE CODE

- 1) Product Name : ZI-11
- 2) Standard input range codes

Current (mA)	Ordering Code	Voltage (V)	Ordering Code
0...20	1	0...10	4
1...5	2	2...10	5
4...20	3	1...5	6

- 3) Standard output range codes

Current (mA)	Ordering Code	Voltage (V)	Ordering Code
0...20	1	0...10	3
4...20	2	2...10	4

### Example:

To order model of 0 to 20 mA input & 0 to 10V output specification , ordering information will be as follow : ZI-11-1-3

## ZIEGLER INSTRUMENTS

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made  
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