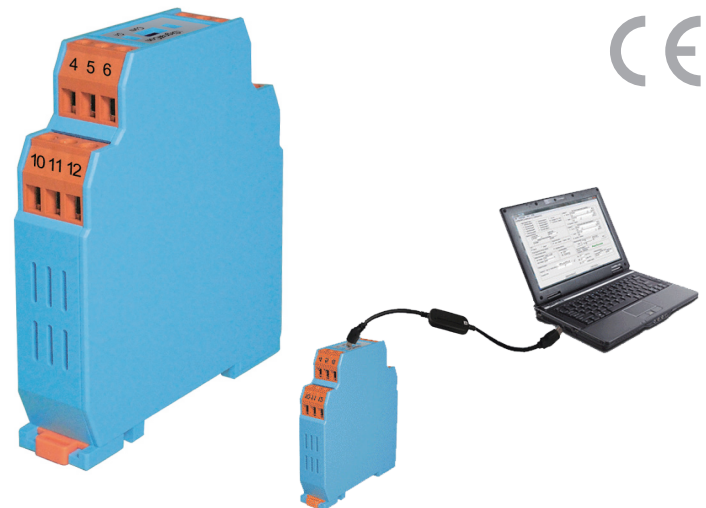


# zSignalCon®

## ISC Dual Channel Isolated Signal High / Low Selector

### Features :

- ▶ Programmable for various input signals and measuring range.
- ▶ Configurable without external Power Connected.
- ▶ Select high or low signal output
- ▶ Inputs : User configurable for  
Resistance thermometer (PT100 / RTD)  
Thermocouple (J,K,T,E,B,R,S,N,C)  
Also available for Voltage, Current and mV
- ▶ Outputs device :  
ISC-S : Single Analog Output : 4~20 mA \ 0~10VDC ...  
ISC-C : One Analog Output (OUT1) 4~20 mA \ 0~10VDC ...  
with RS485 Com port : MODBUS-RTU (OUT2)
- ▶ High accuracy in total ambient temperature range.
- ▶ Fault signal on sensor break presettable.
- ▶ Defines the output signal to be upscale (>20mA) or downscale (<4 mA) on Sensor break or cut the output signal on upscale (20mA) or downscale (4 mA)



### Configuration

The zSignalCon® DIN Rail converter is user configurable with the zSignalwin® software and interface cable URC-1020 or handheld programmer. The zSignalwin® is user-friendly software. The latest release version can be download free from website. Interface cable consist of interface converter and USB plug. It can be purchased separately from the zSignalCon® supplier. During configuration the converter can work alone without connecting to a power source.

#### Specification

Input	Thermocouple (T/C) : industry standard thermocouple types J, K, T, E, B, R, S, N, C (ITS-90). Pt100 : Excitation 180uA. 2 or 3 wire connection (ITS-90 $\alpha$ =0.00385). Voltage : -60mVdc to 60mVdc or -10Vdc to 10Vdc. Current : 0-24mAdc
Accuracy	Refer to Table 1 Input Signal
A/D Resolution	16 bits
Input Sampling Rate	<200 ms
Power Supply	DC 24V
Output	Current Output : 4~20mA (Resistive load 600 $\Omega$ max ) Continuous Voltage Output : 0~10V... (Resistive load 600 $\Omega$ min)
Output Resolution	0.6 $\mu$ A (15 bits)
Output Response Time	<200 ms
Common Mode Rejection Ratio (CMRR)	>80 dB
Electromagnetic Compatibility (EMC)	En 50081-2, En 50082-2
Galvanic Isolation	3.75 KV. between input and output
Operating Temperature	-10 to 50°C
Humidity	0 to 90% RH
Dimension	75mm(W)x87mm(H)x18.5mm(D)

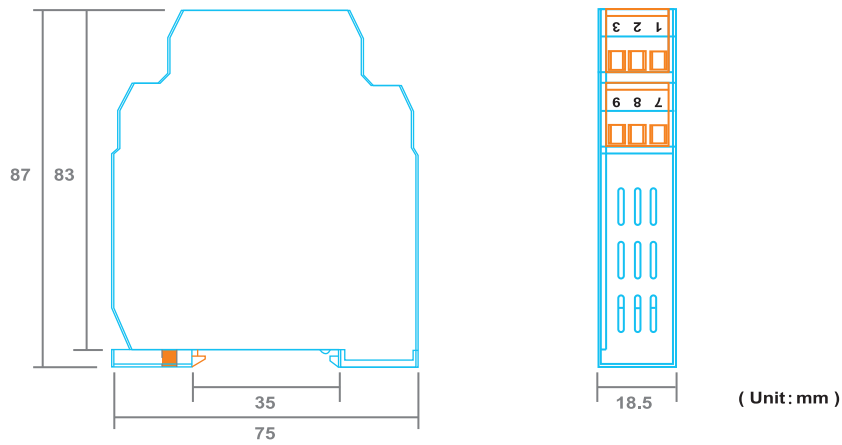
#### Table 1 Input Signal

Input signal	Maximum Range	Accuracy
Thermocouple J	-50 to 1000°C (-58 to 1832°F)	$\pm$ 1°C
Thermocouple K	-50 to 1370°C (-58 to 2498°F)	$\pm$ 1°C
Thermocouple T	-270 to 400°C (-454 to 752°F)	$\pm$ 1°C
Thermocouple E	-50 to 700°C (-58 to 1292°F)	$\pm$ 1°C
Thermocouple B	0 to 1750°C (32 to 3182°F)	$\pm$ 2°C (Note 1)
Thermocouple R	-50 to 1750°C (-58 to 3182°F)	$\pm$ 2°C
Thermocouple S	-50 to 1750°C (-58 to 3182°F)	$\pm$ 2°C
Thermocouple N	-50 to 1300°C (-58 to 2372°F)	$\pm$ 2°C
Thermocouple C	-50 to 1800°C (-58 to 3272°F)	$\pm$ 2°C
Pt 100	-200 to 600°C (-328 to 1112°F)	$\pm$ 0.2°C
mV	-60mV to 60mV	$\pm$ 0.01mV
Voltage (Note2)	-10 to 10Vdc	$\pm$ 1mV
Current (Note2)	0 to 24mAdc	$\pm$ 10 $\mu$ A

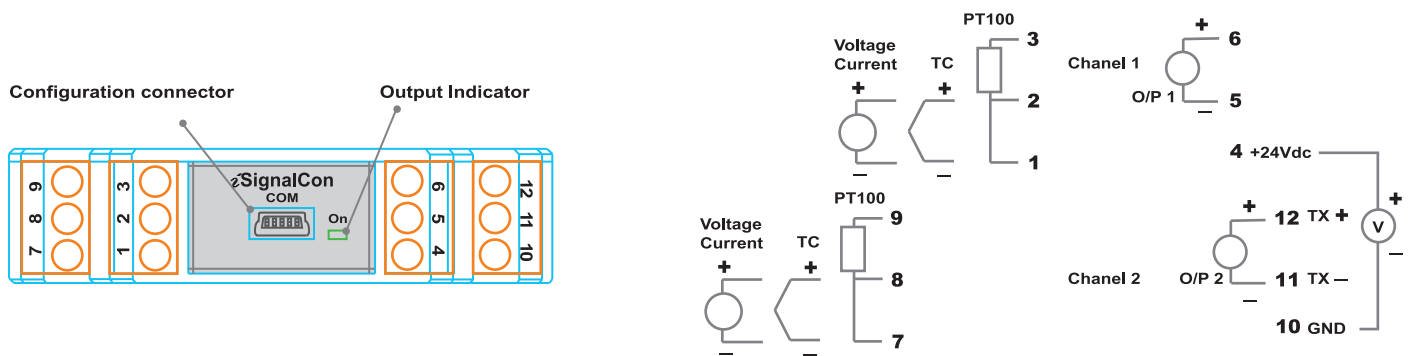
Note 1: Accuracy is not guaranteed between 0 and 400°C (0 and 752°F) for type B

Note 2: The internal DIP switch should be set

## Dimension



## Wiring Diagram



## Ordering Information

ISC	<input type="checkbox"/> S	<input type="checkbox"/>	<input type="checkbox"/> N	<input type="checkbox"/>
ISC	<input type="checkbox"/> C	<input type="checkbox"/>	<input type="checkbox"/> C	<input type="checkbox"/>

Output Device	Code	Output 1	Code	Output 2	Code	Explosion Proof	Code
Single Analog Output	S	4~20 mA	M	None	N	YES	Y
One Analog output with RS485 com port	C	0~10VDC	V	RS-485	C	NO	N
		Other	O				

- The standard unit is supplied set for thermocouple/PT100 inputs.
- The converters are otherwise user configurable.
- Should you require that the factory set the inputs and ranges the full code must be specified.

Input Signal	Code	Maximum Range
Thermocouple J	J	-50 to 1000°C(-58 to 1832°F)
Thermocouple K	K	-50 to 1370°C(-58 to 2498°F)
Thermocouple T	T	-270 to 400°C(-454 to 752°F)
Thermocouple E	E	-50 to 700°C(-58 to 1292°F)
Thermocouple B	B	0 to 1750°C(32 to 3182°F)
Thermocouple R	R	-50 to 1750°C(-58 to 3182°F)
Thermocouple S	S	-50 to 1750°C(-58 to 3182°F)
Thermocouple N	N	-50 to 1300°C(-58 to 2372°F)
Thermocouple C	C	-50 to 1800°C(-58 to 3272°F)
Pt100	D	-200 to 600°C(-328 to 1112°F)
mV	L	-60mV to 60mV
Voltage	V	-10mV to 10Vdc
Current	M	0 to 24mAdc