

zSignalCon®

ISC 2-Channel Isolated Universal Signal Converter/Conditioner/Isolator

Features

- The unique Math function.
- The unique High/Low comparison output.
- Programmable for various input signals and measuring range.
- Configurable without Power Connected.
- Full 3-way isolation for 1500 Vrms.
- DIN rail mount.
- Dual channel Input.
- Resistance thermometer (Pt100)
- Thermocouple (J,K,T,E,B,R,S,N,C)
- Voltage/Current transmitter (mV/V/mA)
- Dual 0/4 to 20 mA or 0~10V analogue output (ISC-D).
- RS485 communication interface with Modbus RTU protocol (ISC-C).
- Fault signal on sensor break presettable.



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.

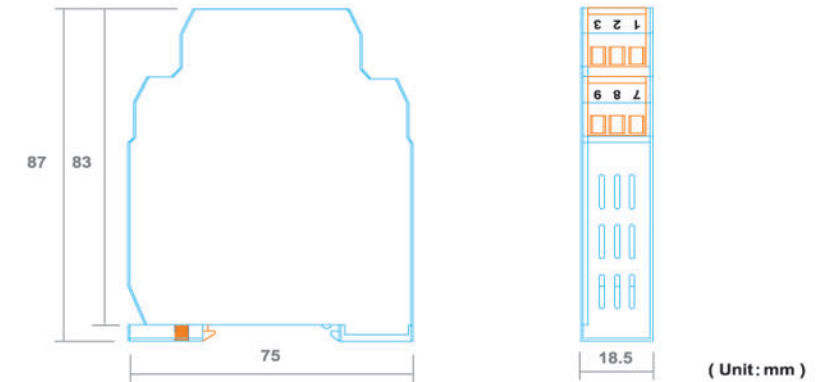
Table 1 Input Signal

Specification	Input signal	Maximum Range	Accuracy	
Input	Thermocouple (T/C) : industry standard thermocouple types J, K, T, E, B, R, S, N, C (ITS-90).	Thermocouple J -50 to 1000 °C (-58 to 1832 °F)	±1 °C	
	Pt100: Excitation 180uA. 2 or 3 wire connection (ITS-90 α=0.00385).	Thermocouple K -50 to 1370 °C (-58 to 2498 °F)	±1 °C	
	Voltage: -60mVdc to 60mVdc or -10Vdc to 10Vdc.	Thermocouple T -270 to 400 °C (-454 to 752 °F)	±1 °C	
	Current: 0-24mAdc	Thermocouple E -50 to 700 °C (-58 to 1292 °F)	±1 °C	
	Accuracy Refer to Table 1 Input Signal	Thermocouple B 0 to 1750 °C (32 to 3182 °F)	±2 °C(Note 1)	
	A/D Resolution 16 bits	Thermocouple R -50 to 1750 °C (-58 to 3182 °F)	±2 °C	
	Input Sampling Rate <200ms	Thermocouple S -50 to 1750 °C (-58 to 3182 °F)	±2 °C	
	Power Supply DC 24V	Thermocouple N -50 to 1300 °C (-58 to 2372 °F)	±2 °C	
	Output	Current Output:0/4~20mA(Resistive load 600Ω max.)	Thermocouple C -50 to 1800 °C (-58 to 3272 °F)	±2 °C
		Continuous Voltage Output:0~50mV; 0~10V... (Resistive load 600Ω min.)	Pt100 -200 to 600 °C (-328 to 1112 °F)	±0.2 °C
Output Resolution 0.6 μ A(15 bits)		mV	-60mVto 60mV	±0.01mV
Output Response Time <200ms		Voltage (Note 2)	-10 to 10Vdc	±1mV
Common Mode Rejection Ratio(CMRR) >80dB		Current (Note 2)	0 to 24mAdc	±10 μ A

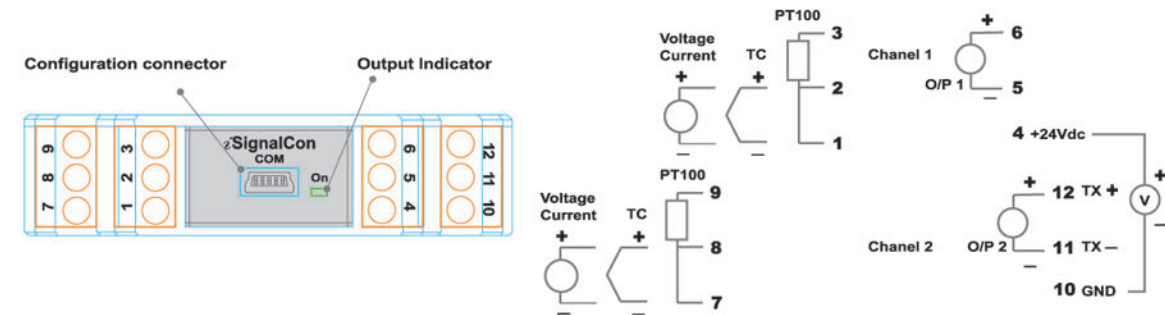
Note 1 : Accuracy is not guaranteed between 0 and 400 °C (0 and 752 °F) for type B.

Note 2 : The internal DIP switch should be set.

Dimension



Electrical Connection



Ordering Information

Output 1	Code	Output 2	Code
4 ~ 20 mA	M	4 ~ 20 mA	M
0 ~ 10 VDC	V	0 ~ 10VDC	V
		RS-485	C

The unit will come standard with PT100, -200~600°C, you can change the input Type/Rang using the free software "zSignalwin®" with the configuration cable URC-1020, or you can contact us for non-standard Input/Rang setting.