*i*SignalCon®

ISD 2 Independent Channels Isolated
Universal Signal Converter/Conditioner/Isolator

CE

Features

- Two independent input channels 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 (ISD-D).
- RS485 communication interface with Modbus RTU protocol (ISD-C).
- Fault signal on sensor break presettable.

Configuration

The *i*SignalCon® DIN Rail converter is user configurable with the *i*Signalwin® software and interface cable URC-1020 or handheld programmer. The *i*Signalwin® 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 *i*SignalCon®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 α=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	<200ms
Power Supply	DC 24V
Output	Current Output:0/4~20mA(Resistive load 600Ω max.)
	Continuous Voltage Output:0~50mV; 0~10V... (Resistive load 600Ω min.)
Output Resolution	0.6 μ A(15 bits)
Output Response Time	<200ms
Common Mode Rejection Ratio(CMRR)	>80dB
Electromagnetic Compatibility (EMC)	En 50081-2, En 50082-2
Galvanic Isolation	3.75 KV. between input and output
Operating Temperature	-40 to 85° 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)	±1°C
Thermocouple K	-50 to 1370 °C (-58 to 2498°F)	±1°C
Thermocouple T	-270 to 400 °C (-454 to 752°F)	±1°C
Thermocouple E	-50 to 700 °C (-58 to 1292°F)	±1°C
Thermocouple B	0 to 1750 °C (32 to 3182°F)	±2°C(Note 1)
Thermocouple R	-50 to 1750 °C (-58 to 3182°F)	±2°C
Thermocouple S	-50 to 1750 °C (-58 to 3182°F)	±2°C
Thermocouple N	-50 to 1300 °C (-58 to 2372°F)	±2°C
Thermocouple C	-50 to 1800 °C (-58 to 3272°F)	±2°C
Pt100	-200 to 600 °C (-328 to 1112°F)	±0.2°C
mV	-60mVto 60mV	±0.01mV
Voltage (Note 2)	-10 to 10Vdc	±1mV
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
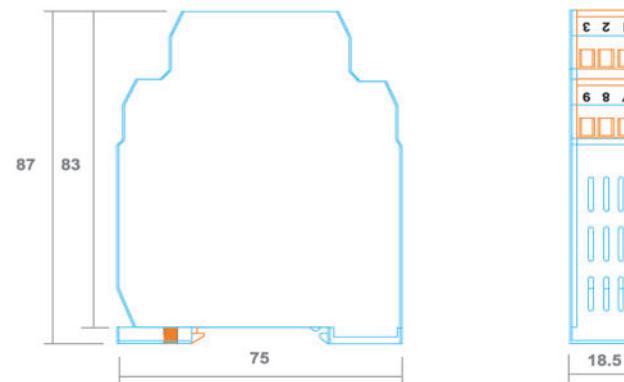
87 83 75 18.5 (Unit: mm)

Electrical Connection

Configuration connector   Output Indicator

*i*SignalCon COM On

Voltage Current   TC   PT100

Chanel 1 O/P 1

Chanel 2 O/P 2

3 2 1 9 8 7 6 5 4 +24Vdc 12 TX + 11 TX — 10 GND
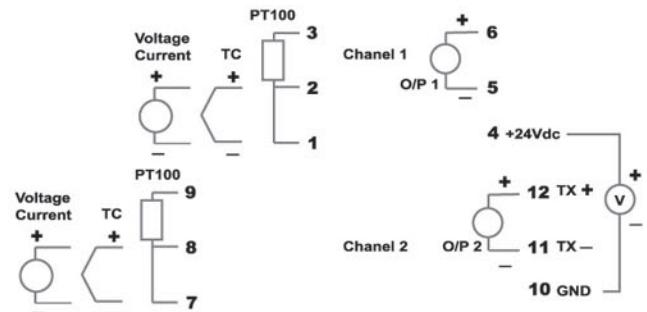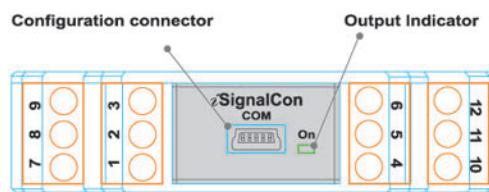
Ordering Information

ISD —

Output 1	Code
4 ~ 20 mA	M
0 ~ 10 VDC	V

Output 2	Code
4 ~ 20 mA	M
0 ~ 10DVC	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 "*i*Signalwin®" with the configuration cable URC-1020, or you can contact us for non-standard Input/Rang setting.