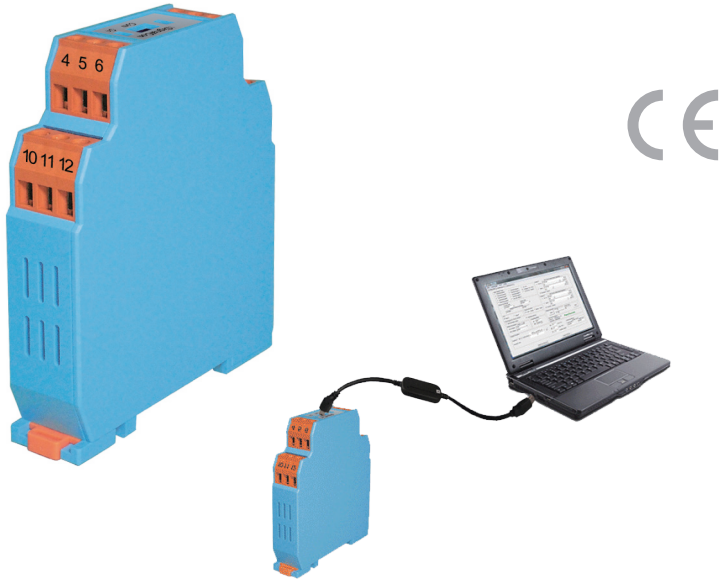




ISD 2 Independent Channels Isolated Universal Signal Converter/Conditioner/Isolator

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

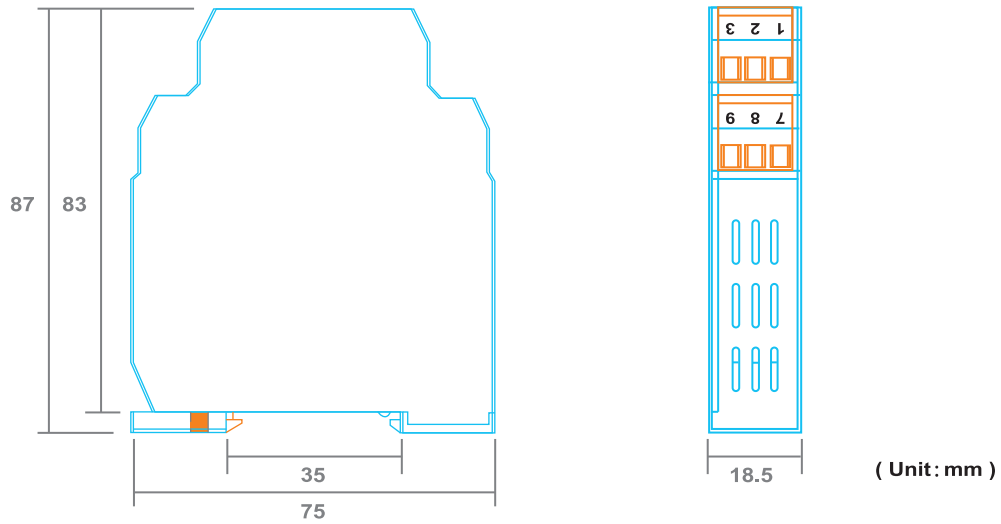
The **SignalCon**[®] DIN Rail converter is user configurable with the **Signalwin**[®] software and interface cable URC-1020 or handheld programmer. The **Signalwin**[®] is user-friendly software. The latest release version can be download free from website. Interface cable consist of interface converter and USB plug. It can be purchased separately from the **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 $\alpha = 0.00385$). |
| | 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: 0/4~20mA (Resistive load 600Ω max) |
| | Continuous Voltage Output: 0~10V... (Resistive load 600Ω min) |
| Output Resolution | 0.6μA (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) |

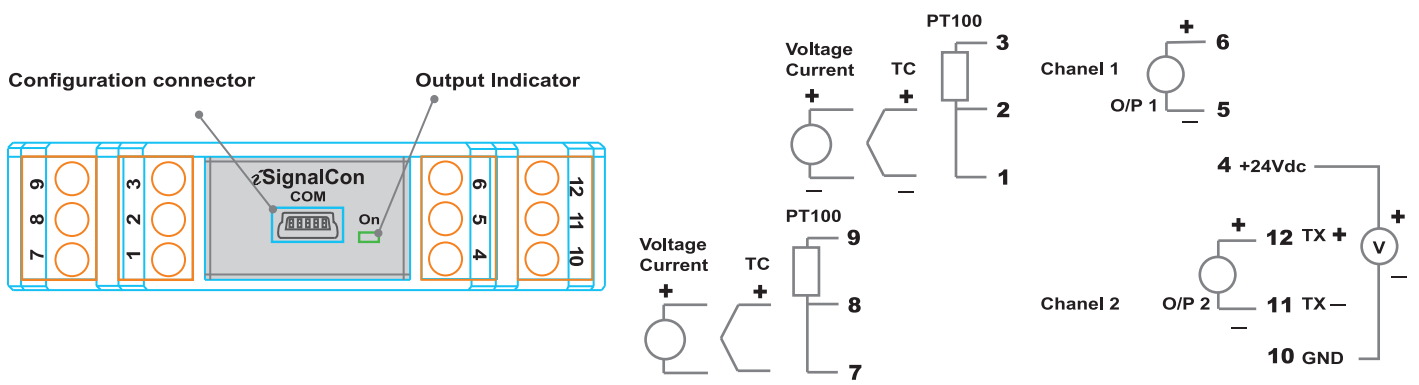
| Table 1 Input Signal | | |
|----------------------|----------------------------------|----------------|
| Input signal | Maximum Range | Accuracy |
| Thermocouple J | -50 to 1000 °C (-58 to 1832 °F) | ± 1°C |
| Thermocouple K | -50 to 1370 °C (-58 to 2498 °F) | ± 1°C |
| Thermocouple T | -270 to 400 °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 |
| Pt 100 | -200 to 600 °C (-328 to 1112 °F) | ± 0.2°C |
| mV | -60mV to 60mV | ± 0.01mV |
| Voltage (Note2) | -10 to 10Vdc | ± 1mV |
| Current (Note2) | 0 to 24mAdc | ± 10μA |

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

| Output 1 | Code | Output 2 | Code |
|----------|------|----------|------|
| 4~20 mA | M | 4~20 mA | M |
| 0~10 VDC | V | 0~10 VDC | 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.