

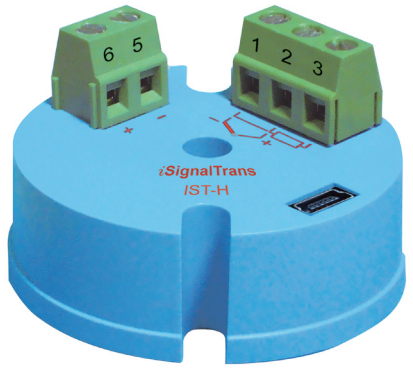


# zSignalTrans<sup>®</sup>

## IST-H Microprocessor Based Programmable Isolated Signal Transmitter

### Features :

- ▶ Programmable for various input signals, measuring range.
- ▶ Suitable to Mount Inside a KN box.
- ▶ Configurable without external Loop Power Connected.
- ▶ Inputs :
  - Resistance thermometer (Pt100)
  - Thermocouple (J,K,T,E,B,R,S,N,C)
  - Voltage/Current, mV (V/mA not selstable, request by order)
- ▶ Output :
  - 2-wire loop-power technology, 4 to 20 mA or 20 to 4 mA
  - analog output.
- ▶ High accuracy in total ambient temperature range.
- ▶ Fault signal on sensor break presettable.



### Configuration

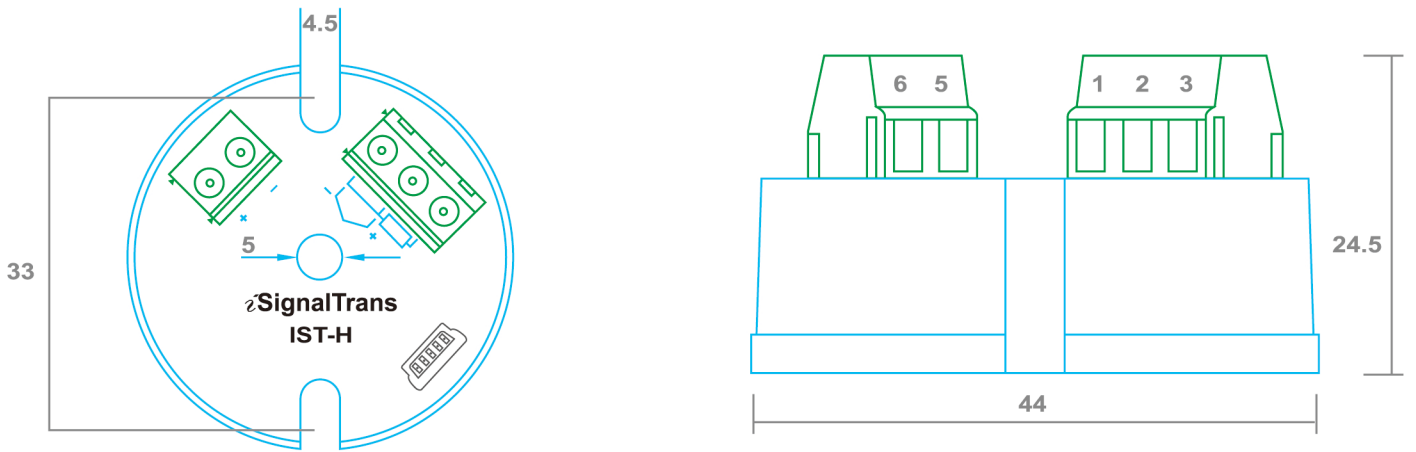
The zSignalTrans<sup>®</sup> IST-H transmitter is user configurable with the zSignalwin<sup>®</sup> software and interface cable URC-1020 or handheld programmer. The zSignalwin<sup>®</sup> is user-friendly software. The latest release version can be download free from website. Interface cable consist of interface converter and USB plug. It can be purchased separately from the zSignalTrans<sup>®</sup> supplier. During configuration the transmitter 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                       | DC10~36V  |
| Max. Load                          | (V-10) / 0.02 ( $\Omega$ )  |
| Output Resolution                  | 0.6 $\mu$ A (15 bits)   |
| Output Response Time               | <200 ms   |
| Common Mode Rejection Ratio (CMRR) | >80 dB  |
| Electromagnetic Compatibility      | 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   |

| 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                      | ± 10 $\mu$ A   |

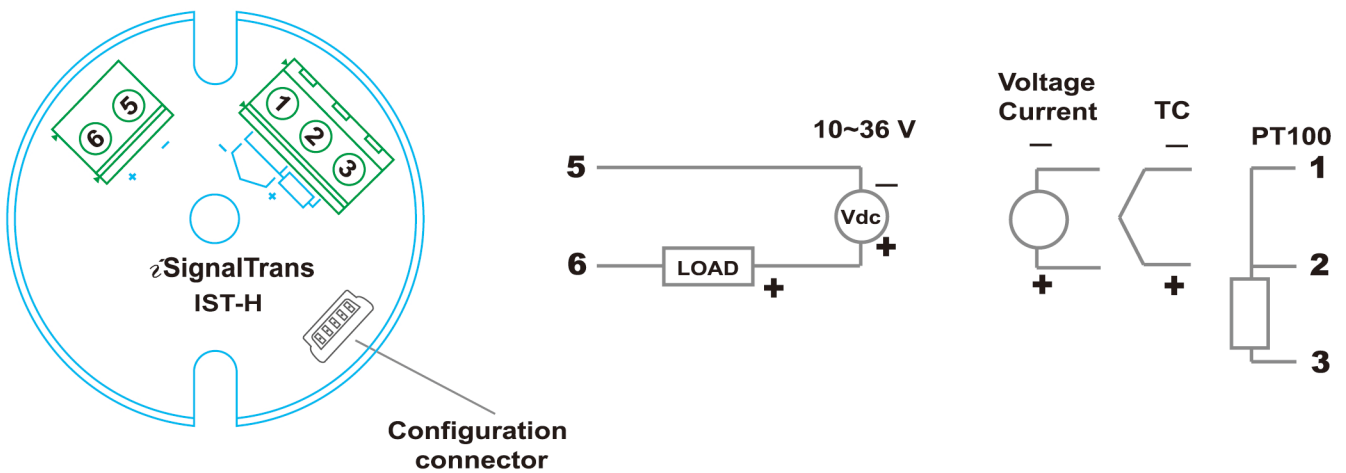
Note 1: Accuracy is not guaranteed between 0 and 400°C (0 and 752°F) for type B  
 Note 2: Not selectable, Special request please contact your supplier

## Dimension



( Unit: mm )

## Wiring Diagram

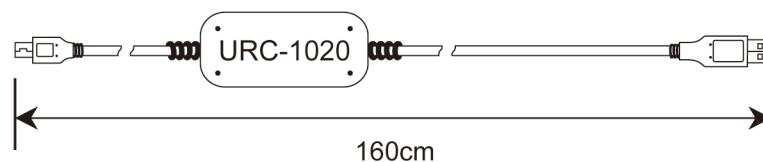


## Ordering Information

### IST-H

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

### 【 Accessory 】



URC-1020 Interface Cable