NEWPORT®

Thermocouple Signal Conditioners

iD Series

- T/C Types J, K, T, E, R, S, B, N, J DIN
- 0.1°C Resolution
- ±1°C Accuracy
- 1800 V Isolation
- 250 V/1 Min. Input Overvoltage Protection
- Free Setup and Configuration Software
- Factory Setup and Configuration Available at No Charge (for iDRN Analog Output Models)

The **iDRN-TC** and **iDRX-TC** signal conditioners provide highly accurate, stable, isolated measurement of thermocouple sensors.

Thermocouple types are selected and the outputs are scaled with the free configuration software, or can be done at the factory for no additional charge. The T/C Signal Conditioners can accept 9 different thermocouple types: J, K, T, E, R, S, B, N, and J DIN.

TWO MODELS: ANALOG or DIGITAL OUTPUTS
iDRN-TC provides an analog output that is proportional to the input signal. The **iDRX-TC** uses a digital RS-485 communication link.

ANALOG OUTPUT MODEL
The output of **iDRN-TC** can be user set for 0 to10 V, 4 to 20 mA or 0 to 20 mA. Input scaling and configuration of other operating parameters is accomplished by connecting to a standard RS-232 port of a personal computer and using the free Windows-based setup software. Once configured the settings may be stored in non-volatile memory and the unit disconnected from the PC.

Factory Setup and Configuration at No Extra Charge (iDRN Analog Output Model)
Please Specify:

Thermocouple Type
Temperature High & Low
Output Value High & Low
Example: Type J, 0°C = 4mA, 100°C = 20mA

$250
iDRX-TC

DIGITAL OUTPUT MODEL
The **iDRX-TC** is a digital signal conditioner which communicates over an RS-485 communication link using either a simple, straightforward ASCII® Serial Protocol or MODBUS Serial Protocol. Up to 32 modules may be connected to a single RS-485 port stretching up to 4,000 ft. without repeaters.

ETHERNET CONNECTION
The Optional **EIS-2** iServer module can connect up to thirty-two (32) **iDRX** RS-485 Signal Conditioners to an Ethernet network and the Internet using standard TCP/IP protocol. The iServer can also be used as a simple Serial to Ethernet "bridge" or converter to connect a single **iDRN** RS-232 device to an Ethernet network and the Internet.

NEWPORT manufactures many types of thermocouple probes. Refer to our website www.newportUS.com

Specifications
Accuracy at 25°C: ±1°C
Resolution: 0.1˚C
Power Consumption: 2 W (84 mA @ 24 Vdc)
Input Types: J, K, T, E, R, S, B, N, J DIN
Input Ranges: See range chart
iDRX Output: 2-wire (half duplex) RS-485 (NEWPORT® Serial Protocol and MODBUS SERIAL Protocol)
iDRN Output: 0 to 10 V @ 10 mA max; 0 to 20 mA or 4 to 20 mA, 10 V compliance
Thermocouple Default settings
iDRN: Input Type K, Range 0-1000 °F; Output 4-20 mA (Custom Settings available at no charge.)

Input Type	Range, ˚F	Range, ˚C
J	-346 to 1400°F	-210 to 760°C
K	-454 to 2500°F	-270 to 1372°C
T	-454 to 752°F	-270 to 400°C
E	-454 to 1832°F	-270 to 1000°C
R S	-58 to 3214˚F	-50 to 1768°C
B	+212 to 3300°F	+100 to 1820°C
N	-454 to 2372°F	-270 to 1300°C
J DIN	-328 to 1652°F	-200 to 900°C

To Order *(Specify Model Number)*

Model No.	Price	Description
iDRX-TC	**250**	Digital signal conditioner with RS-485 output for Thermocouple sensors
iDRN-TC	**325**	Signal conditioner with analog output for Thermocouple sensors
-FS	**Free**	Factory setup and scaling

Each unit supplied with complete operator's manual.
Ordering Example: *iDRN-TC signal conditioner ($325), and DB9-RJ12 connector adapter ($30),$325 + $30 =* ***$355.***