

### 2-Wire Panel Rail Mount Universal Temperature/Process Transmitters



ETR1



ETR2

**PROGRAMMABLE**  
in the field with your PC and easy to use software.  
Can be ordered pre-programmed from Tempco.

#### Design Features:

- \* Two levels of accuracy: ETR1— $\pm 0.15\%$  of span  
ETR2— $\pm 0.10\%$  of span
- \* Accepts 11 thermocouple types and 3- or 4-wire RTD sensors
- \* Field programmable with easy to use Windows®-based configuration software and a PC
- \* Sensor break monitoring, programmable for upscale or downscale
- \* Full access to all features while in operation
- \* Temperature linear output
- \* NAMUR-compliant
- \* Configuration, editing & reading without external power
- \* Easy wiring with captive clamp style wire connections

Temperature transmitters are used for a variety of reasons. The use of temperature transmitters can eliminate the need for long costly runs of thermocouple wire with less expensive copper signal wire. When the environment is electrically noisy, sending a 4-20 mA signal to the control panel reduces the chance of error.

The **Tempco ETR Series** of 2-wire transmitters is offered in non-isolated and isolated versions. They are designed to fit directly on a standard 35 mm DIN rail.

#### Additional Design Features for the Isolated Version

- \* Fully universal, linearized and isolated 3/4 wire RTD, T/C, mV and Ohm
- \* Sensor and system error correction
- \* Low sensor isolation detection
- \* Simplified loop check up with calibration output

The **ETR Transmitters** are built using surface mount components and employ digital technology with non-volatile memory to retain the configuration after programming and the cable is removed.



**Isolation** BOX 1  
1 = Non-Isolated  
2 = Isolated

**Input Signal** BOX 2  
R = RTD-Pt100  
S = RTD-D100  
H = RTD-Pt100  
T = Thermocouple  
M = mV (ETM2 only)  
P = Potentiometer (ETR2 only)

BOX 3  
If **thermocouple input**, enter thermocouple **Type Code**; (if not enter 0)  
J = J thermocouple  
K = K thermocouple  
E = E thermocouple  
B = B thermocouple  
C = C thermocouple  
L = L thermocouple  
N = N thermocouple  
R = R thermocouple  
S = S thermocouple  
T = T thermocouple  
U = U thermocouple

**Minimum Range** BOX 4  
In degrees (t/c and RTD)  
mV & ohms (isolated only)  
**Backfill unused boxes with 0's**  
Example: 10° = 0010

**Maximum Range** BOX 5  
In degrees (t/c and RTD)  
mV & ohms (isolated only)  
**Backfill unused boxes with 0's**  
Example: 950° = 0950

**Units:** BOX 6  
F = °F  
C = °C  
M = mV Ohms (isolated only)  
R = Ohms (isolated only)

**⚠ WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).