



Transmitters

Transmit without the
headaches.



2-minute PC programming, no power supply required.



Program any transmitter in just 2 minutes with our reusable TM-USB communications kit (sold separately). No power supply, input signal or calibration required during programming!

Use our FREE configuration software to easily select your input/output type and range, and view live data. Download it from defineinstruments.com/tmsetup

Save your configuration settings and recall them for lightning fast programming of additional transmitters.

TM-2DLI 2-Wire Universal Transmitter

- › 2-wire universal input
- › Current output
- › Loop powered
- › Isolated
- › 2-minute USB programming



Universal input

Thermocouple	B, E, K, J, N, R, S, T or custom type
RTD	Pt100/Pt1000
mA	0/4–20mA
V	+1–1V, +10–10V
mV	+100–100mV
Potentiometer	1–10kΩ

Current output 4–20mA or 20–4mA

Supply voltage 36V max, powered by loop input signal

Isolation voltage 2.3kV AC (test), 250V AC (operation)

Operating temperature -20–80°C

Temperature coefficient $\pm 0.01\%$ of span/°C

Maximum load 1200Ω (at 20mA with 36V input). Load stability $\leq 0.01\%$ of span/100Ω. Output load resistance 50Ω/V above 10V.

Response time 0–90%, 100–10% <1sec

Resolution 0.5μA

Accuracy $\leq \pm 0.1\%$ of span

LED indication for sensor errors (3.8mA, 21.5mA). LED flashing = normal operation, LED on = fault.

Potentiometer for fine offset adjustment of current output

32-point flexible linearization may be applied to current/voltage inputs

USB programmable, simple setup in under 2 minutes. No input signal required during programming.

DIN rail mountable unit, dimensions 79 x 20 x 75mm (HxWxD). Fits 35mm DIN rail (not included).

TM-4DPI 4-Wire Universal Transmitter

- › 4-wire universal input
- › Current/voltage output
- › Universal power supply
- › Isolated
- › 2-minute USB programming



Universal input

Thermocouple	B, E, K, J, N, R, S, T or custom type
RTD	Pt100/Pt1000
mA	0/4–20mA
V	10–0V, +10–10V
mV	100–0mV
Potentiometer	2kΩ–1MΩ

Current or voltage output

mA	0–20mA, 20–0mA, 4–20mA, 20–4mA
V	0–10V, 10–0V, +10–10V, -10–+10V

Supply voltage 85–265V AC, 20–72V DC

Operating temperature -10–60°C

Isolation voltage 2.3kV AC (test), 250V AC (operation)

Temperature coefficient $\leq \pm 0.01\%$ of span/°C

Maximum load 650Ω. Load stability $\leq 0.01\%$ of span/100Ω.

Response time 0–90%, 100–10% <1sec

Resolution 0.5μA

Accuracy $\leq \pm 0.1\%$ of span

LED indication for sensor errors (3.8mA, 21.5mA). LED flashing = normal operation, LED on = fault.

Potentiometer for fine offset adjustment of current output

32-point flexible linearization may be applied to current/voltage inputs

USB programmable, simple setup in under 2 minutes. No input signal required during programming.

DIN rail mountable unit, dimensions 79 x 30 x 75mm (HxWxD). Fits 35mm DIN rail (not included).

TM-2HL & TM-2HLI*

2-Wire Temperature Transmitters

- › 2-wire temperature input
- › Current output
- › Loop powered
- › Isolated or non-isolated
- › 2-minute USB programmir



Current output 4–20mA or 20–4mA

Supply voltage 36V max, (loop input signal)

Operating temperature -20–65°C

RTD input Pt100/Pt1000, 3-wire (or 2-wire with offset calibration)

Sensor current 0.15mA nominal

Lead resistance Pt100: 10Ω/wire max, Pt1000: 5Ω/wire max
(0.02% fso offset error per Ω)

Accuracy ≤0.3°C

Linearity Pt100 0.02% fso for ≤200°C, 0.1% fso for ≤850°C
Pt1000 0.02% fso for ≤200°C, 0.2% fso for ≤520°C

Thermocouple input B, E, J, K, N, R, S, T types

Input impedance 1MΩ min

Lead resistance 100Ω max

Cold junction -20–90°C

Accuracy E, J, K, N, T: <±2°C (or <±1°C *)
B, R, S: <±3°C (or <±2°C *)

Temp. drift E, J, K, N, T: <±0.05°C

B, R, S: <±0.2°C

CJC error <±1°C

USB programmable, simple setup in 2 minutes. No input signal required during programming. USB prog zero (0–±99% of span).

Head mounting unit, dimensions 44 x 44 x 23mm (HxWxD)

Features unique to isolated model (TM-2HLI)

* **Isolation voltage** 250V AC (operation)

* **LED indication** for sensor errors. Flashing = normal, On = fault.

* **Potentiometer** for fine offset adjustment of current output

New to defineinstruments.com

PSU-24

24V Instrument Power Supply

This 24V power supply effortlessly powers up to ten 4-20mA loops.

It delivers high accuracy and superior noise filtering using the latest EMI rejecting technology.



OVP-100

Over Voltage Protection Unit

This over voltage protection unit offers a simple and affordable way to insure your expensive instrumentation against power surges.



Enjoy all the benefits of a high level of protection concentrated in a compact space!

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