



# Merlin Series - Panel Meters

The Merlin Universal Indicator from Define Instruments is a highly versatile industrial panel meter designed to handle a wide range of input signals and operate reliably in harsh environments. It supports thermocouples, RTDs, NTCs, mA, V, mV, potentiometer, pulse, and AC current sensors—all within a single compact unit. Its rugged IP65-rated meter face with bright LED display and universal power supply, make it ideal for demanding and diverse industrial applications. The device also offers optional relay outputs with analog retransmission, and USB-based configuration via Define's ToolBox software.



Part No. [DEFINE-MERLIN-R2A](#)

## Features

- Universal input – Supports thermocouples (J, K, B, E, N, R, S, T), RTD (Pt100/Pt1000), NTC thermistors including ProSense 10 K Type 3, mA, V, mV, potentiometer and pulse
- Broad power supply range – Operates on 24–250 VAC or 19.5–250 VDC
- Integrated excitation output – Provides 22V excitation for powering 2-wire transmitters
- Display – 4-digit, 20mm red LED -1999 to 9999
- Outputs (R2A model) –
  - 2× Form A relays (3A @ 240 VAC or 28 VDC)
  - 1× analog output (4–20 mA or 20–4 mA)
- 1× user input on R2A model (manual relay reset or zero function)
- Accuracy & performance – ±0.05% FSO typical accuracy
- Construction & protection – IP65 front bezel and 2300 Vrms isolation
- Environmental range – Operates from 14 to 122 °F [-10 to 50 °C]; humidity 5–85% RH (non-condensing)
- Mounting – Compact panel-mount enclosure (48 × 95 × 62mm)
- Easy setup – Simple USB programming using the free Define ToolBox software ([DEFINE-BRIDGE-KEY](#) required); No power required (supplied by the cable for programming)
- UL listed (E473114)
- 5-year warranty

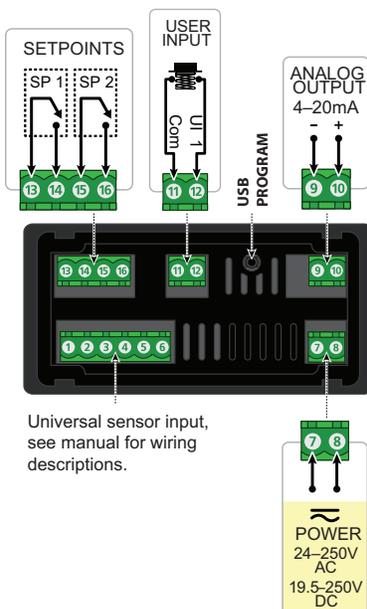


Define Instruments Merlin Series Panel Meters						
Part No.	Description	Manufacturer Specifications	Manufacturer Manual	Weight (lb)	Drawing Link	Price
<a href="#">DEFINE-MERLIN</a>	Define Instruments digital panel meter, panel mount, 1/8 DIN, 20mm 4-digit red LED, current, voltage, RTD, thermocouple, thermistor, pulse or potentiometer input, 24–250 VAC / 19.5–250 VDC operating voltage.	<a href="#">PDF</a>	<a href="#">PDF</a>	0.58	<a href="#">PDF</a>	\$;06x1#:
<a href="#">DEFINE-MERLIN-R2A</a>	Define Instruments digital panel meter, panel mount, 1/8 DIN, 20mm 4-digit red LED, current, voltage, RTD, thermocouple, thermistor, pulse or potentiometer input, 4–20 mA or 20–4 mA, (2) 3A (total) SPST relays output, 24–250 VAC / 19.5–250 VDC operating voltage.			0.63	<a href="#">PDF</a>	\$;06x1!:

For complete technical and installation information see [Manufacturer Specifications](#) and [Manufacturer Manual](#) links.

## Wiring

See [Manufacturer Manual](#) for additional wiring information and other applications. Relay, analog output, and user input on the -R2A model.



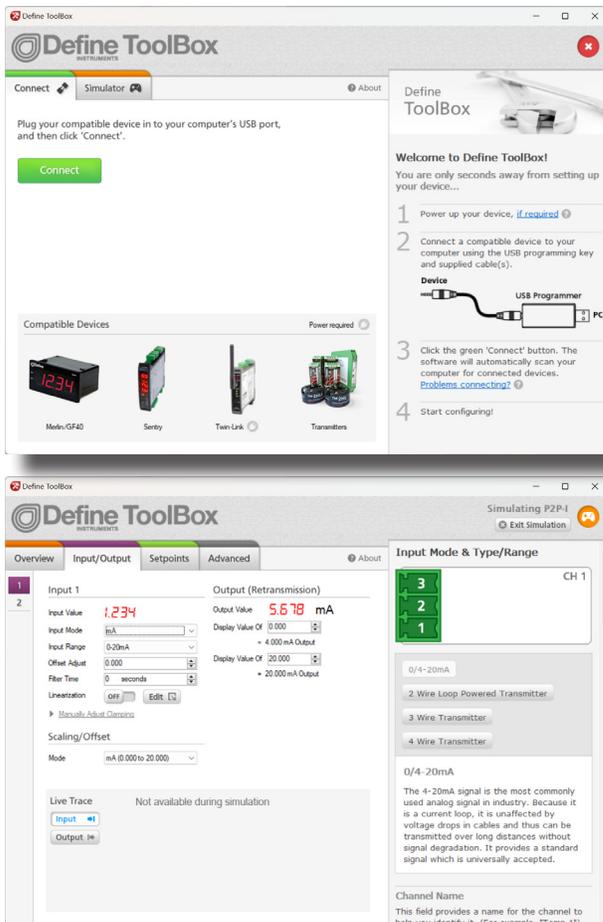
# Define Windows Configuration Software

## DEFINE-TOOLBOX-SW

Easily connect, configure, simulate, and monitor.

### FREE Download

Easily configure and optimize your Define Instruments products with the intuitive ToolBox software. Designed for simplicity and power, ToolBox enables rapid setup of Define Instruments universal analog inputs, 4–20 mA outputs, digital I/O, and other product dependent configurations all in under 60 seconds via USB Bridge Key. Select from pre-calibrated input ranges, scale outputs with ease, and program sophisticated setpoint functions for alarms, remote control, temperature control, or pump operations. Simulation Mode enables configuration testing without hardware, making it ideal for troubleshooting or pre-deployment planning. The Import/Export feature simplifies backups and cloning, while Configuration Certificates provide professional PDF summaries for easy sharing and record keeping. Whether you're a novice or expert, ToolBox delivers flexible, click-and-select options to streamline your wireless signal transmission, ensuring reliable and consistent setup. Download ToolBox from AutomationDirect.com.



The BK-HM is a head-mount adapter cable from Define Instruments, for the DEFINE-BRIDGE-KEY USB programming cable. It enables connection to head-mounted transmitters TM-2HL and TM-2HLI for programming via the Define ToolBox software.



Part No. [DEFINE-BRIDGE-KEY](#)



Part No. [DEFINE-BK-HM](#)

Define Instruments Accessories				
Part No.	Description	Manufacturer Manual	Weight (lb)	Price
<a href="#">DEFINE-BK-HM</a>	Define Instruments head-mount adapter, for use with Define Instruments DEFINE-TM-2HL and DEFINE-TM-2HLI programmable temperature transmitters. Requires DEFINE-BRIDGE-KEY fob USB adapter.	<a href="#">PDF</a>	0.04 lb	\$6x1u.
<a href="#">DEFINE-BRIDGE-KEY</a>	Define Instruments fob USB adapter, for use with Define Instruments DEFINE-TWIN-LINK and DEFINE-REPEATER. (1) 2.3ft interface cable and (1) 3.2ft/1m USB extension cable included. Requires DEFINE-TOOLBOX-SW configuration software.	<a href="#">PDF</a>	0.208 lb	\$6noe.

For additional information see [Manufacturer Manual links](#).