

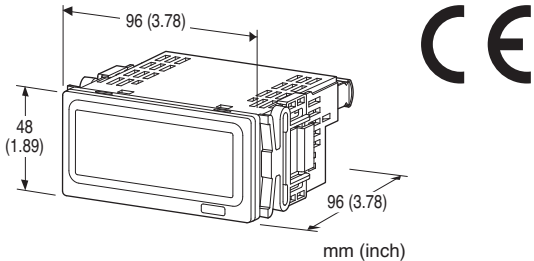
Digital Panel Meters 40 Series

DC INPUT DIGITAL PANEL METER

(3½ digit, without scaling)

Functions & Features

- High visible 0.8" (20.3 mm) LED
- Easy to use



MODEL: 40LV-[1]-R

ORDERING INFORMATION

- Code number: 40LV-[1]-R

Specify a code from below for [1].

(e.g. 40LV-V1-R)

[1] INPUT

Current

A1: ±199.9 µA DC (Input resistance 1 kΩ)

A2: ±1.999 mA DC (Input resistance 100 Ω)

A3: ±19.99 mA DC (Input resistance 10 Ω)

A4: ±199.9 mA DC (Input resistance 1 Ω)

A5: ±1.999 A DC (Input resistance 0.1 Ω)

Voltage

V1: ±199.9 mV DC (Input resistance 100 MΩ)

V2: ±1.999 V DC (Input resistance 100 MΩ)

V3: ±19.99 V DC (Input resistance 10 MΩ)

V4: ±199.9 V DC (Input resistance 10 MΩ)

(CE not available)

POWER INPUT

DC Power

R: 24 V DC

(Operational voltage range 24 V ±20 %, ripple 10 %p-p max.)

GENERAL SPECIFICATIONS

Construction: Panel flush mounting

Connection: M3 screw terminals (torque 0.6 N·m)

Screw terminal: Nickel-plated steel

Housing material: Flame-resistant resin (gray)

Isolation: Input to power

A/D conversion: Dual-slope integration

Sampling rate: 2.5 times/sec. (400 msec.)

DISPLAY

Display: 3 ½ digits of 20.3 mm height, red LED

Display range: -1999 to 1999

Decimal point position: 10⁻¹, 10⁻², 10⁻³ or none

(3 positions selectable by short circuit between terminals 5, 6 or 7 to 3)

Polarity: Minus (-) sign added automatically according to the input signal.

Over-range indication: 1 for positive; -1 for negative

Engineering unit indication: Sticker label attached

DC, AC, mV, V, kV, µA, mA, A, kA, mW, W,

kW, var, kvar, Mvar, VA, Hz, Ω, kΩ, MΩ,

cm, mm, m, m/sec, mm/min, cm/min, m/min,

m/h, m/s², inch, l, l/s, l/min, l/h, m³, m³/sec,

m³/min, m³/h, Nm³/h, N·m, N/m², g, kg, kg/h,

N, kN, Pa, kPa, MPa, t, t/h, °C, °F, %RH, J,

kJ, MJ, rpm, sec, min, pH, %, ppm, etc.

INPUT SPECIFICATIONS

■ **Hold Input:** Dry contact input

Detecting level: ≤ 4.3 V

Sensing: Approx. 5V, 0.7 mA DC

INSTALLATION

Power consumption

• **DC:** Approx. 0.5 W

Operating temperature: 0 to 55°C (32 to 131°F)

Operating humidity: 30 to 90 %RH (non-condensing)

Mounting: Panel flush mounting

Weight: 150 g (0.33 lb)

PERFORMANCE in percentage of reading

Accuracy: See the table next.

Temp. coefficient: ± (0.01 % of |rdg| + 0.1 digits) / °C

Line voltage effect: ±1 digit over voltage range

Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength: 1500 V AC @1 minute (input to power to ground)

Accuracy

INPUT CODE	MEASURING RANGE	MEASUREMENT ACCURACY	MAX. INPUT	MAX. RESOLUTION
A1	± 199.9 µA	± 0.1% rdg ± 1 digit	± 10 mA	100 nA
A2	± 1.999 mA		± 50 mA	1 µA
A3	± 19.99 mA		± 150 mA	10 µA
A4	± 199.9 mA		± 500 mA	100 µA
A5	± 1.999 A		± 3 A	1 mA
V1	± 199.9 mV	± 0.1% rdg ± 1 digit	± 250 V	100 µV
V2	± 1.999 V		± 250 V	1 mV
V3	± 19.99 V		± 250 V	10 mV
V4	± 199.9 V		± 350 V	100 mV

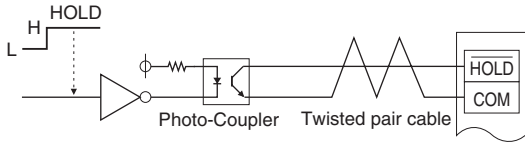
STANDARDS & APPROVALS

CE conformity:
 EMC Directive (2004/108/EC)
 EMI EN 61000-6-4: 2007
 EMS EN 61000-6-2: 2005

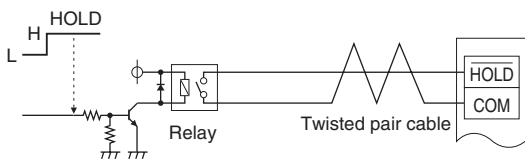
DISPLAY HOLD COMMAND

To hold the display, close between HOLD and COM as shown below.

(a) Photo-Coupler

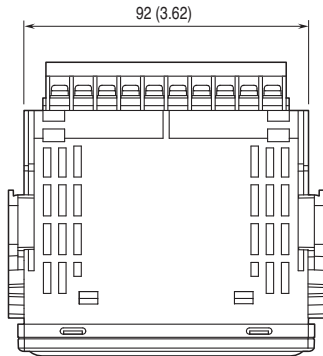


(b) Relay

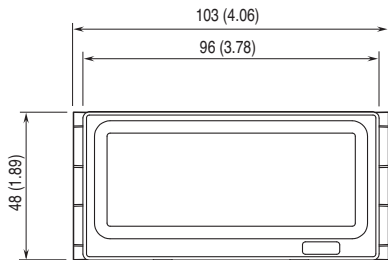


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

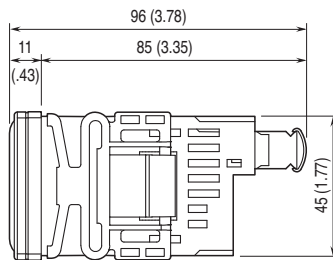
■ TOP VIEW



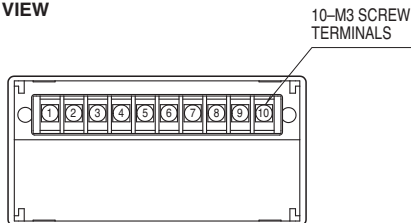
■ FRONT VIEW



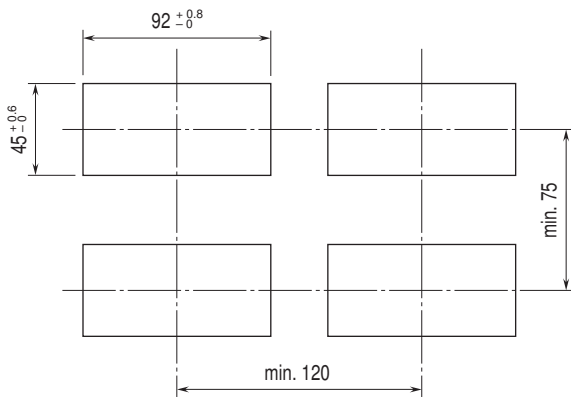
■ SIDE VIEW



■ REAR VIEW

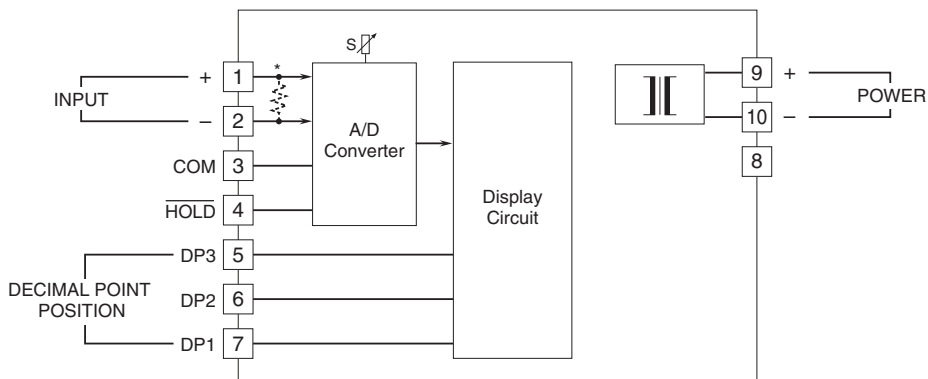


MOUNTING REQUIREMENTS unit: mm (inch)



Panel thickness: 1.6 to 8.0 mm

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



* Input shunt resistor incorporated for current input.



Specifications are subject to change without notice.