

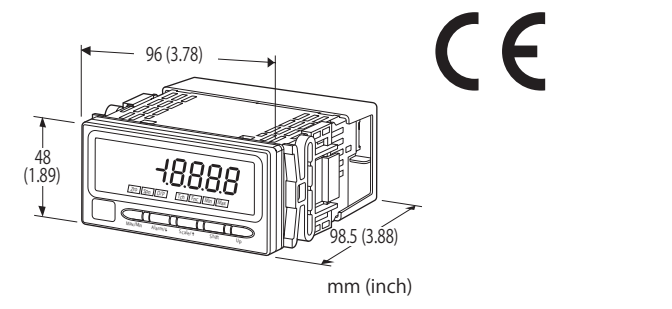
Digital Panel Meters 47 Series

DC INPUT DIGITAL PANEL METER

(4 1/2 digit, LED display type)

Functions & Features

- 4 ½ digit DC input digital panel meter
- 1/8 DIN size
- Moving average function to suppress the display flickering
- Scaling, forced zero, low-end cutout
- Max. and Min. value display
- Safety terminal cover tethered to the device with a strap
- IP66 front panel
- Separable terminal block



MODEL: 47LYV-[1][2]-[3][4]

ORDERING INFORMATION

- Code number: 47LYV-[1][2]-[3][4]
- Specify a code from below for each [1] through [4]. (e.g. 47LYV-AR-M2/Q)
- Specify the specification for option code /Q (e.g. /C01/S01/SET)

[1] INPUT

Current

A: 4 - 20 mA DC (Input resistance approx. 10 Ω)
 D: 0 - 20 mA DC (Input resistance approx. 10 Ω)

Voltage

5: 0 - 5 V DC (Input resistance 1 MΩ min.)
 6: 1 - 5 V DC (Input resistance 1 MΩ min.)
 4W: -10 - +10 V DC (Input resistance 1 MΩ min.)
 5W: -5 - +5 V DC (Input resistance 1 MΩ min.)

[2] DISPLAY COLOR

R: Red
 YR: Orange

[3] POWER INPUT

AC Power

M2: 100 - 240 V AC (Operational voltage range 85 - 264 V, 50/60 Hz)

DC Power

R: 24 V DC
 (Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)
 P: 110 V DC
 (Operational voltage range 85 - 150 V, ripple 10 %p-p max.)

[4] OPTIONS

blank: none
 /Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to M-System's web site.)

Moving parts and indicators are not coated.

- /C01: Silicone coating
- /C02: Polyurethane coating
- /C03: Rubber coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

EX-FACTORY SETTING

/SET: Preset according to the Ordering Information Sheet (No. ESU-9514)

GENERAL SPECIFICATIONS

- Construction:** Panel flush mounting
- Degree of protection:** IP66; applicable to the front of the panel meter mounted according to the specified panel cutout
- Connection:** M3 screw terminals (torque 0.6 N·m)
- Screw terminal:** Nickel-plated steel (standard) or stainless steel
- Housing material:** Flame-resistant resin (gray)
- Isolation:** Input to power
- Setting:** (Front button)
 - Scaled range
 - Moving average
 - Others
 (Refer to the instruction manual for details)
- Read rate:** Max. 40 times/sec. (25 msec.)
- Averaging:** None or moving average
- Lockout Setting:** Prohibiting certain operations; protecting settings

DISPLAY

- Display:** 16 mm (.63) high, 4 ½ digits, LED
- Display range:** -19999 to 19999
- Decimal point position:** 10⁻¹, 10⁻², 10⁻³, 10⁻⁴ or none
- Zero indication:** Higher-digit zeros are suppressed.
- Over-range indication:** '-19999' or '19999' blinking for display values out of the scaled range.
- 'S.ERR' and 'Min' or 'Max' blinking when the input signal is



out of the usable range.

Engineering unit indication: Sticker label attached

DC, AC, mV, V, kV, μ A, mA, A, kA, mW, W,
kW, var, kvar, Mvar, VA, Hz, Ω , k Ω , M Ω ,
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

■ **DC Current:** Input resistor incorporated

Measurable range: -10 - +110 %

INSTALLATION

Power consumption

•AC: Approx. 4 VA

•DC: Approx. 2 W

Operating temperature: -10 to +55°C (14 to 131°F)

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

Mounting: Panel flush mounting

Weight: 250 g (0.55 lbs)

PERFORMANCE

Accuracy: ± 0.1 % ± 1 digit

Temp. coefficient: ± 0.015 %/°C (± 0.008 %/°F)

Input resolution: 16 bits

Line voltage effect: ± 0.1 % over voltage range

Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 2000 V AC @ 1 minute

(input to power to ground)

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

Low Voltage Directive (2006/95/EC)

EN 61010-1: 2001

Installation Category II

Pollution Degree 2

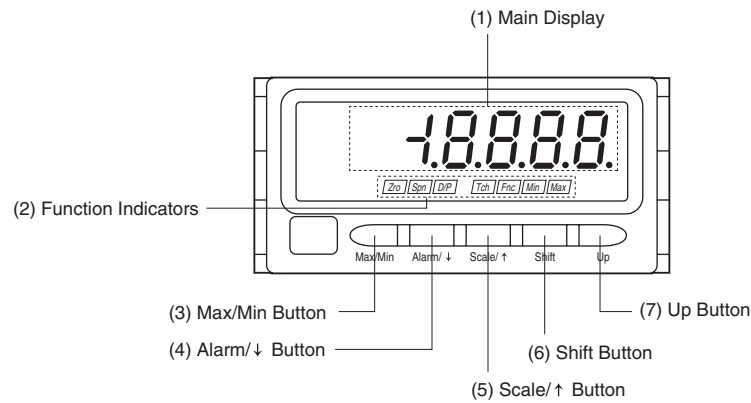
Input to power: Reinforced insulation (300 V)

Protection against access to the terminal blocks:

Finger protection (VDE 0660-514)



EXTERNAL VIEW



• COMPONENT IDENTIFICATION

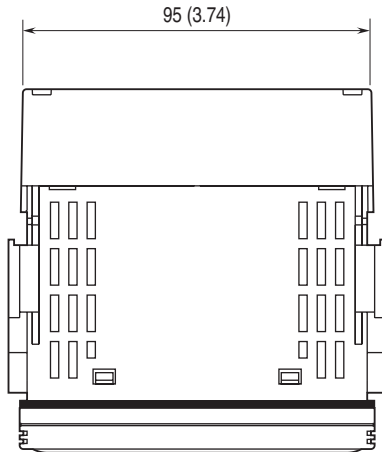
No.	COMPONENT	FUNCTION
(1)	Main display	Indicates present values, setting values.
(2)	Function indicators	Indicate setting modes and status.
(3)	Max/Min button	Used to switch the main display to show present values, maximum values or minimum values.
(4)	Alarm/↓ button	Used to shift through setting items in each setting mode.
(5)	Scale/↑ button	Used to move on to the scaling setting mode; or to shift through setting items in each setting mode.
(6)	Shift button	Used to move on to the setting standby status and shift through display digits in each setting item.
(7)	Up button	Used to change setting values, to execute/cancel Forced Zero, or to set input signal values during 'Teach' calibration.

Refer to the instruction manual for details on each function.

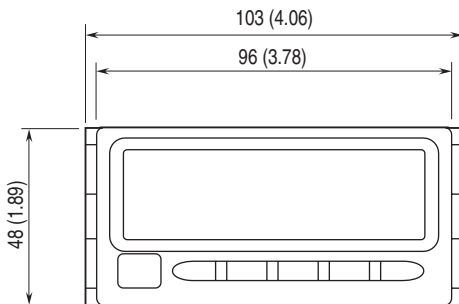


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)

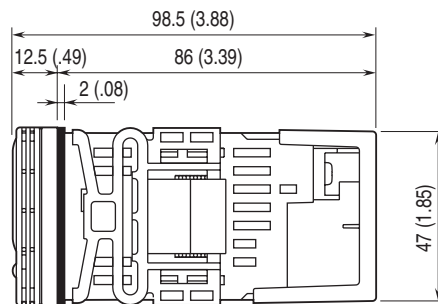
■ TOP VIEW



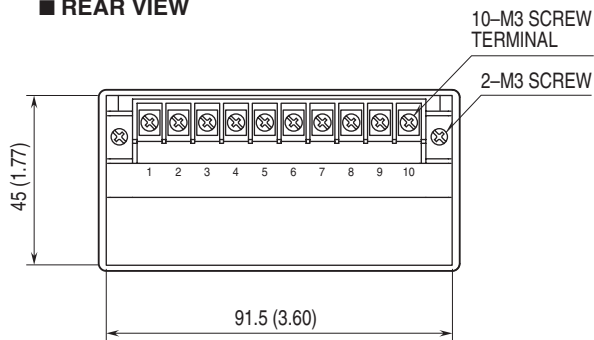
■ FRONT VIEW



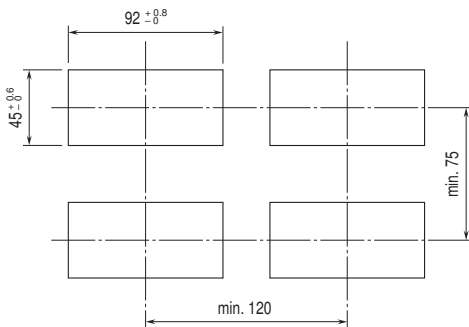
■ SIDE VIEW



■ REAR VIEW



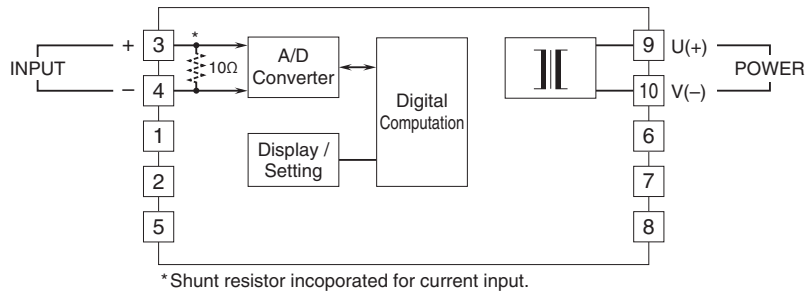
MOUNTING REQUIREMENTS unit: mm



Panel thickness: 1.6 to 8.0 mm



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*Shunt resistor incorporated for current input.



Specifications are subject to change without notice.

