

Bargraph Indicators 49 Series

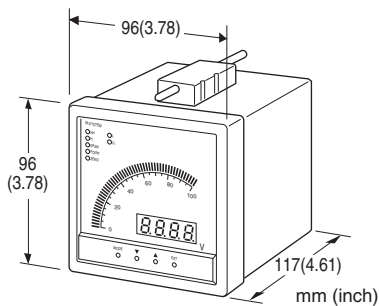
BARGRAPH INDICATING ALARM

Functions & Features

- Bargraph and digital displays
- DIN size
- Easy-to-read tri-color LED indicator

Typical Applications

- Indicator for various signals
- Available to use alarm with display



MODEL: 49AV2-[1]W1[2]-[3]

ORDERING INFORMATION

- Code number: 49AV2-[1]W1[2]-[3]
- Specify a code from below for each of [1] through [3].
(e.g. 49AV2-4W13-M)
- Special input range (For codes Z & 0)
 - Digital meter scale (e.g. 0.0 – 150.0)
 - Use Ordering Information Sheet (No. ESU-9333). Factory setting will be used if not otherwise specified.

[1] ALARM OUTPUT

- 0: None
2: 2 points
4: 4 points

BAR LED COLOR

W: 3 colors (red, green, amber)

DIGITAL DISPLAY

1: With

[2] INPUT

Current

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

G: 0 – 1 mA DC (Input resistance 200 Ω)
Z: Specify current (See INPUT SPECIFICATIONS)
(0 % input must be 0 mA.)

Voltage

- 3: 0 – 1 V DC (Input resistance 1 M Ω min.)
4: 0 – 10 V DC (Input resistance 1 M Ω min.)
5: 0 – 5 V DC (Input resistance 1 M Ω min.)
6: 1 – 5 V DC (Input resistance 1 M Ω min.)
0: Specify voltage (See INPUT SPECIFICATIONS)
(0 % input must be 0 V.)

[3] POWER INPUT

AC Power

M: 85 – 264 V AC (Operational voltage range 85 – 264 V, 50/60 Hz)

DC Power

R: 24 V DC
(Operational voltage range 24 V $\pm$ 15 %, ripple 10 %p-p max.)

GENERAL SPECIFICATIONS

Construction: Panel flush mounting

Connection: M4 screw terminals

Housing material: ABS resin

Isolation: Input to alarm output to power

Zero adjustment: -10 to +10 % (front)

Span adjustment: 90 to 110 % (front)

Scale plate: Aluminium (white scale & characters on black base)

H & L alarm output delay: 0 sec. (factory setting; fieldselectable between 0 and 15 sec. by 1 sec. increments)

Setpoint adjustment

2 points:

- H [L setpoint] to 100 %
L 0 to [H setpoint]

4 points:

- HH [H setpoint] to 100 %
H [L setpoint] to [HH setpoint]
L [LL setpoint] to [H setpoint]
LL 0 to [L setpoint]

Read rate: 12.5/s

Moving average sample number: 4 (factory setting; field selectable among 1, 2, 4, 8 or 16)

■ BARGRAPH

LED: 51-segment LED

Scale length: 89 mm (3.50") long, angle 120°

Display range: 0 to 100 (scaling function not available)

■ DIGITAL DISPLAYS

LED: 7-segment red LED, character 10 mm (.39") high

Number of digits: 4 digits

Setting range: -1999 to 9999

(Min. 3 significant digits)

Minimum scale value: 120 (3 digits, the decimal point position disregarded)
Factory setting: 0.0 to 100.0
Display range: the ranges from -1999 to 9999 and from -10 to +110 % of input span
 (The indicator blinks while displaying "Lo" when the input is below -10% and "Hi" when the input is over 110%)
Decimal point position: 10^{-1} , 10^{-2} , 10^{-3} or none
Zero indication: Higher-digit zeros are suppressed
Engineering unit indication: Sticker label attached;
 %, m, N/m², m³/h, mm, °C, Pa, A, pH, m³, Nm³/h, t/h, l/h, kg/h, kPa, abs, ppm, psi, kg/cm²G, N/cm², lb/h, J, kJ, Nl, lbs, Ω, μΩ, 1°, km³/h, Sm³

INPUT SPECIFICATIONS

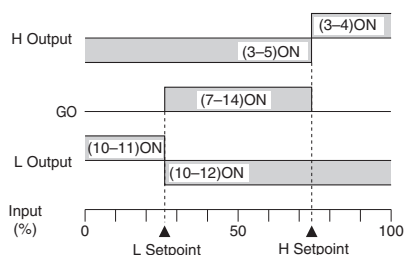
■ **DC Current:** 0 - 50 mA DC; input resistor incorporated
Minimum span: 1 mA
 ■ **DC Voltage:** 0 - 10 V DC
Minimum span: 1 V
Input resistance: ≥ 1 MΩ

OUTPUT SPECIFICATIONS

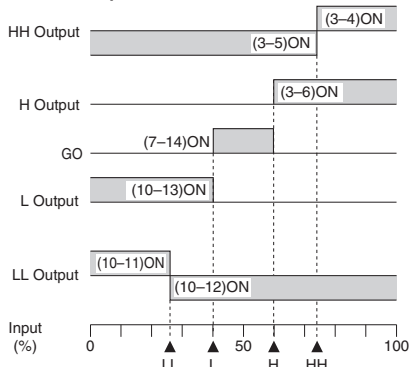
■ **Alarm Output:** Relay contact
Rated load: 250 V AC @3 A (cos φ = 1)
 30 V DC @3 A (resistive load)
Maximum switching voltage: 300 V AC, 50 V DC
Maximum switching power: 750 VA, 90 W
Minimum load: 5 V DC @100 mA
Mechanical life: ≥ 2 × 10⁷ cycles (rate 300 cycles/min.)

Alarm Trip Operation Terminal No. in parentheses

• Alarm Output Code 2



• Alarm Output Code 4



Terminals 3 - 5, 10 - 12 turn on at a loss of power.

INSTALLATION

Power consumption

• **AC:** Approx. 7 VA

• **DC:** Approx. 6 W

Operating temperature: 0 to 45°C (32 to 113°F)

Operating humidity: 40 to 80 %RH (non-condensing)

Mounting: Panel flush mounting

Weight: 500 g (1.1 lb)

PERFORMANCE in percentage of span

Accuracy

Bargraph: ±2 %

Digital indicator: ±0.5 %

Setpoint accuracy

Bargraph: ±2 %

Digital indicator: ±0.5 %

Response time: 0.5 sec.

Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength:

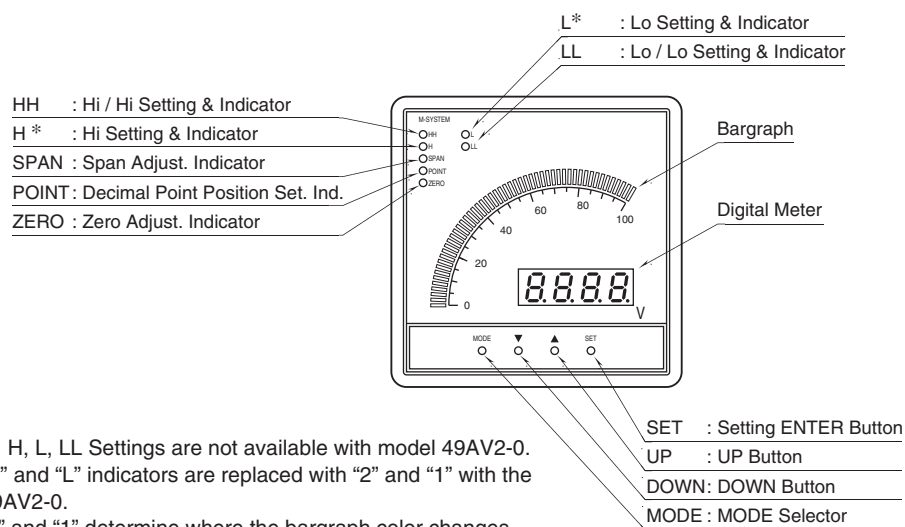
2000 V AC @1 minute (input to power)

1500 V AC @ 1 minute (input to alarm output)

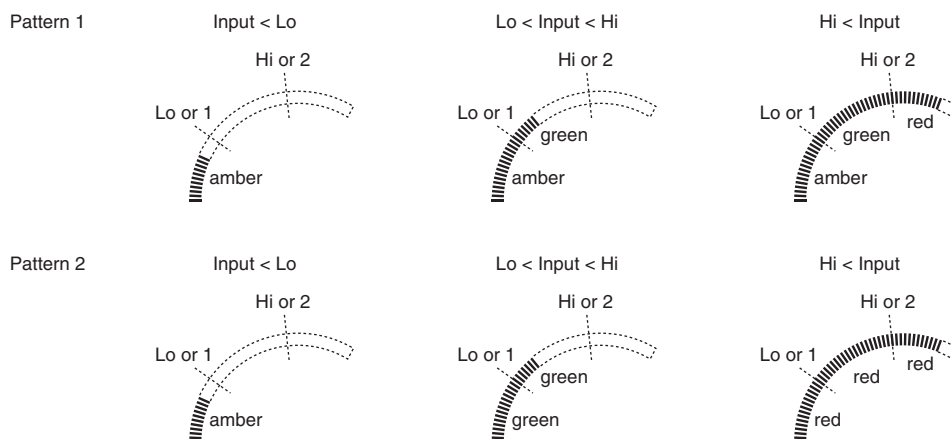
1500 V AC @ 1 minute (alarm output to power)

2000 V AC @ 1 minute (input or alarm output or power to ground)

EXTERNAL VIEW

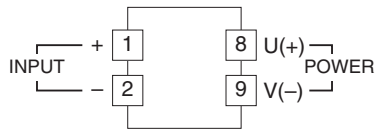


Multicolor Indication

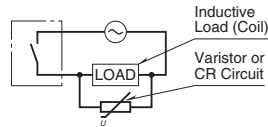


CONNECTION DIAGRAM

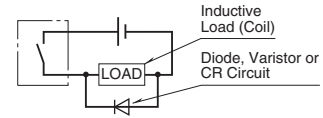
• 49AV2-0



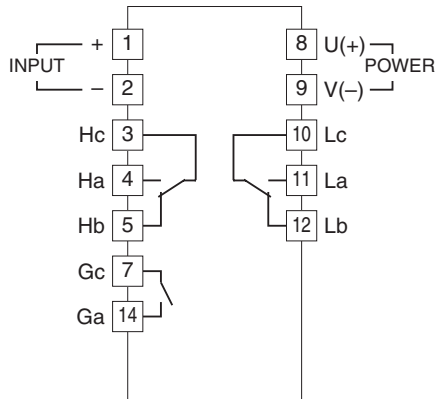
• Relay Protection AC Powered



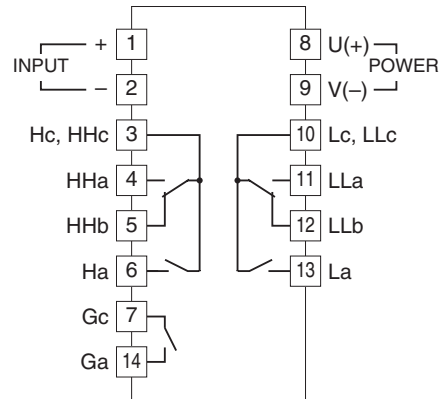
DC Powered



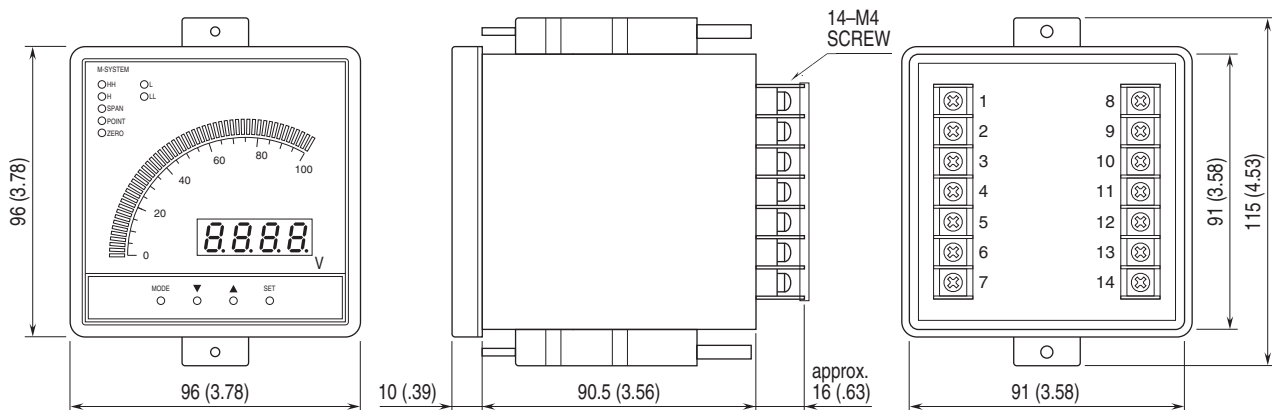
• 49AV2-2



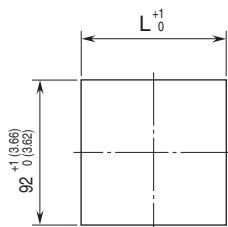
• 49AV2-4



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



PANEL CUTOUT unit: mm



Panel thickness 1.6 – 5.5 mm
 $L = 96 \times (N - 1) + 92$ (mm)
 where N : number of units



Specifications are subject to change without notice.