

Digital Panel Meters 43 Series
3 1/2 DIGIT DC PANEL METER
MODEL 43DV1
MODEL & SUFFIX CODE SELECTION
43DV1-□-R
MODEL _____

RANGE _____

DC Voltmeter
V1 : ±199.9mV

V2 : ±1.999V

V3 : ±19.99V

V4 : ±199.9V

Process Meter
SA : 4 – 20mA DC

SB : 0 – 20mA DC

SC : 0 – 10mA DC

SG : 0 – 1mA DC

SJ : 0 – 5mA DC

SZ : Specify current*

S4 : 0 – 10V DC

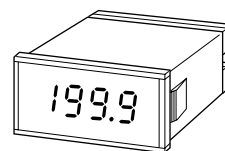
S5 : 0 – 5V DC

S6 : 1 – 5V DC

S0 : Specify voltage*

*0% input must be 0mA or 0V.

POWER INPUT _____

R : 24V DC

Functions & Features

- Small size • 3 1/2 digit DC panel meter • Process meters feature zero suppression and span adjustment for transmitter signals

GENERAL SPECIFICATIONS
Construction: panel flush mounting

Connection: connector (leadwires soldered)

Housing material: flame-resistant resin (black)

Input configuration: single-ended

A/D conversion: dual-slope integration with automatic zero correction

Scaling: analog scaling; potentiometer on the front panel

ORDERING INFORMATION

Specify code number and variables.

- **Code number** (e.g. 43DV1-S0-R)
- **Special input range** (For codes SZ & S0)
- **Scale for process meter** (e.g. 0 – 1500)

DISPLAY
LED: 8 mm (.31") 7-segment, red

Number of display digits: 3 1/2

Scaling factor for process meter
Zero: 0±1999 counts

Span: [zero point + 100] to +1999 counts

Decimal point position: 3 positions selectable by a jumper at connector

Read rate: 2.5/s standard

Display hold: available by external input signal

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

Process meter: 1

Engineering unit indication: sticker label attached

INPUT**■DC INPUT****•DC Voltmeter****Input resistance**

Input	Input Resistance
$\pm 199.9\text{mV}$	: $\geq 1000\text{M}(\Omega)$
$\pm 1.999\text{V}$	: $\geq 1000\text{M}$
$\pm 19.99\text{V}$	: 10M
$\pm 199.9\text{V}$	: 10M

•Process Meter: specific range within 0 – 50mA DC
or 0 – 300V DC

Minimum span: 1mA, 100mV

Input resistance

Input	Input Resistance
4 – 20mA	: 20 (Ω)
0 – 20mA	: 20
0 – 10mA	: 40
0 – 1mA	: 400
0 – 5mA	: 80
0 – 10V	: 1M
0 – 5V	: 1M
1 – 5V	: 1M

■HOLD INPUT: negative logic 5V-CMOS, LSTTL compatible; negative common with DC input

INSTALLATION

Power input: 24V DC $\pm 10\%$, approx. 60mA

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

Operating humidity: 20 to 85% RH (non-condensing)

Storage temperature: -20 to +70°C (-4 to +158°F)

Storage humidity: 20 to 95% RH (non-condensing)

Mounting: panel flush mounting

Dimensions: W48×H24×D72 mm (1.89"×0.94"×2.83")

Weight: 60 g (0.13 lbs)

PERFORMANCE in percentage of reading**Accuracy**

Voltmeter: $\pm(0.1\% \text{ of } |\text{rdg}| + 1 \text{ digit})$

$\pm(0.1\% \text{ of } |\text{rdg}| + 2 \text{ digits})$ for 0.2V range

Ammeter: $\pm(0.2\% \text{ of } |\text{rdg}| + 1 \text{ digit})$

Process meter (voltage input):

$\pm(0.15\% \text{ of } |\text{rdg}| + 1 \text{ digit})$

Process meter (current input):

$\pm(0.2\% \text{ of } |\text{rdg}| + 1 \text{ digit})$

Temp. coefficient: $\pm(0.01\% \text{ of } |\text{rdg}| + 0.1 \text{ digits})/^{\circ}\text{C}$

Line voltage effect: ± 1 digit over voltage range

Insulation resistance: $\geq 100\text{M}\Omega$ with 500V DC

(input to power)

Dielectric strength: 1000V AC @1 minute

(input to power)

500V AC @1 minute (power to ground)

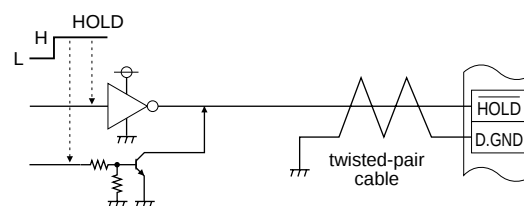
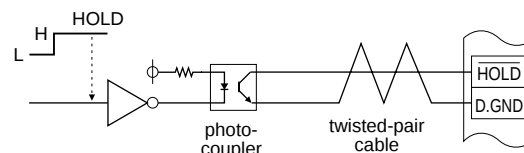
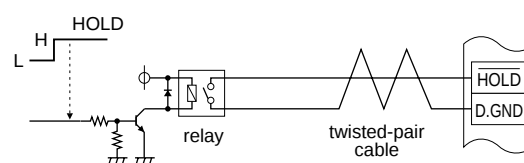
DECIMAL POINT POSITION

Close across the connector pin terminals as following:

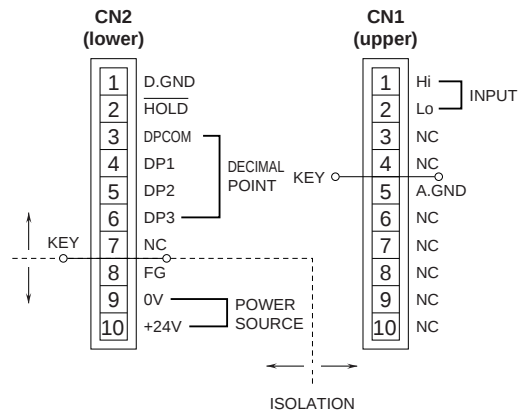
DP1 ($\times 10^1$) LED ON	Pin No. 4 to 3
DP2 ($\times 10^2$) LED ON	Pin No. 5 to 3
DP3 ($\times 10^3$) LED ON	Pin No. 6 to 3

DISPLAY HOLD COMMAND

Display indication is held with an external HOLD command input (contact closure). Connect the contact across HOLD to D.GND.

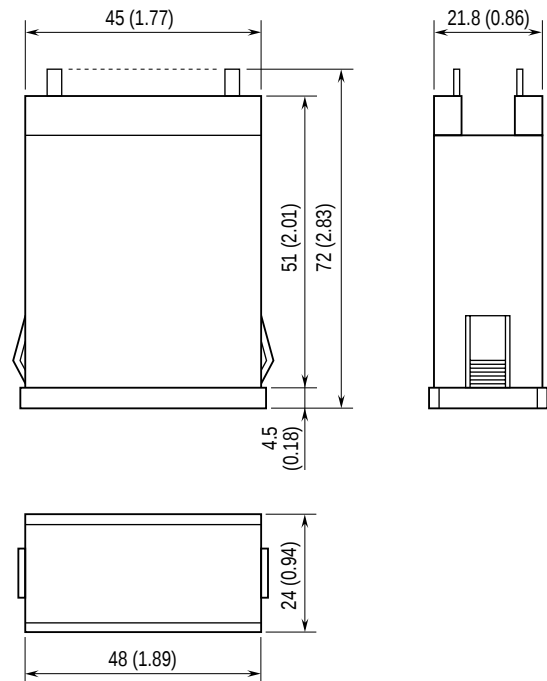
(a) 5V-CMOS, LSTTL**(b) TRANSISTOR****(c) PHOTO-COUPLER****(d) RELAY**

TERMINAL CONNECTION

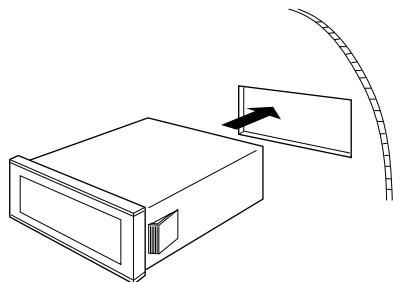


Pin No.2 (Lo) – 5 (A.GND) of CN1 and No.1 (D.GND) of CN2 are connected internally. They are isolated from No.9 (0V) of CN2.

EXTERNAL DIMENSIONS mm (inch)



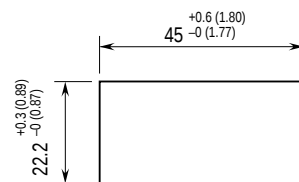
MOUNTING REQUIREMENTS mm (inch)



Just insert the meter body (snap-in method).

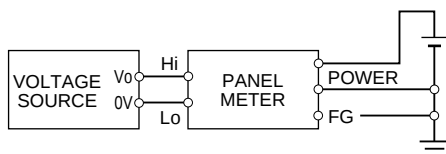
■PANEL CUTOUT

Panel thickness: 0.5 – 4 mm (.02" – .16")



CONNECTION EXAMPLES

•Voltmeter



•Process meter

