

DC INPUT DIGITAL PANEL METER
(4 digits, process meter)MODEL **40DV1****BEFORE USE**

Thank you for choosing us. Before use, please check contents of the package you received as outlined below.

If you have any problems or questions with the product, please contact our sales office or representatives.

■ PACKAGE INCLUDES:

Digital panel meter (body + mounting bracket × 2).....(1)
Engineering unit sticker label sheet.....(1)

■ MODEL NO.

Confirm Model No. marking on the product to be exactly what you ordered.

■ INSTRUCTION MANUAL

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

For detailed explanations to operate this product, please refer to Operating Manual (EM-9539-B), downloadable at our web site.

POINTS OF CAUTION**■ CONFORMITY WITH EU DIRECTIVES**

- This equipment is suitable for Pollution Degree 2, Measurement Category I (input, transient voltage 1500V) and Installation Category II (transient voltage 2500V). Reinforced insulation (input to power: 300V) is maintained. Prior to installation, check that the insulation class of this unit satisfies the system requirements.
- Altitude up to 2000 meters.
- The equipment must be installed such that appropriate clearance and creepage distances are maintained to conform to CE requirements. Failure to observe these requirements may invalidate the CE conformance.
- The actual installation environments such as panel configurations, connected devices, connected wires, may affect the protection level of this unit when it is integrated in a panel system. The user may have to review the CE requirements in regard to the whole system and employ additional protective measures to ensure the CE conformity.
- In order to enable the operator to turn off the power input immediately, install a switch or a circuit breaker according to the relevant requirements in IEC 60947-2 and properly indicate it.

■ POWER INPUT RATING & OPERATIONAL RANGE

- Locate the power input rating marked on the product and confirm its operational range as indicated below:
 - 100 – 240V AC, 50 to 60 Hz rating:
 - 85 – 264V, 47 to 66 Hz, ≤ 2.7VA
 - 24V DC rating: 24V ±20%, approx. 0.5W

■ GENERAL PRECAUTIONS

- Before you remove the unit or mount it, turn off the power supply and input signal for safety.
- Be sure to put the terminal cover on while the power is supplied.

■ ENVIRONMENT

- Indoor use.
- When heavy dust or metal particles are present in the air, install the unit inside proper housing with sufficient ventilation.
- Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
- Environmental temperature must be within -10 to +55°C (14 to 131°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.
- Be sure that the ventilation slits are not covered with cables, etc.

■ WIRING

- Make sure for safety that only qualified personnel perform the wiring.
- Do not install cables close to noise sources (high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

■ EX-FACTORY SETTING (/SET)

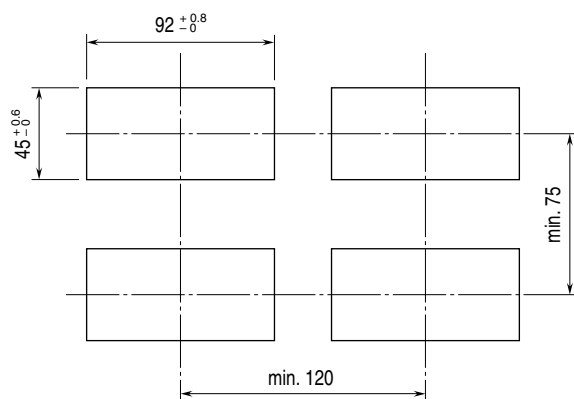
- Activating “initialization” of Display Setting Mode, Ex-factory settings or user’s specified parameters will be deleted and overwritten with the factory default values. Notice that after this, Ex-factory settings will be irrecoverable.

■ AND

- The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

INSTALLATION

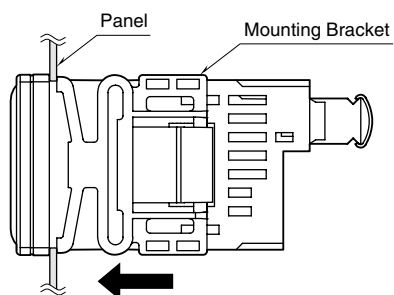
■ PANEL CUTOUT unit: mm



Panel thickness: 1.6 to 8.0 mm

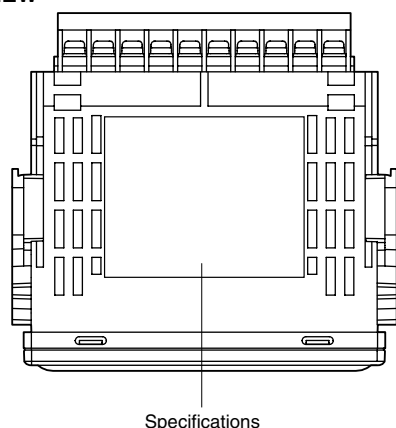
■ HOW TO MOUNT THE UNIT ON A PANEL

- 1) Insert the unit into the panel cutout.
- 2) Push the mounting brackets into the grooves on both sides of the rear module, until they hit the panel's rear side.

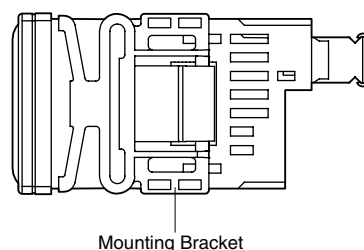


COMPONENT IDENTIFICATION

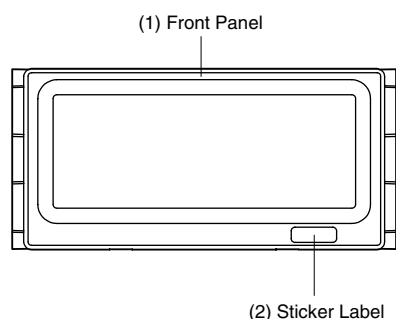
■ TOP VIEW



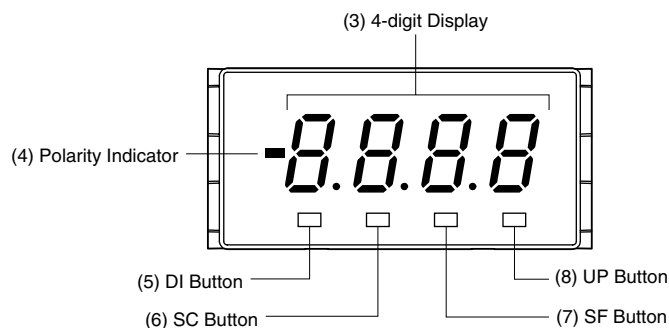
■ SIDE VIEW



■ FRONT VIEW



• Front View without the Front Panel

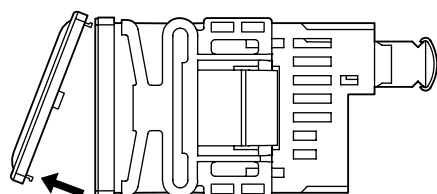


■ COMPONENT IDENTIFICATION

No.	COMPONENT	FUNCTION
(1)	Front Panel	Removed at configuration.
(2)	Sticker Label	Engineering unit label position
(3)	4-digit Display	4-digit LED display. Range: 0 to 9999 (not including decimal point)
(4)	Polarity Indicator	Turns on when negative value is displayed
(5)	DI Button	Used to move on to the display setting modes; or to shift through setting items in each setting mode.
(6)	SC Button	Used to move on to the scaling setting modes; or to shift through setting items in each setting mode.
(7)	SF Button	Used to move on to the setting standby status and shift through display digits in each setting item.
(8)	UP Button	Used to select setting value.

■ HOW TO REMOVE THE FRONT PANEL AT CONFIGURATION

Hold up the front panel and remove it from downside.



■ HOW TO MOUNT THE FRONT PANEL

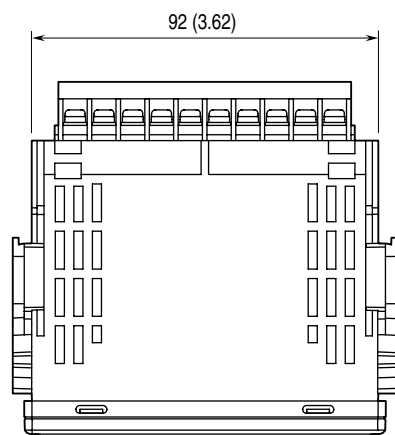
- 1) Insert the front panel hook into the case upside slots of the unit.
- 2) Push the front panel hook into the case downside slots of the unit.

TERMINAL CONNECTIONS

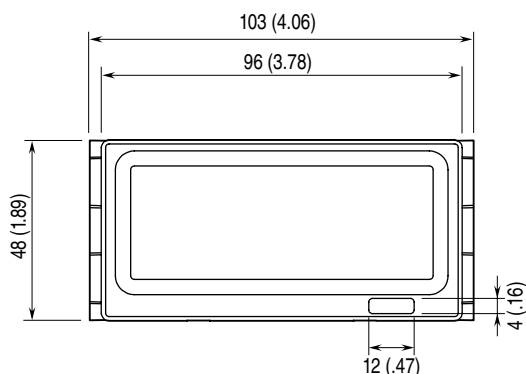
Connect the unit as in the diagram below or refer to the connection diagram on the top of the unit.

EXTERNAL DIMENSIONS unit: mm (inch)

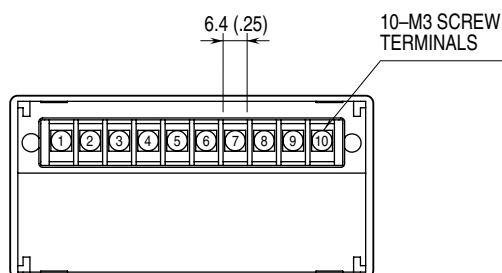
TOP VIEW



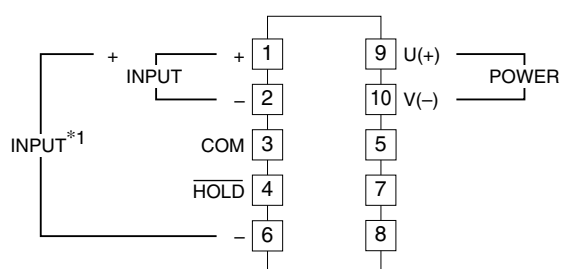
FRONT VIEW



REAR VIEW

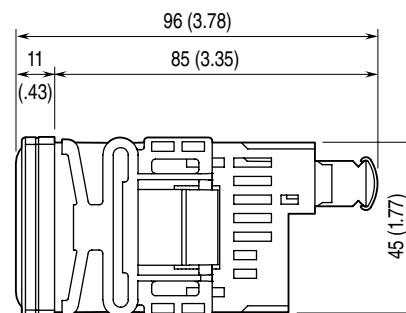


CONNECTION DIAGRAM



*1. Use in the ranges of A4 (± 199.9 mA DC), V4 (± 199.9 V DC), V5 (± 600 V DC)

SIDE VIEW



WIRING INSTRUCTIONS

SCREW TERMINAL

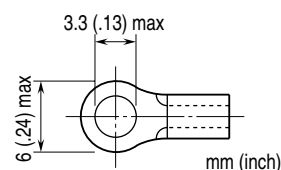
Torque: 0.6 N·m

SOLDERLESS TERMINAL

Refer to the drawing below for recommended ring tongue terminal size. Spade tongue type is also applicable.

Applicable wire size: 0.25 to 1.65 mm² (AWG 22 to 16)

Recommended manufacturer: Japan Solderless Terminal MFG.Co.Ltd, Nichifu Co.,Ltd

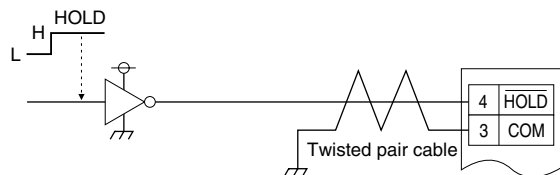


DISPLAY HOLD COMMAND

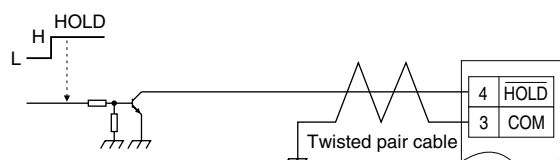
Displayed value is held with an external HOLD command input. Connect the contacts across $\overline{\text{HOLD}}$ to COM.

• WIRING EXAMPLES

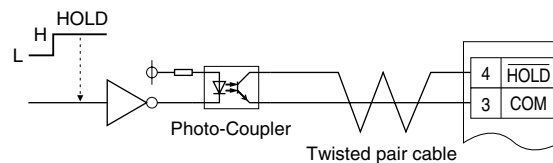
(a) 5V-CMOS, TTL



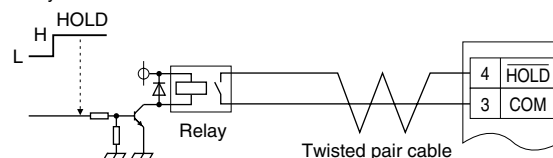
(b) Transistor



(c) Photo-Coupler



(d) Relay



Terminals 3 and 4 are NOT isolated from the internal circuit.

LIGHTNING SURGE PROTECTION

We offer a series of lightning surge protectors for protection against induced lightning surges. Please contact us to choose appropriate models.