BCD Input Panel Indicator
Model AI-416 Series
INSTRUCTION MANUAL

Caution

(1) The application of voltage or current exceeding its maximum allowable value to the input terminals may result in instrument damage.
(2) The supply of power out of its allowable range may cause fire, electric shock or instrument failure.
(3) The content of this manual may subject to change without prior notice for product improvement.
(4) This manual is carefully prepared. However, if any question arises, or any mistake, omission or suggestion is found in the content of this manual, contact your nearest our sales agent.
(5) After read this manual, please keep it as anytime can see.

1. OUTLINE

The AI-416 BCD input panel indicator is a highly reliable 6 digits parallel BCD input indicator based on a one chip LSI. It conforms to DIN external standards dimensions of 96mm(W)×24mm(H).
This meter is powered by DC24V and has large 14.2mm LEDS.
Decimal point selection, data latching and leading zero suppression are all externally access able at the cardedge connector.

2. SPECIFICATIONS

Input	: 20V≦H≦24V 0V≦L≦2V (Positive, Negative logic) Pull up, pull down resistor; 10kΩ (included)
Maximum Display	: 999999
Display	: LED , 14.2mm height
Zero Display	: Leading zero suppress
External Control	: Latch
Positive logic	Latched BCD input is displayed with the latch and 24V terminals shorted or at 24V.
Negative logic	Latched BCD input is displayed with the latch and 0V terminals shorted or at 0V.
Decimal Point	: Can be set at desired position
Operating Temp	: 0 to 50℃
Power Supply	: 24V DC±10% MAX.85mA
Dimensions	: 96mm(W)×24mm(H)×96.5mm(D)
Weight(unit only)	: 130g

3. HANDLING

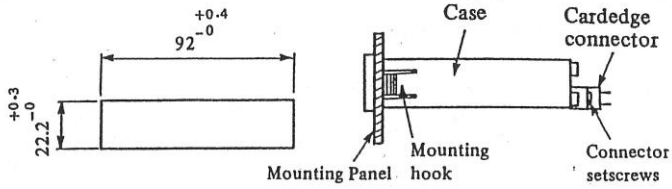
3-1 General Cautions and Preparation Prior to Operation

1) This instrument should be used at an ambient temperature between 0 and 50℃ and humidity of 80% or less, paying special attention to dew condensation.
2) It must be used in an environment free of dust, dirt, gases and chemicals harmful to electric components.
3) Care should be taken to prevent vibration and shock.

3-2 Mounting

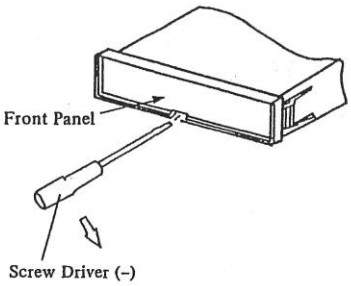
1) Panel mounting

Make a rectangular cutout as shown in Fig.1, insert the instrument in the panel as shown in Fig.2, and then fully push the instrument into the panel (it's recommended that panel thickness be from 1 to 4mm.)



[Fig. 1]

[Fig. 2]



[Fig. 3]

2) Removal of the PC board

Insert a screwdriver into the center on bottom of the meter and twist so that the front panel comes off. Then, push the printed circuit board from the back and pull it out from the front. (Fig.3)

3-3 Connector Connection

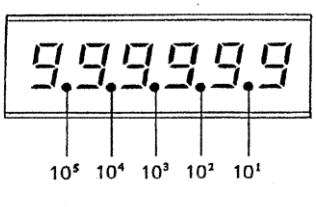
Insert the attached cardedge connector at the rear of the indicator. The connector is provided with an insertion key to make sure that it is not connected upside down. After insertion, tighten both sides with the attached screws.

1) Power Connection

Connect power to connector terminal Nos.17 and 18 or V(+). Use a DC Voltage 24V±10%. (This instrument is not provided with a power supply switch, it starts operating when power is supplied. If not apply input signal, display shows 000000.

2) Decimal point setting

The decimal point can be set to any position when the following connector terminals are shorted. However, because the decimal is not set prior to shipment, it must be set at the appropriate position by the customer. Leading zero suppression must also be set if required.



Decimal point lit.	Connector terminal Nos. connected
10^1	13-S
10^2	P-S
10^3	14-S
10^4	R-S
10^5	15-S

3)Input signal connection

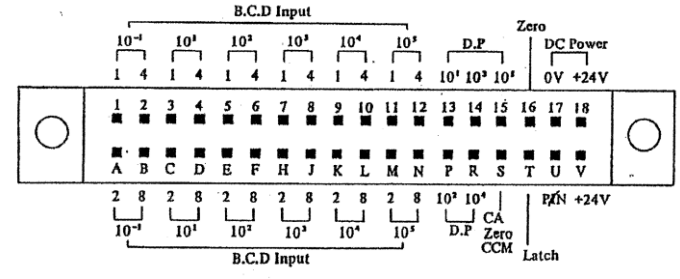
Positive logic: Connect P/N terminal (U) to 0V terminal(17)

Negative logic: Connect P/N terminal (U) to +24V terminal(18,V)

Connect an input signal (BCD parallel signal) as the following connector diagram shows.

Use a short connection cable and 2-core shielded cable near a signal source.

・Connection Diagram



4)Latch

Positive logic: Latch terminal (T) and 24V terminal (18,V)short.

Negative logic: Latch terminal (T) and 0V terminal (17) short.

Latched BCD input data is displayed.

In addition, BCD input data is displayed with the latch terminals opened.

5)Decimal point common terminal(S)

This terminal used for decimal point selection and zero suppress.

4.MAINTENANCE AND INSPECTION

4-1 Caution for maintenance

The storage temperature of this instrument should be within the range -10℃ to +70℃ with relative humidity not higher than 60%.

If the instrument is used at a dusty location, withdraw the meter assembly from the case at certain intervals and brush off any dust. (The combination of dust and high temperature will shorten the life of the meter parts.) The instrument case and bezel are molded plastic, do not use a volatile-liquid such as thinner to clean them.

5.Warranty

The warranty lasts for one year from the date of delivery. If this product fails during this period and the reason is considered to be clearly.

The manufacturer warrants to the original retail customer its indicator to be free of defects in material and workmanship for use under normal care and will repair or replace any.

6.After Sales Service

Under strict quality control measures, this product was manufactured, tested, inspected and shipped. Should a defect in manufacture or Workmanship be identified, please return the product to our distributor or directly to us. It would be highly appreciated if you could give a detailed account of the fault and enclose it with the product.

watanabe
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