

# PRODUCT MANUAL

***ELECTRONIC DISPLAYS INC.***

135 S. CHURCH STREET  
ADDISON, ILL. 60101



## PRODUCT PART NUMBER :

ED206 – 104 – 4D – N1 – AO-STKLT                      2.25 IN. HIGH DIGITS

## DESCRIPTION :

- 4 Digit up/down counter with 3 inputs: up-count by 1, 1 thumbwheel preset, and 1 Up/Down select.
- Options for a “wet” or “dry” contact to operate.
- Terminal block on endplate to wire contacts.
- Single face NEMA 1 aluminum enclosure.

## OPERATION :

This model is designed with 3 inputs: up/down-time by 1 (“IN1”), Thumbwheel Preset (“IN2”) and an Up/Down select (“IN3”) by using a contact closure (Switch, photo-eye, etc.). See the wiring diagram in this manual for installing the switches. A single face NEMA 1 cabinet or panel mount is supplied. Has an internal 70db audible buzzer and Stack light that will activate in down timing mode when the timer expires at ‘0’. To tune off the buzzer and light, press the momentary push button on the right end plate to preset a the value on the thumbwheels.

**IN1 – Advance Input:** Accepts a 5VDC-24VDC wet pulse input or Dry Contact closure to activate input. Short IN1 to VEXT on terminal block to activate as a Dry contact operation. Photo-Eye provided that is pre-wired to the IN1 count input.

**IN2 – Preset Input:** Accepts a 5VDC-24VDC wet pulse input or Dry Contact closure to activate input. Momentary push button provided on right endplate to presetting the display to the value ion the thumbwheels.

**IN3 – Up/Down Select Input:** Accepts a 5VDC-24VDC wet pulse input or Dry Contact closure to activate input. On/Off push button provided on right endplate for selecting up or down counting.

If there are any questions or comments regarding this order, please call our Toll-free number: 1 - 800 - 367 - 6056

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## Unpacking Instructions:

A copy of these instructions is packed with each unit. Open carefully to avoid scratching the unit's paint and plastic lens or cutting the line cord.

## Mechanical Mounting Instructions:

This unit is equipped with two rivnuts in the top of the unit for mechanical mounting purposes. The bolts that are screwed into these rivnuts are standard 5/16 by 1 1/4" bolts. To avoid damaging the rivnuts, do not tighten these bolts more than 10 ft/lbs.

## Power Requirements:

This unit is equipped with a standard, eighteen-gauge, three-wire line cord that is designed to be plugged into a standard, 120 VAC, 60 Hertz, grounded outlet. The maximum current draw for this unit (at 120 VAC) is \_\_1\_\_ Amperes.

## Power-up Response:

UPON POWER UP, THE UNIT WILL DISPLAY A "0".

## Label Definitions:

The following page shows some commonly used labels and their definitions. Not all of these labels will be found in your unit.

LABEL	DEFINITION
IN1, IN2, IN3	Optically coupled input, active high, requires 12 milli-amperes of current to activate.
GND	"OPTO GRD" - Negative voltage output terminal of the customer power supply.
VEXT	"VEXT" - Positive voltage output terminal of the customer power supply.

## Customer Power Supply:

If this unit is equipped with optically coupled inputs, these inputs prevent any electrical or electronic signal from passing directly from the outside world into the logic circuits on the printed circuit boards that we have supplied.

For your convenience, we have also supplied this board with an 'isolated customer power supply' that can be used to drive the customer side of these optically coupled inputs. This isolated supply does not have a direct current connection to the power supply that is used to power the display and logic chips. It will provide 12 VDC to 14 VDC at up to 500 milli-amperes of current. This voltage is unregulated.

## 'Dry' Contact Configuration:

To use 'dry' contacts, the user need only supply a contact closure between the desired optically coupled input and the positive terminal of the 'isolated customer power supply'. The negative terminal of the isolated supply is already connected to the negative side of each optically coupled input. See Figure A.

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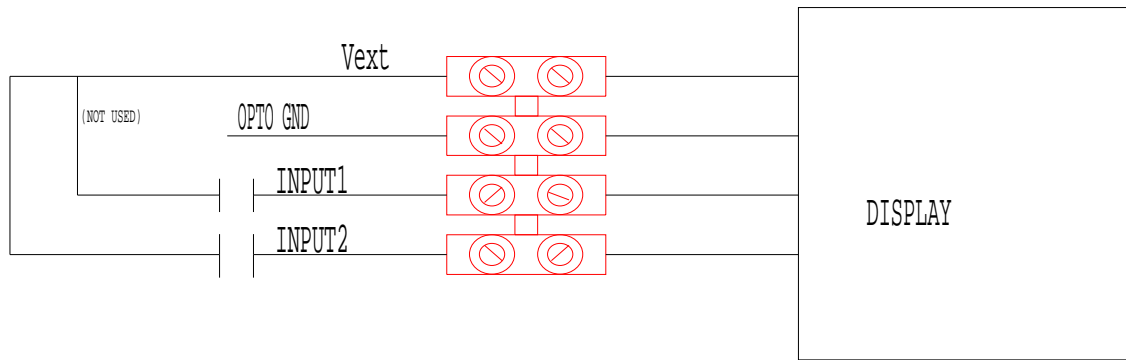


Figure A

## 'Wet' Contact Configuration:

To use 'wet' contacts, the user must supply his own power to activate the desired optically coupled input. The user may also wish to provide a contact closure in this circuit. The user's power supply must be capable of providing approximately twenty milli-amperes of current at 5 to 24 volts of direct current. If necessary, these inputs can also be ordered for use with higher voltages and / or with alternating current inputs. See Figure B.

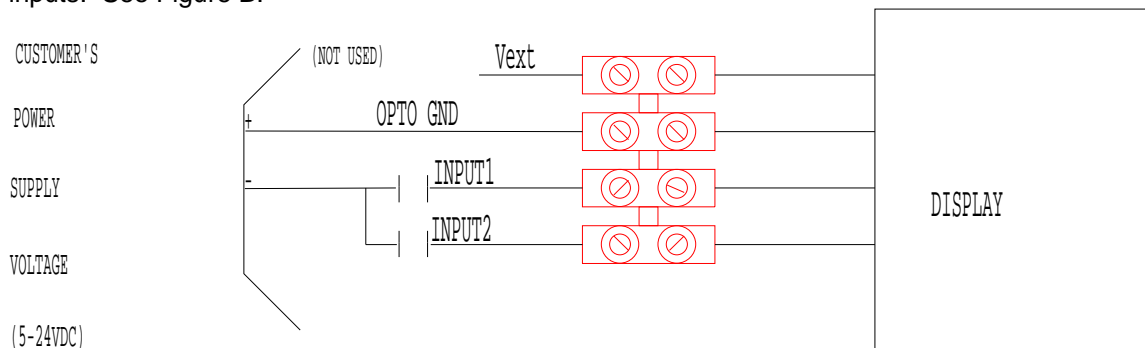


Figure B

## Service:

There are no parts in your unit classified as 'user serviceable' parts. The plastic or glass cover can be cleaned using a soft cloth and a gentle glass cleaning solution.

## Warranty:

The standard warranty for all products is one year on all parts and labor at our facilities. All products are designed and manufactured by Electronic Displays Inc. If you need assistance, please call or FAX us and we will be happy to provide technical assistance. If you feel that your unit needs repair, please call us first and then ship the unit to:

Electronic Displays Inc.  
135 South Church Street  
Unit A  
Addison, Ill. 60101  
Attn: Repair department

Our telephone number is:

(630) 628-0658

Our FAX number is:

(630) 628-0936