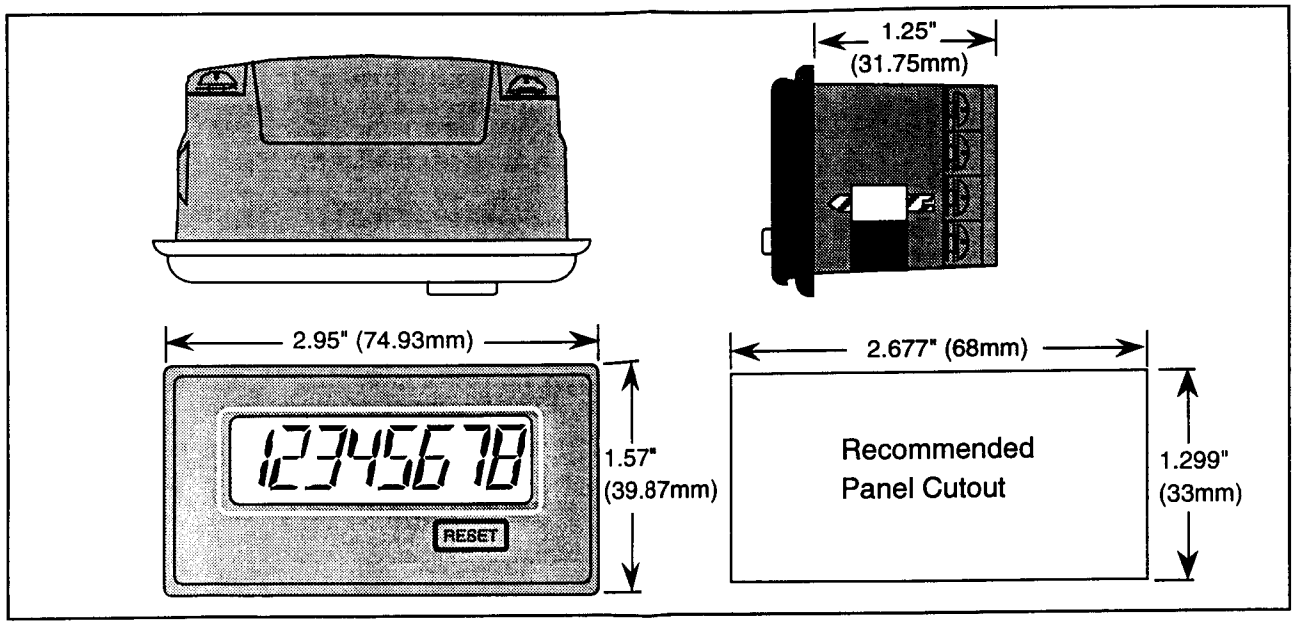
OMEGA
An OMEGA Technologies Company

DPC10-TL Totalizer

M1662/0693



POWER

Internal battery: 3 V, lithium
Life expectancy: 5 years +
Replacement Part: DPC10-BAT

PHYSICAL

Operation Temperature: 0° - 55°C
Storage Temperature: -20 - 70°C
Operating Humidity: 90% Non-condensing
Weight: 2.2 oz. net
Display Size: .43" high
Front Panel Rating: NEMA-4X when mounted with gasket provided.
Case Material: Cycolac X-17

TOTALIZER

Type: UP counting
Digits: 8

DC COMMON (Terminal 1)

COUNT INPUTS

Input B (Terminal 2) low speed input designed for contact closures to common

Speed: 0-40 Hz
Minimum Low Time: 5 msec
Minimum High Time: 20 msec
Impedance: 101 kΩ
Voltage Thresholds: Low 0 to 0.4 V dc
High 2.0 to 28 V dc
Max. High 28 V dc

Input A (Terminal 3) high speed input requiring a voltage source such as a current sourcing sensor or a current sinking sensor used with the provided pull up resistors.

Speed: 0 to 10 kHz
Minimum Low Time: 80 microseconds
Minimum High Time: 20 microseconds
(The above times are with a 0 to 5.0 V swing.)
Input Impedance: 2kΩ above 5 V dc
Voltage Thresholds: Low 0 to 1.2 V dc
High 2.0 to 28 V dc
Max. High 28 V dc

RESET INPUT (Terminal 4) designed for contact closures to dc common.

Minimum Low: 0.25 to 1 second (maintained)
The required pulse width varies with count speed, scale factor and number of digits displayed.
Voltage Thresholds: Low 0 to 0.4 V dc
High 2.0 to 28 V dc

FRONT PANEL RESET ENABLE (Terminal 5)

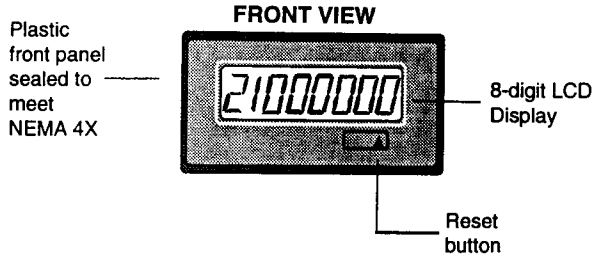
Operation: Level sensitive (maintained)

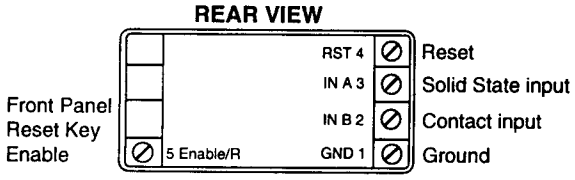
COUNT ACCURACY

100% when operated within specifications.

INTRODUCTION

Your OMEGA DPC10-TL is an UP counting totalizer with a high-contrast eight-digit LCD display. The front-panel reset key can be disabled. A remote-reset terminal is provided.





APPLICATIONS

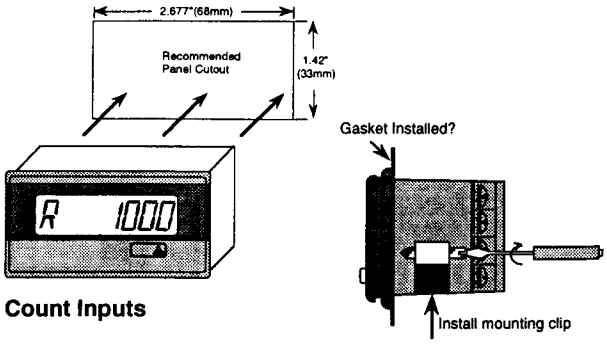
This totalizer is intended for simple totalizing applications. One count input pulse per item is necessary. The only decisions to be made are:

1. Do you use the high or low speed input?
2. Do you want the front panel reset button active?

OPERATION

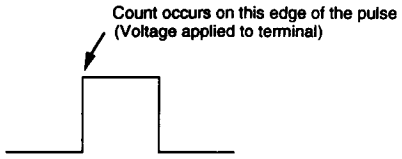
The totalizer display has lead-zero blanking. No decimal point is available.

MOUNTING



Count Inputs

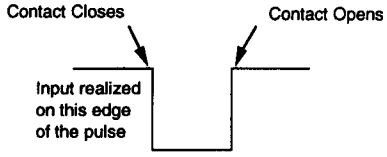
Separate contact and solid state count inputs are provided. The solid state input (terminal 3) requires a current-sourcing sensor and can count up to 10 kHz. Inputs into this terminal are counted on the positive-going edge.



Terminal 3 is pulled down to common. When a sensor output supplies voltage to this terminal, one count is registered on the display. The sourcing signal must supply at least +2.0 V dc but no more than +28 V dc.

Note: When a sourcing signal is applied to terminal 3, a power assist feature of the DPC10-TL extends the life of the battery.

Terminal 2 is the low-speed, current-sinking count input designed to be used with a contact closure to ground. It has a maximum count speed of 20 Hz. Inputs into this terminal are counted on the negative-going edge.



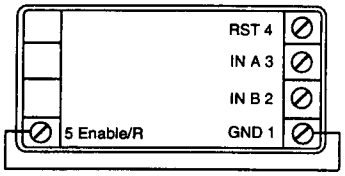
Terminal 2 is pulled up to +3 V dc. When a contact closes, pulling the voltage down to .4 V dc or less, one count is registered.

RUN MODE

Screens

The totalizer screen is the only screen available on this model.

Front Panel Reset Enable



Note: The front-panel reset button comes disabled from the factory. To enable the button, install a jumper wire from terminal 5 to ground, terminal 1.

Note: The reset terminal on the rear panel is still active when the front reset button is disabled.

PROGRAM MODE

There is no program mode for this model.

WIRING RECOMMENDATIONS

Following these suggestions will increase noise immunity and extend the life of the product.

Cable: Make the connection between the count source and the totalizer with a two-conductor shielded cable. Connect the shield to earth ground at one end only.

Relay Coil Suppression: If a relay contact is used as a count source, suppress the relay coil. This can be accomplished with an RC network for AC coils or a diode for DC coils.

Mounting: Do not mount he totalizer near a solenoid or other inductive devices. Supply enough ventilation to keep the totalizer operating within the temperature specifications.

BATTERY SAFETY

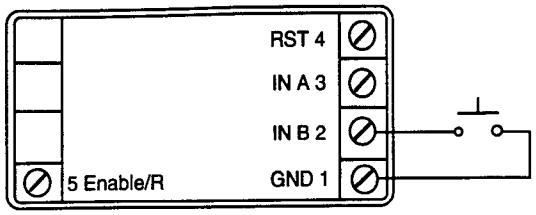
The lithium battery that powers your device contains inflammable materials such as lithium organic solvent, and other chemical ingredients. Explosion or fire may result if the battery is not handled correctly. To avoid an accident follow these guidelines:

- Do not stack or jumble up batteries
- Do not heat batteries above 95°C
- Do not disassemble batteries
- Do not recharge lithium batteries
- Do not apply pressure to, or deform batteries
- Do not solder to batteries
- Do not dispose of batteries in fire
- Insert battery with correct polarity

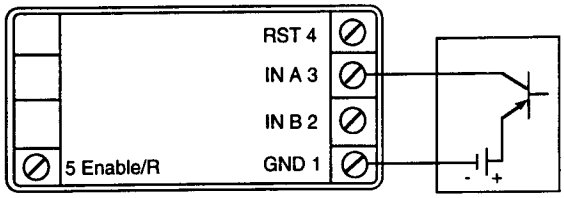
Terminal	Function	Operation
1	Ground	
2	Input B Count Input	Use with Contact Closure to Ground Maximum 20 Hz Count Speed
3	Input A Count Input	Use with Current Sourcing Sensor maximum 10 kHz Count Speed
4	Reset	Connect to ground to Reset Totalizer. This is a maintained or Level Sensitive Reset
5	Reset Key Enable	Connect to Ground to Enable Reset Key

WIRING DIAGRAMS

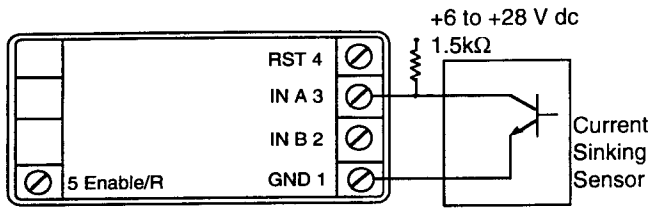
CONTACT CLOSURE COUNT INPUT



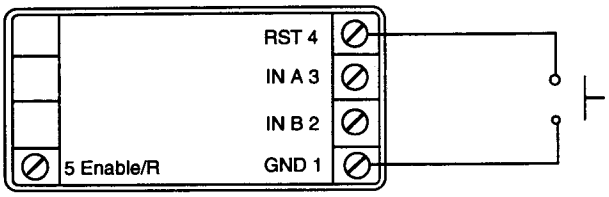
SOLID STATE COUNT INPUT
CURRENT SOURCING SENSOR



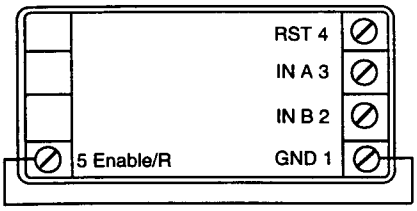
SOLID STATE INPUT
CURRENT SINKING SENSOR



REMOTE RESET



FRONT PANEL RESET ENABLE



REPLACEMENT PARTS

DPC10-BAT	Battery
46066-210	Gasket
53300-241	Mounting Clip
28772-200	Mounting Screw

OTHER OMEGA MINI COUNTER PRODUCTS

DPC10-CS	Add/Subtract Totalizer (Solid State Input)
DPC10-CC	Add/Subtract Totalizer (Contact Input)
DPC10-QT	Quadrature Indicator
DPC10-RM	Ratemeter
DPC10-RT	Ratemeter/Totalizer

MADE IN USA

WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of **13 months** from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that our customers receive maximum coverage on each product. If the unit should malfunction, it must be returned to the factory for evaluation. Our Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective it will be repaired or replaced at no charge. However, this WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear or which are damaged by misuse are not warranted. These include contact points, fuses, and triacs.

We are glad to offer suggestions on the use of our various products. Nevertheless OMEGA only warrants that the parts manufactured by it will be as specified and free of defects.

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RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA ENGINEERING Customer Service Department. Call toll free in the USA and Canada: 1-800-622-2378, FAX: 203-359-7811; International:203-359-1660, FAX: 203-359-7807.

BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, YOU MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OUR CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. Please have the following information available BEFORE contacting OMEGA:

1. P.O. number under which the product was PURCHASED,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems you are having with the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. That way our customers get the latest in technology and engineering.

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