6-DIGIT COUNTER

With Battery Back Up

TYPE 503-6B

FUNCTION

The 503-6B is a six digit electronic counter which provides non-volatile storage of the accumulated count when powered down.

DESCRIPTION

The counter employs a light emitting diode (LED) display giving a maximum count of 999999. Decimal points may be displayed preceding either of the five least significant digits. On reaching the count of 999999, the next count generates an Overflow output pulse and the 'Overflow' LED indicator on the front panel is illuminated. Counting then resumes from 000000. The Overflow indicator will remain on until a an external Reset signal is received.

In power down mode, the display is blanked but an internal battery maintains power for the counter circuit. The battery is charged during normal operation under power. Counting in power down mode may be either enabled or inhibited and is user selectable.
Internal programming links provide the user with the option of selecting contact closure input, change-over contact input (high contact bounce rejection) or the factory set voltage change input.

Information Required When Ordering

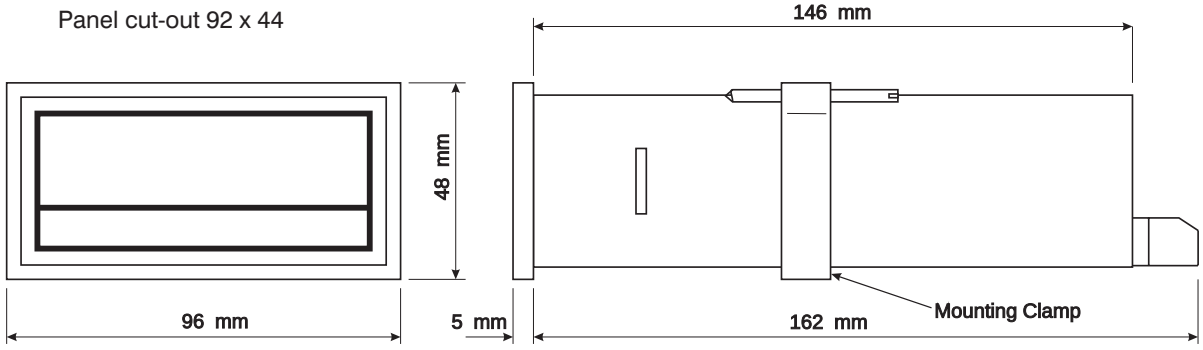
- ☐ Input Signal Type, Maximum Frequency and Amplitude
- ☐ Supply Voltage and Frequency
- ☐ Decimal Point Position
- ☐ Powered Down Counting Mode
- ☐ Legend

Features

- ✶ ***High Contact Bounce Rejection for Change-over Contacts***
- ✶ ***Long Data Retention Times***
- ✶ ***Bright LED Display***
- ✶ ***User Selectable Input Configurations***
- ✶ ***User Selectable Powered Down Count Functions***
- ✶ ***Overflow Output Pulse Permits Cascading***
- ✶ ***DIN Standard Panel Mounting Case***
- ✶ ***Custom Made Legends at No Extra Cost***

DIMENSIONS

Panel cut-out 92 x 44



SPECIFICATION

COUNT RATE
0-1 kHz

COUNTER INPUT SIGNAL TYPES
(i) Contact closure.
(ii) Change-over contact (high bounce rejection).
(iii) Voltage level change (sine, square, triangular wave):
100mV minimum,
50V maximum
(iv) Open collector transistor (must sink 1mA).
(v) Proximity Switches.
(vi) Pulse.
NB minimum signal duration for (iii), (iv), (v) & (vi): 50µsec.

RESET INPUT
(i) Active low signal, minimum pulse width 50msec (must sink 10mA).
(ii) Contact closure.

OVERFLOW OUTPUT
Open collector, 75ms pulse 100mA maximum (active low).

INPUT PROTECTION
Voltage level change inputs will withstand 250V RMS.

INTERFERENCE REJECTION
Filtering is incorporated to suppress R.F. and other industrial noise.

DIGIT HEIGHT
14.2mm (0.56")

FULL SCALE READING
999999

DECIMAL POINTS
Factory set, preceding any of the five least significant digits.

TRIGGER LEVEL
Adjusted by a 15 turn potentiometer. The bezel and display window must be removed for access.

INPUT IMPEDANCE
100K ohm (for voltage change signals).

TEMPERATURE RANGE
Storage: –30°C to +60°C.
Operating: –10°C to +55°C.

POWERED DOWN MODE
Programming link selection: a) counting inhibited.
b) counting enabled.

POWER SUPPLY
Standard

AC 110/200/220/240V ±10% 50/60Hz 3VA.
Fuse size 20 x 5mm.
Fuse rating 100mA Quick blow type.

DC Option

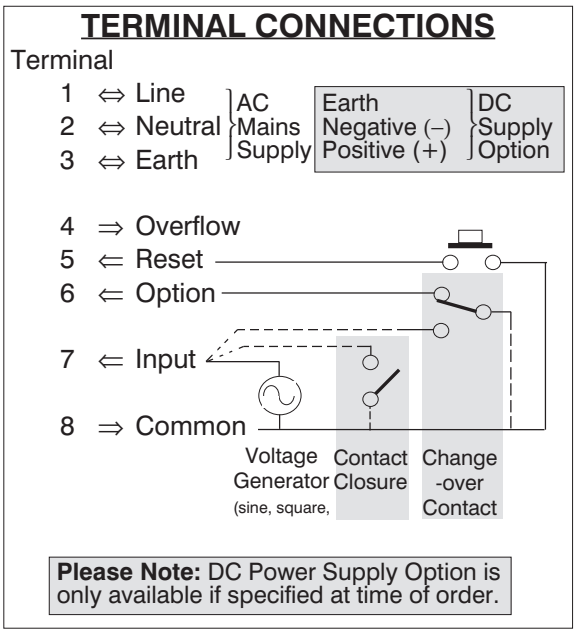
DC 12V, 24V or 48V –10% to +20% 3.5 watts.
Fuse rating: 250mA Anti-surge type.

DATA RETENTION TIME (during power down)
With counting inhibited: 1000 hours.
With counting enabled: 140 hours
(NB retention time will depend on age of the battery and duty cycle. The above figures are based on a fully charged new battery).

BATTERY
PCB mounted 3.6V 100mAh NiCad.

WEIGHT
Approximately 0.5 kg.

TERMINAL CONNECTIONS



Please Note: DC Power Supply Option is only available if specified at time of order.

WARNING **THIS UNIT CAN BE MAINS POWERED, AND ALL INPUTS TO IT MUST BE ISOLATED FROM DANGEROUS VOLTAGES BEFORE UNDERTAKING ANY WORK ON THE UNIT.**

Continuous development may necessitate changes in these details without notice

SIL

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