

Function: Precision electronic AC powered instrument for the integration of electrical quantities against time. The integrated quantity is output in the form of a DC pulse and an open collector signal suitable for operation of an electro-mechanical counter, etc. The BD400 can be used for many applications where time-varying signals require integrating. For instance: Flow, Mass Flow (Liquids, Solids or Gases), Electric Charge, etc.

Application notes: If the BD400 is required to work from a low level signal then it can be preceded by a BD300 signal amplifier. Similarly the BD400 can accept a square law signal from a differential pressure/flow transmitter if preceded by a DIN500 Square Root Extractor.



SPECIFICATIONS

Please note that the following are typical ranges. Other ranges available, please contact sales office.

INPUTS:

D C Current

0 to 1mA into 100 ohms
0 to 10mA into 10 ohms
4 to 20mA into 10 ohms
10 to 50mA into 10 ohms
Other current inputs as required
Minimum current 1mA
Maximum current 100mA

D C Voltage

Between 0 and 250 Volts DC
Minimum voltage span 100mV
Maximum voltage span 250V
Input Impedance:
1M ohm or greater for inputs of greater than 1 Volt DC

OUTPUTS:

Output Pulse

1) 24V DC 40mS wide, and
2) Open Collector, 40mS wide
Maximum sink current 5mA
Maximum voltage 30 Volts
Isolated from input and supply

Output Count Rate

Minimum 120 counts per hour
2 counts per minute
Maximum 12,000 counts per hour
200 counts per minute
- internally switch selectable

Loading

150 ohms minimum DC resistance
160mA maximum suitable for one electro-mechanical counter

SUPPLY:

Power Supply Voltage

115 Volt AC ±15% 50/60 Hz
Or
230 Volt AC ±15% 50/60 Hz

Power Required

1.5 VA Maximum

Pilot Light

Red LED shows Power ON

GENERAL:

Linearity Error

Pulse rate proportional to input
±0.1% of span

Temperature Coefficient

±0.1% of span/ Δ 10°C

Operating / Storage Temperature Range

0 to +45°C / -20 to +60°C

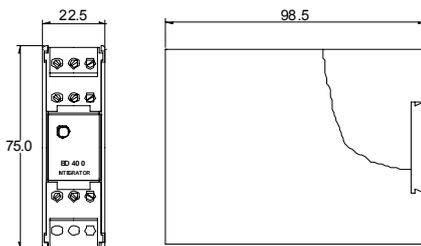
Operating / Storage Humidity Range

0 to 95% RH non-condensing

Weight

123 gms

MECHANICAL DETAILS



TERMINATION DETAILS

- Terminal
- 1 Power Supply Neutral
 - 2 Power Supply Live
 - 3 Power Supply Earth
 - 4 Input -ve
 - 5 Input +ve
 - 6 Unused

- Terminal
- 7 Counter Output -ve
 - 8 Counter Output +ve
 - 9 Unused
 - 10 } Open Collector
 - 11 } Output
 - 12 Unused

ORDERING DETAILS

- a) Give identification code, i.e. BD400
- b) Give power supply voltage, i.e. 230 Volt AC 60 Hz
- c) Give details of input signal, i.e. input type (as listed above) and range.
- d) Give details of output count rate required, i.e. 0 to 1200 counts per hour

