



Incremental Counter - Tachometer

OC 7171A-3D-3S

- ✓ Quadrature Counter, Up-Down Counter
- ✓ Three individual Scalings
- ✓ Tachometer-Frequency Counter
- ✓ Three Displays 5 Digits each
- ✓ 0.003 Hz-500 kHz Frequency Range
- ✓ Four Set Point Relays
- ✓ Two Analog Outputs
- ✓ RS232 and RS485 addressable
- ✓ Various Display Functions



Model OC7171A-3D-3S is a programmable counter with three free scaleable displays. It can be programmed as a Quadrature bi-directional Counter, Up-Down Counter and Tachometer-Frequency Counter for industrial applications in connection with digital encoders, magnetic pick-ups and other industrial pulse sources. Integrated excitation is available for supplying of external sensors.

The keypads at the front permit settings of three Scalings, Presets, Filter, Measuring Time, Reset, Password and two Set Points. Optional two analogue outputs, two serial data ports and additional two Set Points are available.

Incremental-Quadrature Counter is designed for fast positioning applications by using two 90° phase shifted A and B signals from linear or rotative incremental resolvers. The display increments with each edge of A and B signals.

Tachometer - Frequency Counter measures the frequency of the Quadrature Signal at the input and shows it bi-directional at the two lower displays. Each display can individually be scaled.

Floating Point Arithmetic permits practically unlimited display capacity. The programmed

decimal point is automatically positioned to the higher decade when the display arrives at the full capacity. The display switches automatically into exponential expression when the full capacity with decimal point behind the LSD is achieved.

Preset with 5 digits, decimal point and sign can be inserted into the display as an offset. The display starts counting at the Preset.

Scale of the measurement will be achieved by using multiplying and dividing constants thus permitting the display to show the required process units.

Averaging Filter can be used for non-stable signals such as from vibrating resolvers or signal sources at noisy environments.

Last Reading is automatically stored when the instrument is switched-off. The display continues counting at the stored value when switched-on again.

Two Analog Outputs, two serial Data Ports and additional two Set Points are options. They increase the capability of the instrument in many industrial applications as a process controller.

Varieties of Firmware are available upon demand to fit your application.

SELECTION OF DISPLAY FUNCTIONS

Main upper Display

This display can be selected for functions as an Incremental Counter or Tachometer

Two lower displays

Function as Incremental Counters

Functions as Tachometers

Set Point 1 or Set Point 2

Set Point 3 or Set Point 4

Minimum or Maximum value of the upper main display

Displays OFF.

SPECIFICATIONS OC7171A-3D-3S

Upper Display -9999 ... +99999, red 10 mm

Lower Displays -9999 ... +99999, red 7.5 mm

Inputs

Positive Logic 5V C-MOS, protected to 28V

Line Driver Inputs

Frequency Range: DC-500kHz

Preset

Additive constant (offset) programmable from -9999 to 99999 with decimal point and sign.

Reset

The display can be set to zero with the front key or with an external positive signal 5 ... 28V.

Analog Output Isolated (Option)

Voltage: 0 ... $\pm 10V$

Current: 0/4-20mA.

Resolution: 12bit, Isolation 250V rms.

Data Outputs Isolated (Option)

RS232 and RS485 (4 wire), 8 bit, No Parity, 1 Start, 1 Stop, 600-19200 bd, Addresses 00 - 31.

Set Points

Standard: SP1, SP2 with 5A-230VAC Relays.

Option: SP3, SP4 Relays 5A-230VAC or

NPN open collectors 60V/100mA.

Excitation

Adjustable 5-24V/40mA.

Instruments with DC Supply can optionally have non isolated excitation adjustable from 2V to max. used DC supply voltage.

Supply

115/230V $\pm 10\%$, 50-60Hz, 9VA.

Option: 9 - 36 V DC, 4 W.

Cabinet IP65 from the front

DIN 48x96mm, 100mm depth behind the front.

Panel cut-out 45x90 mm.

Pluggable screw terminals

TERMINALS - rear panel

