

DIGITAL COUNTERS

(SIMPLE/PRESET/POSITION)



FEATURES

- Microcontroller based design
- 0-9999 / 999999 Count Range
- Programmable Set Point
- Keypad Setting
- Non-erasable Memory
- Proximity Pickup / External pulse inputs
- Encoder pulse input for position monitoring
- Photo electric switch

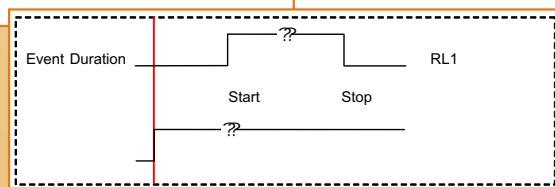
APPLICATION

- Event Counter
- Batch Counter ■ Totaliser
- Machine Tool Application for Position Monitoring



TECHNICAL SPECIFICATION

DETAILS	CNT200	CNT210	CNT220
Function	Presettable Counter ON Delay, Interval Delay, Auto Repeat	Count Totalizer	Quadrature pulse Input
Display	6 digit 0.39" 7 Segment / 7 digit 0.39" 7 Segment	6 digit 0.39" 7 Segment / 7 digit 0.39" 7 Segment	6 digit 0.39" 7 Segment / 7 digit 0.39" 7 Segment
Range	999999 / 9999999	999999 / 9999999	999999 / 9999999
Resolution	1 Count	1 Count	1 Count
Accuracy	Absolutely No Error	Absolutely No Error	Absolutely No Error
Direction	Up/Down Mode	Up mode	Bidirectional as per Encoder direction
Count Input	Logic Input (3 30V DC), Proximity (PNP, NPN), Encoders, Potential free contacts	Logic Input (3 to 30V DC), Proximity (PNP, NPN), Encoders, Potential free contacts	Quadrature pulse encoder 100 bit to 500 bit
Counting Speed	a) 0-50Hz b) 0-2KHz	a) 0-50Hz b) 0-2KHz	0-10KHz
Encoder Supply	12V DC 100 mA Inbuilt	12V DC / 100mA Inbuilt	12V DC / 100 mA Inbuilt
Parameters Shown	Counts	Counts	Count / Angle / Displacement
Reset Input	Front Keypad / External Contact / Auto Reset	Front keypad / External Contact / Auto Reset	Front Keypad / External Contact / Auto Reset
Set Point	Two	—	Two
Setting	Front Keypad with Password Protection	—	Set points, PPR and scale factor through front Keypad with Password Protection
Scale Factor Range	—	—	0.00001 to 9.99999
Output	Two Relays with 1 C/o potential free contact for each set point	—	Two Relays with 1 C/o potential free contact for each set point
Memory Retention	EERAM for more than 10 years	EERAM for more than 10 years	EERAM for more than 10 years
Auxiliary Power Supply	90-270V AC 50Hz	90-270V AC 50Hz	90-270V AC 50Hz
Operating Temperature	55 C°(Max.)	55 C°(Max.)	55 C°(Max.)
Humidity	5-95% Rh Non condensing	5-95% Rh Non condensing	5-95% Rh Non condensing
Enclosure	ABS Plastic	ABS Plastic	ABS Plastic
Box Dimension	Bezel : 96 (H) x 96 (W) mm Cutout: 88 (H) x 88 (W) mm Depth: 120 mm	Bezel : 96 (H) x 96 (W) mm Cutout: 88 (H) x 88 (W) mm Depth: 120 mm	Bezel : 96 (H) x 96 (W) mm Cutout: 88 (H) x 88 (W) mm Depth: 120 mm
Mounting	Panel / Flush	Panel / Flush	Panel / Flush
Option	User required control functions, custom built functions, batch control applications can be provided with two relays		Slave Display Indicator with Communication Port



RPM/MPM RATE

(Surface Speed)

INDICATOR

and

CONTROLLER

CNR 230



TECHNICAL SPECIFICATION

FEATURES

- Microcontroller based design
- RPM / MPM Indicator
- Programmable Scale Factors / Set Points / No. of Projections
- Inputs from Proximity / External Pulse / Encoder

KEY FUNCTION

- No. Of Set Points : One / Two for RPM / MPM / RPS / PPS
- Relay Action : On crossing set control limits
- Time Delay for Relay Action : 1 - 99 Seconds programable
- Scale Factor : 0.000-99999 for Rate Monitor
- Setting Means : 4 Keys with Password lock
- Memory : EERAM to Store the set points and constants

RANGE

- Range : 3.0 to 99999 RPM
0.01 to 99999 user units (Rate)
- Resolution : 0.01 for (3.0-150) RPM / RPS / PPS
0.1 for (150-1500) RPM / RPS / PPS
1 for (1500) RPM / RPS / PPS
- Accuracy : $\pm 0.01\%$ +2 Digit
- Auto Ranging : Available

OUTPUT

- Output (CNR 240) : 1) Two Relays with 1 c/o contact for each setpoint
Contact Rating: 5A @ 240V AC
2) 4-20mA proportional to reading with 500 Ω load impedance
Accuracy: $\pm 0.5\%$ OFS
- Auxiliary Supply Voltage : 90-270V AC 50Hz
- Ambient Temperature : 55°C (Max.)
- Mains Failure Protection : Available
- Relative Humidity : 5 to 95% Rh Non condensing

DISPLAY

- RPM Indicator (CNR 230) : 5 Digit 0.5" 7 Segment Red LED
- Controller (CNR 240) : 5 Digit 0.5" 7 Segment Red LED

CASE DIMENSION

- Enclosure : ABS Plastic
- Box Dimension : Bezel : 96(H) x 96(W) x 120(D) mm
Cutout: 88(H) x 88(W) mm
- Mounting : Panel

INPUT

- Input Type : a) Proximity pickup, Photo electric pickup, magnetic pickup (+12V DC 100 mA provided for sensor)
- b) Potential free contact limit switch / NO-NC Contact
- c) Pulse Inputs
- Maximum Input Frequency : 0-200/0-2000 Hz

APPLICATION

- Rotational & Surface
- Speed Monitor Measurements RPM / MPM
- Zero Speed Switch



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Note: Specifications are subject to change without prior notice due to continuous improvement in product development.