

# NUTRONICS MANUAL Programable Counter

## 1. HOW TO PRESET SET VALUE (Set1)

GREEN MODE WILL SHOW SET 1  
FEED VALUE BY PRESSING UP-ARROW OR DOWN-ARROW KEYS UNTIL DESIRED VALUE IS REACHED.  
PRESS MODE KEY (↻) TO ENTER INTO (dt-d) OR (dt-E) MODE.

## 2. HOW TO SET (dt - d) OR (dt - E) AND DOT POINT POSITION

PRESS DOWN-ARROW KEY (∨) TO CHANGE THE DOT POINT POSITION.  
PRESS UP- ARROW KEY (∧). It will display DT - d OR dt - E  
THE FUNCTION WILL BE DONE AS PER DIAGRAM SHOWN WITH SETTING.  
PRESS MODE KEY (↻) TO ENTER INTO (Cn-E) OR (Cn-d) MODE.

## 3. HOW TO SET (Cn-E) OR (Cn-d)

Press mode key (↻). It will display Cn - d OR Cn - E  
We can change it by pressing UP-arrow key (∧)  
This is used for enabling/disabling the counter value after the counts have reached set value  
PRESS MODE KEY (↻) TO ENTER INTO MULTIPLICATION MODE.

## 4. FOR MULTIPLICATION (Mult)

GREEN DISPLAY WILL SHOW Mult. THIS IS THE MULTIPLICATION FACTOR OF THE INPUT SIGNAL.  
FEED THE DESIRED VALUE WITH UP-ARROWN OR DOWN-ARROW KEYS AS EXPLAINED IN SET VALUE  
MODE. PRESS MODE KEY (↻) TO ENTER INTO DIVISION MODE.

## 5. FOR DIVISION (div -)

GREEN DISPLAY WILL SHOW (div -). THIS IS THE DIVISION FACTOR OF INPUT SIGNAL.

Example :1 Suppose we want to display (7) by counting (30) pulses.

FEED div = 30 and mult = 7

Example :2 Suppose we want to display (0.07) by counting (30) pulses.

FEED div = 30 and mult = 7

TO display it in fractional part, we can select the location of dot point  
PRESS MODE KEY (↻) until we get (dt-d) or (dt-E) IN THE GREEN DISPLAY FIELD.

PRESS DOWN-ARROW KEY (∨) TO CHANGE THE DOT POINT POSITION(000.00).

PRESS MODE KEY (↻) TO ENTER INTO RELAY **DELAY ON (rE-)** MODE.

## 6. HOW TO SET VALUE (rE-)

PRESS MODE KEY (↻) TO ENTER INTO (rE-)  
FEED VALUE WITH UP-ARROW (∧) OR DOWN-ARROW KEYS AS EXPLAINED IN SET VALUE

**NOTE** : IF rE VALUE IS ZERO AND RELAY GETS ENERGISED , IT IS TO BE RE-SET MANUALLY,

OTHERWISE IT WILL BE DE-ENERGISED AFTER PRESETTED TIME FEEDED IN (rE-)

## 7. HOW TO SET COUNTING SPEED (Cnt-)

PRESS MODE KEY (↻) TO ENTER INTO (cnt-)  
FEED VALUE WITH UP-ARROW (∧) OR DOWN-ARROW KEYS AS EXPLAINED IN SET VALUE

For slow speed application we have to increase this value in order to avoid noise problem which arises by

Sensor .For high speed application we have to decrease this value. Its value (parameter) depends on the

Application speed.

## 8. HOW TO EXIT

PRESS MODE KEY ( ) .

EXAMPLES AS

PER DIAGRAMS

### DIAGRAM - 1

SUPPOSE WE WANT TO DISPLAY COUNTS( SAY 105) ABOVE THE SET VALUE (SAY 100) And RESET THE COUNTS TO ZERO WITH THE DE-ENERGISATION OF RELAY AUTOMATICALLY WHICH HAS ALREADY OPERATED AT THE SET VALUE OF 100,

PROCEED AS FOLLOWS:-  
SET dt - d  
SET Cn - d  
SET rE is not equal to zero

### DIAGRAM - 2

SUPPOSE WE WANT TO DISPLAY COUNTS( SAY 105) ABOVE THE SET VALUE (SAY 100) And RESET THE COUNTS TO ZERO WITH THE DE-ENERGISATION OF RELAY MANUALLY WHICH HAS ALREADY OPERATED AT THE SET VALUE OF 100,

PROCEED AS FOLLOWS:-  
SET dt - d  
SET Cn - d  
SET rE is equal to zero

### DIAGRAM - 3

SUPPOSE WE WANT TO DISPLAY COUNTS( SAY 105) ABOVE THE SET VALUE (SAY 100) And RESET THE COUNTS TO ZERO (MANUALLY) WITH THE DOWN-KEY THE RELAY WILL GET OPERATED AT THE SET VALUE AND WILL DE-ENERGISE AFTER THE PRESET TIME FED IN rE

PROCEED AS FOLLOWS:-  
SET dt - E  
SET Cn - d  
SET rE is equal to zero

### DIAGRAM - 4

SUPPOSE WE WANT TO HOLD THE DISPLAY COUNTS ( SAY 100) AT THE SET VALUE (SAY 100) And RESET THE COUNTS TO ZERO (MANUALLY) ALONG WITH THE RELAY WHICH HAS BEEN OPERATED AT THE SET VALUE. THE RESET FUNCTION WILL BE ACHIEVED WITH THE DOWN KEY.

PROCEED AS FOLLOWS:-  
SET dt - E  
SET Cn - E  
SET rE is equal to zero

### DIAGRAM - 5

SUPPOSE WE WANT TO HOLD THE DISPLAY COUNTS ( SAY 100) AT THE SET VALUE (SAY 100) And RESET THE COUNTS AFTER SOME TIME WHICH HAS BEEN FED IN rE ALONG WITH RESETTING THE RELAY WHICH HAS ALREADY OPERATED AT THE SET POINT .

PROCEED AS FOLLOWS:-  
SET dt - E  
SET Cn - E  
SET rE is not equal to zero

### DIAGRAM - 6

SUPPOSE WE WANT TO HOLD THE DISPLAY COUNTS( SAY 100) AT THE SET VALUE (SAY 100) And RESET THE COUNTS TO ZERO (MANUALLY) WITH THE DOWN-KEY THE RELAY WILL GET OPERATED AT THE SET VALUE AND WILL DE-ENERGISE AFTER THE PRESET TIME FED IN rE

PROCEED AS FOLLOWS:-  
SET dt - E  
SET Cn - E  
SET rE is not equal to ZERO

Diagram 1

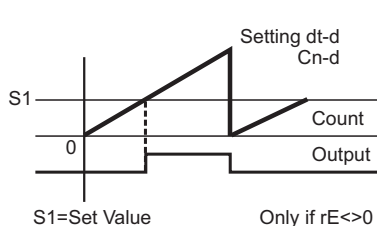


Diagram 3

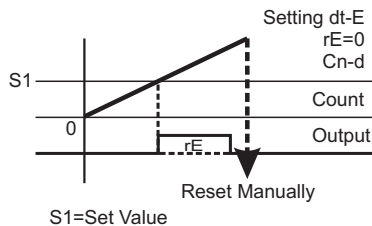


Diagram 5

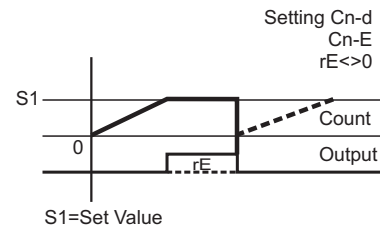


Diagram 2

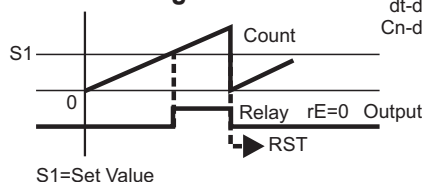


Diagram 4

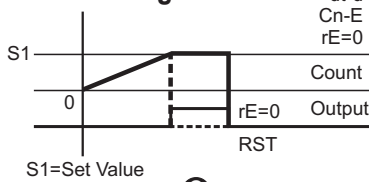


Diagram 6

