

527 Series

Electronic Totalizer- Time Meter

1. Description

- 6digit totalizer and time meter, resetable
- LED-Display with 8 mm high characters and very high luminosity
- Display range 0..999999 with leading zero blanking.
- Programming of count functions and operating parameters via the setting keys. During programming the display guides the user with text prompts.
- Supply voltage 10..30 VDC
- Programmable features:
 - Input polarity (npn or pnp)
 - Max. response frequency (30 Hz or 10 kHz)
 - Scaling factor (totalizer and time meter separate)
 - Decimal point (totalizer)
 - Reset mode (totalizer):
 - electrical
 - manual
 - manual and electrical
 - no reset
 - Input mode (time meter)
 - Decimal point (time meter)
 - Reset mode (time meter):
 - electrical
 - manual
 - manual and electrical
 - no reset

2. Inputs

INP A

Dynamic count input for the totalizer. Max. count frequency 30 Hz or 10 kHz programmable via set up

INP B

Start/Stop or gate input (depending on chosen input mode)

RESET

Dynamic reset input. Linked to the red reset key. Can be programmed for each counter separately.

3. Setting of the parameters

3.1 Selecting the displayed value

By pressing the right key, it can be chosen whether the current value of the adding counter or the time meter is displayed.

Pressing the right key once the current function („total“ or „time“) is displayed for 2 seconds. If within this period the right key is pressed again, the current function is changed. The display shows the new current function a short time.

3.2 Setting the operating parameters

- Hold down both keys on front panel and switch on the supply voltage.

- The display shows

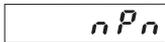


- After releasing the keys the display alternates between menu title and corresponding menu item at a frequency of 0.5 Hz. After any key is pressed, only the menu item is displayed.
- Pressing the right key, the menu item will be switched to next value.
- Hold down the left key and press the right key to enter and switch to the next menu title.
- After programming the last menu item, the programming routine will be left and the new values will be stored by switching the menu item to „YES“. If you chose „NO“, the programming routine will be passed through once again.

4. Programming routine

Programmable parameters are shown in succession. After one pass, the device is fully programmed. *In each case the first shown item is the factory preset.*

4.1 Input polarity

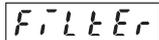



npn: switching to 0 V



pnp: switching to +V (4-30)

4.2 Activating the 30 Hz filter

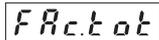
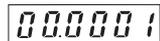



max. response frequency 10 kHz

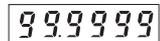


max. response frequency 30 Hz

4.3 Scaling factor totalizer

Factor can be set from 00.0001 up to 99.9999. The decimal point is fixed. „0“ won't be accepted!



4.4 Decimal point totalizer (Display only)

dp. tot The decimal point indicates the number of decimal places.

0	0	no decimal place
0.0	0.0	one decimal place
0.00	0.00	two decimal places
0.000	0.000	three decimal places

4.5 Reset mode totalizer

reset

RRnEL manual reset (red key) and electrical reset

no rES no reset (red key and reset input locked)

EL rES electrical reset only

manual reset only

RRnrE

4.6 Input mode time meter

Start

GateLo Start/Stop via INP B. Timing while INP B (gate) inactive or open

GateHi Start/Stop via INP B Timing while INP B (gate) active (high level at pnp; low level at npn)

lnb.lnb Timing will be started and stopped via INP B (LOW-HIGH edge at pnp; HIGH-LOW edge at npn). Every active edge changes the timer status.

4.7 Operating mode time meter

mode

SEC Timing in s (resolution depending on position of the decimal point*)

min Timing in min. (resolution depending on position of the decimal point*)

hour Timing in h (resolution depending on position of the decimal point*)

h.min.s Timing in h:min:s (decimal point will be ignored)

4.8 Decimal point time meter (Also sets resolution)

dp.tim The decimal point indicates the number of decimal places.

0	0	no decimal place
0.0	0.0	one decimal place
0.00	0.00	two decimal places
0.000	0.000	three decimal places

4.9 Reset mode time meter

reset

RRnEL manual reset (red key) and electrical reset

no rES no reset (red key and reset input locked)

EL rES electrical reset only

manual reset only

RRnrE

4.10 End of programming

EndPro

no

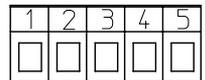
Programming routine will be passed through once again. All parameters can be checked.

YES

Programming routine will be left and the new parameters will be stored. Afterwards the device is ready to use.

5. Connections

- 10-30 VDC
- 0 V (GND)
- INP A
- INP B
- RESET



*0, 0.1, 0.01, 0.001 means: Counting in 0, 0.1, 0.01, 0.001 units of time

6. Technical data

Supply voltage:

10...30 VDC

Max. current consumption:

50 mA

Display:

6digit LED-Display, 8 mm high characters

Polarity of input signals:

programmable for both common inputs (npn or pnp)

Input resistance: appr. 10 kohm

Count frequency: 10 kHz can be damped to 30 Hz

Min. pulse length of the control inputs: 5 ms

Input sensitivity:

Low: 0 to 1 VDC

High: 4 to 30 VDC

Pulse shape: variable (Schmitt Trigger characteristic)

Data retention:

via EEPROM 1x10⁶ memory cycles or 10 years

Noise immunity:

EN 50081-2; EN 55011 class B; EN 50082-2

Ambient temperature: +14°F...+122°F (-10 °C...+50 °C)

Storage temperature: -13°F...+158°F (-25 °C...+70 °C)

Weight: appr. 1.76 oz.(50 g)

Protection: IP 65 (front)

Cleaning:

The front of the unit is only to be cleaned with a soft wet (water !) cloth.

7. Dimensions:

W = 1.88" (48mm) H = .944" (24mm) D = 2.32" (59mm)

8. Cutout:

W = 1.78" (45.2mm) H = .876" (22.3mm)

With adaptor: W = 1.97" (50mm) H = 0.99" (25mm)



Trumeter Company Inc., 1020 North West 6 Street, Deerfield Beach
Florida 33442, U.S.A.

Tel: (1) 954 725 6699 Fax: (1) 954 725 5599

email: sales.usa@trumeter.com

www.trumeter.com