

525 Series

Electronic Totalizer and Frequency meter

1. Description

- 6digit adding counter and frequency 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 (nnp or pnp)
 - Max. count frequency (30 Hz or 10 kHz)
 - Scaling factor (totalizer)
 - Decimal point (totalizer)
 - Reset mode (totalizer):
 - electrical
 - manual
 - manual and electrical
 - no reset
 - Scaling factor (frequency meter)
 - Decimal point (frequency meter)
 - Display mode (frequency meter)
 - 1/min
 - 1/sec
- Time to wait until „0“ is displayed

2. Inputs

INP

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

RESET

Dynamic reset input. Linked to the red reset key.

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 totalizer or the frequency meter is displayed.

Pressing the right key once the current function („total“ or „tacho“) 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 for 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

Prog

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

Following all 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

INPOL

nnp

nnp: switching to 0 V

pnp

pnp: switching to +V (4-30)

4.2 Activating the 30 Hz filter

FILTER

hi

max. count frequency 10 kHz

Lo

max. count frequency 30 Hz

4.3 Scaling factor totalizer (Multiplier)

FACTOR

000001

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

999999

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 one decimal place

0.00

0.00 two decimal places
0.000 three decimal places

4.5 Reset mode

rESnrd

PrAnEL

manual reset (red key)
and electrical reset

no rES

no reset
(red key and reset input
locked)

EL rES

electrical reset only

PrAnrE

manual reset only

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

- 1 10-30 VDC
- 2 0 V (GND)
- 3 INP
- 4 ---
- 5 RESET

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 l) 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)

4.6 Scaling factor frequency meter (Multiplier)

FrctArc

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

00.0001

Factor = 1 ÷ number of
pulses per whole unit.
Increase decimal place
under dP.tRch to add
resolution.

99.9999

4.7 Decimal point frequency meter (Adds resolution)

dP.tRch

The decimal point indicates the
number of decimal places.

0

0 no decimal place

0.0 one decimal place

0.00 two decimal places

0.000 three decimal places

0.000

4.8 Display mode frequency meter

diSPn

SEc - 1

Calculating and displaying
the value to 1/sec

Prn - 1

Calculating and displaying
the value to 1/min

4.9 Max. time to wait until "0" is displayed

This parameter indicates, how long it takes at active
measuring, until "0" is displayed

WART0

011

max. time to wait 01.1 s
(min. value)

999

max. time to wait 99.9 s



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