

Type series 527

## 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

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

- b. The display shows

- c. 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.
- d. Pressing the right key, the menu item will be switched to next value.
- e. Hold down the left key and press the right key to enter and switch to the next menu title.
- f. 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

**RRnrE** manual reset only

#### 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.tmr** 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

**RRnrE** manual reset only

#### 4.10 End of programming

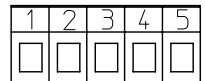
**EndPro**

**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

- 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 1x10<sup>6</sup> 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)