

Electronic multifunction counters with preselection

→ Up counters / Down counters - 48 x 48 - CTR48

- Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer
- Maximum input frequency 40 kHz
- Simple parameter setting, configuration using text menus
- Easy modification of presets
- Scaling factor
- 5 A changeover relay and solid state output
- Removable connectors
- Backlit LCD display (orange) : 2 lines, 6 digits or multicoloured display (green-red)
- IP 65 sealed panel
- Option of locking the keypad, completely or partially (preset, programming)
- Accessories for 72 x 72 or 55 x 55 cut-out, DIN rail adaptor



Part numbers

| Type | Functions | Preset | Voltages | Output | Code |
|---------------------------------------|--|--------|---------------------------------|---|----------|
| Orange backlight LCD display | Counter, Tachometer, Chronometer, Preselection multi-totalizer | 1 | 10 → 30 V $\overline{\text{=}}$ | 1 changeover relay, 1 solid state | 87621111 |
| | Counter, Tachometer, Chronometer, Preselection multi-totalizer | 1 | 24 V \sim | 1 changeover relay, 1 solid state | 87621112 |
| | Counter, Tachometer, Chronometer, Preselection multi-totalizer | 1 | 90 → 260 V \sim | 1 changeover relay, 1 solid state | 87621115 |
| | Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer | 2 | 10 → 30 V $\overline{\text{=}}$ | 1 changeover relay, 1 NO relay, 2 solid state | 87621121 |
| | Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer | 2 | 24 V \sim | 1 changeover relay, 1 NO relay, 2 solid state | 87621122 |
| | Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer | 2 | 90 → 260 V \sim | 1 changeover relay, 1 NO relay, 2 solid state | 87621125 |
| Multicoloured LCD display (green-red) | Counter, Tachometer, Chronometer, Preselection multi-totalizer | 1 | 10 → 30 V $\overline{\text{=}}$ | 1 changeover relay, 1 solid state | 87621211 |
| | Counter, Tachometer, Chronometer, Preselection multi-totalizer | 1 | 24 V \sim | 1 changeover relay, 1 solid state | 87621212 |
| | Counter, Tachometer, Chronometer, Preselection multi-totalizer | 1 | 90 → 260 V \sim | 1 changeover relay, 1 solid state | 87621215 |
| | Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer | 2 | 10 → 30 V $\overline{\text{=}}$ | 1 changeover relay, 1 NO relay, 2 solid state | 87621221 |
| | Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer | 2 | 24 V \sim | 1 changeover relay, 1 NO relay, 2 solid state | 87621222 |
| | Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer | 2 | 90 → 260 V \sim | 1 changeover relay, 1 NO relay, 2 solid state | 87621225 |

Accessories

| Description | Code |
|--------------------------------|----------|
| Adaptor for 72 x 72 mm cut-out | 26546842 |
| Adaptor for 55 x 55 mm cut-out | 26546846 |
| DIN rail adaptor | 26546841 |

General characteristics

Environmental characteristics

| | |
|-------------------------------------|---|
| Supply | 10 → 30 V $\overline{\text{---}}$ / 24 V \sim / 90 → 260 V \sim |
| Relative humidity (no condensation) | EN 60068-2-30 40/93% RLF |
| Altitude | 0 < 2000 m |
| Certifications | UL - cULus (pending) - CE |
| Vibration resistance in 3 axes | 10-55 Hz / 1 min / XYZ EN 60068-2-6: 30 min. in each direction |
| Connection by screw terminals | Removable |
| Protection | Conforming to standard EN 60529 IP65 for panel / IP20 for connections |
| Front panel watertight seal | ✓ |
| Temperature limits use (°C) | -20 → +65 |
| Temperature limits stored (°C) | -25 → +75 |
| Weight (g) | 150 $\overline{\text{---}}$ version 250 \sim version |

General characteristics

| | |
|--|---|
| Reset to zero or to preset | On panel: if not locked during programming Electrical: automatic, voltage or solid state (NPN or PNP depending on programming) |
| Minimum pulse time | Impulse counter: < 15 ms Chronometer: 500 μ s |
| Option to protect against reset from front panel | ✓ |
| Scale factor (each input pulse is multiplied by this figure) | 00.0001 → 99.9999 |
| Scaling factor (each input impulse is divided by this value) | 01.0000 → 99.9999 |
| Decimal point selectable for ease of reading | 0 0.0 0.00 0.000 0.0000 0.00000 |
| Sensor supply version \sim | 24 V $\overline{\text{---}}$ -20/+15% 50 mA |
| Programming and current value backed up via EEPROM memory | ✓ Service life 10 years |

Operating characteristics

| | |
|--------------------|---|
| Functions | Preselection counter, Tachometer, Chronometer, Multi-totalizer, Batch counters, Totalizer |
| Number of presets | 1 or 2 |
| Display | LCD with orange backlighting/Multicoloured LCD (green-red) |
| Height digits (mm) | LCD 9 |
| Display details | - 999 999 → 999 999 |

Input characteristics

| | |
|-------------|---|
| Inputs | 2 counter inputs 1 reset input, 1 gate input |
| Input modes | Dir: Directional AS: up/dn AA: up/up PP: phase PP2: phase 2 PP4: phase 4 |
| Input type | Voltage or solid state |
| High level | 8 V $\overline{\text{---}}$ → 30 V $\overline{\text{---}}$ |
| Low level | 0 → 2 V $\overline{\text{---}}$ |

Solid state output characteristics

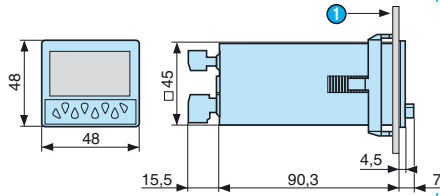
| | |
|-----------------|--|
| Maximum current | 30 mA |
| Max. voltage | 10 → 30 V $\overline{\text{---}}$ for the $\overline{\text{---}}$ version 24 V $\overline{\text{---}}$ -20/+15% |

Relay output characteristics

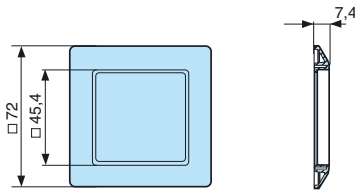
| | |
|------------------------------------|---|
| Changeover relay | ✓ |
| NO contact | Depending on version |
| Maximum current | 5 A |
| Minimum current | 10 mA |
| Maximum voltage | 30 V $\overline{\text{---}}$ / 250 V \sim |
| Min. voltage | 5 V \sim |
| Response time | < 13 ms |
| Mechanical life (operations) | 20 x 10 ⁶ |
| Number of operations to 5 A | 5 x 10 ⁴ |
| Output modes: maintained or pulsed | 0.01 → 99.99 s |

Dimensions (mm)

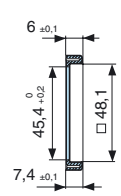
26546842 - Adaptor for 72 x 72 mm cut-out



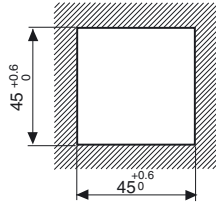
1 10.5 max.



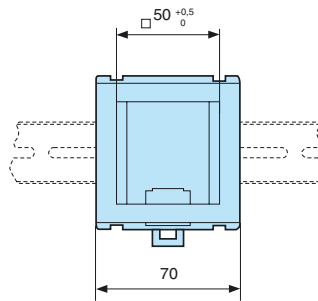
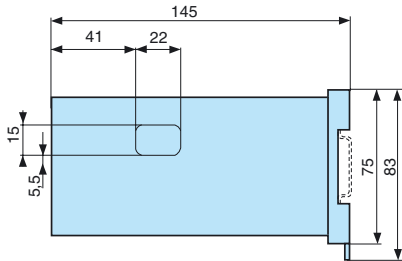
26546846 - Adaptor for 55 x 55 mm cut-out



Panel cut-out

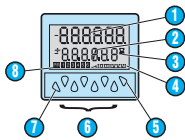


26546841 - DIN rail adaptor



Principles

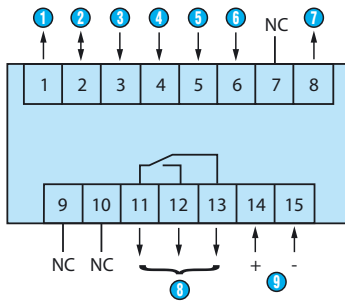
Display and buttons



- 1 Current value
- 2 Selected value
- 3 Chronometer display
- 4 Active output indication
- 5 Prog/mode button
- 6 Preset control buttons
- 7 Button required for programming parameters
- 8 Shows which value is displayed

Connections

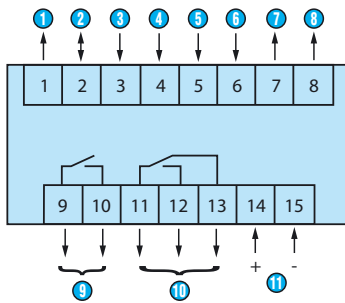
87621111 / 211



- ① Sensor voltage supply (* UB interconnected)
- ② GND (0 V $\overline{\text{---}}$)
- ③ INP A (signal A input)
- ④ INP B (signal B input)
- ⑤ Reset (Reset input)
- ⑥ Gate input
- ⑦ Output 1 - 10-30 V $\overline{\text{---}}$ /30 mA
- ⑧ 11-12-13: Output 1
- ⑨ 14-15: Supply

Output: 5 A/250 V \sim /AC: 24 V \sim

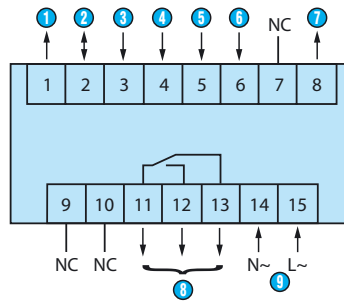
87621121 / 221



- ① Sensor voltage supply (* UB interconnected)
- ② GND (0 V $\overline{\text{---}}$)
- ③ INP A (signal A input)
- ④ INP B (signal B input)
- ⑤ Reset (Reset input)
- ⑥ Gate input
- ⑦ Output 1: 10-30 V $\overline{\text{---}}$ /30 mA
- ⑧ Output 2: 10-30 V $\overline{\text{---}}$ /30 mA
- ⑨ 9-10: Output 1
- ⑩ 11-12-13: Output 2
- ⑪ 14-15: Supply

Output: 5 A/250 V \sim / AC: 90 \rightarrow 260 V $\overline{\text{---}}$

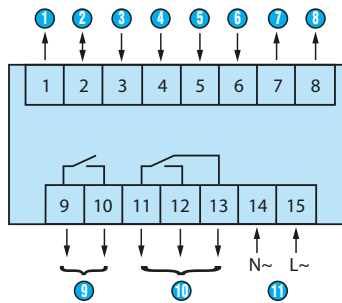
87621112 / 212



- ① Sensor voltage supply
- ② GND (0 V $\overline{\text{---}}$)
- ③ INP A (signal A input)
- ④ INP B (signal B input)
- ⑤ Reset (Reset input)
- ⑥ Gate input
- ⑦ Output 1 - 24 V $\overline{\text{---}}$ /30 mA
- ⑧ 11-12-13: Output 1
- ⑨ 14-15: Supply

Output: 5 A/250 V \sim /AC: 24 V \sim

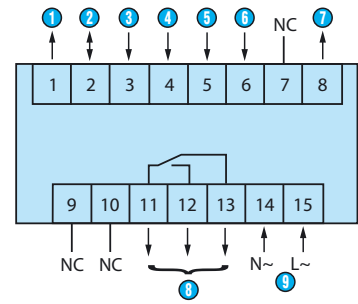
87621122 / 222



- ① Sensor voltage supply
- ② GND (0 V $\overline{\text{---}}$)
- ③ INP A (signal A input)
- ④ INP B (signal B input)
- ⑤ Reset (Reset input)
- ⑥ Gate input
- ⑦ Output 1: 24 V $\overline{\text{---}}$ /30 mA
- ⑧ Output 2: 24 V $\overline{\text{---}}$ /30 mA
- ⑨ 9-10: Output 1
- ⑩ 11-12-13: Output 2
- ⑪ 14-15: Supply

Output: 5 A/250 V \sim / AC: 90 \rightarrow 260 V $\overline{\text{---}}$

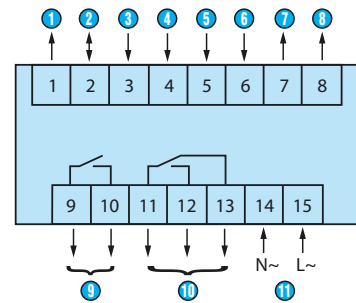
87621115 / 215



- ① Sensor voltage supply
- ② GND (0 V $\overline{\text{---}}$)
- ③ INP A (signal A input)
- ④ INP B (signal B input)
- ⑤ Reset (Reset input)
- ⑥ Gate input
- ⑦ Output 1 - 24 V $\overline{\text{---}}$ /30 mA
- ⑧ 11-12-13: Output 1
- ⑨ 14-15: Supply

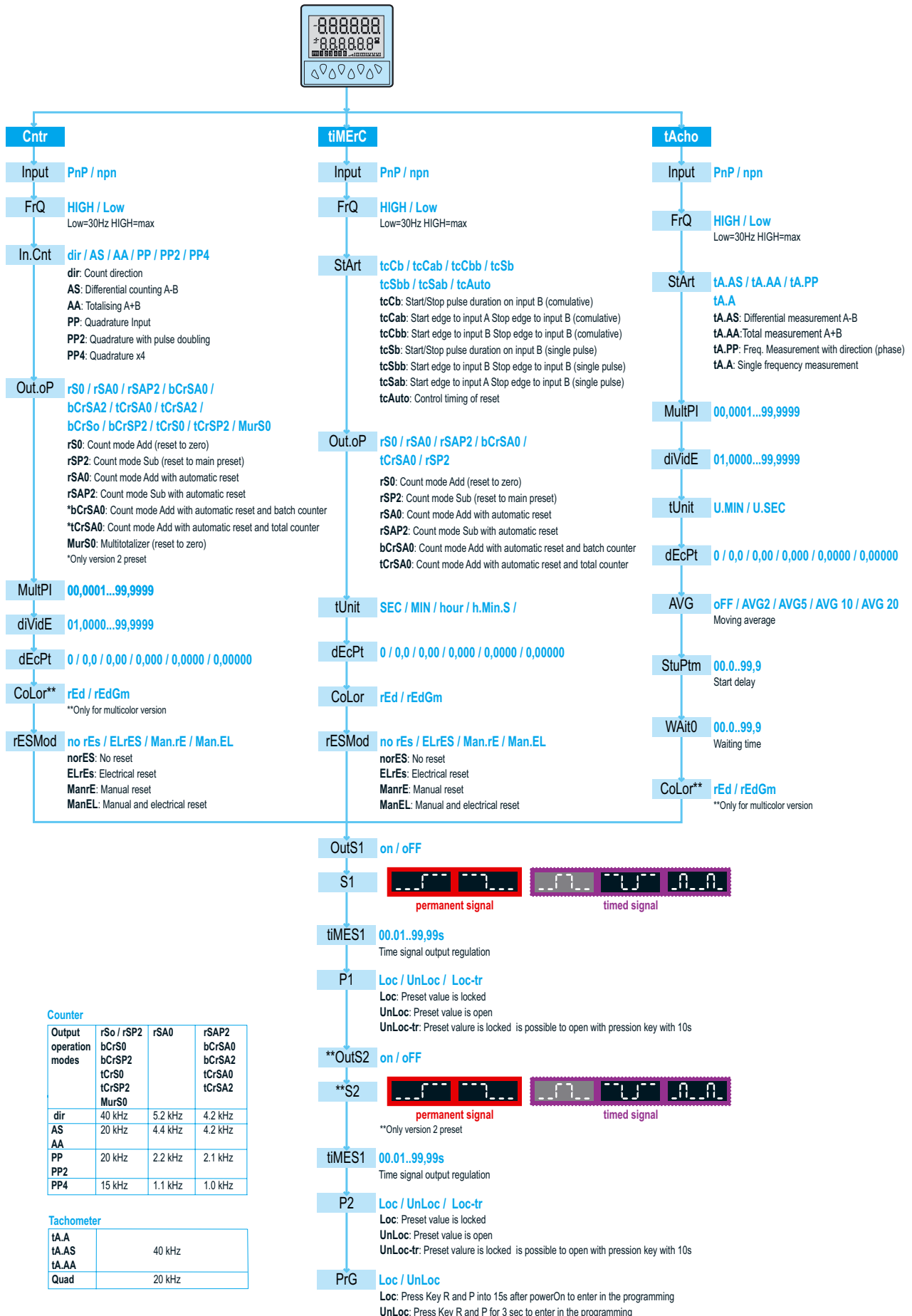
Output: 5 A/250 V \sim / AC: 24 V \sim

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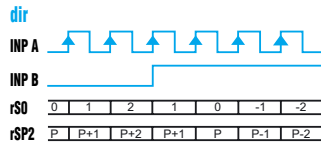
- ① Sensor voltage supply
- ② GND (0 V $\overline{\text{---}}$)
- ③ INP A (signal A input)
- ④ INP B (signal B input)
- ⑤ Reset (Reset input)
- ⑥ Gate input
- ⑦ Output 1: 24 V $\overline{\text{---}}$ /30 mA
- ⑧ Output 2: 24 V $\overline{\text{---}}$ /30 mA
- ⑨ 9-10: Output 1
- ⑩ 11-12-13: Output 2
- ⑪ 14-15: Supply

Output: 5 A/250 V \sim / AC: 90 \rightarrow 260 V $\overline{\text{---}}$



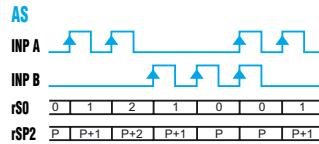
Curves

Counter: dir



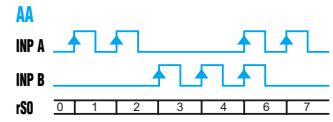
Inp A: counter input
 Inp B: count direction
 rS0: Display 0 → Preset
 rSP2: Display Preset → 0

Counter: AS



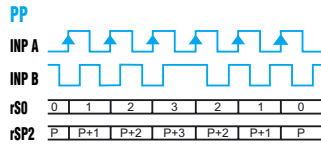
Inp A: Add. counter input 1
 Inp B: sub. counter input 2
 rS0: Display 0 → Preset
 rSP2: Display Preset → 0

Counter: AA



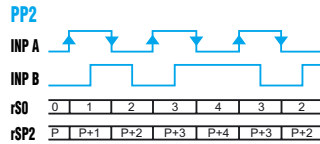
Inp A: Add. counter input 1
 Inp B: sub. counter input 2
 rS0: Display 0 → Preset

Counter: PP



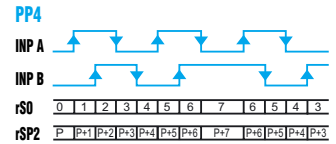
A 90° B
 Inp A: Counter input
 Counting on an edge
 Inp B: Reversal of direction
 rS0: Display 0 → Preset
 rSP2: Display Preset → 0

Counter: PP2



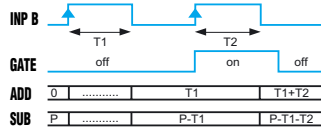
A 90° B
 Inp A: Counter input
 Counting on a rising edge and on a falling edge
 Inp B: Reversal of direction
 rS0: Display 0 → Preset
 rSP2: Display Preset → 0

Counter: PP4



A 90° B
 Inp A: Counter input
 Counting on a rising edge and on a falling edge
 Inp B: Counter input
 Counting on a rising edge and on a falling edge, reversal of direction
 rS0: Display 0 → Preset
 rSP2: Display Preset → 0

Chronometer: Start tcCb



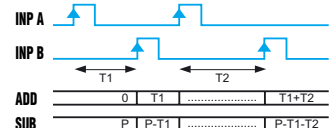
Inp A: No function
 Inp B: On/Off
 Cumulative time counting
 Add: Display 0 → Preset
 Sub: Display Preset → 0

Chronometer: Start tcCbb



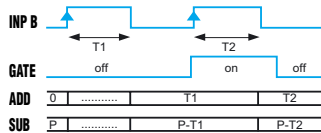
Inp A: No function
 Inp B: On/Off
 Cumulative time counting
 Add: Display 0 → Preset
 Sub: Display Preset → 0

Chronometer: Start tcCAb



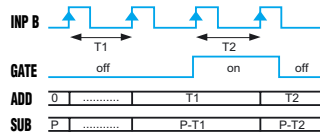
Inp A: On
 Inp B: Off
 Cumulative time counting
 Add: Display 0 → Preset
 Sub: Display Preset → 0

Chronometer: Start tcSb



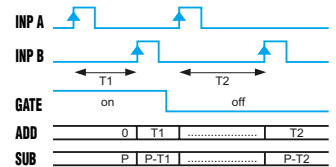
Inp A: No function
 Inp B: On/Off
 Individual time counting while B is active, automatic reset before each new count
 Add: Display 0 → Preset
 Sub: Display Preset → 0

Chronometer: Start tcSbb



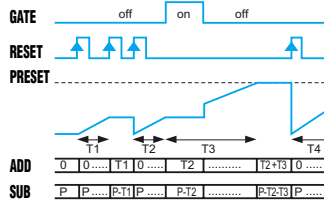
Inp A: No function
 Inp B: On/Off
 Individual time counting, automatic reset before each new count
 Add: Display 0 → Preset
 Sub: Display Preset → 0

Chronometer: Start tcSAb



Inp A: On
 Inp B: Off
 Individual time counting, automatic reset before each new count
 Add: Display 0 → Preset
 Sub: Display Preset → 0

Chronometer: Start tcAuto



Inp A: No function
 Inp B: No function
 Time counting command via Reset (manual or electrical)
 Add: Display 0 → Preset
 Sub: Display Preset → 0
 The Gate input has a display memory function

Tachometer: Start tA.A

| | | | | | | |
|---------|---|-----------------|-----------------|-----------------|-----------------|---|
| INP A | 0 | F _{A0} | F _{A1} | F _{A2} | 0 | x |
| Display | 0 | 0 | F _{A0} | F _{A1} | F _{A2} | 0 |

Inp A: Frequency input
 Inp B: No function

Tachometer: Start tA.AS

| | | | | | | |
|---------|---|-----------------|-----------------|----------------------------------|----------------------------------|-----------------|
| INP A | 0 | F _{A0} | F _{A1} | F _{A2} | 0 | x |
| INP B | 0 | 0 | F _{B0} | F _{B1} | F _{B2} | x |
| Display | 0 | 0 | F _{A0} | F _{A0} ·F _{B0} | F _{A1} ·F _{B1} | F _{B2} |

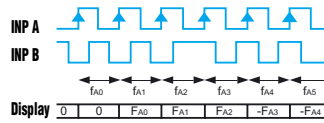
Inp A: Frequency input 1
 Inp B: Frequency input 2
 Formula: A · B

Tachometer: Start tA.AA

| | | | | | | |
|---------|---|-----------------|-----------------|----------------------------------|----------------------------------|-----------------|
| INP A | 0 | F _{A0} | F _{A1} | F _{A2} | 0 | x |
| INP B | 0 | 0 | F _{B0} | F _{B1} | F _{B2} | x |
| Display | 0 | 0 | F _{A0} | F _{A0} ·F _{B0} | F _{A1} ·F _{B1} | F _{B2} |

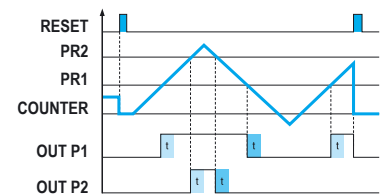
Inp A: Frequency input 1
 Inp B: Frequency input 2
 Formula: A + B

Tachometer: Start tA.PP

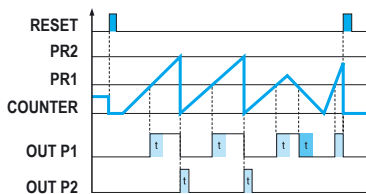


A 90° B
 Inp A: Frequency input 1
 Inp B: Reversal of direction

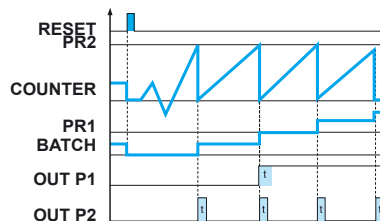
Output operation: OutoP rS0



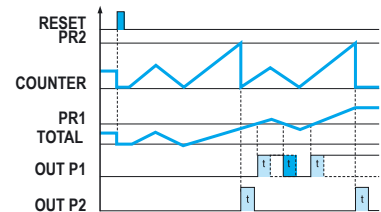
Output operation: OutoP rSA0



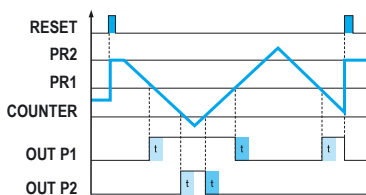
Output operation: OutoP bCrSA0



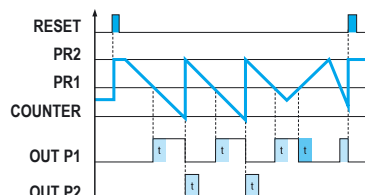
Output operation: OutoP tCrSA0



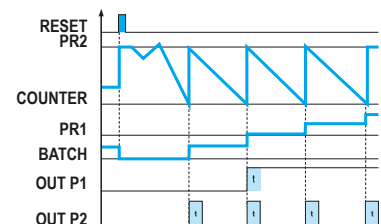
Output operation: OutoP rSP2



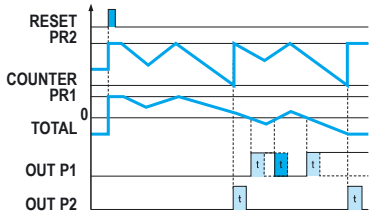
Output operation: OutoP rSAP2



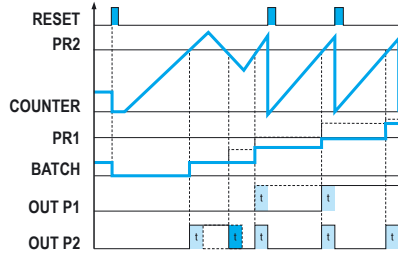
Output operation: OutoPbCrSA2



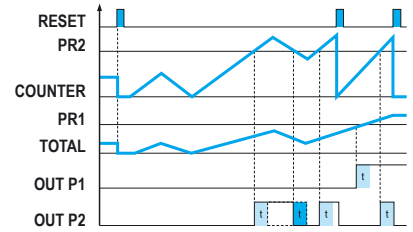
Output operation: OutoP tCrSA2



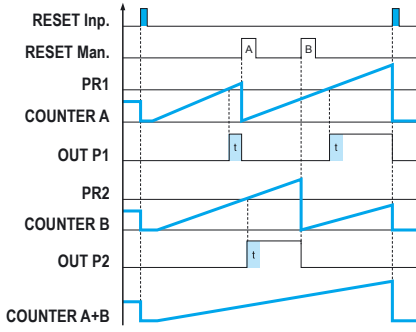
Output operation: OutoP bCrS0



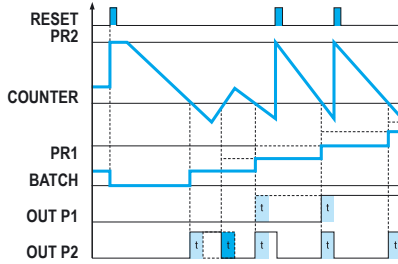
Output operation: OutoP tCrS0



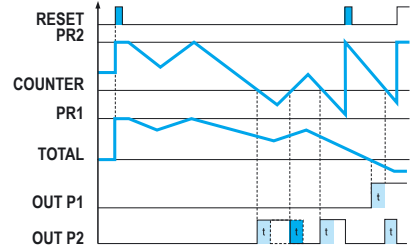
Output operation: OutoP MurS0 (AA)



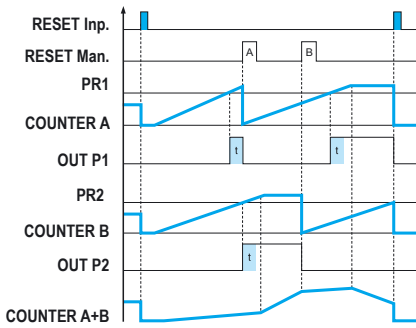
Output operation: OutoP bCrSP2



Output operation: OutoP tCrSP2



Output operation: OutoP MurS0 (AS)



Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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