

## 48 x 48 Max. Counting Speed 40 KHZ Orange backlit LCD display Part number 87621125



- Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer
- Maximum input frequency 40 k Hz
- 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
87621125	Orange backlit LCD display	Counter, Tachometer, Chronometer, Multi-totalizer, Batch counter, Preselection totalizer	2	90 →260 VAC	1 changeover relay, 1 NO relay, 2 solid state

### Specifications

#### Physical details and protection

Supply	10 →30 VDC / 24 V AC / 90 →260 VAC
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 DC version 250 AC 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 µs
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 AC	24 VDC -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

#### Inputs specifications

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 VDC→30 VDC
Low level	0 →2 VDC

**Solid state output characteristics**

Maximum current	30 mA
Max. voltage	10 →30 VDC for the DC version 24 VDC -20/+15 %

**Relay output characteristics**

Changeover relay	•
NO contact	Depending on version
Maximum current	5 A
Minimum current	10 mA
Maximum voltage	30 VDC / 250 VAC
Min. voltage	5 VAC/DC
Response time	< 13 ms
Mechanical life (operations)	20 x 10 <sup>6</sup>
Number of operations to 5 A	5 x 10 <sup>4</sup>
Output modes : maintained or pulsed	0.01 →99.99 s

**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

**Principles**

N°	Legend
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

**Dimensions (mm)**

N°	Legend
①	10.5 max.

#### Dimensions (mm)

26546842 - Adaptor for 72 x 72 mm cut-out



#### Dimensions (mm)

26546846 - Adaptor for 55 x 55 mm cut-out



#### Dimensions (mm)

Panel cut-out



#### Dimensions (mm)

26546841 - DIN rail adaptor



Curves

Counter : dir

dir



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

Curves

Counter : AS

AS



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

Curves

Counter : AA

AA

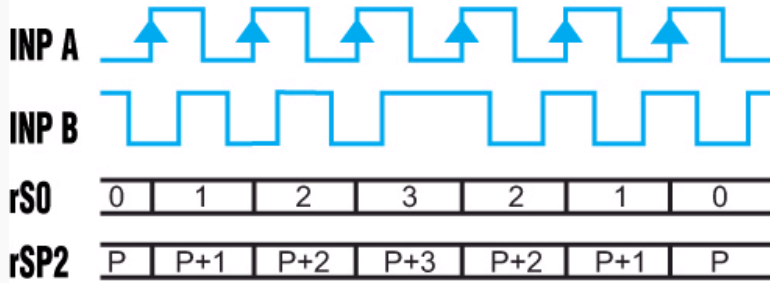


Inp A : Add. counter input 1 Inp B : Sous. counter input 2 rS0 : Display 0 →Preset

Curves

Counter : PP

# PP

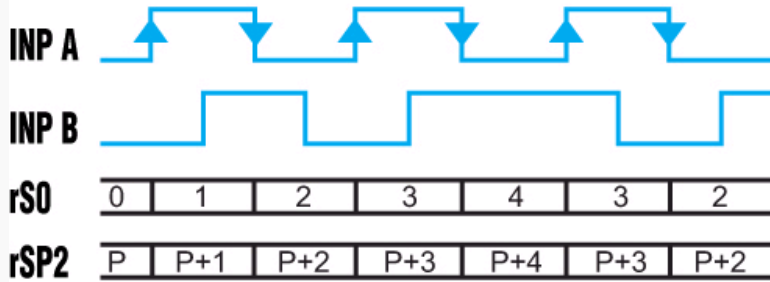


A 90° B Inp A : Counter input Counting on an edge Inp B : Reversal of direction rS0 : Display 0 →Preset rSP2 : Display Preset →0

## Curves

Counter : PP2

# PP2

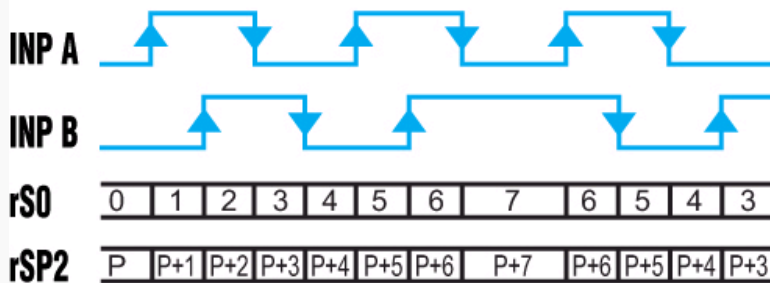


A 90° B Inp A : Counter input Counting on a rising edge and on a falling edge Inp B : Reversal of direction rS0 : Display 0 →Preset rSP2 : Display Preset →0

## Curves

Counter : PP4

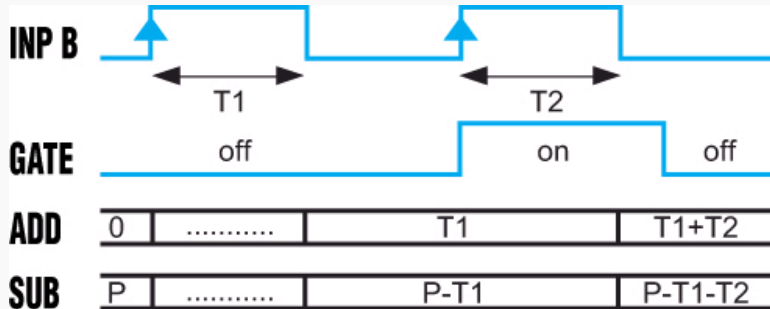
# PP4



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

## Curves

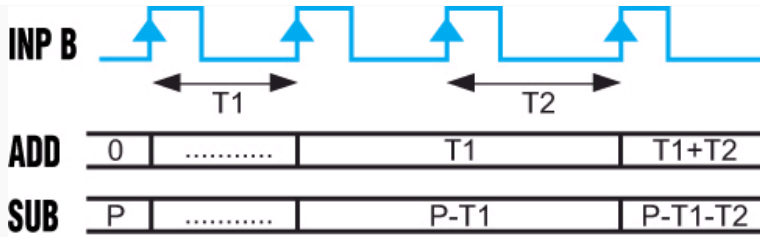
Chronometer : Start tcCb



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

## Curves

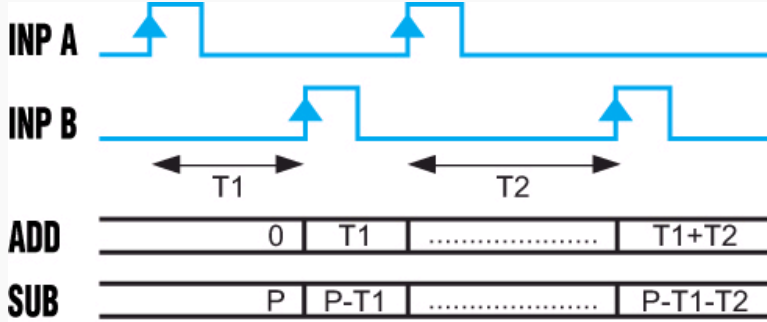
Chronometer : Start tcCbb



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

**Curves**

Chronometer : Start tcCAb



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

**Curves**

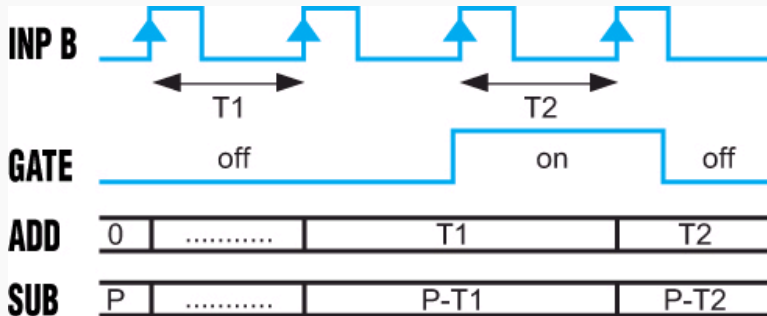
Chronometer : Start tcSb



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

**Curves**

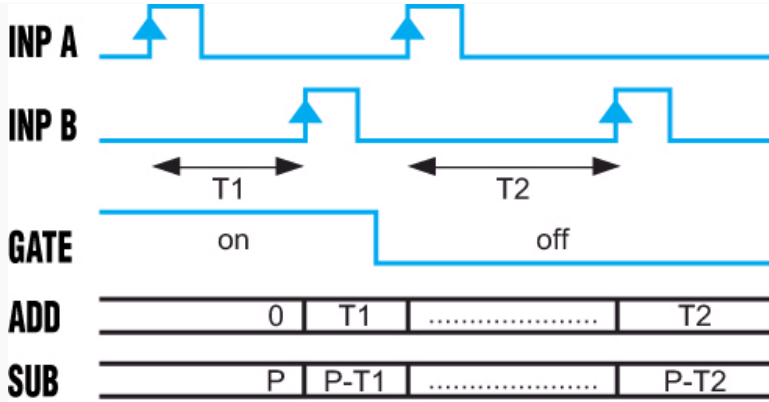
Chronometer : Start tcSbb



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

**Curves**

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

**Curves**

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

**Curves**

Tachometer : Start tA.A



Inp A : Frequency input Inp B : No function

**Curves**

Tachometer : Start tA.AS



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

**Curves**

Tachometer : Start tA.AA

<b>INP A</b>	0	$F_{A0}$	$F_{A1}$	$F_{A2}$	0	x
<b>INP B</b>	0	0	$F_{B0}$	$F_{B1}$	$F_{B2}$	x
<b>Display</b>	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

**Curves**

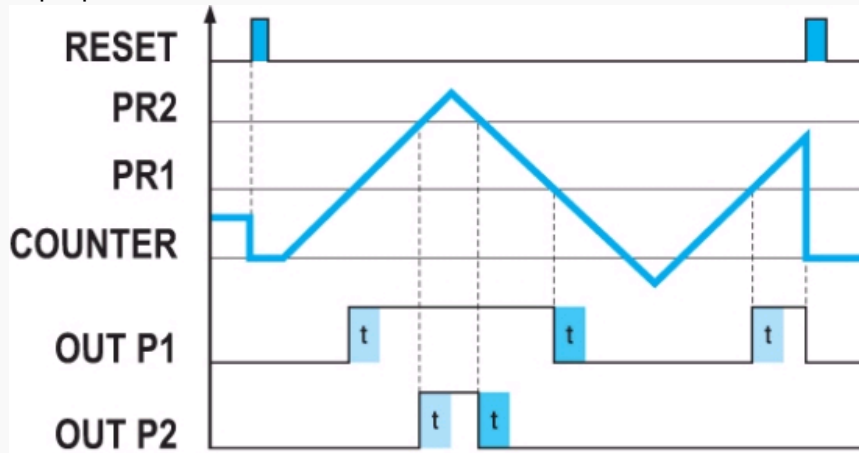
Tachometer : Start tA.PP



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

**Curves**

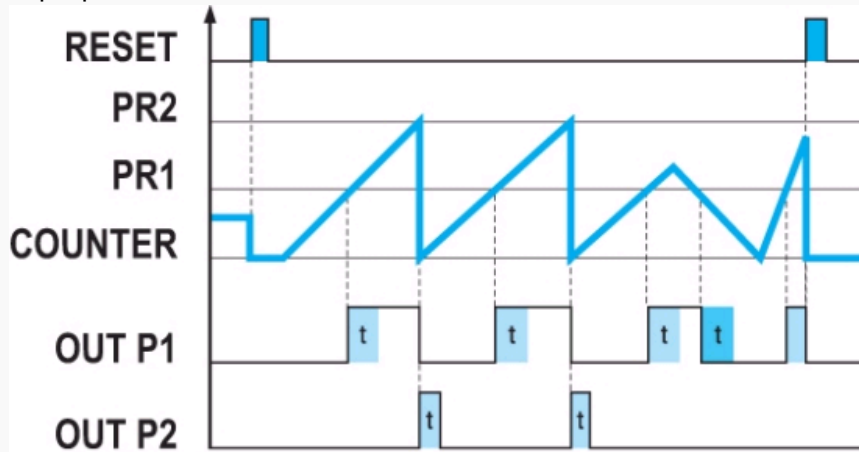
Output operation : OutoP rS0



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

**Curves**

Output operation : OutoP rSA0

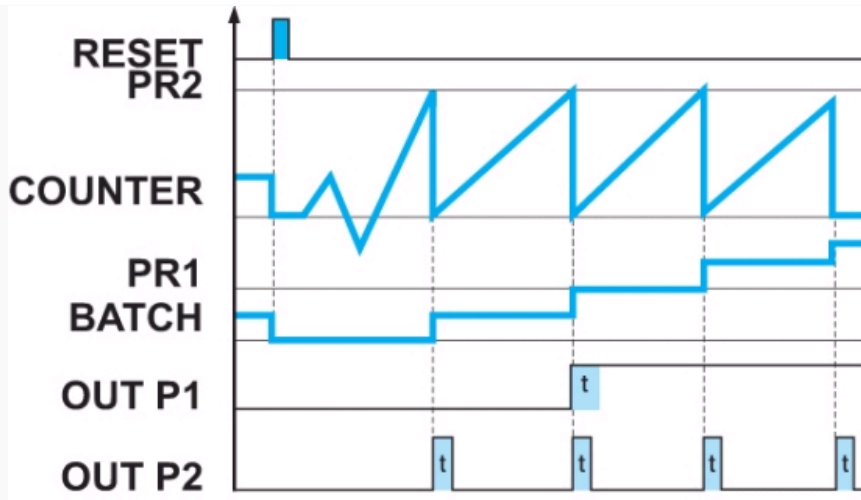


A 90° B Inp A : Frequency input 1 Inp B : Reversal of direction

**Curves**

Output operation : OutoP bCrSA0





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

Curves

Output operation : OutoP tCrSA0



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

Curves

Output operation : OutoP rSAP2



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

Curves

Output operation : OutoP rSAP2



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

Curves

Output operation : OutoPbCrSA2



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

Curves

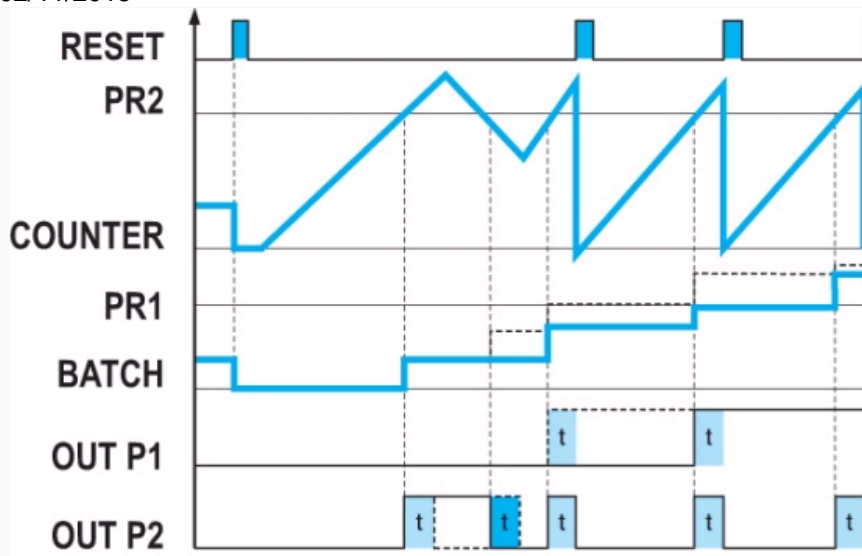
Output operation : OutoP tCrSA2



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

Curves

Output operation : OutoP bCrS0



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

**Curves**

Output operation : OutoP tCrS0



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

**Curves**

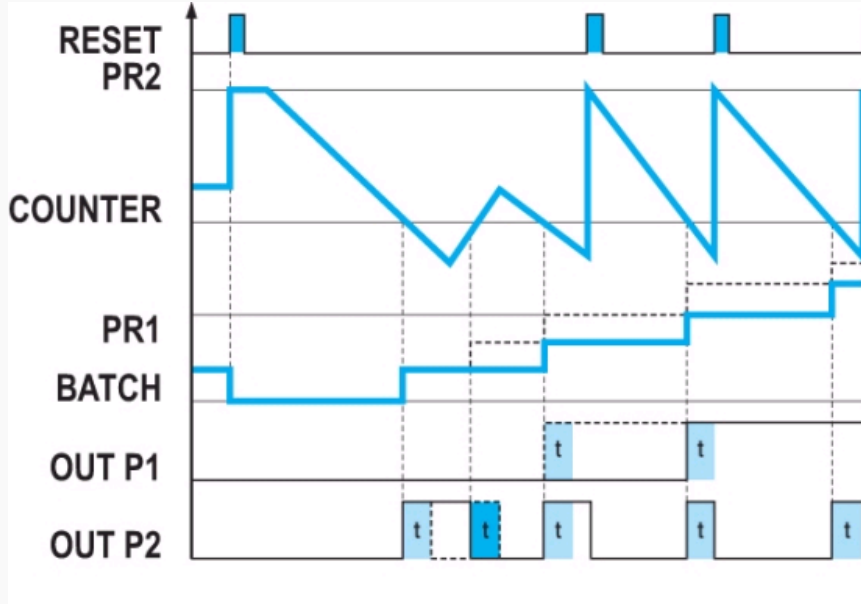
Output operation : OutoP MurS0 (AA)



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

Curves

Output operation : OutoP bCrSP2



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

Curves

Output operation : OutoP tCrSP2



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

**Curves**

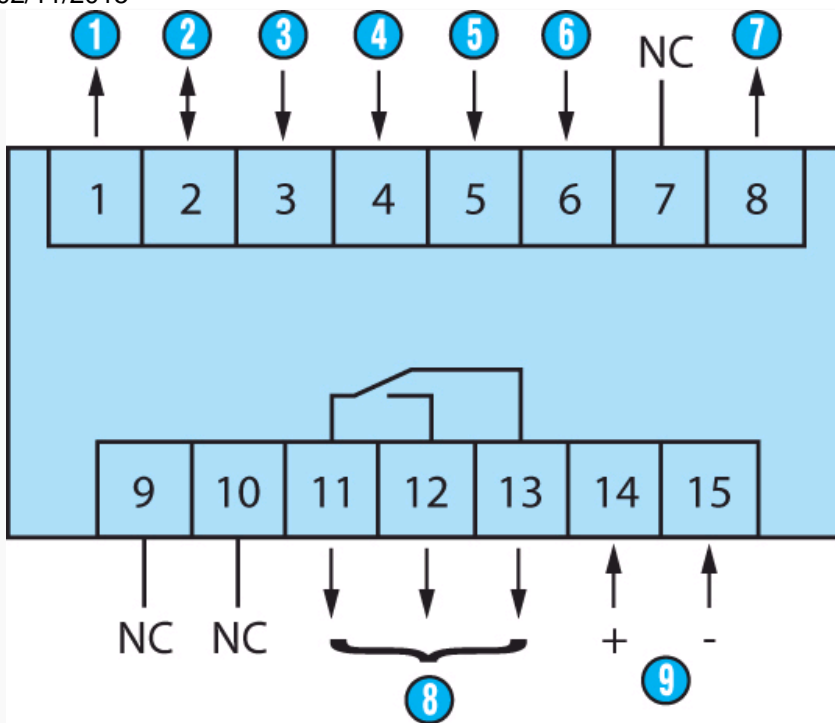
Output operation : OutoP MurS0 (AS)



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

**Connections**

87621111 / 211

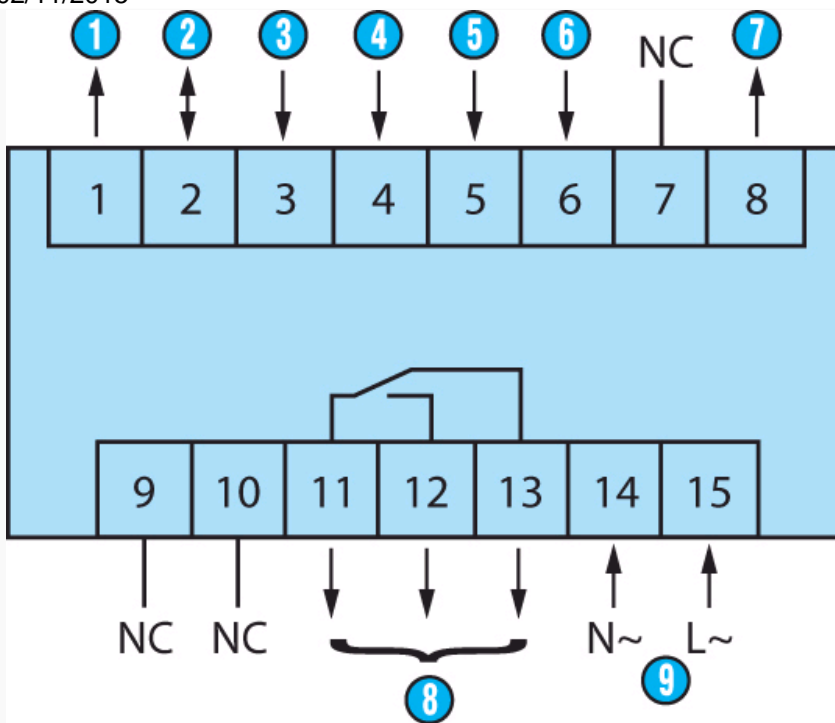


Output : 5 A/250 VAC/AC : 24 VAC

N°	Legend
①	Sensor voltage supply (* UB interconnected)
②	GND (0 VDC)
③	INP A (signal A input)
④	INP B (signal B input)
⑤	Reset (Reset input)
⑥	Gate input
⑦	Output 1 - 10-30 VDC/30 mA
⑧	11-12-13 : Output 1
⑨	14-15 : Supply

#### Connections

87621112 / 212

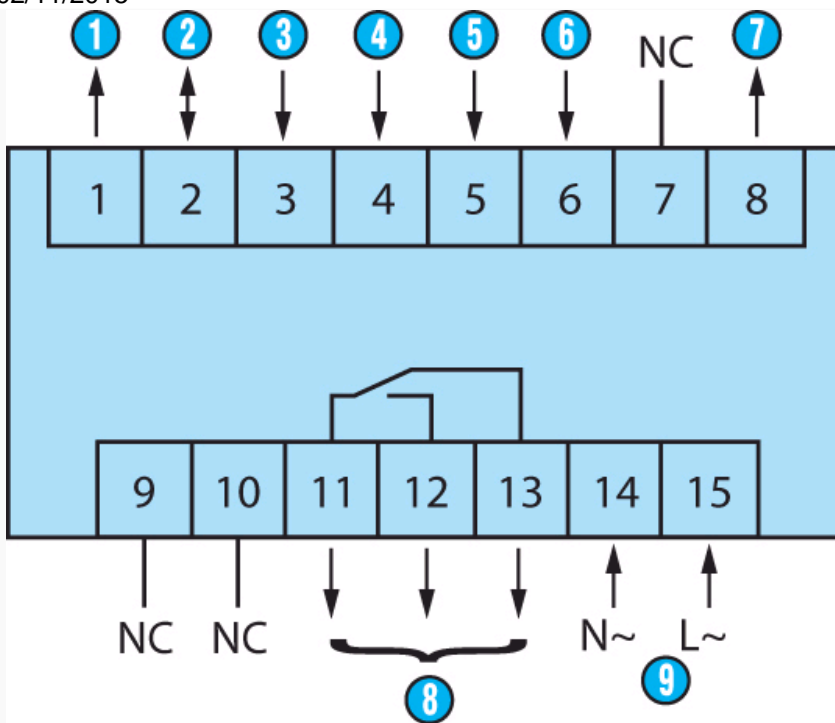


Output : 5 A/250 VAC/AC : 24 VAC

N°	Legend
1	Sensor voltage supply
2	GND (0 VDC)
3	INP A (signal A input)
4	INP B (signal B input)
5	Reset (Reset input)
6	Gate input
7	Output 1 - 24 VDC/30 mA
8	11-12-13 : Output 1
9	14-15 : Supply

#### Connections

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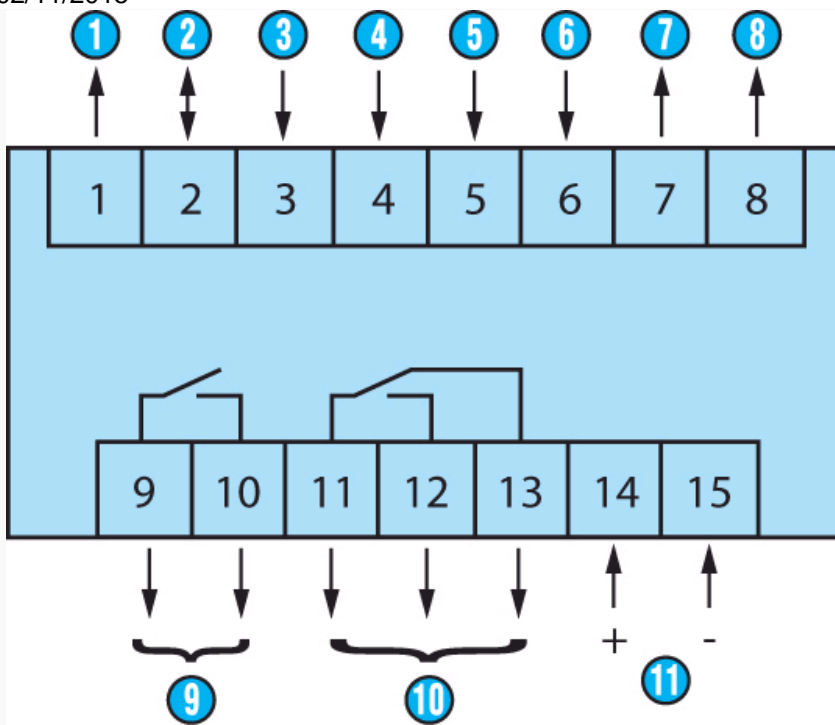
Output : 5 A/250 VAC/DC : 10 30 VDC

N°	Legend
1	Sensor voltage supply
2	GND (0 VDC)
3	INP A (signal A input)
4	INP B (signal B input)
5	Reset (Reset input)
6	Gate input
7	Output 1 - 24 VDC/30 mA
8	11-12-13 : Output 1
9	14-15 : Supply

### Connections

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Output : 5 A/250 VAC/AC : 90 260 VDC

N°	Legend
①	Sensor voltage supply (* UB interconnected)
②	GND (0 VDC)
③	INP A (signal A input)
④	INP B (signal B input)
⑤	Reset (Reset input)
⑥	Gate input
⑦	Output 1 : 10-30 VDC/30 mA
⑧	Output 2 : 10-30 VDC/30 mA
⑨	9-10 : Output 1
⑩	11-12-13 : Output 2
⑪	14-15 : Supply

#### Connections

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Output : 5 A/250 VAC/AC : 90 260 VDC

N°	Legend
①	Sensor voltage supply
②	GND (0 VDC)
③	INP A (signal A input)
④	INP B (signal B input)
⑤	Reset (Reset input)
⑥	Gate input
⑦	Output 1 : 24 VDC/30 mA
⑧	Output 2 : 24 VDC/30 mA
⑨	9-10 : Output 1
⑩	11-12-13 : Output 2
⑪	14-15 : Supply

#### Connections

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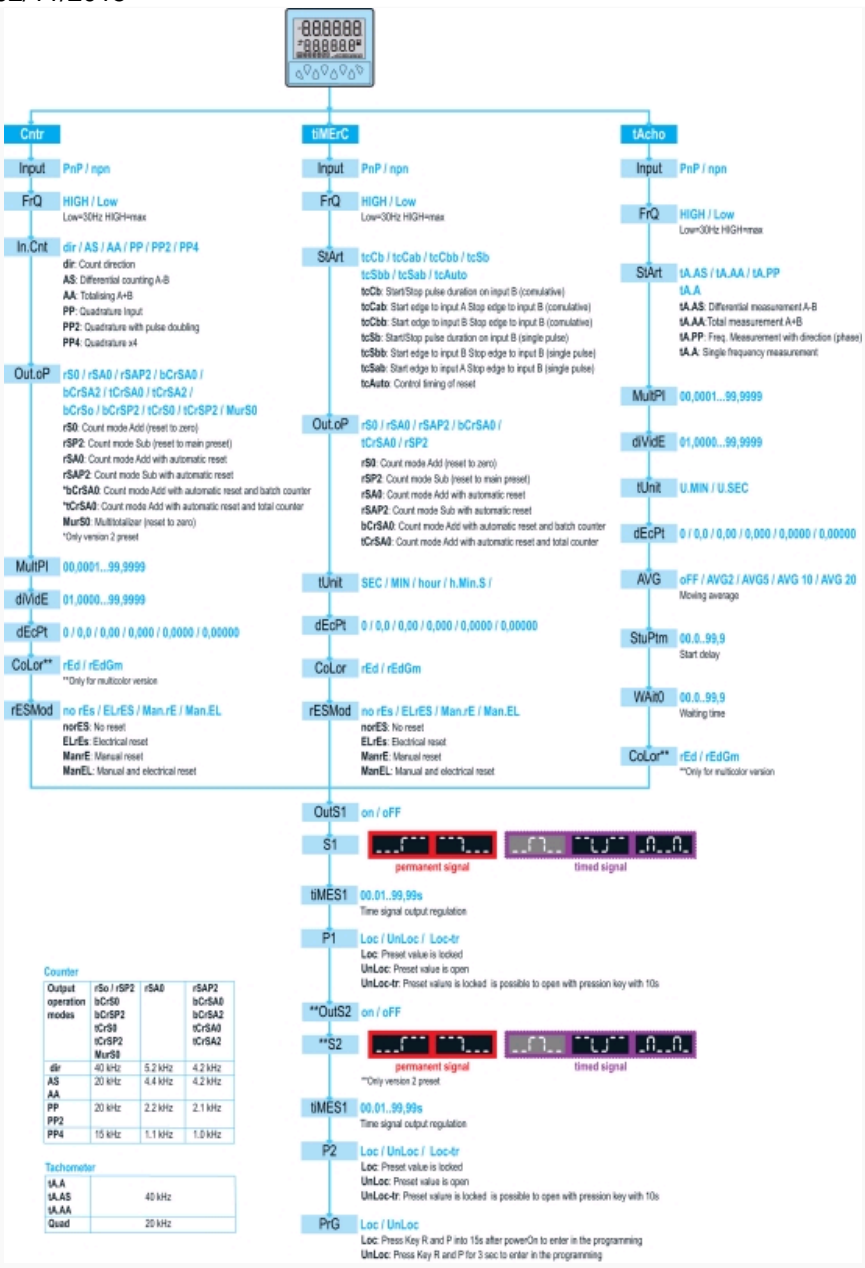


Output : 5 A/250 VAC/AC : 90 260 VDC

N°	Legend
①	Sensor voltage supply
②	GND (0 VDC)
③	INP A (signal A input)
④	INP B (signal B input)
⑤	Reset (Reset input)
⑥	Gate input
⑦	Output 1 : 24 VDC/30 mA
⑧	Output 2 : 24 VDC/30 mA
⑨	9-10 : Output 1
⑩	11-12-13 : Output 2
⑪	14-15 : Supply

## Applications

### Programming diagram



**Counter**

Output operation modes	rS0 / rSP2	rSA0	rSAP2
dir	40 kHz	5.2 kHz	4.2 kHz
AS	20 kHz	4.4 kHz	4.2 kHz
AA			
PP	20 kHz	2.2 kHz	2.1 kHz
PP2			
PP4	15 kHz	1.1 kHz	1.0 kHz

**Tachometer**

IA.A	40 kHz
IA.AS	
IA.AA	
Quad	20 kHz