Electronic multifunction counters with preselection

➜ Up counters/Down counters - 48 x 48 - CTR48E "Essential"

- **Counter, Preselection chronometer**
- **Maximum input frequency 5 k Hz**
- **Simple parameter setting, configuration using text menus**
- **Easy modification of presets**
- **Multiplication factor**
- **3 A changeover relay**
- **Backlit LCD display (green) : 6 digits, height 9 mm**
- **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
Green backlit LCD display	Counter, Preselection chronometer	1	10 → 30 V⎓	1 relay	**87629111**
	Counter, Preselection chronometer	1	115 V∼	1 relay	**87629113**
	Counter, Preselection chronometer	1	230 V∼	1 relay	**87629114**
	Counter, Preselection chronometer	2	10 → 30 V⎓	1 changeover relay, 1 NO relay	**87629121**
	Counter, Preselection chronometer	2	115 V∼	1 changeover relay, 1 NO relay	**87629123**
	Counter, Preselection chronometer	2	230 V∼	1 changeover relay, 1 NO relay	**87629124**

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**

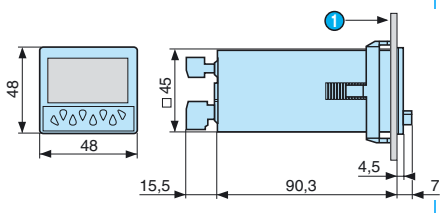
General characteristics

Environmental characteristics	
Supply	11 → 30 V⎓ / 115 V ∼ / 230 V∼
Relative humidity (no condensation)	EN 60068-2-30 40/93% RLF
Altitude	0 < 2000 m
Certifications	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	Débrochable
Protection	Conforming to standard EN 60529 IP65 for panel/IP20 for connections
Front panel watertight seal	✓
Temperature limits use (°C)	-10 → +50
Temperature limits stored (°C)	-25 → +75
Weight (g)	150 ⎓ version 250 ∼ 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
Decimal point selectable for ease of reading	0 0.0 0.00 0.000 0.0000 0.00000
Sensor supply version ∼	-40/+15% 50 mA 230 V∼ -40/+15% 40 mA 115 V∼
Programming and current value backed up via EEPROM memory	✓ Service life 10 years

Crouzet

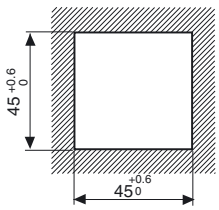
Operating characteristics	
Functions	Preselection counter, Chronometer
Number of presets	1 or 2
Display	LCD with green backlighting
Height digits (mm)	LCD 9
Display details	- 999 999 → 999 999
Input characteristics	
Inputs	2 counter inputs 1 reset input, 1 locking input
Input modes	Dir: Directional AS: up/dn PP: phase
Input type	Voltage or solid state
High level	3.5 → 30 V⎓
Low level	0 → 2 V⎓
Relay output characteristics	
Changeover relay	✓
NO contact	Depending on version
Maximum current	3 A
Minimum current	30 mA
Maximum voltage	30 V⎓ / 250 V∼
Min. voltage	5 V⎓
Response time	< 10 ms
Mechanical life (operations)	20 x 10^6
Number of operations	1 x 10^5
Output modes: maintained or pulsed	0.01 → 99.99 s

Dimensions (mm)

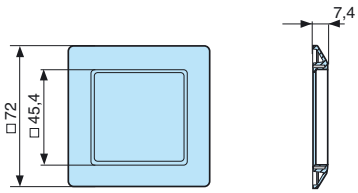


1 10.5 max

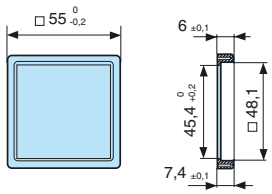
Panel cut-out



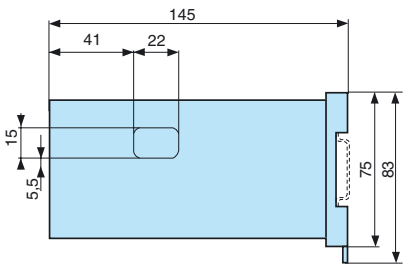
26546842 - Adaptor for 72 x 72 mm cut-out

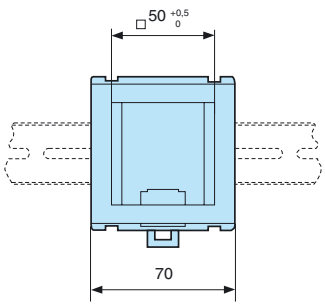


26546846 - Adaptor for 55 x 55 mm cut-out



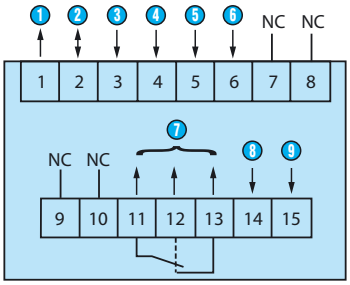
26546841 - DIN rail adaptor





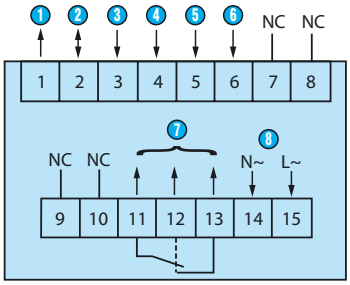
Connections

87629111



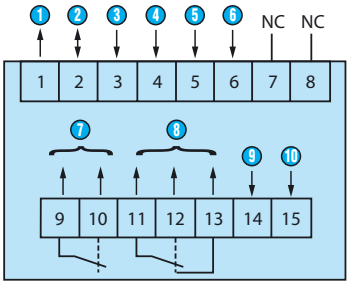
1. Sensor voltage supply (* UB interconnected)
2. GND (0 V⎓)
3. INP A (signal A input)
4. INP B (signal B input)
5. Reset (Reset input)
6. Lock (locking switch input)
7. 11-12-13: Output 1
8. 14-15: Supply
9. Power supply - GND

87629113 / 114



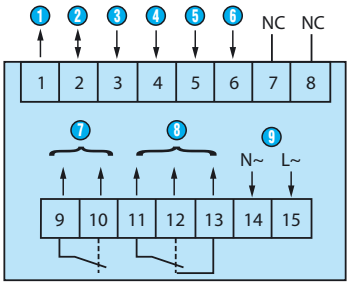
1. Sensor voltage supply
2. GND (0 V⎓)
3. INP A (signal A input)
4. INP B (signal B input)
5. Reset (Reset input)
6. Lock (locking switch input)
7. 11-12-13: Output 1
8. 14-15: Supply

87629121



1. Sensor voltage supply (* UB interconnected)
2. GND (0 V⎓)
3. INP A (signal A input)
4. INP B (signal B input)
5. Reset (Reset input)
6. Lock (locking switch input)
7. 9-10: Output 1
8. 11-12-13: Output 2
9. 14-15: Supply
10. Power supply - GND

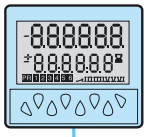
87629123 / 124



1. Sensor voltage supply
2. GND (0 V⎓)
3. INP A (signal A input)
4. INP B (signal B input)
5. Reset (Reset input)
6. Lock (locking switch input)
7. 9-10: Output 1
8. 11-12-13: Output 2
9. 14-15: Supply

Crouzet

Programming diagram



Cntr

Input — PnP / npn

FrQ — HIGH / Low
Low=30Hz HIGH=max

In.Cnt — dir / AS / PP
dir: Count direction
AS: Differential counting A-B
PP: Quadrature Input

Loc — ProG / PrESEt / PrgPrE
ProG: Programming us locked
PrESEt: Preset value us locked
PrgPrE: Preset and programming us locked
(The activation is with the electrical input LOCK)
(the choice is valid for P1 and P2 in the case of version to two pres.)

Out.oP — rS0 / rSA0 / rSAP2 / rSP2
rS0: Count mode Add (reset to zero)
rSP2: Count mode Sub (reset to main preset)
rSA0: Count mode Add with automatic reset
rSAP2: Count mode Sub with automatic reset

MultPl — 00,0001...99,9999

dEcPt — 0 / 0,0 / 0,00 / 0,000 / 0,0000 / 0,00000

rESMod — no rEs / ELrES / Man.rE / Man.EL
norES: No reset
ELrEs: Electrical reset
ManrE: Manual reset
ManEL: Manual and electrical reset

tiMErC

Input — PnP / npn

FrQ — HIGH / Low
Low=30Hz HIGH=max

StArt — tcCab / tcCbb / FrErun
FrErun: Gate Mode (INPA)
tcCab: Start edge to input A Stop edge to input B (comulative)
tcCbb: Start edge to input B Stop edge to input B (comulative)

Loc — ProG / PrESEt / PrgPrE
ProG: Programming us locked
PrESEt: Preset value us locked
PrgPrE: Preset and programming us locked
(The activation is with the electrical input LOCK)
(the choice is valid for P1 and P2 in the case of version to two pres.)

Out.oP — rS0 / rSA0 / rSAP2 / rSP2
rS0: Count mode Add (reset to zero)
rSP2: Count mode Sub (reset to main preset)
rSA0: Count mode Add with automatic reset
rSAP2: Count mode Sub with automatic reset

tUnit — SEC / MIN / hour / h.Min.S /

dEcPt — 0 / 0,0 / 0,00 / 0,000 / 0,0000 / 0,00000

rESMod — no rEs / ELrES / Man.rE / Man.EL
norES: No reset
ELrEs: Electrical reset
ManrE: Manual reset
ManEL: Manual and electrical reset

S1

permanent signal

timed signal

tiMES1 — 00.01..99,99s
Time signal output regulation

****S2**

permanent signal

timed signal

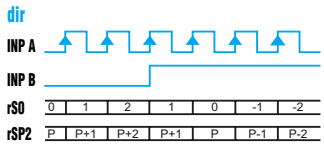
****Only version 2 preset

tiMES1 — 00.01..99,99s
Time signal output regulation

	Low : 1.0 V High : 4.0 V		Low : 3.0 V High : 30.0 V	
	rS0 rSP2	rSA0 rSAP2	rS0 rSP2	rSA0 rSAP2
dir	15 kHz	1.5 kHz	5 kHz	1.2 kHz
AS	10 kHz	1.5 kHz	5 kHz	1.2 kHz
PP	10 kHz	0.7 kHz	2.4 kHz	0.5 kHz

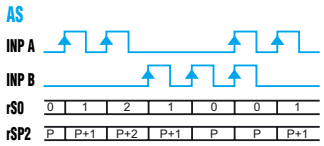
Curves

Counter: dir



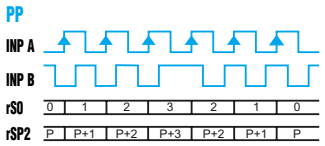
A 90° B
Inp A: Counter input
Counting on an edge
Inp B: Reversal of direction
rS0: Display 0 → Preset
rSP2: Display Preset → 0

Counter: AS



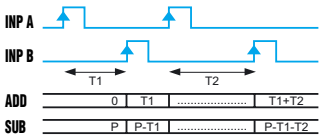
Inp A: Add. counter input 1
Inp B: Sub. counter input 2
rS0: Display 0 → Preset
rSP2: Display Preset → 0

Counter: PP



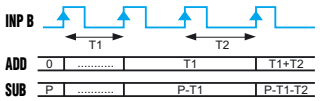
A 90° B
Inp A: Counter input
Counting on an edge
Inp B: Reversal of direction
rS0: Display 0 → Preset
rSP2: Display Preset → 0

Chronometer: Start tcCAb



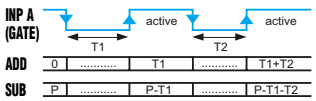
Inp A: On
Inp B: Off
Add: Display 0 → Preset
Sub: Display Preset → 0

Chronometer: Start tcCbb



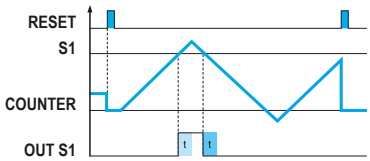
Inp A: No function
Inp B: On/Off
RS0/RSP2
Add: Display 0 → Preset
Sub: Display Preset → 0

Chronometer: Start FrErun

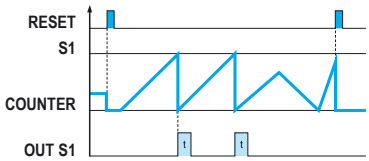


InpA: Gate
Time measurement via InpA
InpB: No function

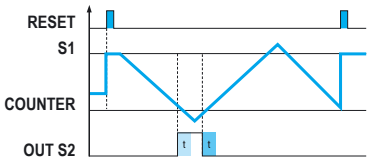
Output operation 1: rS0



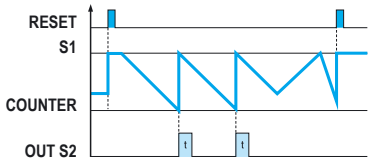
Output operation 1: rSA0



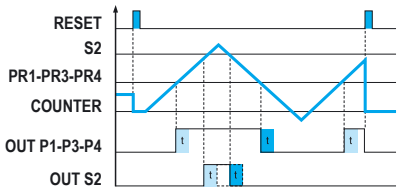
Output operation 1: rSP2



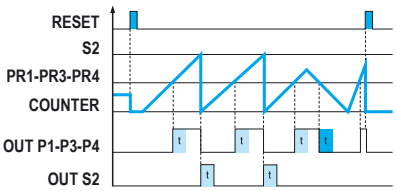
Output operation 1: rSAP2



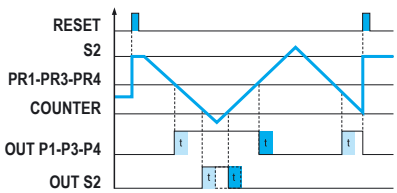
Output operation 2: rS0



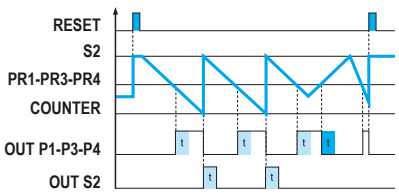
Output operation 2: rSA0



Output operation 2: rSP2



Output operation 2: rSAP2



Crouzet

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Crouzet:

87629111 87629113 87629114 87629121 87629123 87629124