› Electronic Counters
Multifunction Counter
CTR48E

- › Backlit LCD display (green)
- › Maximum input frequency 5 k Hz
- › Simple parameter setting, configuration using text menus
- › Easy modification of presets
- › Reset on panel or external with inhibition option
- › Option of locking the keypad, completely or partially (preset, programming)
- › IP 65 sealed panel
- › Highly resistant to shocks and impacts
- › Excellent visibility due to the large digit size (6 digits, height 9 mm)



CTR48E

Product selection

Model	Type	Functions	Preset	Voltages	Output	Part Number
CTR48E	Green backlit LCD display	Counter, Preselection chronometer	1	230 V∿	3 A changeover relay	**87629114**

Accessories

Description	Part Number
Adaptor for 72 x 72 mm cut-out	**26546842**
Adaptor for 55 x 55 mm cut-out	**26546846**
DIN rail adaptor	**26546841**

General characteristics

Physical details and protection	
Supply	230 V∿
Relative humidity at 40 ° (no condensation) according to EN 60068-2-30	93%
Altitude	Up to 2 000 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	Debrochable
Protection	Front side: IP65 / Connections: IP20
Front panel watertight seal	•
Temperature limits use (°C)	-10 →+50
Temperature limits stored (°C)	-25 →+75
Weight (g)	250

You have a project? Contact us on **www.crouzet.com**

Description:

Crouzet Impulse Counters, accurate and durable solutions for pulse measurement needs

Crouzet's electronic impulse counters are reliable devices designed for measuring and recording electrical impulses in industrial applications. Crouzet's impulse counters use a combination of mechanical and electrical components to precisely count electrical pulses, offering a reliable solution for various industrial control and monitoring tasks.

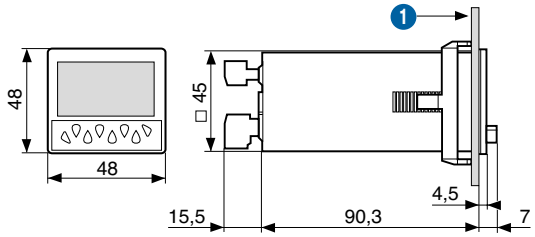
For more information about: please visit **www.crouzet.com**

Specifications	
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 AC	-40/+15 % 50 mA 230 V~
Programming and current value backed up via EEPROM memory	● Service life 10 years
Operating characteristics	
Functions	Preselection counter, Chronometer
Number of presets	1
Display	LCD with green backlighting
Height digits (mm)	9
Display details	999 999 →999 999
Input specifications	
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	No
Maximum current (A)	3
Minimum current (mA)	30
Maximum voltage	30 V⎓ / 250 V~
Min. voltage	5 V≂
Response time (ms)	< 10
Mechanical life (operations)	20 x 10^6
Number of operations	5 x 10^4
Output modes: maintained or pulsed	0.01 →99.99 s

Dimensions (mm)

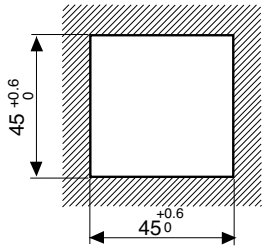
Panel Mounted

CTR48E



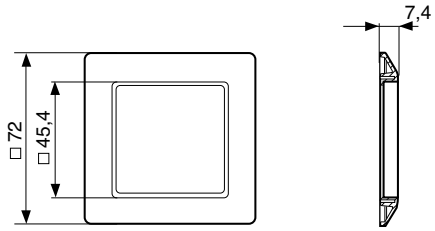
1 10.5 max

Panel Cut-out

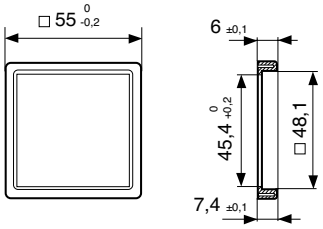


Accessories

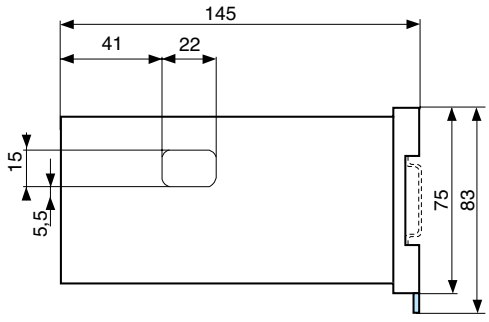
26546842 - Adaptor for 72 x 72 mm cut-out

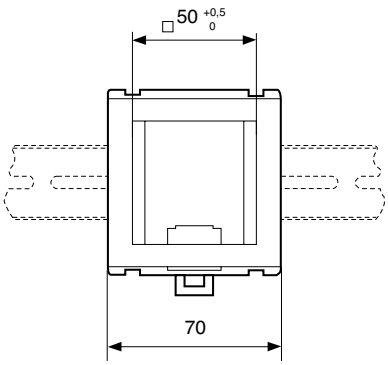


26546846 - Adaptor for 55 x 55 mm cut-out



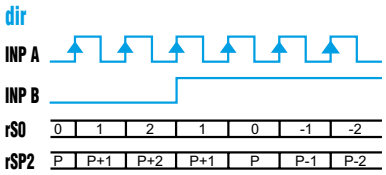
26546841 - DIN rail adaptor





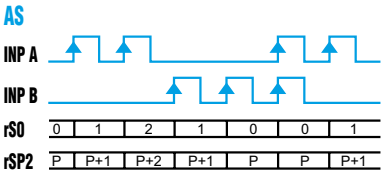
Curves

Counter: dir



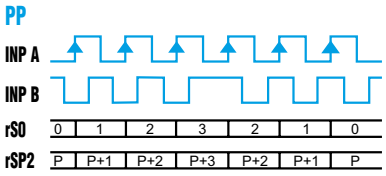
Inp A: counter input / Inp B: count direction / rS0: Display 0 →Preset / rSP2: Display Preset →0

Counter: AS



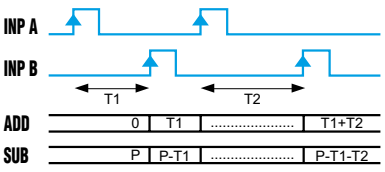
Inp A: Add. counter input 1 / Inp B: Sub. counter input 2 / rS0: Display 0 →Preset / rSP2: Display Preset →0

Counter: PP



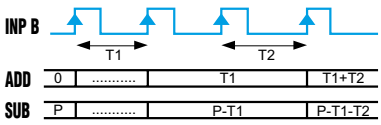
A 90 ° B Inp A: counter input counting on an edge / Inp B: reversal of direction / rS0: Display 0 →Preset / rSP2: Display Preset →0

Chronometer: Start tcCAb



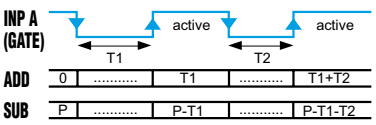
Inp A: On / Inp B: Off / Add: Display 0 →Preset / Sub: Display Preset →0

Chronometer: Start tcCbb



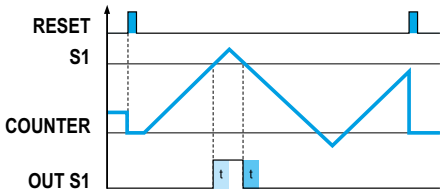
Inp A: No function / Inp B: On/Off RS0/RSP2 / Add: Display 0 →Preset / Sub: Display Preset →0

Chronometer: Start FrErun



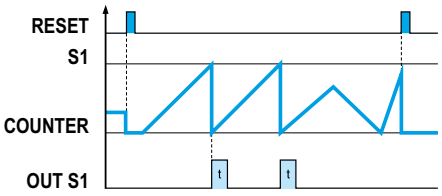
InpA: Gate Time measurement via InpA / InpB: No function

Output operation 1: rS0

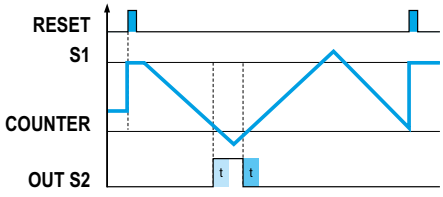


InpA: Gate Time measurement via InpA / InpB: No function

Output operation 1: rSA0

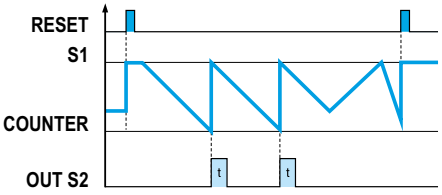


Output operation 1: rSP2

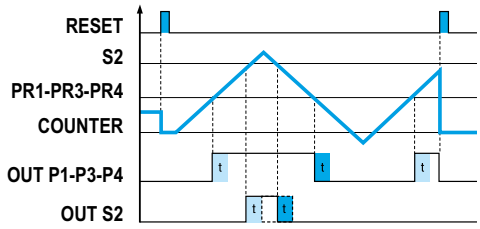


InpA: Gate Time measurement via InpA / InpB: No function

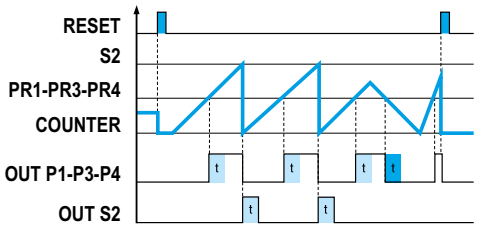
Output operation 1: rSAP2



Output operation 2: rS0

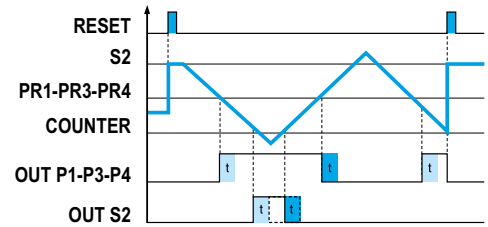


Output operation 2: rSA0

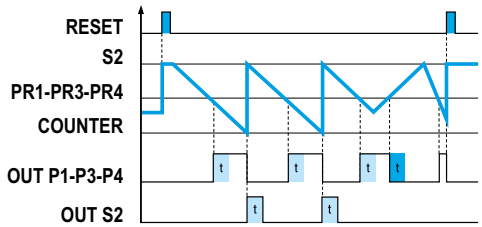


InpA: Gate Time measurement via InpA / InpB: No function

Output operation 2: rSP2



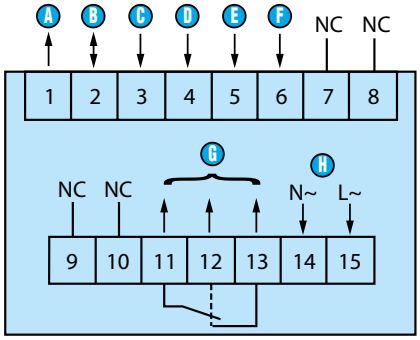
Output operation 2: rSAP2



InpA: Gate Time measurement via InpA / InpB: No function

Connections

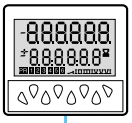
87629114



- **A** Sensor voltage supply
- **B** GND (0 V⎓)
- **C** INP A (signal A input)
- **D** INP B (signal B input)
- **E** Reset (Reset input)
- **F** Lock (locking switch input)
- **G** 11-12-13: Output 1
- **H** 14-15: Supply

Applications

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 (cumulative)
  tcCbb: Start edge to input B Stop edge to input B (cumulative)
- **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

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