

CPT4 Multifunction Counter

- ▶ Counter, Ratemeter, Timer, Multi-totalizer, Batch Counter
- ▶ Configuration using text menus
- ▶ Easy modification of presets and multiplication coefficient
- ▶ SPDT and solid state outputs
- ▶ LCD and LED display
- ▶ IP65 sealed front panel
- ▶ 1/16 DIN-Sized (48 x 48mm) housing



Input Specifications

Input Power \pm 10%	12-24VDC 24VAC 115VAC 230VAC
Sensor Supply (AC Input Only)	12-30VDC, max 50mA
Display	6 Digit LCD or LED
Display height	LCD < 9mm LED < 7.6mm
Inputs	3 inputs 2 counter inputs Gate and reset input
Input Modes	Adding, Subtracting, Directional, Cumulative, Independent, Phase
Input type	Voltage or solid state
Low Level	< 2 VDC
High Level	> 8 to 40 VDC
Counter Speed	5 kHz for simple counting 2.5 kHz for counting on both inputs
Minimum pulse time	Counting input: 17 mS at 30 Hz 250 uS at 2.5KHz 100 uS at 5KHz

Output Specifications

Solid state output max current	30 mA
Solid state output max voltage	24 VDC for DC version 30 VDC for AC version
Relay output current	0.01 to 5 A
Relay output voltage	5 - 30 VDC / 5 - 250 VAC
Response time	< 5 mS
Mechanical life (operations)	1×10^7
Electrical life	1×10^5
(operations at 5A AC1)	
Output maintained or pulsed	20, 50, 100, 200 500 mS or 1 second

General Specifications

Operating Temperature Range	0 to +50°C
Storage Temperature Range	-20 to +60°C
Relative humidity (no condensation)	DIN 40040 -40/90°C / %RLF
Altitude	0 < 2000 m / 3048 m (transport)
Standards	UL, cUL E96337
Vibration resistance in 3 axes	10m/s ² (10 to 150 Hz) conforming to IEC/EN 68 part 2-6. 100 m/s ² (18mS) conforming to IEC/EN 68 part 2-27
Protection	IP 65 (front panel) IP20 (for connections) IEC 144
Weight	100g for DC version with 1 preset. 200g for all others
Scaling factor	0.001 to 999,999
Programming and current value backed up via EEPROM	Write cycle: > 100,000 Read cycle: unlimited Last 10 years

Part Numbers

1 Solid State output and 1 SPDT output			
Preset	Supply Voltage	Display	Part Number
1	12-24 VDC	LCD	87620111
1	24 VAC	LCD	87620112
1	115 VAC	LCD	87620113
1	230 VAC	LCD	87620114
1	12-24 VDC	LED	87620211
1	24 VAC	LED	87620212
1	115 VAC	LED	87620213
1	230 VAC	LED	87620214

Part Numbers

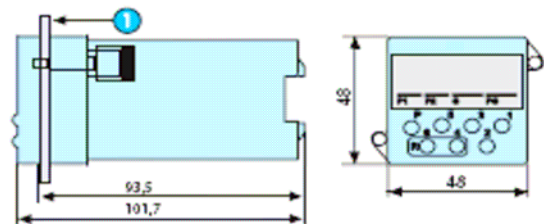
2 Solid State outputs and 2 SPDT outputs			
Preset	Supply Voltage	Display	Part Number
2	12-24 VDC	LCD	87620121
2	24 VAC	LCD	87620122
2	115 VAC	LCD	87620123
2	230 VAC	LCD	87620124
2	12-24 VDC	LED	87620221
2	24 VAC	LED	87620222
2	115 VAC	LED	87620223
2	230 VAC	LED	87620224

Part Number

Accessories		
Description	Part Number	
Panel cut-out adapter plate for 72x72mm	87620300	

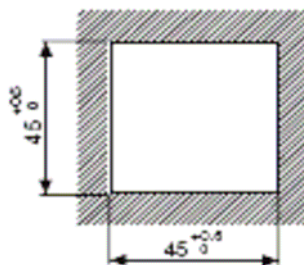
CPT4 Multifunction Counter

Dimensions mm

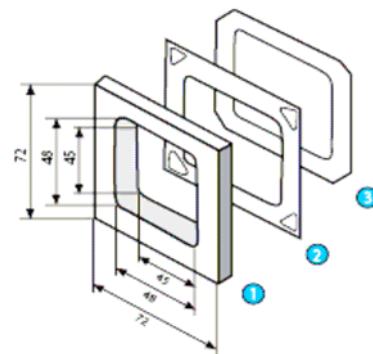


1 Panel thickness 1 < 10 mm

Panel cut-out



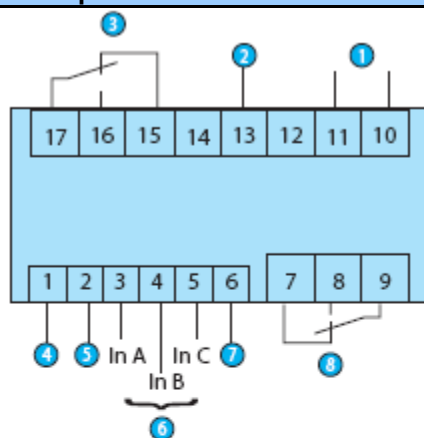
Adapter Plate



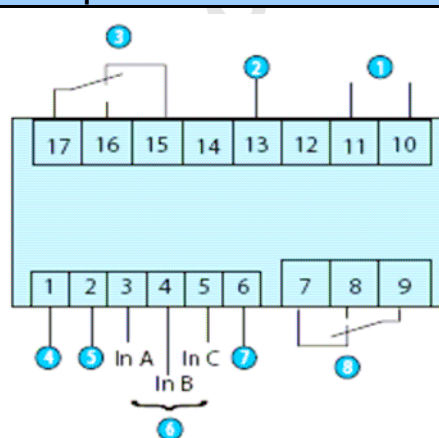
- 1 Front frame
- 2 Seal
- 3 Clamping frame

CPT4 - 2 presets AC version

CPT4 - 2 presets DC version



- 1 VAC power supply
- 2 Solid state output 2
- 3 Relay output 2
- 4 Auxiliary power supply
- 5 0 V or common
- 6 Counter and control input
- 7 Solid state output 1
- 8 Relay output 1



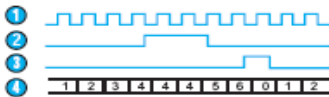
- 1 NC : Not connected
- 2 Solid state output 2
- 3 Relay output 2
- 4 VDC positive input
- 5 0 V or common
- 6 Counter and control input
- 7 Solid state output 1
- 8 Relay output 1

NB : Terminal 1 can be linked to inputs A, B or C via a contact when these inputs need an auxiliary power supply.

CPT4 Multifunction Counter

Functions

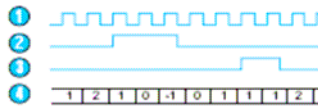
Counter input Simple counting - In CGr



- 1 Input A : Counter
- 2 Input B : Gate
- 3 Input C : Reset*
- 4 Display

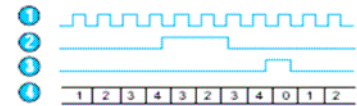
* The RESET input is configured as solid state by default.

Directional counting - In CdG



- 1 Input A : Counter
- 2 Input B : Counting direction
- 3 Input C : Gate
- 4 Display

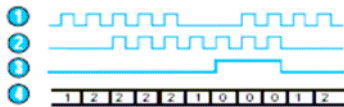
Directional counting - In Cdr



- 1 Input A : Counter
- 2 Input B : Counting direction
- 3 Input C : Reset*
- 4 Display

* The RESET input is configured as solid state by default.

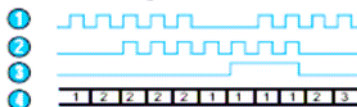
Individual counting - In Asr



- 1 Input A : Upcounter
- 2 Input B : Downcounter
- 3 Input C : Reset*
- 4 Display

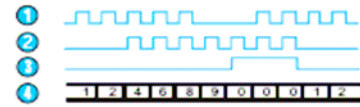
* The RESET input is configured as solid state by default.

Individual counting - In ASG



- 1 Input A : Upcounter
- 2 Input B : Downcounter
- 3 Input C : Gate
- 4 Display

Cumulative counting - In Aar



- 1 Input A : Counter
- 2 Input B : Counter
- 3 Input C : Reset*
- 4 Display

* The RESET input is configured as solid state by default.

Phase discriminator - In PPr



- 1 Input A : Channel A
- 2 Input B : Channel B
- 3 Input C : Reset*
- 4 Display

* The RESET input is configure solid state by default.

Phase discriminator - In PPG



- 1 Input A : Channel A
- 2 Input B : Channel B
- 3 Input C : Gate
- 4 Display

Output mode

Counting in the direction of the cycle - rS 0 rS A0



- 1 Counting
- 2 Reset
- 3 Display

Operation with electrical, automatic or manual Reset

Counting in the opposite direction to the cycle - rS P2/rS AP2



- 1 Counting
(Eg : P2 = 8)
- 2 Reset
- 3 Display

Operation with electrical, automatic manual Reset

Reset

Solid state reset - rS blo



- 1 Counting
- 2 Reset
- 3 Display

Dynamic reset - rS cPt



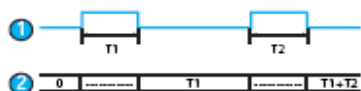
- 1 Counting
- 2 Reset
- 3 Display

CPT4 Multifunction Counter

Functions

Timing mode

tc cPu



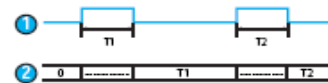
- 1 tc cPu
- 2 Display

tc cPP



- 1 tc cPP
- 2 Display

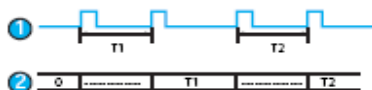
tc SPU



- 1 tc SPU
- 2 Display

A new time delay resets the first one

tc SPP



- 1 Display

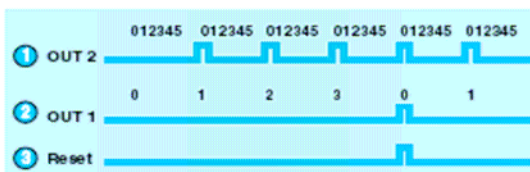
A new time delay resets the first one

Ratemeter operating mode



- 1 Low threshold
- 2 Normal operation
- 3 High threshold

Batch counter operating mode



- 1 Current counter
- 2 Batch counter
- 3 Reset

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