› Electronic Counters
Multifunction Counter
CTR24L

- › High brightness display: 6-digit LED, height 8 mm
- › Maximum input frequency 50 k Hz
- › Programmable multifunction: Counter/Tachometer/Chronometer
- › Reset on panel or external with inhibition option
- › Supply: 10 → 30 V⎓
- › Easy to program
- › Scaling factor (Counter - Tachometer)
- › Decimal point (Counter - Tachometer)
- › Accessories for 50 x 25 mm cut-out
- › Highly resistant to shocks and impacts
- › Excellent visibility due to the large digit size

CTR24L

Product selection			
Model	**Type**	**Functions**	**Part Number**
CTR24L	**2511**	Counter, Tachometer, Chronometer	**87623570**

Accessories	
Description	**Part Number**
Adaptor for 50 x 25 mm cut-out - Fixed with screws	**26546843**
Adaptor for 50 x 25 mm cut-out - Fixed with screws	**26546844**
DIN rail adaptor	**26546840**
Clip-fixing kit (supplied with the product)	**26546848**

General characteristics	
Physical details and protection	
Consumption	10 → 30 V⎓ max 55 mA with protection against polarity reversal
Connection by 5 screw terminals at rear of casing	●
Connection capacity	1.5 mm²
Fixed using bracket	●
Degree of protection front face	IP 65
Data memory	EEPROM
Temperature limits use (°C)	-20 →+55
Temperature limits stored (°C)	-25 →+70
Breakdown voltage	According to EN 610110-1: 2000 V/50 Hz/1 min.
Conformity to standards	EN 61000-6-2 - EN 55011 class B
Altitude (m)	2000
Certifications	UL - cULus - CE
Weight (g)	50

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**

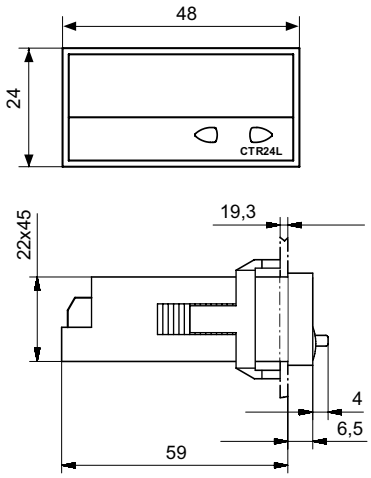
Operating characteristics	
Function	Impulse counter, Tachometer, Chronometer
Display	6-digit LED
Height digits (mm)	8
Input specifications	
Inputs	2 counter inputs, 1 reset input
Low level	0 → 0.2 x Ub VDC
High level	0.6 x Ub → 30 V⎓
Cyclical ratio	Any (maximum frequency given for a cyclical ratio = 1/1) Schmitt trigger input
Polarity	NPN or PNP for all inputs (programming)
Minimum impulse duration for reset (ms)	5
Frequency of filtered input (Hz)	Filter active: 30 Filter disabled: maximum frequency (programming)
Input impedance (kΩ)	Appr.5
Impulse counter	
Display details	19 999 →999 999
Elimination of non-significant zeros	●
Counting input modes	Cnt.Dir → Counter input INPA and counter direction input INPB Up.dn → INPA INPB differential counting Up.up → Sum of INPA + INPB QuAd → Phase discriminator QuAd2 → Phase discriminator with doubling of impulses QuAd4 → Phase discriminator with quadrupling of impulses
Inputs INPA / INPB	Dynamic
Reset input (terminal 5)	Dynamic Reset input connected in parallel with the red SET/RESET button Sets the counter to the defined preset value
Reset to zero - Panel	If not locked during programming
Remise à zéro - Externe (borne 5)	If not locked during programming
Scale factor	1 → 99.9999
Scaling factor	1 → 99.9999
Decimal point	0 0.0 0.00 0.000
Maximum counting frequency	CntDir → 50 k Hz UpDown → 25 k Hz UpUp → 25 k Hz Quad1 → 25 k Hz Quad2 → 25 k Hz Quad4 → 15 k Hz
Tachometer	
Display details	0 → 999 999
Elimination of non-significant zeros	●
Conversion time	1/s or 1/min
Input INPC	Dynamic
Accuracy	< 0.1 %
Measurement principle	< 38 Hz: measurement of period duration > 38 Hz: measurement with duration time base = 26.3 ms
Scale factor	1 → 99.9999
Scaling factor	1 → 99.9999
Decimal point	0 0.0 0.00 0.000

Maximum counting frequency	50 k Hz
Chronometer	
Display details	0.001 s → 999 999 h
Elimination of non-significant zeros	●
Functions	GatE.Lo →Time measurement if INPB is not active GatE.hi →Time measurement if INPB is active Inb.Inb →Time measurement on/off via the INPB edge InA.Inb →Measurement on via the INPA edge, measurement off via the INPB edge
Input INPA	Start
Input INPB	Start/Stop or Gate (depends on the input mode chosen)
Remise à zéro - Externe (borne 5)	If not locked during programming
Reset input (terminal 5)	Dynamic Reset input connected in parallel with the red SET/RESET button Sets the counter to the defined preset value
Reset to zero - Panel	If not locked during programming
Accuracy	< 50
Decimal point	0 0.0 0.00 0.000
Time ranges	0.001 s → 999 999 s 0.001 min → 99 999 min 0.001 h → 999 999 h 00 h 00 min 01 s → 99 h 59 min 59 s

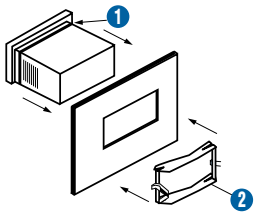
Dimensions (mm)

Panel Mounted

CTRL24

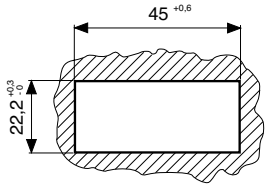


Fixing strip with clip-on yoke

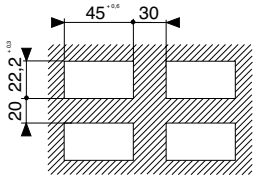


1 Seal
2 Fixing yoke

Panel Cut-out

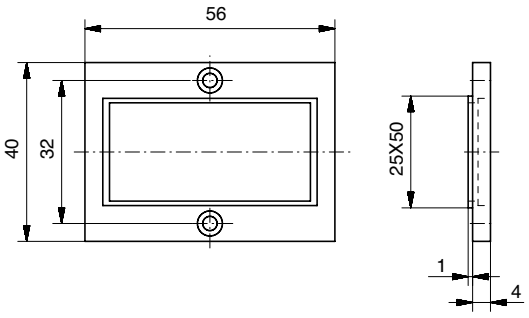


4 appliances

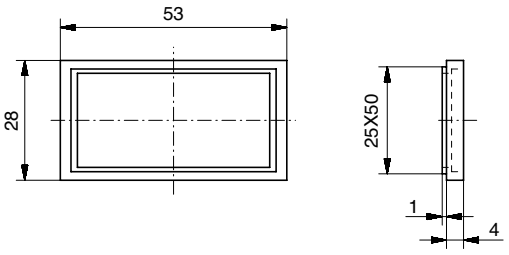


Accessories

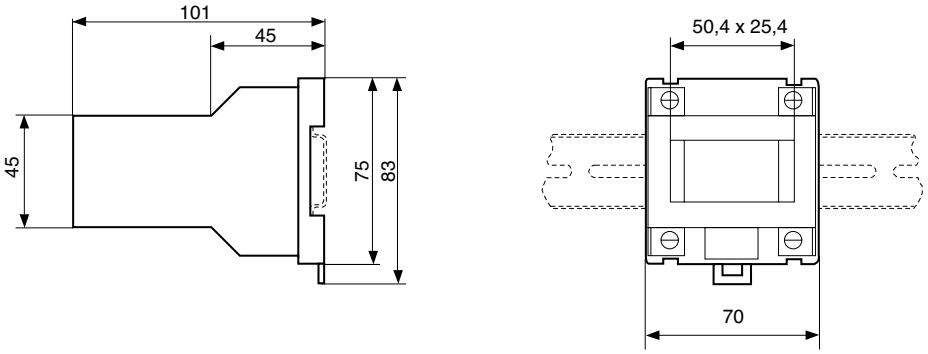
26546843 - Adaptor for 50 x 25 mm cut-out - Fixed with screws



26546844 - Adaptor for 50 x 25 mm cut-out - Fixed with clips



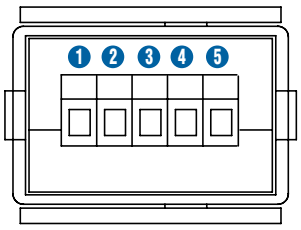
26546840 - DIN rail adaptor



Accessory supplied with the counter

Connections

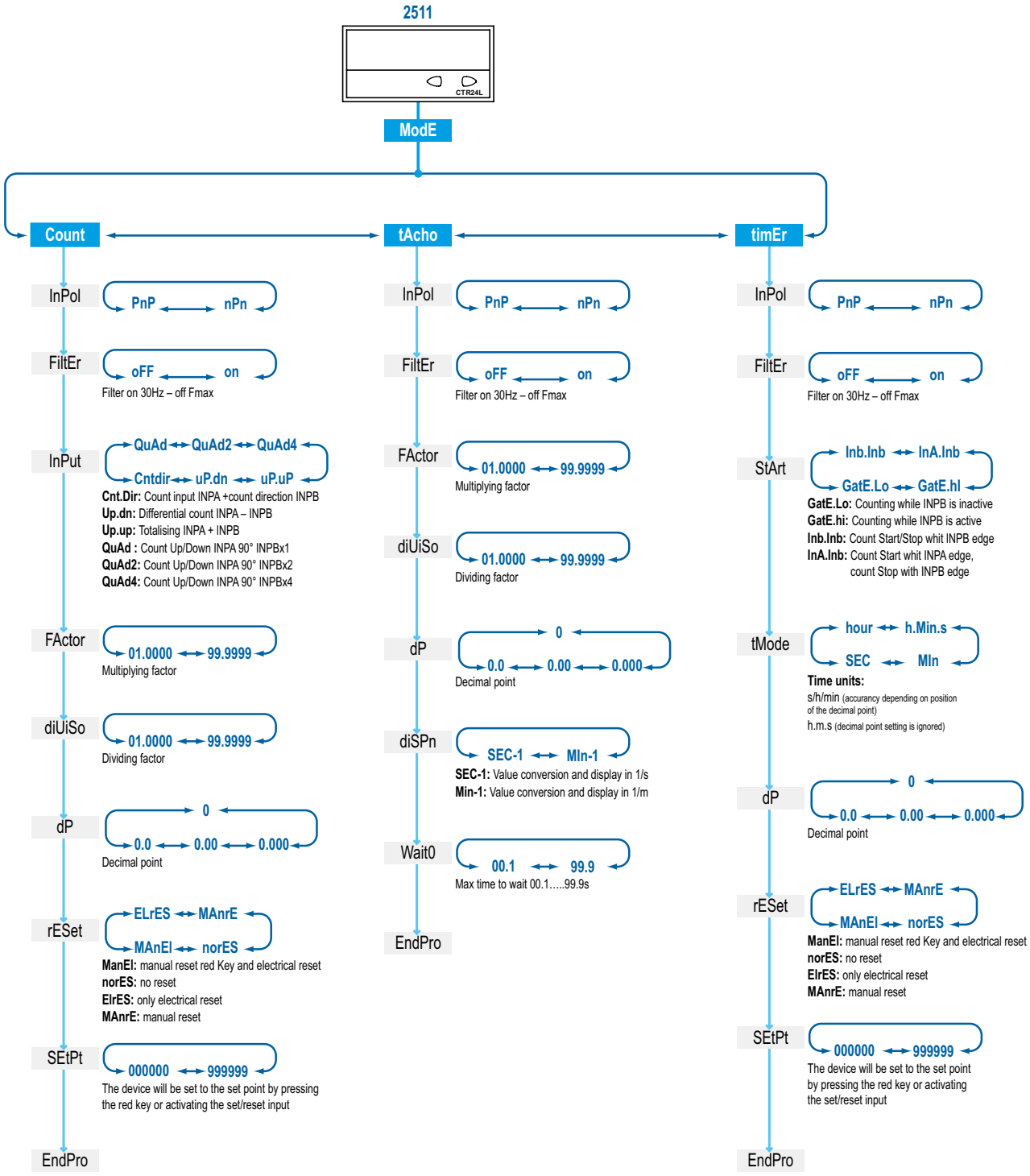
2513



1. Supply: 10 →30 V⎓
2. Supply: GND (0 V⎓)
3. INPA
4. INPB (NC in tachometer mode)
5. SET/RESET (NC in tachometer mode)

Applications

Programming diagram



Count frequency:

DC power supply	24V	12V
Input level	Standard	
typ. low	2.5V	2.0V
typ. High	22.0V	10V
Fmax*	**kHz**	**kHz**
CntDir	50	20
UpDown	25	15
Up.up	25	15
Quad1	25	15
Quad2	25	15
Quad4	15	15

Count frequency:

DC power supply	24V	12V
Input level	Standard	
typ.low	2.5V	2.0V
typ. Hight	22.0V	10V
Fmax*	**kHz**	**kHz**
Tacho	50	20

Counting ranges:

Seconds	0,001s...999 999s
Minutes	0,001min...999 999min
Hours	0,001h...999 999h
h.min.s	00h00min01s...99h59min59s