Electronic multifunction counters without preselection

➜ Multifunction counter - LED 24 x 48 - 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)**
- **Timing range 0.001 s → 999.999 hrs (Chronometer)**
- **Impulses or time measured in hrs/min/sec and in real time (Chronometer)**
- **Accessories for 50 x 25 mm cut-out**

Part numbers

Type	Functions	Code
CTR24L - 2511	Counter, Tachometer, Chronometer	**87623570**

Accessories

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

General characteristics

Environmental characteristics	
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
Dielectric strength	According to EN 61010-1: 2000 V/50 Hz/1 min
Conformity to standards	EN 61000-6-2 - EN 55011 class B
Altitude	2000 m
Certifications	UL - cULus (pending) - CE
Weight (g)	50
Operating characteristics	
Functions	Impulse counter, Tachometer, Chronometer
Display	6-digit LED
Height digits (mm)	8
Input characteristics	
Inputs	2 counter inputs, 1 reset input
High level	0 → 0.2 x Ub V⎓
Low 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	5 ms
Frequency of filtered input	Filter active: 30 Hz 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 kHz UpDown → 25 kHz UpUp → 25 kHz Quad1 → 25 kHz Quad2 → 25 kHz Quad4 → 15 kHz
Tachometer	
Display details	0 → 999 999
Elimination of non-significant zeros	✓
Conversion time	1/s ou 1/min
Input INPA	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 kHz
Chronometer	
Display details	0.001 s → 999 999 h
Elimination of non-significant zeros	✓
Functions	GatE.Lo → Time measurement if INPB is 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