

# ≡ Z-TRAUQ INC. ≡ programmable TIMERS & COUNTERS

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## plug-in outputs

Versatility beyond compare!



1/16 DIN



1/8 DIN



1/8 DIN

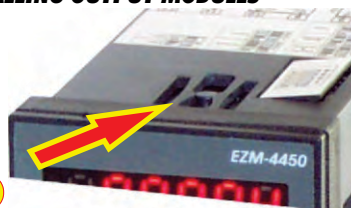


1/4 DIN

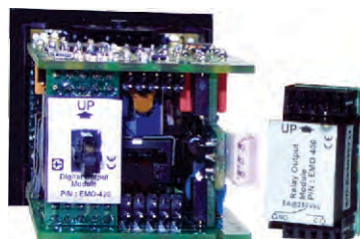
### FEATURES

- Two inputs
- Two outputs (see below)
- Two set points
- Two 6 digit displays
- On-board sensor power supply
- Functions:
  - ✓ Counter,
  - ✓ Batch Counter,
  - ✓ Totalizer,
  - ✓ Chronometer,
  - ✓ Frequency meter,
  - ✓ Tachometer, (zero speed)
  - ✓ Timer (multi-function)
- Reset - local & remote, manual or automatic
- Inputs: NPN, PNP, Encoder, Dry Contact
- Programmable from 0.01 sec. to 999.99 hrs.
- Count up or down, add two channels or subtract ChB from ChA
- Coefficient and decimal point position to precisely scale input (e.g. feet/min, gal/hr etc.)
- Programmable alarm functions
- Password protection
- MODBUS RS-232 or optional RS-485 comm.

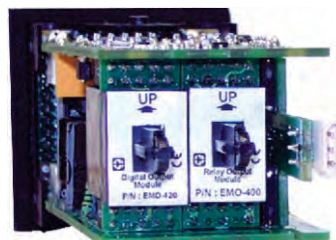
### INSTALLING OUTPUT MODULES



- 1 Remove power. Depress the locking pins located top and bottom and extract the unit from its case. Wiring remains intact!



- 2 Slide output module(s) into cavity.



- 3 Possibility for 2 modules. Re-insert unit into case. No re-programming!

### SPECIFICATIONS:

#### INPUTS

Counter Inputs: ChA, ChB - NPN, PNP, dry contact, incremental encoder.

Reset and Pause Inputs: Dry contact

Input Type Selection: via DIP switches

Input Speed: 10kHz max.

Reset Function: Automatic or Manual

Inputs Functions: INC, DEC, INC/DEC, INC/INC, UP/DOWN, x1 / x2 / x4 encoder input

#### OUTPUT FUNCTIONS

Completely separate programmable N.O or N.C.; maintained or momentary from 0.01 to 99.99 sec.

#### OUTPUTS

Output Modules: You can field install any two of the following modules in the device:

- Relay: 3A @ 250Vac EMO-400  
5A @ 250Vac EMO 700 & 900
- SSR: max 20mA @ 18Vdc
- Transistor: max 40mA @ 18Vdc

#### DISPLAY

Actual Value Display - 6 Digits Red LED:

- EZM 4450: 8mm EZM 7750:10.8mm
- EZM 4950:13mm EZM-9950:14mm

Set Value Display - 6 Digits Green LED:

- EZM 4450: 8mm EZM 7750: 8mm
- EZM 4950: 8mm EZM-9950: 6mm

LED indicators : SV1/SV2 (Set Values 1 & 2), OP1/OP2 (Control/Alarm outputs 1 & 2)

#### SUPPLY

Supply Voltage: 100-240 Vac; 24Vac/Vdc

Power Consumption: Maximum 6VA

#### CONDITIONS and PHYSICAL SPECIFICATIONS

Operating Temperature: -10 to +60°C

Humidity : 0 to 90%RH (non-condensing)

Protection Class: Nema 4X (IP65) front, IP 20 rear

Approvals: US CE

#### Related products:



Inductive & Capacitive proximity switches

Ultrasonic sensors

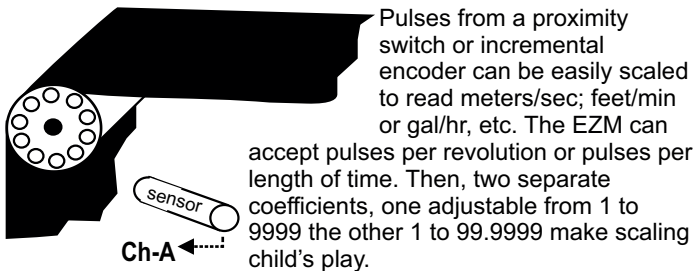


Photoelectrics

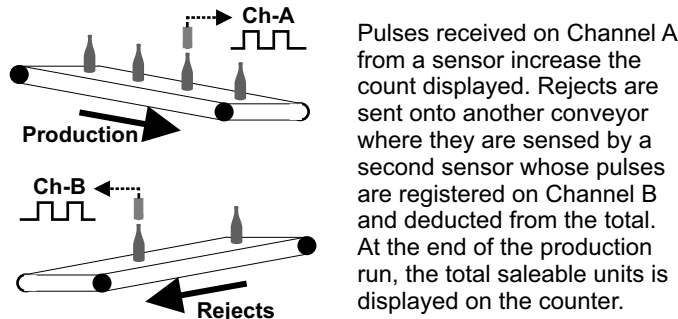
Magnet sensing proximities



## Used as a FREQUENCY METER (measurement, rate)

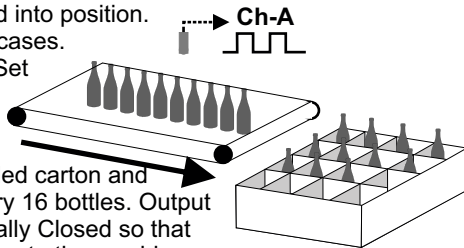


## Used as a TOTALIZER

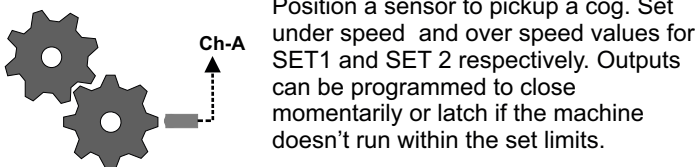


## Used as a BATCH counter

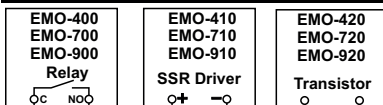
Sixteen bottles per case are counted before an empty case is moved into position. The order calls for 500 cases. Set Value 1 = 500 and Set Value 2 = 16. We program Output 2 to energize for 0.50 sec. This will advance the filled carton and position a new one every 16 bottles. Output 2 is programmed Normally Closed so that this contact will cut power to the machine once the count reaches 500 cases.



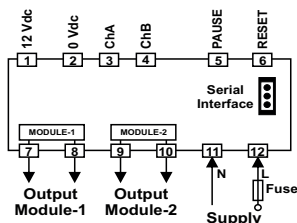
## Used as a TACHOMETER (also zero speed switch)



## Output Modules (max two in any combination)



## Electrical Connections



consult owner's manual for precise details

## Ordering Information

Complete the model number with the appropriate suffix from the left hand most column.  
e.g. EZM 4450-10010/01.02 is a 48 x 48mm counter/timer with supply voltage of 100 - 240vac, universal input, RS232, one relay & one SSR output.

EZM-4450  
EZM-4950  
EZM-7750  
EZM-9950

A	BC	D	E	/	FG	HI
	00		0	/		

A	Supply Voltage		
1	100-240Vac 50/60Hz		
2	24Vac/Vdc		
9	Custom (please specify)		
D	Serial Interface		Product Code
1	RS-232 (MODBUS)		Standard feature
2	RS-485 (MODBUS)		Optional
FG	Output Module-1		for 48mm high units for 72mm high units for 96mm high units
01	Relay	EMO-400	EMO-700 EMO-900
02	SSR	EMO-410	EMO-710 EMO-910
03	Transistor	EMO-420	EMO-720 EMO-920
HI	Output Module-2		
01	Relay	EMO-400	EMO-700 EMO-900
02	SSR	EMO-410	EMO-710 EMO-910
03	Transistor	EMO-420	EMO-720 EMO-920

Please use these product codes when ordering modules separately.

## Function Selection

Via DIP Switches under the flap on the top of EZM.

Counter and Totalizer	Frequency meter and Tachometer	Input Type Selection
1 OFF ON 2 OFF ON 3 OFF ON	1 OFF ON 2 OFF ON 3 OFF ON	4 OFF ON NPN
1 OFF ON 2 OFF ON 3 OFF ON	1 OFF ON 2 OFF ON 3 OFF ON	4 OFF ON Dry Contact
1 OFF ON 2 OFF ON 3 OFF ON	1 OFF ON 2 OFF ON 3 OFF ON	4 OFF ON PNP
1 OFF ON 2 OFF ON 3 OFF ON	1 OFF ON 2 OFF ON 3 OFF ON	

## Timer (multi-function)

### Delay on Energization:

This is the most common time delay function and is typically used to stagger the starting pattern of two motors. Timing begins when the supply voltage is applied and output 2 is energized when the set value (SET2) is reached. Timing stops and output remains energized until power is removed or Reset is pressed. Reconnecting the supply voltage will also start a new sequence. If two outputs, then output 1 reacts to SET1 value. The *reset button* can be disabled during programming.  
Pro 06=1, Pro 14, 15, 16 and 17=0, Pro 21=1.  
For other functions and their recipes, please consult the owner's manual.

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