

### Electronics LCD Preset Hourmeter For Maintenance Application **PT12 Series**



**PT1210F0 10-40VDC**

**PT1210G0 85-265VAC/90-360VDC**

ENM's series PT12 features two 6-digit, 7 segment LCD displays, channel two is self programmable. The service LED light informs the operator when the preset value setting is reached. The accumulated hours are stored on powerless, non-volatile data backup using CMOS EEPROM technology, where small space and reliable instruments are required with memory that does not rely on a battery. Hour meter module displays hour glass and decimal point. This model is ideal for maintenance applications.

#### Special functions:

- Allows customer to preset total hours and replace a failed meter without loss of total elapsed time
- Key lock feature to prevent unauthorized access to meter's reset and programming functions

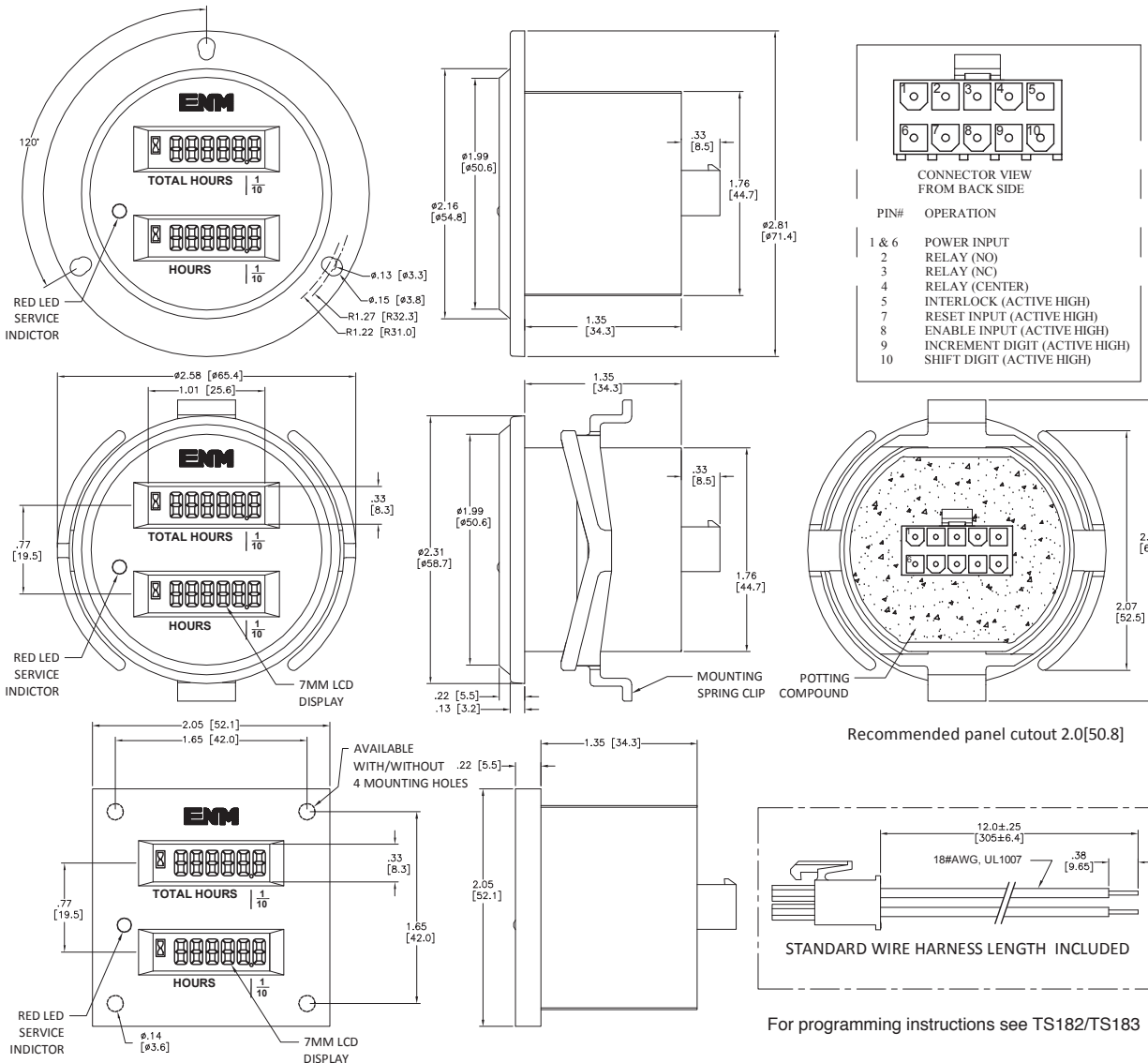
### Features

- Non-volatile memory (no battery)
- High reliability
- Totally sealed IP67
- Fits std round 2 inch panel openings
- Low operating current
- Wide operating voltage and temperature range
- Interlock input (the reset and preset input are disabled)
- Relay and LED output
- Self programmable or factory set
- 10 pins connector wire harness with locking feature
- Solid State Electronics
- Quartz Crystal
- Made in the U.S.A.

### Specifications

Display:	99999.9 Hours (both displays) Flashing icons Automatic recycle to zero.
Character height:	Large 6-digits 7mm
Operating Voltage:	85-265 VAC 50/60 Hz/ 90-360 VDC or 10-40 VDC
Operating current:	6mA nominal (50mA when LED and relay on)
Operating temperature:	-25C to +85C (-13 F to + 185 F) for the AC model -40 C to + 85 C (-40 F to + 185 F) for DC model
Vibration resistance:	Withstands 10 to 75 Hz.at 1 to 8 G's.
Resolution:	0.1 hour
Protected from:	Alternator load dump, inductive switching and reverse polarity
Configuration:	Round SAE bezel with new push-on retaining ring. Other mounting styles are also available.

### PT12 Series



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#### LIMITED WARRANTY

ENM Company resettable electromechanical counters are warranted to the consumer to be free from defects in material and workmanship for a period of 1 year. All ENM products which fall within the warranty period due to defects in material or workmanship will be repaired or replaced, at ENM's option, without charge to the consumer when returned with proof of purchase to any authorized ENM dealer in the United States, transportation charges prepaid, provided there is no evidence of improper installation, tampering, or other abuse. All implied warranties, including any implied warranty of merchantability or fitness for a particular purpose, shall be limited in duration to the express warranty period specified above. ENM disclaims any liability for consequential damages due to breach of any written or implied warranty on its products. Datasheet information subject to change.

## **PT12 SERVICE/HOUR METER INSTRUCTION (85VAC-265VAC) OR (10-40VDC)**

1. **TO HOOK UP HOUR METER**
  - CONNECT PIN #6 AND PIN #1 TO THE AC LINE POWER SOURCE FOR AC UNIT OR DC UNIT TO DC POWER SOURCE ON THE BACK OF UNIT.
  - TURN POWER ON, THE METER SHOULD DISPLAY (0.0) ON BOTH LCD SCREEN.
  
2. **TO ACTIVATE OR ENABLE BOTH HOUR METERS**
  - CONNECT PIN #8 TO THE AC (HOT SIDE) LINE, FOR DC UNIT TO THE POSITIVE POWER SOURCE
  - THE HOUR METER ICON ON BOTH LCD DISPLAY SHOULD START FLASHING INDICATING THAT THE METER IS RUNNING.
  
3. **TO RESET SERVICE INTERVAL**
  - CONNECT PIN #7 MOMENTARILY TO THE AC LINE (HOT SIDE), FOR DC UNIT TO THE POSITIVE POWER SOURCE
  - THE BOTTOM DISPLAY SHOULD FLASH ALL ZERO (000000) AND (0.0) THE SERVICE LED LIGHT AND THE INTERNAL RELAY SHOULD TURN-OFF OR RESET.
  
4. **TO PROGRAM SERVICE INTERVAL**
  - MOMENTARILY TOUCH EITHER PIN #9 (INCREMENT DIGIT) OR PIN #10 (SHIFT DIGIT) TO THE POSITIVE POWER SOURCE ONCE TO ENTER PROGRAMMING MODE. NOTE IF YOU WANT TO PROGRAM 75 HOURS, THE BOTTOM DISPLAY SHOULD BE INCREMENTED TO 75.0 ON THE LCD SCREEN.
  - MOMENTARILY TOUCH PIN #10 TO POWER SOURCE ONCE TO SHIFT THE DIGIT POSITION STARTING FROM RIGHT TO LEFT.
  - MOMENTARILY TOUCH PIN #9 TO POWER SOURCE ONCE TO INCREMENT THE DIGIT FLASHING POSITION.
  - PROGRAMMING MODE EXITS AUTOMATICALLY AFTER 10 SECONDS OF NO ACTIVITY.
  
5. **OUTPUT RELAY CONNECTION**
  - CONNECT PIN #4 TO POWER SOURCE. CENTER CONNECTION OF THE RELAY
  - CONNECT PIN #3 USE AS NORMALLY OPEN CONTACT FOR THE RELAY.
  - CONNECT PIN #2 USE AS NORMALLY CLOSE CONTACT FOR THE RELAY.
  
6. **PROGRAMMING TOTAL HOURS**
  - PRE-SET THE SERVICE DISPLAY ON THE BOTTOM DISPLAY, USING PIN #9 TO INCREMENT DIGIT AND PIN #10 TO SHIFT DIGIT, TO 99999.9. IN 10 SECONDS OF NO ACTIVITY THE METER GOES BACK TO TOTAL HOURS
  - ENTER THE SERVICE TIME AGAIN USING (PIN #9 OR PIN #10) NOW THE TOP DISPLAY (TOTAL HOURS) WILL FLASH, SET OR RESET THE DIGIT NUMBERS USING THE SAME METHOD DESCRIBED IN STEP #4
  
7. **INTERLOCK CONNECTION**
  - CONNECT PIN #5 TO THE AC LINE (HOT SIDE), FOR DC UNIT POSITIVE POWER SOURCE PREVENTS UNAUTHORIZED PERSONNEL FROM CHANGING/RESETTING MAINTENANCES SERVICES OR THE TOTAL HOURS.

**NOTE: THE MAXIMUM OUTPUT CURRENT DRAW FOR RELAY CONTACT IS (.2 AMPS AT 265VAC UNIT AND OR 40VDC UNIT)**