

# Digital Hourmeter

## FEATURES

- ◆ Backlighting
- ◆ Large display ease readability
- ◆ Customizable - Customer logo
- ◆ Vibration Tested
- ◆ IP65 Tested
- ◆ Start and Stop Input
- ◆ Termination: Blade Type M/F
- ◆ Mounting: New type of sturdy locking cap



## SPECIFICATIONS

Hours Range :0 to 99,999.9 hours

Display Capacity: 6 numbers +2 DOS prompt

Backlight colour: Yellow-green

Vibration test as per standard IEC 60068-2-6:2007

Ingress Protection: IP65

Operating Current Range :3mA (60V DC) or 0.5mA (12V DC)

Operating Voltage Range: 9 to 60V.DC or 230V.AC 50Hz

Enclosure: Nylon 6

Operating temperature: -30~+80 °C

Cutout: 52.0mm Diameter

Environment relative humidity: 85 % max

# Environmental Test



## TEST REPORT



REPORT NO.: A221000005  
U.R.-TCR3232000004379  
ISSUE DATE: 12.10.2022  
PAGE: 1 OF 6

Applicant: Twintech Control Systems Pvt. Ltd.

Address: Vaidyan BS, Sanghvi Road Pune-41

Contact Person: Mr. Suresh Thakur

Date of Submission: 10.10.2022

Test Duration: 09.10.2022 to 09.10.2022

Condition of the sample: In good physical condition.

Sample Description & Identification: Hour Meter (Sample - 1), Part No.: TCHM3700-01

Test Details: Vibration Test

Test Method: IEC 60068-2-6:2007

OEM: N/A

Project Name: N/A

Country of Origin: India

Relevant laboratory test procedure: N/A

Deviations/Exclusion from method: N/A

Discipline: Electrical

Group: Environmental Test Facility



REPORT NO.: A221000005  
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Y-Axis



Z-Axis



Test Graph

X-Axis



| Sr. no | Test Performed | Test Condition                                                                                                                                                | Qty | Comments                                                                                    |
|--------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------------------------|
| 1      | IP-65          | Test sample of hour meter were submerged in water at a depth of 1m for 30 minutes and then were opened to check for water ingress at the hour meter enclosure | 1   | After the water proof test, no water found in the H.M. For your reference please see photo. |



Before test seen



Hour meter were submerged in water at a depth of 1 meter

CONDITION: HOUR METER KEPT IN WATER FOR 30 MINUTES



After Test Seen

Conclusion or Result after 30 Min :

No traces of water were found in hour meter.

Remark

OK Good.

# Performance Test

|                                                                                                               | <b>TWINTech CONTROL SYSTEMS PVT.LTD</b><br>Plot No.19 , Krutadnyata, Jadhav Nagar Wadgaon Budruk<br>Pune 411041 Mob No: 9422476572/73<br>E-mail: sales@twintechcontrols.com |                   |               |                         |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|-------------------------|---------|
|                                                                                                                                                                                                | <b>TEST CERTIFICATE</b>                                                                                                                                                     |                   |               |                         |         |
| TEST CERTIFICATE NO:- TC-2210-16                                                                                                                                                               |                                                                                                                                                                             |                   |               | DATE :- 28-09-2022      |         |
| NAME OF PARTY:- Kirloskar Oil Engines Limited.                                                                                                                                                 |                                                                                                                                                                             |                   |               |                         |         |
| PO NO : Verbal PO                                                                                                                                                                              |                                                                                                                                                                             |                   |               | Serial No: 2085870      |         |
| PART DESCRIPTION :- Digital Hourmeter                                                                                                                                                          |                                                                                                                                                                             |                   |               | Quantity : 1no          |         |
| THIS DIGITAL HOUR METER INSPECTION & TESTING ON FOLLOWING INSTRUMENTS & JIG<br>1) POWER SUPPLY -MODEL NO : PS-08<br>2) DIGITAL POWER SUPPLY MODEL NO: PS-02(A)<br>3) STOP WATCH / TIMER Mobile |                                                                                                                                                                             |                   |               |                         |         |
| <b>ENDURANCE TEST REPORT</b>                                                                                                                                                                   |                                                                                                                                                                             |                   |               |                         |         |
| Sr No                                                                                                                                                                                          | Supply V.DC                                                                                                                                                                 | Input Signal V.DC | Running Hours | Hourmeter Display shows | Remark  |
| 1                                                                                                                                                                                              | 12.0                                                                                                                                                                        | 14                | 6 Hrs         | 6.0                     | OK      |
| 2                                                                                                                                                                                              | 12.0                                                                                                                                                                        | 14                | 12 Hrs        | 12.0                    | OK      |
| 3                                                                                                                                                                                              | 12.0                                                                                                                                                                        | 14                | 18 Hrs        | 18.0                    | OK      |
| 4                                                                                                                                                                                              | 12.0                                                                                                                                                                        | 14                | 24 Hrs        | 24.0                    | OK      |
| <b>ON-OFF CYCLE TEST REPORT</b>                                                                                                                                                                |                                                                                                                                                                             |                   |               |                         |         |
| Sr no                                                                                                                                                                                          | Supply                                                                                                                                                                      | Input Signal      | ON time       | OFF time                | DISPLAY |
| 1                                                                                                                                                                                              | 12                                                                                                                                                                          | 14.0              | 1 Hrs         | 15 min                  | OK      |
| 2                                                                                                                                                                                              | 12                                                                                                                                                                          | 14.0              | 1 Hrs         | 15 min                  | OK      |
| 3                                                                                                                                                                                              | 12                                                                                                                                                                          | 14.0              | 2sec          | 2sec                    | OK      |
| 3                                                                                                                                                                                              | 12                                                                                                                                                                          | 14.0              | 2sec          | 2sec                    | OK      |
| 4                                                                                                                                                                                              | 12                                                                                                                                                                          | 14.0              | 1sec          | 1sec                    | OK      |
| 5                                                                                                                                                                                              | 12                                                                                                                                                                          | 14.0              | 1sec          | 1sec                    | OK      |
| Note : Above cycles Continuously going on 30 min ( 1 & 2 Sec ON & OFF) After test no found any defect                                                                                          |                                                                                                                                                                             |                   |               |                         |         |

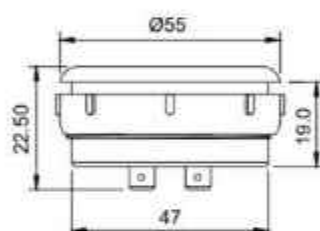
## Hourmeter Production



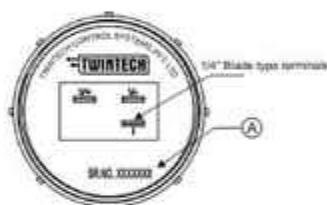
# Engineering Drawing



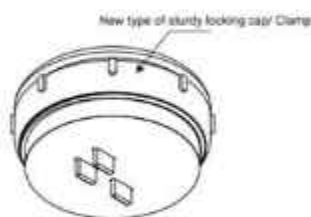
TOP VIEW



SIDE VIEW



BOTTOM VIEW



Panel Cut-out



NOTE A. MANUFACTURING DATA ON PRODUCT(eg. Serial no) AS IN LASER MARKING

**Notes:**

1. Material: Nylon 6/66 Rfing (Compatible with PBT)
2. Supply: 12 - 60.0 VDC
3. Input Signal: 12 - 60.0 VDC
4. Display content: 8 numbers + 2 (00) prompt
5. Hour counting range: 0 min - 9.9
6. Mounting Terminals: 1/4" Blade type terminals with mating Terminal P/N: C-72539
7. Mounting Terminal Pitch: 5.08mm (0.200")
8. Connection to terminals: 1/4" Blade type terminals
9. Signal for ON the meter
10. Signal for OFF the meter
11. Input signal for counting hours
12. Clamp: New type of sturdy locking cap
13. Colour: Silver 52-Dmm Diameter

**TOLERANCE LIMIT ± 1mm**  
UNLESS OTHERWISE SPECIFIED  
Unless otherwise specified dimensions are in mm

**DO NOT SCALE THIS DRAWING**

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| PRODUCT SPECIFICATION SHEET |                                         |
|-----------------------------|-----------------------------------------|
| Operating temperature range | -50 ~ +85°C                             |
| Storage temperature range   | -40 ~ +85°C                             |
| Humidity range              | upto 90 %                               |
| Accuracy                    | 6 minutes                               |
| Digit height                | 8.0 mm                                  |
| Digit range                 | 5 Digits for Hours & 1 Digit for minute |
| Display size                | 20 x 7.0mm                              |
| Back light                  | Yellow-Green                            |
| View angle                  | 12.00                                   |
| Shock                       | Complies to IEC 60068-2-6:2007 Standard |
| Vibration                   | Complies to IEC 60068-2-6:2007 Standard |
| IP rating                   | IP68                                    |
| Power consumption           | 150mW max (12V @ 24V DC)                |
| Weight                      | 50 gm                                   |

**TWINTeCH**  
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|                                    |               |
|------------------------------------|---------------|
| Drawing Name : Digital Hour Meter  | Rev : 00      |
| Drawing Number : P. NO.TDHM3700-01 | Ckd. By : SDS |
| Date : 01/11/2022                  | App. By : XDN |

# Applications

## 1) Generators:

Digital hourmeters are essential in generators to monitor the runtime for maintenance scheduling, fuel consumption tracking, and ensuring optimal performance during power outages.



## 2) Construction:

Hour meters are frequently used in construction equipment such as High Performing Stationary Concrete Pumps, High pressure stationary concrete pumps, bulldozers, excavators, cranes, and loaders to monitor usage for maintenance scheduling and billing purposes.



## 3) Marine:

In boats and ships, digital hourmeters track engine run time and service intervals to ensure safe and reliable operation while at sea.



## 4) Industrial machinery:

Various industrial equipment such as pumps, compressors, and manufacturing machines employ digital hourmeters to monitor usage for maintenance scheduling and operational efficiency.



## 5) Agriculture:

Tractors, combines, and other farm machinery utilize digital hourmeters to monitor operating hours for timely servicing and equipment management on farms.



## 6) Rental equipment:

Digital hourmeters are integrated into rental equipment like power tools, lawn mowers, and pressure washers to track usage for billing purposes and maintenance scheduling.

