



Data Sheet

Elapsed Time Meter

Hour Run Meter



Measure



Control



Record



Analyze



Optimize

Application

Elapsed Time Meters ETM 48/72/96 housed in moulded polycarbonate cases are suitable for the measurement of run time of machines, equipments and other devices.

Applications :- Business Machines, Control Panels, Compressors, Generators, Pumps, Air Conditioning

Features

- Elapsed Time Meters (Hours Run Meters) are used to monitor ON/RUN time of plant/equipment which allows the user to check functions such as Production Efficiency, Cost and service period monitoring.
- The time is measured in increments of 0.01 to 99999.99 hour.
- Non resettable to prevent accidental resetting.

Specifications

Mechanical Data

Case details	: Moulded square case suitable for mounting in Control Switchgear panels. Machinery consoles.
Case material	: Glass filled polycarbonate, flame retardant and drip proof as per UL 94 V-0.
Front facia	: Glass
Colour of bezel	: Black
Position of use	: Vertical
Panel fixing	: Swivel Screws
Mounting	: Stackable in single cut out
Panel thickness	: ≤ 40 mm
Terminals	: Hexagon studs, M4 screws & wire clamps E3
Enclosure Code (IEC 529)	: IP 52 Case IP 20 for terminals with back cover

Electrical Data

Insulation class	: Group A according to VDE 0110
Rated insulation Voltage	: 660V
Proof voltage	: 2KV
Installation category	: 600V CAT III
Insulation resistance	: ≥ 50 Mohm at 500V d.c
Power consumption (72 & 96)	: 0.75VA(110V AC)
Burden(72 & 96)	: 1.70 VA(415V AC)
Power consumption(48)	: 2W at 50Hz
Burden(48)	: 2VA (200-250V AC)

Reference Conditions

Ambient temperature	: 23°C ±2°C
Position of use	: Nominal position ± 1°
Input	: Rated Value of measured quantity

Nominal range of use

Ambient temperature	: 0...50°C
Position of use	: Nominal position ± 5°
External magnetic field	: 0.5 mT
Voltage	: Rated Voltage ± 20%

Environmental Conditions

Climatic suitability	: Climate category II as per IS : 1248(climatic class 3 according to VDE/VDI 3540)
Operating temperature	: -10... + 55°C
Storage temperature	: -25... + 65°C
Relative humidity	: ≤ 75% annual average, non condensing
Shock resistance	: 15g, 11 ms
Vibration resistance	: 10-150-10Hz / 0.15mm (1.5 g at 50Hz)

Options

Case	
Front facia	: Antiglare glass
Colour of bezel	: Red, Yellow, Blue, White.
Position of use	: on request 0 to 180

Dial	
Blank Dial	: Yes
Special markings	: Numbering / Lettering

Accessories

Safety Terminal Protection

Full sized polycarbonate back cover to provide protection against accidental contact (hand and fingers) according to IS 9249, VDE 0410.

Standard Measuring Ranges

1) AC Voltages (72 & 96):	100-125 V a.c. 200-250 V a.c. 380-440 V a.c. Frequency : 50/60Hz
1) AC Voltages (48)	: 200-250 V a.c. Frequency : 50Hz

Applicable Standards

Nominal case and cutout dimensions for :	IS 2419 DIN 43700
Connections & Terminal markings for :	IS 1248 DIN 43802
Terminal bolts / leads :	DIN 46200/46282
Clamp Straps for connections :	DIN 46282
Safety Requirements and protective measures for electrical Indicating :	IS 9249
Instruments and their accessories :	IS 9249 DIN40050/8-70, VDE 0110/11-72 VDE 0410/10-76 IEC 529, IEC 1010
Front frames for indicating measuring instruments Principle dimensions :	DIN 43718
UL Combustibility Class :	UL 94 V-0
Mechanical strength (Free fall test, vibration test) :	IS 1248/IEC 51 IS9000 VDE0411, part 1, sec. 43/44, IEC 1010



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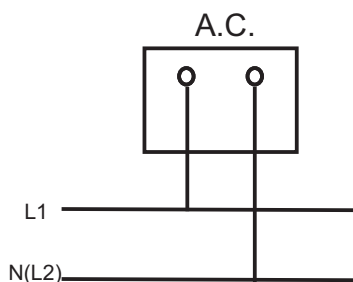


Analyze

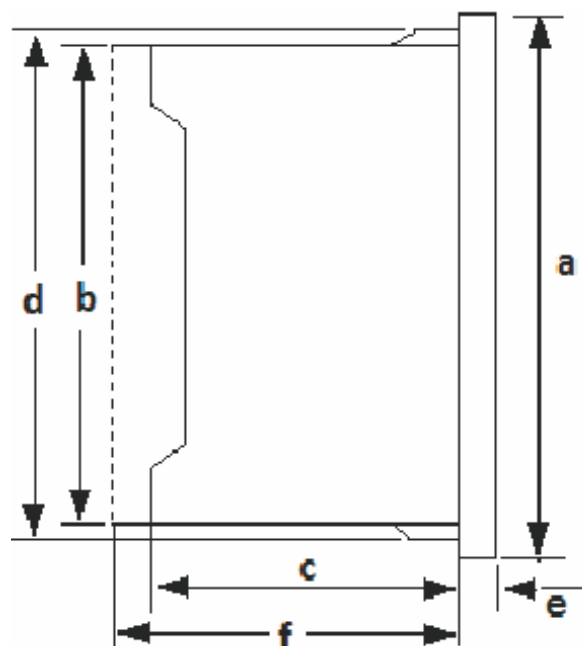


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Connections Diagram



Dimensions



Dimensions (in mm)		ETM48	ETM72	ETM96
Bezel	a	□ 48	□ 72	□ 96
Case	b	□ 42.5	□ 66	□ 90
Depth	c*	□ 56	□ 53	□ 53
	d	□ 44.2	□ 67.5	□ 91.5
	e	□ 5.1	□ 5.5	□ 5.5
Cutout Size		□ 44+0.7	□ 68+0.7	□ 92+0.8
Depth with Back Cover	f**	72.5	64	64
Weight (approx.)		0.15 kg	0.21 kg	0.28 kg



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Ordering Information

Type ETM	Elapsed Time Meter
Front dimension 48, 72, 96	48 mm x 48 mm 72 mm x 72 mm 96 mm x 96 mm
Input Ranges	Refer to table inside
Terminal Protection	Full sized polycarbonate backcover
Front Facia	Normal glass, PC glass, Antiglare glass
Colour of Bezel	Black Red,Blue,Yellow,White
Position of use	Vertical On request 0 180°C
Dial	Standard Blank
Logo	RISHABH Others

Standard

Please clearly add the desired specifications while ordering

Ordering Example

ETM72 Rated Voltage AC 100-125V 50Hz.

Safety Precautions

- Instruments with damaged bezels or window glasses must be disconnected from main.
- Adequate safety clearance must be maintained to control panel fasteners and to sheet metal housing, if non-insulated connecting wires are used.
- The back cover must be snapped into place after the connector wires have been clamped for protection against accidental contact.
- Scales should be replaced under Voltage - free condition.
- Bezels and window glasses should be replaced under Voltage free conditions.



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Specifications may change without prior notice



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RISHABH INSTRUMENTS LIMITED

Domestic (India): +91 253 2202099 | marketing@rishabh.co.in
International: +91 253 2202004/06/08/99 | global@rishabh.co.in
www.rishabh.co.in