



TH23 series (with reset function)



TH13 series (without reset function)

UL File No.: E42876
CSA File No.: LR39291



Features

- 1. High-performance compact synchronous motor**
The accurately turning motor is employed to provide for longer period of measurement.
- 2. Compact and stylish**
- 3. Easier wiring**
The flat terminals (#187) are quick and easy to connect.
- 4. Rotary indicator**
The rotary indicator makes one turn every 2 minutes for monitoring.
- 5. Compliant with UL, CSA and CE.**

Typical applications

Maintenance management of machine tools, automated machines, control panels, forming machines, medical equipment, generators, compressors, water treatment facilities, presses, motors, etc.

RoHS Directive compatibility information
<http://www.nais-e.com/>

Specifications

Rated operating voltage	100V AC, 200V AC, 110V AC, 115 to 120V AC, 220V AC, 240V AC	
Allowable operating voltage range	85 to 115% of rated operating voltage	
Rated frequency	50 Hz, 60 Hz (other model)	
Counting range	0 to 99999.9 hours (TH13 series) 0 to 9999.9 hours (TH23 series)	
Minimum time display	0.1 hours (6 min)	
Rated power consumption	Approx. 1.5 W	
Insulation resistance (Initial value)	Min. 100 MΩ, Between live and dead metal parts (At 500V DC)	
Breakdown voltage (Initial value)	2,000 Vrms, Between live and dead metal parts	
Max. temperature rise	55°C 131°F	
Vibration resistance	Functional	10 to 55 Hz: 1 cycle/min double amplitude of 0.5 mm (10 min on 3 axes)
Shock resistance	Functional	Min. 98 m/s ² {10 G} (4 times on 3 axes)
	Destructive	Min. 980 m/s ² {100 G} (5 times on 3 axes)
Ambient temperature	-10 to +50°C +14 to 122°F	
Ambient humidity	Max. 85% RH (non-condensing)	
Weight	135 g 4.76 oz	130 g 4.59 oz

Product types

Type	Operating voltage	Part number		Operating voltage	Part number	
		50Hz	60Hz		50Hz	60Hz
TH13 types (without reset button)	100V AC	TH1345	TH1346	115V AC (115 to 120V AC)	TH1375	TH1376
	200V AC	TH1355	TH1356	220V AC	TH1385	TH1386
	110V AC	TH1365	TH1366	240V AC	TH1395	TH1396
TH23 types (with reset button)	100V AC	TH2345	TH2346	115V AC (115 to 120V AC)	TH2375	TH2376
	200V AC	TH2355	TH2356	220V AC	TH2385	TH2386
	110V AC	TH2365	TH2366	240V AC	TH2395	TH2396

Note) The 115 to 120V AC, 220V AC and 240V AC types are UL-recognized and CSA-certified. For those products, specify "U" at the end of the part number when ordering.

Applicable standard

Safety standard	EN61010-1	Pollution Degree 2/Overvoltage Category II
EMC	(EMI)EN61000-6-4 Radiation interference electric field strength Noise terminal voltage (EMS)EN61000-6-2 Static discharge immunity	EN55011 Group1 ClassA EN55011 Group1 ClassA
	RF electromagnetic field immunity EFT/B immunity Surge immunity Conductivity noise immunity Power frequency magnetic field immunity Voltage dip/Instantaneous stop/Voltage fluctuation immunity	EN61000-4-2 4 kV contact 8 kV air EN61000-4-3 10 V/m AM modulation (80 MHz to 1 GHz) 10 V/m pulse modulation (895 MHz to 905 MHz) EN61000-4-4 2 kV (power supply line) EN61000-4-5 1 kV (power line) EN61000-4-6 10 V/m AM modulation (0.15 MHz to 80 MHz) EN61000-4-8 30 A/m (50 Hz) EN61000-4-11 10 ms, 30% (rated voltage) 100 ms, 60% (rated voltage) 1,000 ms, 60% (rated voltage) 5,000 ms, 95% (rated voltage)

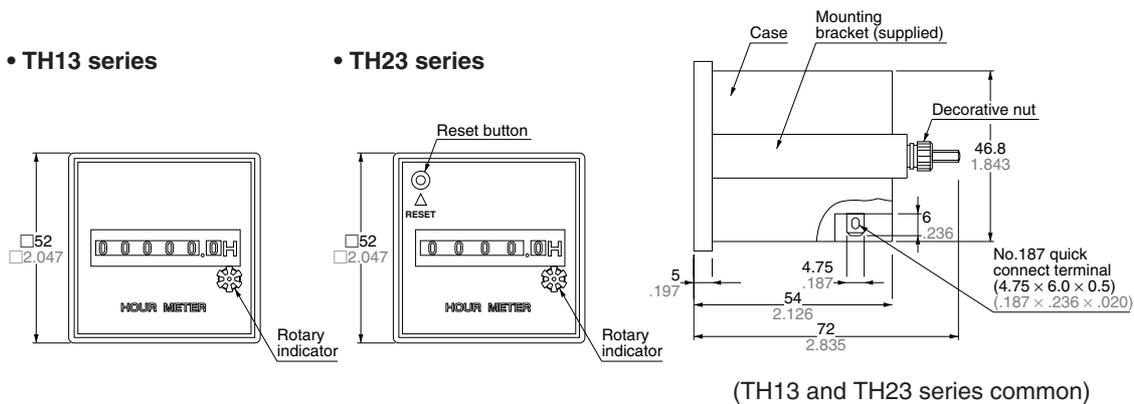
Dimensions

mm inch

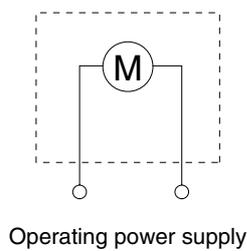
General tolerance: $\pm 1.0 \pm .039$

• TH13 series

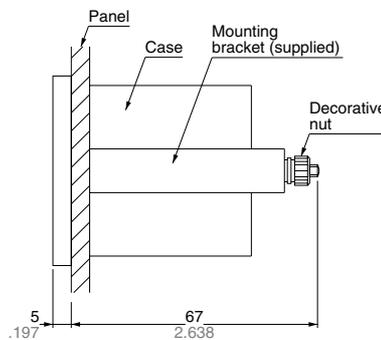
• TH23 series



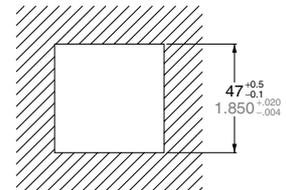
Wiring diagram



Panel mounting



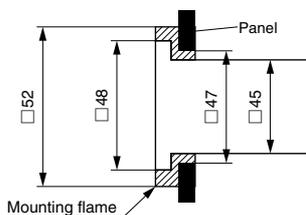
• Panel cutout dimensions



Replacing the TH13/23 series with the TH14/24 series

The TH13/TH23 series hour meter are interchangeable with the TH14/24 series hour meter. Use the specified mounting frame because of a different setup method. It is advisable to introduce the TH14/24 series hour meters for the first time.

DIN48 size and mounting frame setup



Mounting frame
(sold separately):
TH1400020