LOVATO Electric extends the range of electronic time relays with new modular models of the TM series, moduLo line.

- Models with multiscale 0.1 seconds ... 100 days
- Wide supply voltage range 12 ... 440V
- Excellent time accuracy and stability
- Immunity to industrial ambient noise
- Operating temperature -20 ... +60°C
- Robust modular DIN 43880 housing, one module
- 35mm DIN rail mounting or screw fixing by extractible clips
- Conductor section 0.2 ... 4mm²
- Reliable in most severe operating conditions.
**Time relays**

### Staircase time relay

**DESCRIPTION**

- **Staircase illumination**

**CONTROL CIRCUIT**

- **Rated supply voltage (Us)**: 220-240VAC

**TIMING CIRCUIT**

- **Time setting range**: Single scale
  - 0.5-20min

**OUTPUT CONTACTS**

- **Contact arrangement**: 1 delayed N/O

**OTHER INFORMATION**

- **Operating temperature**: -20…+60°C
- **Quantity per package [n°]**: 1
- **Net weight [kg]**: 0.060

- **Connection with up to 50 light-up switches maximum**
- **Suitable for 3 or 4 wire systems**
- **1 slide switch for manual or automatic operation (constant lighting)**
- **Extra lighting time function: when the button is pressed for more than 3s, the time relay remains energised for 1 hour. By pressing it again for additional 3s, the time relay de-energises.**

**ORDER CODE**

- **TM LS**
On delay. Delay on make, with start at relay energising

On delay. Delay on make, with start at relay energising

With the rotary switch on INST, the configurable contact (23 - 24) instantaneously switches at relay energising.

With the rotary switch on DEL, the configurable contact (27 - 28) replicates the same operation of the first contact (15 - 18).

Pulse on relay energising with start on energising

Pulse on relay energising with start on energising

Pulse generator. Unequal timing recycle, starting with ON pulse time and 0.5 sec OFF time

Flasher, starting with OFF (pause) interval. Equal timing recycle, OFF first

Flasher, starting with ON (work) interval. Equal timing recycle, ON first

On-Off delay. Delay on make, with start at external contact closing, and delay at break, with start at external contact opening

ON first (W)

OFF first (P)
Operational and wiring diagrams

A1-A2 = Power supply  ON = LED indicator for power on  LED indicator for state

**TM D**
True off delay. Delay on break, starting at relay de-energising

**TM ST**
For star-delta starting

**TM LS**
Staircase lighting

**Dimensions [mm]**

Certifications and compliance

Certifications obtained: cULus, GOST.
Compliant with standards: IEC/EN 61812-1.

LOVATO Electric can also offer a complete range of time relays in the following versions.

**DIN mount time relays**

31 AT1P… On delay. Multiscale. Multivoltage in AC. 1 changeover contact.
31 AT1CP… On delay. Multiscale. Multivoltage in AC and DC. 1 changeover contact.
31 ATD… Off delay. Multiscale. Single voltage in AC and DC. 1 changeover contact.
31 AT1DP… Off delay at external contact opening. Multiscale. Single voltage in AC and DC. 1 changeover contact.
31 BT2N… For starting. Dual voltage in AC and DC.

**Plug-in and flush-mount time relays, 48x48mm**

31 L48T… On delay. Single scale. Single voltage. 1 changeover contact.
31 L48TP… On delay. Multiscale. Multivoltage. 1 changeover contact.

The above-indicated order codes must be completed with the end-scale time value, if any, and the supply voltage.
Contact our Customer Service (Tel. +39 035 428 2422; email: service@LovatoElectric.com).
Switching power supplies

Switch disconnectors

Motor protection circuit breakers

Contactors

Electromechanical starters

Motor protection relays

Control and signalling units

Limit, micro and foot switches

Rotary cam switches

Modular contactors

Time relays

Protection relays

Level control relays

Earth leakage relays

Metering instruments and current transformers

Soft starters

AC motor drives

Automatic power factor controllers

Automatic battery chargers

Automatic transfer switch controllers

Programmable logic relays

Switching power supplies

Expansion modules and accessories

Engine and generator controllers

Digital multimeters and analyzers

DMG series

Automatic transfer switch controllers

ATL 10 type

www.LovatoElectric.com

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