Z-TRAUQ INC.

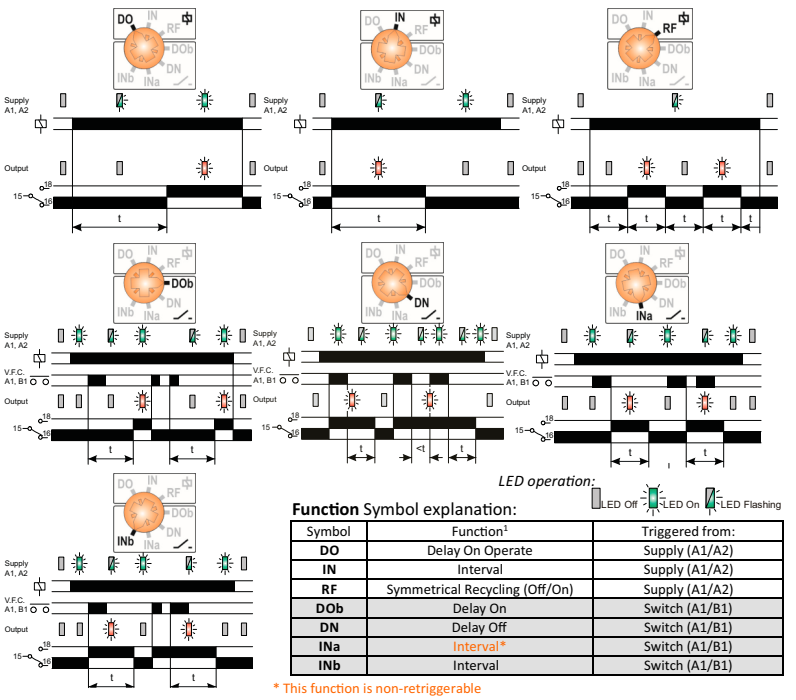
LMMT
LMMT/2
Multifunction
Multi-voltage Timer

Terminal Protection to IP20

Dims: to DIN 43880 W. 17.5mm

- ☑ ***NEW* 17.5mm DIN rail housing**
- ☑ **7 Selectable functions: 3 Supply Initiated, 4 Switch Initiated**
- ☑ **3 Switch initiated functions are re-triggerable: DOb, DN and INb**
- ☑ **7 Selectable time ranges: 0.1 seconds – 100 hours**
- ☑ **Fine adjustment of selected time range**
- ☑ **LED warning indication if function is changed whilst powered**
- ☑ **Switch initiated functions ideal for use in Watchdog circuits**
- ☑ **Multi-voltage input 12 – 230V AC/DC**
- ☑ **Green LED indication for supply / timing status**
- ☑ **Red LED indication for relay status**

FUNCTION DIAGRAMS



LED operation: LED Off, LED On, LED Flashing

Function Symbol explanation:

Symbol	Function[1]	Triggered from:
DO	Delay On Operate	Supply (A1/A2)
IN	Interval	Supply (A1/A2)
RF	Symmetrical Recycling (Off/On)	Supply (A1/A2)
DOb	Delay On	Switch (A1/B1)
DN	Delay Off	Switch (A1/B1)
INa	Interval*	Switch (A1/B1)
INb	Interval	Switch (A1/B1)

* This function is non-retriggerable

INSTALLATION AND SETTING

Installation work must be carried out by qualified personnel.

BEFORE INSTALLATION, ISOLATE THE SUPPLY.

Connect the unit as required.

Setting the unit.

Set the "Function" selector ❺ to the required position[1].

Set the "Range" ❹ to the required position choosing seconds, minutes or hours then set the "Set %" adjustment ❸ as required. The "Set %" is a % of the selected range, so 60% of the 1 – 10 hour range will give 6 hours.

Applying power.

Apply power and the green LED ❶ will illuminate or start flashing depending on Function selected. If a Switch initiated function is selected, the LED will begin flashing upon closing of the external input.

The red relay LED ❷ will illuminate to indicate the relay is in the energised state.

Note:

[1] *If the "Function" selector is changed whilst the power is applied, the relay will remain in its current state and the green LED will flash at a faster rate. Power must be removed and re-applied for the new Function to operate.*

[2] *In accordance with IEC 61812, the green LED is permitted to extinguish during a voltage dip or momentary interruption of the power supply providing the state of the output relay does not change.*

[3] *The dip / interruption (reset) duration and levels are defined in the product standard however, the standard allows for these to be different from the levels actually specified.*

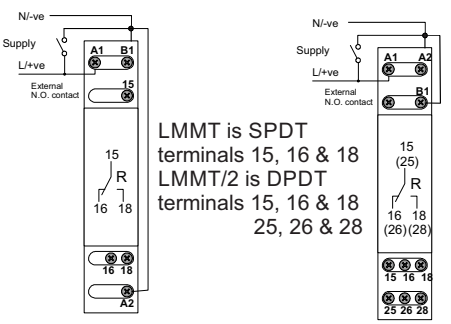
TECHNICAL SPECIFICATIONS

Supply voltage U **(A1, A2)**:		12 – 230V AC/DC			
Frequency range:		48 - 63Hz (AC supplies)			
Supply variation:		AC: +15/-10% DC: +/-15%			
Overvoltage category:		III (IEC 60664)			
Rated impulse withstand voltage:		4kV (1.2/50µS) IEC 60664			
Power consumption (max.):		12V	24V	110V	230V
LMMT	AC:	0.3VA	0.4VA	1.3VA	3.4VA
	DC:	0.26W	0.24W	0.47W	0.95W
LMMT/2	AC:	0.6VA	0.8VA	2.6VA	6.8VA
	DC:	0.52W	0.48W	0.94W	1.9W
Timing functions (7):					
Supply initiated:		Delay On (DO), Interval (IN), Symmetrical Recycling Off/On (RF)			
Switch initiated:		Delay On (DOb), Delay Off (DN), Interval (Trailing) (INa), Interval (Leading) (INb)			
Timing ranges (7):		Seconds:	Minutes:	Hours:	
		0.1 – 1	0.1 – 1	0.1 – 1	
		1 – 10	1 – 10	1 – 10	
				10 - 100	
Reset time[3]:		< 100ms			
Accuracy:		± 1% of maximum full scale			
Adjustment accuracy:		< 5% of maximum full scale			
Repeat accuracy:		± 0.5% at constant conditions (IEC 61812)			
Drift with temperature:		± 0.05% / °C			
Drift with voltage:		± 0.2% / V			
External trigger input **(A1 > B1)**:		Volt Free Contact, Open Collector			
External loading:		Yes, between B1 and A2 (i.e. LED, Relay, Lamp)			
Trigger threshold:		>75% of voltage present between A1 and A2 (auto-set)			
Minimum trigger time:		AC: 60ms DC: 40ms (B1 terminal unloaded)			
Maximum input frequency:		10 Hz (with 50:50 duty cycle)			
Maximum cable length:		10m (between Timer and external switching device)			
Power on indication / Timing[2]:		Green LED			
Relay status		Red LED			
Ambient temp:		-20 to +60°C			
Relative humidity:		+95%			
Output:		LMMT is SPDT & LMMT/2 is DPDT relay			
Output rating:		AC1	250V 8A (2000VA)		
		AC15	250V 5A (no), 3A (nc)		
		DC1	25V 8A (200W)		
Electrical life:		≥ 150,000 ops at rated load			
Dielectric voltage:		2kV AC (rms) IEC 60947-1			
Rated impulse withstand voltage:		4kV (1.2/50µS) IEC 60664			
Housing:		Orange flame retardant UL94			
Weight:		≈ 60g LMMT & 70g LMMT/2			
Mounting option:		On to 35mm symmetric DIN rail to BS EN 60715 or direct surface mounting via 2 x M3.5 or 4BA screws using the black clips provided on the rear of the unit.			
Terminal conductor size		≤ 2 x 2.5mm² solid or stranded			
Approvals:		Conforms to IEC 61812. CE, C-tick and RoHS Compliant. EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 10V/m 80MHz - 2.7GHz). Emissions: EN 61000-6-4			

c UL us LISTED IND. CONT. EQ. E111187

The Information provided in this literature is believed to be accurate (subject to change without prior notice); however, use of such information shall be entirely at the user's own risk.

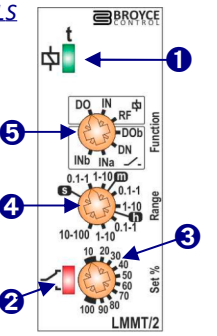
CONNECTION DIAGRAM



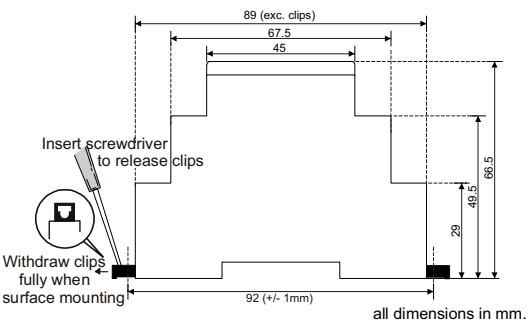
LMMT is SPDT terminals 15, 16 & 18
LMMT/2 is DPDT terminals 15, 16 & 18 25, 26 & 28

SETTING DETAILS

1. Power supply status / Timing (Green) LED
2. Relay output status (Red) LED
3. "Set %" adjustment
4. Time delay "Range" selector
5. Timing "Function" selector



DIMENSIONS



all dimensions in mm.