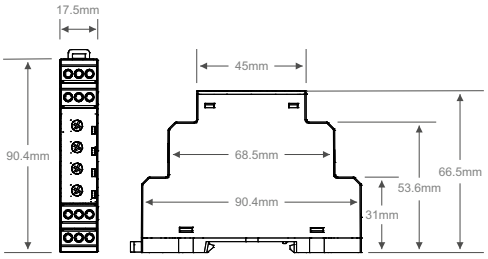
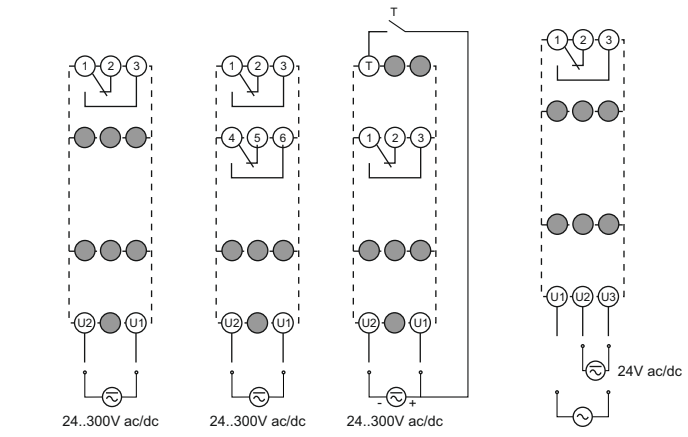
Klemsan® Timers

Operating voltage		24 .. 300V AC/DC 24V AC/DC or 180..265V AC (T1-100S, T1-30S)
Adjustment values		
	Time range : (T1-M5, T1-FLASH, T1-K)	1s : 1 second 10s : 10 seconds 100s : 100 seconds 1m : 1 minute 10m : 10 minutes 1h : 1 hour 10h : 10 hours 100h : 100 hours 1d : 1 day 10d : 10 days
	Time range : (T1-M4)	t_{off} t_{on} mode ON (1) 1 2 3 4 5 6 7 8 OFF (0) t_{on} (4,5,6), t_{off} (1,2,3) 000 : 10 seconds 001 : 30 seconds 010 : 100 seconds 011 : 10 minutes 100 : 60 minutes 101 : 10 hours 110 : 100 hours 111 : 10 days mode (7,8) 00 : on delay 01 : off delay 10 : on flasher 11 : off flasher
	t_{on}, t_{off} multiplier value : (T1-M5, T1-FLASH)	0.1 - 0.2 - 0.3 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8 0.9 - 1
	t multiplier value : (T1-K)	0.1 - 0.2 - 0.3 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8 0.9 - 1
	t, t_{on}, t_{off} timer :	(time range) x (multiplier value)
	time range :	1 .. 60 seconds (T1-60S, T1-60S2) 1 .. 100 seconds (T1-100S) 1 .. 30 seconds (T1-30S)
Output contact		1 C/O
Maximum switching current		10A
Maximum switching voltage		250V AC
Maximum switching power		1250VA
Operating temperature		-20°C .. 60°C
Storage temperature		-40°C .. 75°C
Protection class		IP20
Connection		Rail mounted





type	control input	mode	time range	order no
T1-60S		ND	1 .. 60sec	270 350
T1-FLASH		Foff	0.1sec .. 10days	270 351
T1-60S2		ND	1 .. 60sec	270 352
T1-M5		ND,FD,NFD,Fon,Foff	0.1sec .. 10days	270 353
T1-K	✓	a,b,c,d,e,f,g,h,i,k	0.1sec .. 10days	270 354
T1-M4		ND,FD,Fon,Foff	1sec .. 10days	270 355
T1-100S		ND	1 .. 100sec	270 359
T1-30S		ND	1 .. 30sec	270 363

OPERATION MODE	FUNCTION ILLUSTRATION	FUNCTION STATEMENT
on delay (mode: a, ND)	On/t: R: ←T_{OFF}→ M1: M2:	The output relay is initially de-energized and energized after an adjustable time delay, t_{off}.
off delay (mode: b, FD)	On/t: R: ←T_{ON}→ M1: M2:	The output relay is initially energized and de-energized after an adjustable time delay, t_{on}.
on-off delay (mode: NFD)	On/t: R: ←T_{OFF}→ ←T_{ON}→ M1: M2:	The output relays is initially de-energized and energized after an adjustable time delay, t_{off}, and stays energized for an adjustable period, t_{on}, and then de-energized.
on flasher (mode: Fon)	On/t: R: ←T_{ON}→ ←T_{OFF}→ ←T_{ON}→ ←T_{OFF}→ M1: M2:	The output relays is initially energized and de-energized after an adjustable time delay, t_{on}, and stays de-energized for an adjustable period, t_{off}, and then energized. This loop is repeated until the device is powered off. “On/t” led flashes at Fon and Foff mode for “T1-M4” product.
off flasher (mode: g, Foff)	On/t: R: ←T_{OFF}→ ←T_{ON}→ ←T_{OFF}→ M1: M2:	The output relay is initially de-energized and energized after an adjustable time delay, t_{off}, and stays energized for an adjustable period, t_{on}, and then de-energized. This loop is repeated until the device is powered off. “On/t” led flashes at Fon and Foff mode for “T1-M4” product.
on delay with control input (mode: c)	On/t: T: < t R: ← t → M1: M2:	The output relay is initially de-energized. A contact closure on T contact triggers an adjustable time delay, t, which energizes the output relay when expired. The output relay stays energized as long as the T contact is active. Delay time, t, is cleared when the contact on T contact opens.
off delay with control input (mode: d)	On/t: T: ← t → < t R: M1: M2:	The output relay is initially de-energized and energized when a contact closure on T contact is detected. A contact release on T contact triggers an adjustable time delay, t, which de-energizes the output relay when expired. Reclosure of the contact on T contact before the time delay is expired restarts time delay, t, and keeps the output relay energized.
rising edge triggered off delay (mode: e)	On/t: T: R: ← t → ← t → M1: M2:	The output relay is initially de-energized. A contact closure on T contact both energizes the output relay and triggers an adjustable time delay, t, which de-energizes the output relay when expired. During the time delay, T contact is insensitive to state changes and becomes sensitive when time delay, t, expired.
falling edge triggered off delay (mode: f)	On/t: T: R: ← t → ← t → M1: M2:	The output relay is initially de-energized. A state change of the contact on T contact from closed to open both energizes the output relay and triggers an adjustable time delay, t, which de-energizes the output relay when expired. During the time delay, T contact is insensitive to state changes and becomes sensitive when time delay, t, expired.
on and off delay with control input (mode: h)	On/t: T: ← t → <t R: ← t → M1: M2:	The output relay is initially de-energized. A contact closure on T contact triggers an adjustable time delay, t, which energizes the output relay when expired. Similarly contact release of T contact triggers the time delay, t, which de-energizes the output relay when expired. Delay time, t, is cleared when the contact state of T contact changes.
adjustable pulse output with control input (mode: i)	On/t: T: R: ← t → ← t → ← t → M1: M2:	The output relay is initially de-energized. A state change on T contact both energizes the output relay and triggers an adjustable time delay, t, which de-energizes the output relay when expired. During the time delay, T contact is insensitive to state changes and becomes sensitive when time delay, t, expired.
on delay with memory (mode: k)	On/t: T: t_1 t_2 t_3 t_1 R: M1: M2: $t=t_1+t_2+t_3$	The output relay is initially de-energized. If T contact is open, adjustable time delay, t, counts down and output relay energizes when t is expired. Any contact closure on T contact pauses the count down process, and the process continues when the contact release on T contact occurs. A contact release is needed to restart the cycle, after the output relay is energized.

Warning : If adjustments are accomplished after Timer is turned on, operator should power down the device, wait at least 0.3 seconds and power up the device.

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