

Klemsan® Timers

Operating voltage

12V AC/DC or 180..265V AC
24V AC/DC or 180..265V AC (Z1-100S)

Adjustment values



Time range :
(Z1-M5, Z1-FLASH, Z1-K)

1s : 1 second	1h : 1 hour
10s : 10 seconds	10h : 10 hours
100s : 100 seconds	100h : 100 hours
1m : 1 minute	1d : 1 day
10m : 10 minutes	10d : 10 days

Time range :
(Z1-M4)

ON (1) OFF (0)

1 2 3 4 5 6 7 8	mode
1 2 3 4 5 6 7 8	mode
000 : 10 seconds	00 : on delay
001 : 30 seconds	01 : off delay
010 : 100 seconds	10 : on flasher
011 : 10 minutes	11 : off flasher
100 : 60 minutes	
101 : 10 hours	
110 : 100 hours	
111 : 10 days	

t_{on}, t_{off} multiplier value :
(Z1-M5, Z1-FLASH)

0.1 - 0.2 - 0.3 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8
0.9 - 1



t multiplier value :
(Z1-K)

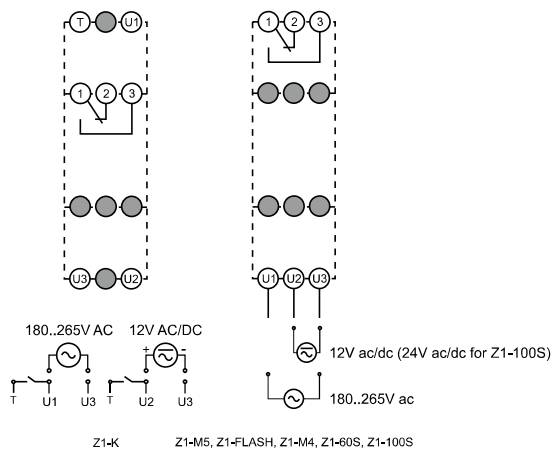
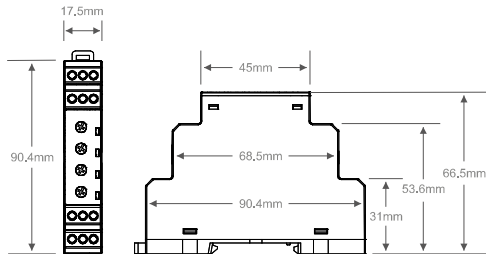
0.1 - 0.2 - 0.3 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8
0.9 - 1

t, t_{on} , t_{off} timer :
time range :

(time range) x (multiplier value)

1 .. 60 seconds (Z1-60S)
1 .. 100 seconds (Z1-100S)

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
Z1-60S		ND	1 .. 60sec	270 370
Z1-FLASH		Foff	0.1sec .. 10days	270 371
Z1-M5		ND,FD,NFD,Fon,Foff	0.1sec .. 10days	270 373
Z1-K	✓	a,b,c,d,e,f,g,h,i,k	0.1sec .. 10days	270 374
Z1-M4		ND,FD,Fon,Foff	1sec .. 10days	270 375
Z1-100S		ND	1 .. 100sec	270 379

OPERATION MODE	FUNCTION ILLUSTRATION	FUNCTION STATEMENT
on delay (mode: a, ND)	On/t: R: M1: M2:	The output relay is initially de-energized and energized after an adjustable time delay, t_{on} .
off delay (mode: b, FD)	On/t: R: M1: M2:	The output relay is initially energized and de-energized after an adjustable time delay, t_{off} .
on-off delay (mode: NFD)	On/t: R: M1: M2:	The output relays is initially de-energized and energized after an adjustable time delay, t_{on} , and stays energized for an adjustable period, t_{off} , and then de-energized.
on flasher (mode: Fon)	On/t: R: 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 "Z1-M4" product.
off flasher (mode: g, Foff)	On/t: R: M1: M2:	The output relay is initially de-energized and energized after an adjustable time delay, t_{on} , and stays energized for an adjustable period, t_{off} , and then de-energized. This loop is repeated until the device is powered off. "On/t" led flashes at Fon and Foff mode for "Z1-M4" product.
on delay with control input (mode: c)	On/t: T: R: 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: 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. Redclosure 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: 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: 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: R: 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: 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: R: M1: M2:	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.