



Time Relays Series

Klemsan new Z1x series time relays offer optimum solutions in various industrial applications with different function options and with 12-240 V AC/DC (universal input) wide supply range.

It is suitable for use in narrow panels with its new body design under the DIN norm.

In addition to single-function devices, there are up to 10 function options that can be controlled via trigger input, based on the model. Time settings can be made easily with the trimpots on the device between 0.1 sec to 10 days.

Special functional relays such as star-delta, left-right, etc are also available in the product portfolio.

- 12-240 V AC/DC universal supply range
- 18 mm enclosure design under DIN Norm and design under IEC 61812-1 standard
- Support for up to 10 functions based on model
- 0.1sec – 10 days wide time range
- Power-off delay function adjustable for up to 2 hours
- Relay output (10A)
- High mechanical endurance
- Function control via trigger input
- LED notifications



Product Name	Order No	Definition	Trigger Input	On Delay (ND)	Off Delay (FD)	Power Off Delay (PFD)	Off Flasher (FDF)	On Flasher (NDF)	On - Off Delay (NFD)	On Delay with Trigger (yND)	Off Delay with Trigger (yFD)	On and Off Delay with Trigger (yNF)	Pulse Delayed with Control Signal (yM)	Pulse Output with Control Signal (yP)	Additive on Delay (yMA)	On Delay with Maintained Control Signal (yMM)	Off Delay with Maintained Control Signal (yMF)	Interval with Control Signal On (yIR)	Interval with Control Signal Off (yIF)	Star Delta (SD)	Left - Right (LR)	Relay Qty	Time Adjustment	12..240 V AC/DC	24..240 V AC/DC	150..500 V AC	
Z1A-ND30s	261025	Timer Relay		√																		1 C/O	1 sec .. 30 sec		√		
Z1A-ND100s	261023	Timer Relay		√																			1 C/O	1 sec .. 100 sec		√	
Z1T-ND100s	261010	Timer Relay (Sensitive)		√																			1 C/O	1 sec .. 100 sec	√		
Z1T-PFD120m-24	261011	Power Off Delay				√																	1 C/O	1sec .. 120min		√	
Z1T-NDX	261012	Timer Relay (Sensitive)		√																			1 C/O	0 sec .. 5109 sec	√		
Z1T-FDF	261013	Timer Relay					√																1 C/O	0.1 sec .. 10 day	√		
Z1T-NDF	261014	Timer Relay						√															1 C/O	0.1 sec .. 10 day	√		
Z1T-ND100s.2	261026	Timer Relay		√																			2 C/O	1 sec .. 100 sec	√		
Z1T-M2	261015	Multi-Func Time Relay		√	√																		1 C/O	0.1 sec .. 99.9 saat	√		
Z1K-M2A	261016	Multi-Func Time Relay	√						√	√													1 C/O	0.1 sec .. 99.9 saat	√		
Z1T-M4	261017	Multi-Func Time Relay		√	√		√	√															1 C/O	1 sec .. 10 day	√		
Z1T-M5	261018	Multi-Func Time Relay		√	√		√	√	√														1 C/O	1 sec .. 10 day	√		
Z1K-M10	261019	Multi-Func Time Relay	√	√	√		√				√		√	√	√	√	√	√	√				1 C/O	0.1 sec .. 10 day	√		
Z1K-M10A	261024	Multi-Func Time Relay	√	√	√		√				√	√	√		√	√	√	√					1 C/O	0.1 sec .. 10 day	√		
Z1T-LR2	261020	Left-Right Timer																			√		2 C/O	0.1 sec .. 10 day	√		
Z1T-SD	261021	Star-Delta Timer Relay																			√		2 C/O	0.1 sec .. 30 sec, 20 .. 500msec	√		
Z1T-SD-500	261022	Star-Delta Timer Relay																			√		2 C/O	0.1 sec .. 30 sec, 20 .. 500msec			√

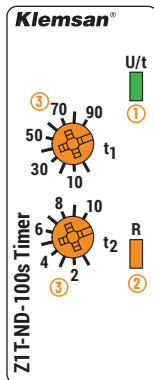
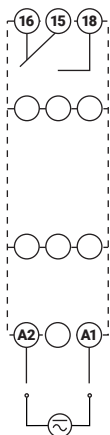
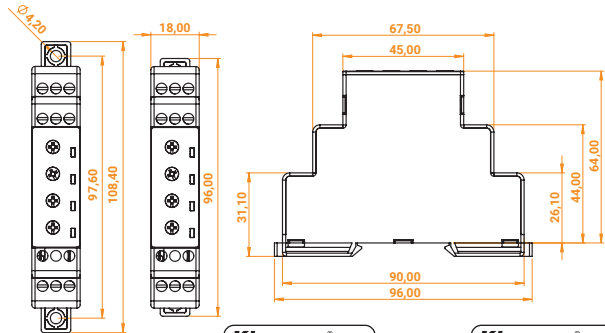


- » Sleek design with NEW 18 mm width in accordance with DIN norm
- » Conforms to IEC 61812-1
- » Wide power supply range (12-240 V AC/DC)
- » SPDT relay output (10A)
- » Wide and easily adjustable time range
- » LED notifications
- » High sensitivity and switching capacity
- » High mechanical endurance

Type	Order No	Mode	Relay Count	Time Range
Z1A-ND30s	261025	ND	1 C/O	1 sec .. 30 sec
Z1A-ND100s	261023	ND	1 C/O	1 sec .. 100 sec
Z1T-ND100s	261010	ND	1 C/O	1 sec .. 100 sec
Z1T-PFD120m-24	261011	PFD	1 C/O	1 sec .. 120 min
Z1T-PFD120s-24	261030	PFD	1 C/O	1 sn .. 120 sec
Z1T-NDX	261012	ND	1 C/O	0 sec .. 5109 sec
Z1T-FDF	261013	FDF	1 C/O	0.1 sec .. 10 days
Z1T-NDF	261014	NDF	1 C/O	0.1 sec .. 10 days
Z1T-ND100s.2	261026	ND	2 C/O	1 sec .. 100 sec

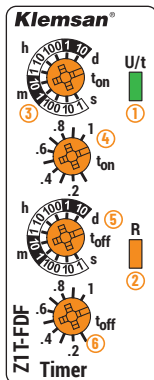
Operating Voltage		12..240V AC/DC ±10% 24..240V AC/DC ±10% (for Z1T-PFD120m-24, Z1T-PFD120m/s-24) 24V AC/DC (A2-A3 ve 180 .. 265V AC (A1-A3) (Z1A-xxx for
Operating Frequency		45..65Hz
Power Consumption	DC	< 1.5 W < 8 W (for Z1T-PFD120m-24)
	AC	< 5 VA < 8 VA (for Z1T-PFD120m-24)
Relay Outputs		Maximum Switching (Voltage/Current/Power) 250VAC / 10A / 1250 VA
Cable Cross Section		2.5mm² / 14 AWG
Screw Tightening Torque		0.5 Nm
Cable Stripping Size (Min / Max)		8mm / 9mm
Operating Temperature Range		-20 / +60 °C
Protection Degree (IEC 60529)		IP 20

NOTE: The charging time of the Z1T-PFD120m-24 product varies between 3 seconds and 1 minute, and the charging time of the Z1T-PFD120s-24 product varies between 3 and 10 seconds.

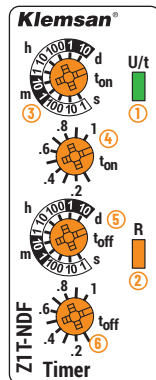


- ① Power Status LED
- ② Relay Status LED
- ③ "toff" Delay Adjustment Pots t1+t2

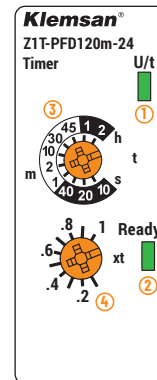
NOTE: On delay time duration is set via one knob for the Z1A-NDxxx series



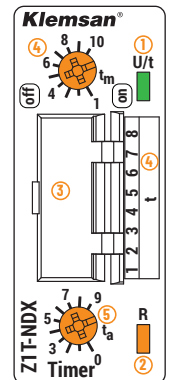
- ① Power Status LED
- ② Relay Status LED
- ③ "ton" Delay Time Range Adjustment Pot
- ④ "ton" Delay Multiplier Adjustment Pot
- ⑤ "toff" Delay Time Range Adjustment Pot
- ⑥ "toff" Delay Multiplier Adjustment Pot



- ① Power Status LED
- ② Relay Status LED
- ③ "ton" Delay Time Range Adjustment Pot
- ④ "ton" Delay Multiplier Adjustment Pot
- ⑤ "toff" Delay Time Range Adjustment Pot
- ⑥ "toff" Delay Multiplier Adjustment Pot



- ① Power Status LED
- ② Relay Status LED
- ③ "ton" Delay Time Range Adjustment Pot
- ④ "ton" Delay Multiplier Adjustment Pot



- ① Power Status LED
- ② Relay Status LED
- ③ "toff" Delay Time Range Adjustment Switches
- ④ "toff" Delay Multiplier Adjustment Pot (xtm)
- ⑤ "toff" Delay Additional Time Adjustment Pot (+ta)

OFF (0)	1	2	3	4	5	6	7	8
ON (1)	11	12	13	14	15	16	17	18
	2	4	8	16	32	64	128	256

toff: (t1+...+t8)xtm+ta

OPERATION MODE	FUNCTION ILLUSTRATION	FUNCTION STATEMENT
On Delay (mod: ND)		The output relay is initially de-energized and energized after an adjustable time delay, t_{off} .
OFF Flash (mod: FDF)		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 Flash (mod: NDF)		The output relay 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.
Power-Off Delay (mod: PFD)		The output relay is initially energized and the device starts to charge. When the device is power off, the output relay remains energized until the adjusted time. The loop starts again when the device is power on.