



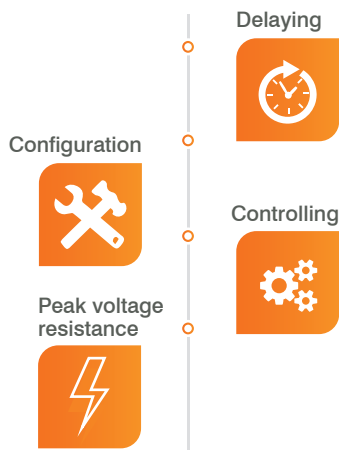
Z Series Timers

Klemsan®

Defining a timer in simple terms

A timer is an automation device that either keeps track of how much time has been spent doing something or that counts down a specified duration of time. After a predefined time has elapsed, the timer closes or opens its contact.

Which actions are executed?



A timer can be used to **start an action** according to a **predefined time** or **stop an action** over a period of time. It can also add delay an action. It allows to **control applications** with its trigger input as well.

Which market are they used frequently?

- Industrial Machines
- Illuminating
- Construction industry
- HVAC systems
- Food and agriculture industry

Benefits and Advantages

- High accuracy and switching reliability
- Sensitive timing range from 0.1sec to 10days
- High mechanical endurance
- Multifunctional operating modes
- Trigger input
- High level of Electromagnetic compatibility (EMC) i.e. maximum immunity to interferences.
- A different range of power supply from (12V AC/ DC or 180..265V AC)
- Sleek 17.5mm wide housing and compact design saves panel space.
- Perfect to fit in Modular Enclosure
- Protection against over voltage and reverse polarity
- Self-Extinguishing plastic housing

Conveyor Control



Z1

Managing the operation of a conveyor belt based on the time interval between products on the belt.

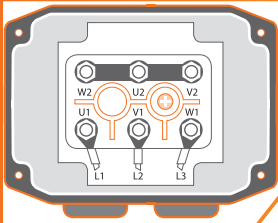
Smart Lighting



Z1-Flash, Z1-M4, Z1-M5

Controlling flashing on lighted signs.

Star-Delta Starter



ZD1

Successful run-up for industrial motors with stardelta relay.

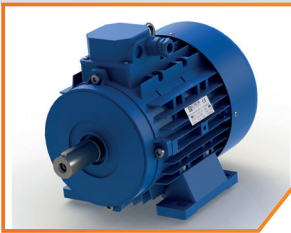
Packing Machine / System



Z1-K, Z1-M5, Z1-M4

Controlling heat sealing times on blister packs, packaging bags, etc.

Direction Control of Industrial Motor



Z1-LR

Controls the direction of the motor's rotation..

Vending Machines



Z1-K





Automatic management of vending machines.





Remote Machinery Control



Z1 Series

Managing maintenance of the power supply in the event of a mains power failure, switching on an external backup power source for a given time.

			Z1-60S	Z1-FLASH	Z1-M5	Z1-K
						
Definition			On Delay Timer	Off Delay Timer	On Delay Timer	Multimode timer with trigger input
Timing Function			Single - Functional	Single - Functional	Multifunctional	Multifunctional
Order Number			270 370	270 371	270 373	270 374
Connections			Screw terminal	Screw terminal	Screw terminal	Screw terminal
Casing width (mm)			17.5	17.5	17.5	17.5
Functions			ND	Foff	ND, FD, NFD, Fon, Foff	a, b, c, d, e, f, g, h, i, k
Aux. Contact	Type		1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)
	Max. Ratings		10A,250V AC 1250VA	10A,250V AC 1250VA	10A,250V AC 1250VA	10A,250V AC 1250VA
Adjustment of Timing1& Timing2	Timing-1		1s=>60s	0.1s=>10d	0.1s=>10d	1s=>10d
	Timing-2		-	0.1s=>10d	0.1s=>10d	-
Supply	Voltage	AC	12V or 180..265V	12V or 180..265V	12V or 180..265V	12V or 180..265V
		DC	12V	12V	12V	12V
	Frequency		50...60Hz	50...60Hz	50...60Hz	50...60Hz
Power Consumption		AC	<1.25W	<1.25W	<1.25W	<1.25W
		DC	<2.5VA	<2.5VA	<2.5VA	<2.5VA
Trigger Input Voltage			-	-	-	180..265V AC
Recovery Time			Max. 100 ms	Max. 100 ms	Max. 100 ms	Max. 100 ms
Temperature coefficient			150 ppm/°C	150 ppm/°C	150 ppm/°C	150 ppm/°C
Permissible ambient temperature	During operation		-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
	During storage		-40 to +75 °C	-40 to +75 °C	-40 to +75 °C	-40 to +75 °C
Relative Humidity			Max.95% (no condensation)	Max.95% (no condensation)	Max.95% (no condensation)	Max.95% (no condensation)
Degree of protection			IP20	IP20	IP20	IP20

			Z1-M4	Z1-LR	Z1-XS	ZD1
						
Definition			Multimode Timer	Left Right Timer	On Delay Timer	Star-Delta Timer
Timing Function			Multifunctional	Single-Functional	Single-Functional	Single-Functional
Order Number			270 375	270 376	270 377	270 378
Connections			Screw terminal	Screw terminal	Screw terminal	Screw terminal
Casing width (mm)			17;5	17;5	17;5	17;5
Functions			ND,FD,Fon,Foff	LR	XS	SD
Aux. Contact	Type		1 C/O (SPDT)	2 C/O	1 C/O (SPDT)	2 C/O
	Max. Ratings		10A,250V AC 1250VA	10A,250V AC 1250VA	10A,250V AC 1250VA	10A,250V AC 1250VA
Adjustment of Timing1& Timing2	Timing-1		1s=>10d	0.1s=>10d	0s=>2559s	1s=>30s
	Timing-2		1s=>10d	0.1s=>10d	-	20ms=>500ms
Supply	Voltage	AC	12V or 180..265V	12V or 180..265V	12V or 180..265V	12V or 180..265V
		DC	12V	12V	12V	12V
	Frequency		50...60Hz	50...60Hz	50...60Hz	50...60Hz
Power Consumption	AC		<1.25W	<1.25W	<1.25W	<1.25W
	DC		<2.5VA	<2.5VA	<2.5VA	<2.5VA
Trigger Input Voltage			-	-	-	180..265V AC
Recovery Time			Max. 100 ms	Max. 100 ms	Max. 100 ms	Max. 100 ms
Temperature coefficient			150 ppm/°C	150 ppm/°C	150 ppm/°C	150 ppm/°C
Permissible ambient temperature	During operation		-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
	During storage		-40 to +75 °C	-40 to +75 °C	-40 to +75 °C	-40 to +75 °C
Relative Humidity			Max.95% (no condensation)	Max.95% (no condensation)	Max.95% (no condensation)	Max.95% (no condensation)
Degree of protection			IP20	IP20	IP20	IP20