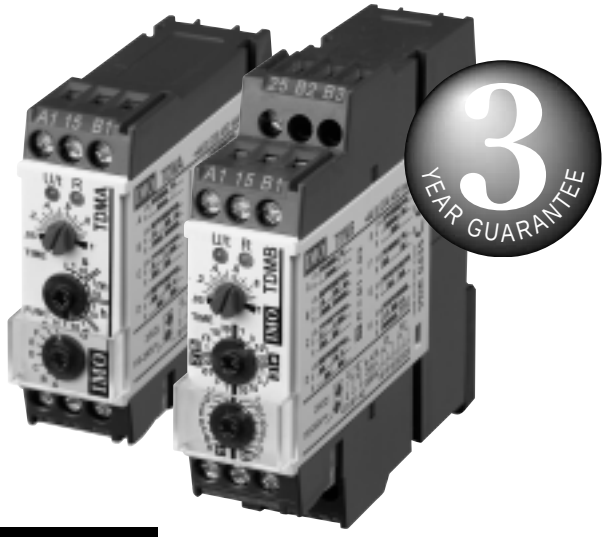
DIN Timers TD

IMO

22.5mm DIN rail mounting Electronic Timers

- AC/DC coil operation
- Multi-time range
- Multi-function, On-delay, Off-delay and Star/Delta versions
- Voltage range selectable
- Marking plate cover



Options and ordering codes

TD	MA	Multi Voltage Options

DIN rail mount timers	TD

Multi-function	MA
4 function	MC
Multi-function 2 C/O	MB
On-delay	EA
Off-delay	RA
Asymmetrical recycling	IA
True off-delay 3 minutes	AA
True off-delay 10 minutes	AB
Star/Delta	SD
On delay single function	SF

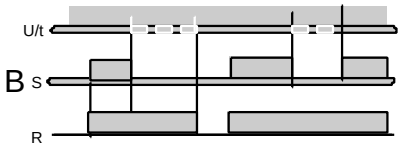
All timers are Multi-voltage I/P 24VAC/DC and 100-230VAC selectable on unit. Except EA+RA models	Multi Voltage Options
EA + RA models only	110VAC + 24VAC/DC
EA + RA models only	230VAC + 24VAC/DC
SF model only	24VAC/DC
SF model only	110VAC
SF model only	230VAC

Specification

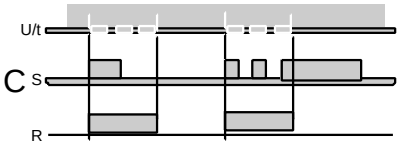
	TDMA	TDMC	TDMB	TDEA	TDRA	TDIA	TDAA	TDAB	TDSD	TDSF
Operation modes	A,B,C,D E,F,G,H	A,B,F,G	A,B,C,D E,F,G,H	A	B	Rp,Ri	T	T	S	A
Time range	0.05sec- - 10 days	0.05sec- 10 days	0.05sec- - 10 days	0.05sec- - 10 days	0.05sec- - 10 days	0.05sec- - 10 days	0.1sec- - 3 min	0.1sec- - 10 min	0.5sec-3minY 40-100ms Y	1-10 min
Accuracy	±0.5% FS									
Supply voltage	24VDC ±10%, 24VAC-15% +10%, 110-230VAC-15% +10%									
Nominal power consumption	24V 1.5VA/ 1W-110V 2VA 230V 8VA	24V 1.5VA/ 1W-110V 2VA 230V 8VA	24V 1.5VA/ 1W-110V 2VA 230V 11VA	24V 1.5VA/ 1W-110V 2VA 230V 8VA	24V 1.5VA/ 1W-110V 2VA 230V 11VA	24V 1.5VA/ 1W-110V 2VA 230V 8VA	24V 1.5VA/ 1W-110V 4VA 230V 15VA	24V 1.5VA/ 1W-110V 4VA 230V 15VA	24V 1.5VA/ 1W-110V 2VA 230V 11VA	24V 1.5VA/ 1W-110V 2VA 230V 11VA
Input signal Control contact must be 90% of A1-A2	Power on control contact	Power on control contact	Power on control contact	Power on	Power on control contact	Power on	Power on	Power on	Power on	Power on
Contact configuration	1 C/O	1 C/O	2 C/O programmable	1 C/O	1 C/O	1 C/O	1 C/O	1 C/O	1 C/O with rest position	1 C/O
Control output	8A@250VAC	8A@250VAC	8A@250VAC	5A@250VAC	5A@250VAC	5A@250VAC	5A@250VAC	5A@250VAC	8A@250VAC	5A@250VAC
Life expectancy Electrical	400,000	400,000	400,000	100,000	100,000	400,000	100,000	100,000	400,000	100,000
Mechanical	30×10^6	30×10^6	30×10^6	10×10^6	10×10^6	30×10^6	30×10^6	30×10^6	30×10^6	10×10^6
Allowable ambient temperature	-25 ˚C upto +55˚C									
IP rating Enclosures	IP40									
Terminals	IP20									
Terminals	Box clamp screw terminal upto $4mm^2$									

Mode functions

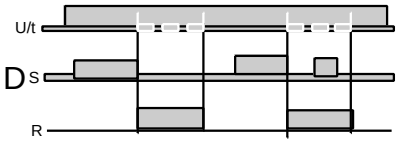
A On Delay
On application of supply voltage the time period starts to run. On completion of time the relay energises. Power off reset.



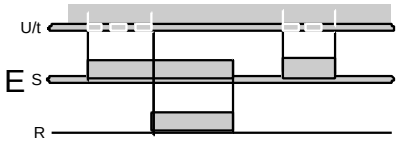
B Off delay
Supply to the unit must be continuous. On closure of the control contact (S) the relay energises immediately. On re-opening of S the time period starts to run and (R) de-energises If the control contact (S) is reclosed before “the actual time period is completed, this period will be deleted” and a new one starts on re-opening of (S).



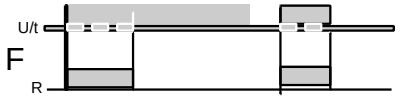
C Single shot leading edge pulse started
Supply to the unit must be continuous. On closure of the control contact (S) the relay energises immediately and the time starts to run. On completion of the time the relay will de-energise. Activation of (S) during the time out period has no effect.



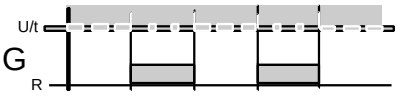
D Single shot trailing edge
Supply to the unit must be continuous. The first closure of (S) has no effect. On opening of (S) the time period starts to run and (R) energises immediately. On completion of time the relay de-energises. Activation of the control contact (S) during the time out period has no effect.



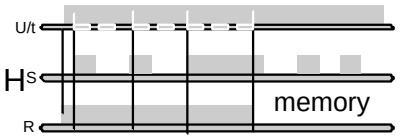
E On delay with control contact
Supply to the unit must be continuous. On closure of (S) the time period starts to run. On completion of time the relay energises and stays energised as long as (S) is closed. Opening the control contact before the time out is complete will reset the time period.



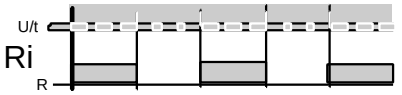
F Single shot leading edge
On application of supply voltage the time starts and (R) energises immediately. Following time out the relay will de-energise. For a new start of function the supply voltage must be interrupted.



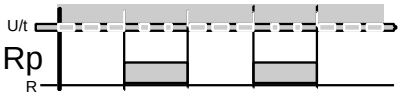
G Flasher pause first
On application of supply voltage the time period starts to “run. The relay switches on and off for the periods, beginning” with a pause. The time period for pause and pulse is equal.



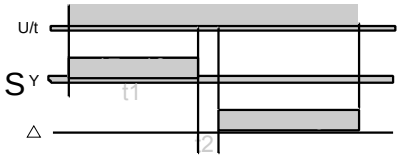
H Pulse detection
On application of supply voltage the relay energises. The first pulse of (S) starts the time period. Receiving pulses during the time period extends it and (R) stays energised. Receiving no pulses during the time period completes it and (R) de-energises. (R) stays latched until supply voltage has been interrupted.



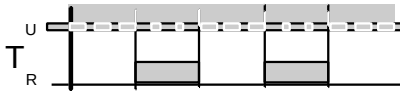
Ri Cyclic timer pulse started
On application of supply voltage the time period starts to run. “The relay switches on and off for the periods, beginning with a” pulse. The time period for t1 and t2 can be different. The function continues as long as voltage is applied.



Rp Cyclic timer pause started
On application of supply voltage the time period starts to run. “The relay switches on and off for the periods, beginning with a” pause. The time period for t1 and t2 can be different. The function continues as long as voltage is applied.



S Star Delta
On application of supply voltage the contact 17 - 18 of the star relay is closed and the star time t1 begins to run. On completion of the t1 the star relay de-energises and the dwell time t2 starts. On completion of t2 the contact 17 - 28 of the delta relay is closed and remains in operation as long as the supply voltage is applied.



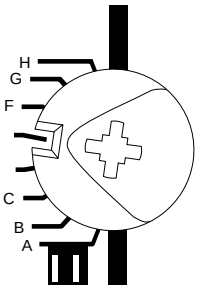
T True Off Delay
When supply voltage U is engaged the relay energises (contacts 15-18). When the supply voltage is removed the set time t begins to run. On completion of time t the output falls back to the off position (contacts 15-16). If the supply voltage U is re-engaged to “the unit before t has elapsed, the time already elapsed is cancelled” and starts again next time the supply voltage is interrupted.

Function switches

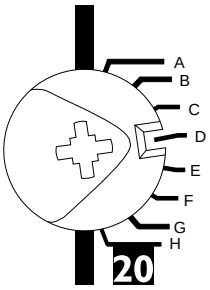
H pulse detection
G flashing pause first
F single shot
E ON-delay controlled by trigger input
D single shot trailing edge
C single shot pulse operated
B Off-delay
A On-delay

TDMB

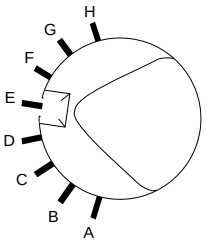
Positions of function switch with one contact as instantaneous c.t.



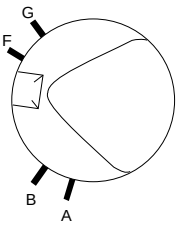
Both contacts delayed



TDMA



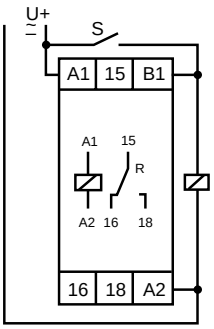
TDMC



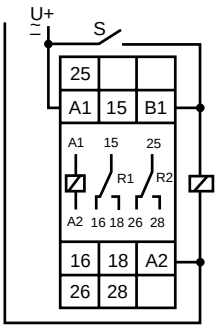
Start function B, C, D, E and H by control contact A1-B1
if instantaneous option is selected R1 becomes timed and R2 becomes instantaneous

Connection diagrams

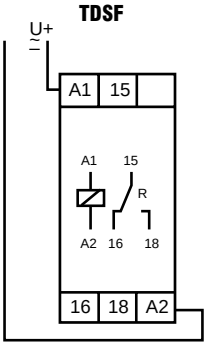
TDMA; TDRA



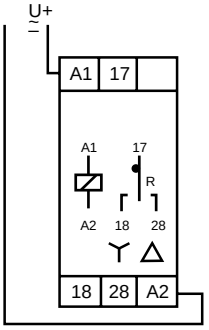
TDMB



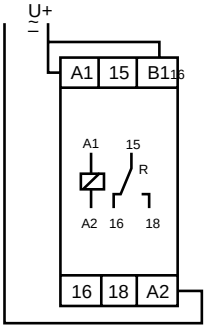
TDEA, TDAA, TDAB, TDSF



TDSD



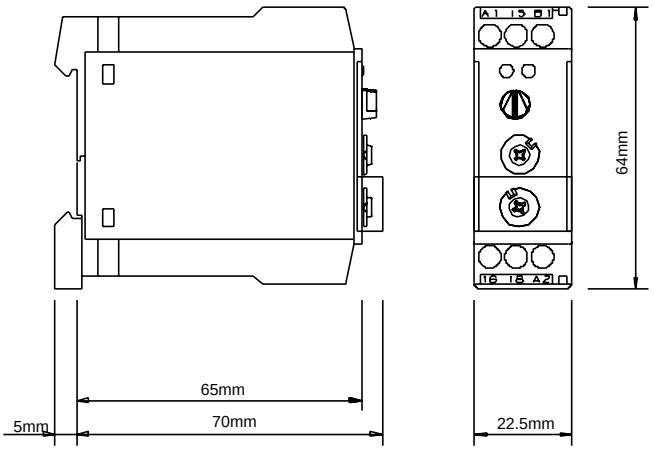
TDIA



Control Function Function Rp: without link Function Ri: link A1-B1

Dimensions

TDMA, TDEA, TDRA, TDIA, TDAA, TDAA, TDAB, TDSD, TDSF



TDMB