

PTMA / PTMB DTMA / DTMB



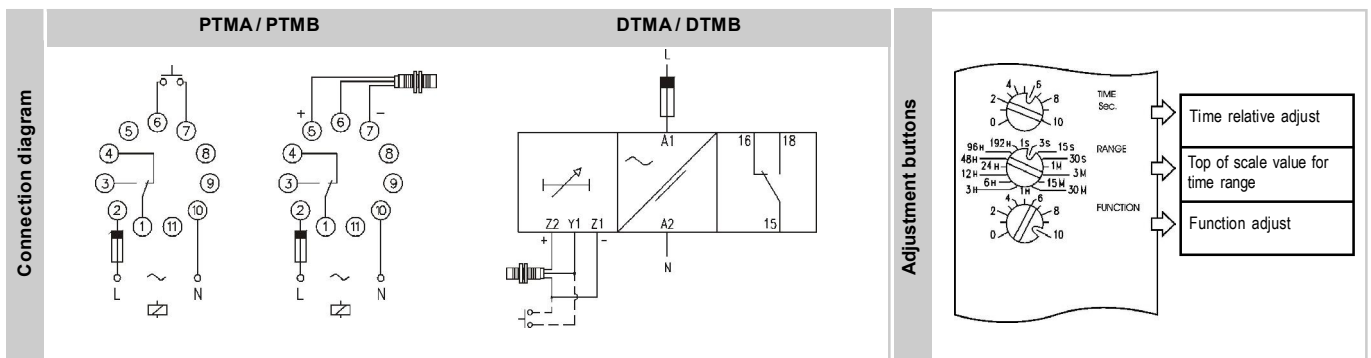
MULTITIMER



Difference	Multifunction - Multivoltage
Operating principle	Twelve functions selectable by rotary switch (see detailed description of each function on page 2): A - Delay on operate B - Interval on operate I - Simetrical recycler starting by off J - Simetrical recycler starting by on A - Delay on operate with time storage, without memory C - Delay on operate by external input, when activate E - Delay on operate by external input, when deactivate G - Delay on operate by external input, when activate or deactivate B - Interval on operate with time storage, without memory D - Interval on operate by external input, when activate F - Interval on operate by external input, when activate or deactivate H - Interval on operate by external input, when activate or deactivate
Leds indications	Power on: Green Relay on: Red
Repeating precision	± 1%
Precision	± 2%
Reset	By disconnecting the supply for longer than 60 ms
Sensor type	NPN 10 mA / 24 VDC

Reference	HOUSING		FUNCTION		OUTPUT		SUPPLY		RANGE	
	P	D	T	M	A	B			192	
	Plug-in	DIN rail		Multitimer	SPDT	DPDT	U24	24 VAC/DC		0,1..1 S
							724	24 VDC		0,3..3 S
							024	24 VAC		1,5..15 S
							110	110..125 VAC		3..30 S
							230	220..240 VAC		6..60 S
							400	380..415 VAC		18..180 S
							901	15..70 VAC/DC		1,5..15 M
							902	60..240 VAC/DC		3..30 M
										6..60 M
										18..180 M
										0,6..6 H
										2,4..24 H
										4,8..48 H
										9,6..96 H
										19,2..192 H
										Selection by rotary switch

To compose the reference, select one option of each column. Example: **PTMA U24 192**

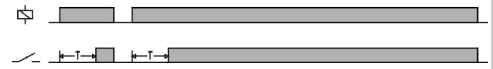


FUNCTIONS AND DIAGRAMS

DELAY ON OPERATE



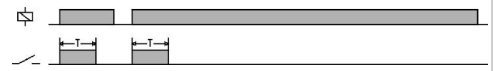
When the supply voltage is connected, the relay remains released and the time circuit starts up. After the pre-set time the relay operates. It remains in the condition an indefinite time.



INTERVAL ON OPERATE



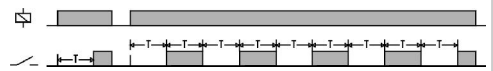
When the supply voltage is connected the relay operates immediately. After the pre-set time, the relay releases and remains so for an indefinite period of time.



SYMMETRICAL RECYCLER OFF/ON



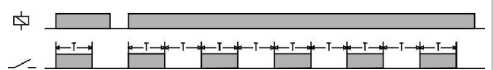
When the supply voltage is connected the time circuit starts up. After the pre-set time, the relay operates and stays on for the same period of time as the pre-set one. The cycle repeats itself non-stop.



SYMMETRICAL RECYCLER ON/OFF



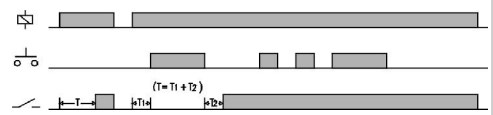
When the supply voltage is connected the relay operates immediately and the time circuit starts up. After the pre-set time, the relay releases and stays in this state for the same period of time as the pre-set one. The cycle repeats itself non-stop.



DELAY ON, WITH TIME STORAGE, WITHOUT MEMORY



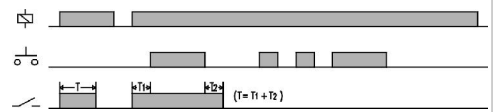
When the supply voltage is connected, the relay remains released and the time circuit is start up. If the external input is activated, the time circuit stops. When the external input is deactivated, the time circuit follows on. After the pre-set time, the relay operates and remains so for an indefinite period of time. By disconnecting the supply voltage, the reset of the time and relay is brought about.



INTERVAL ON, WITH TIME STORAGE, WITHOUT MEMORY



When the supply voltage is connected, the relay operates immediately and the time circuit starts up. If the external input is activated, the time circuit stops. When the external input is deactivated, the time circuit follows on. After the pre-set time, the relay releases and remains so for an indefinite period of time. By disconnecting the supply voltage, the reset of the time and the relay is brought about.

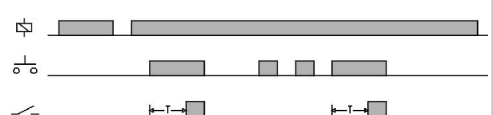


DELAY ON OPERATE, BY EXTERNAL INPUT



Timing while the input is activated

When the supply voltage is connected and the external input is not activated, this has no effect on the system. When the external input is activated, the relay remains released and the time circuit starts up. After the pre-set time the relay operates. If while time is running, the input is activated and deactivated for a shorter period than the pre-set time, the relay remains released.



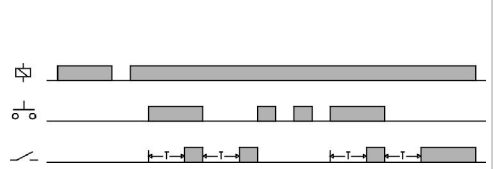
Timing when the input is deactivated

When the supply voltage is activated, this has no effect on the system with independence of the external input situation. When the input is activated, the relay remains released. When the input is deactivated, the time circuit starts up. After the pre-set time the relay operates and remains so until the input is again activated or the supply voltage is disconnected. If while time is running the external input is activated and deactivated, the reset of the time circuit is brought about and the relay remains released.



Timing when the input is activated or deactivated

When the supply voltage is activated, this has no effect on the system with independence of the external input situation. When the input is activated, the relay remains released and the time circuit starts up. After the pre-set time the relay operates. When the input is deactivated, the relay releases and the time circuit starts up again. After the pre-set time, the relay operates. The succession of the input pulses with a cadence less than the pre-set time bring about the reset of the time and the relay.

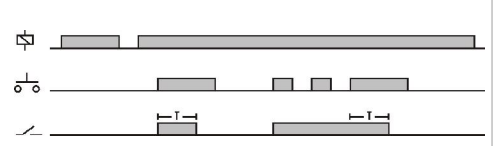


INTERVAL ON OPERATE, BY EXTERNAL INPUT



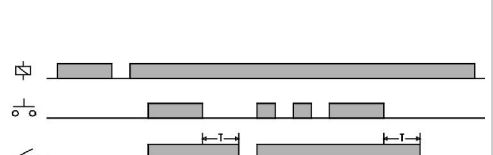
Timing while the input is activated

When the supply voltage is connected and the external input is deactivated, this has no effect on the system. When the external input is activated, the relay operates immediately and the time circuit starts up. After the pre-set time, the relay releases and remains so until the external input is deactivated. If while time is running, the input is activated and deactivated for a shorter period than the pre-set time, the relay remains operated.



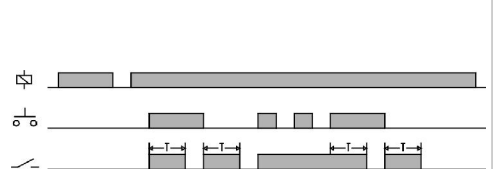
Timing when the input is deactivated

When the supply voltage is connected and the external input is deactivated, this has no effect on the system. When the input is activated, the relay operates immediately. When the input is deactivated, the time circuit starts up. After the pre-set time the relay releases and remains so until the input is again activated. If while time is running the external input is activated and deactivated for a shorter time than the pre-set one, the relay remains operated.



Timing when the input is activated or deactivated

When the supply voltage is activated, this has no effect on the system with independence of the external input situation. When the input is activated, the relay operates immediately and the time circuit starts up. After the pre-set time the relay releases. When the input is deactivated, the relay operated immediately and the time circuit starts up. After the pre-set time the relay releases. The succession of input pulses with a cadence less than the pre-set time bring about the reset of the time and the relay remains operated.



		PTMA	PTMB	DTMA	DTMB	
Output relays	Resistive load	AC	10 A / 250 V	8 A / 250 V	10 A / 250 V	8 A / 250 V
		DC	0,4 A / 200 V	0,25 A / 200 V	0,4 A / 200 V	0,25 A / 200 V
	Inductive load	AC	10 A / 24 V	8 A / 24 V	10 A / 24 V	8 A / 24 V
		DC	5 A / 250 V	2,5 A / 250 V	5 A / 250 V	2,5 A / 250 V
			5 A / 24 V	4 A / 24 V	5 A / 24 V	4 A / 24 V
	Mechanical life		> 30 x 10 ⁶ operations		> 30 x 10 ⁶ operations	
	Max. switching rate, mech.		72.000 operations / hour		72.000 operations / hour	
	Electrical life at full load		360 operations / hour		360 operations / hour	
	Contact material		AgNi 90/10		AgNi 90/10	
	Maximum voltage		440 VAC		440 VAC	
	Operating voltage		250 VAC		250 VAC	
	Volt. between changeovers		2500 VAC		2500 VAC	
	Voltage between contacts		1000 VAC		1000 VAC	
	Voltage coil/contact		5000 VAC		5000 VAC	
	Distance coil/contact		10 mm		10 mm	
	Isolation resistance		> 10 ⁴ MΩ		> 10 ⁴ MΩ	

	AC		DC		ACDC	
	PTMA / PTMB	DTMA / DTMB	PTMA / PTMB	DTMA / DTMB	PTMA / PTMB	DTMA / DTMB
Galvanic isolation	No		No		9XX: Yes	UXX: No
Frequency	50/60 Hz		-		-	
Operating margins	± 15%		± 10%		-	
Positive	-		Terminal 2		Terminal 2	
Protected polarity	-		Yes		Yes	

Constructive and enviromental data	PTMA / PTMB		DTMA / DTMB	
	Voltage phase-neutral	300 V	Voltage phase-neutral	300 V
	Overvoltage category	III	Overvoltage category	III
	Rated impulse voltage	4 kV	Rated impulse voltage	4 kV
	Pollution degree	2	Pollution degree	3
	Protection	IP 20	Protection	IP 20
	Approximate weight	250 g	Approximate weight	280 g
	Storage temperature	-50°C..+85°C	Storage temperature	-50°C..+85°C
	Operating temperature	-20°C..+50°C	Operating temperature	-20°C..+50°C
	Humidity	30..85% HR	Humidity	30..85% HR
	Housing	Cycoloy - Light grey	Housing	Cycoloy - Light grey
	Socket	Lexan - Light grey	Socket	-
	Leds cover	Lexan - Transparent	Leds cover	Lexan - Transparent
	Button, terminal block, clip	Technyl - Dark blue	Button, terminal block, clip	Technyl - Dark blue
Pins of the socket	Nickel brass	Pins of the socket	-	
Pins of the terminal block		Pins of the terminal block	Brass	
Approvals	Designed and manufactured under EEC standards. Electromagnetic compatibility, directives 89/366/EEC and 92/31/EEC. Electric safety, directive 73/23/EEC.			

Dimensions	PTMA / PTMB		DTMA / DTMB	