DISIBEINT

PTNA / PTNB
DTNA / DTNB

MULTITIMER

Difference	Multifunction - Multivoltage
Operating principie	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

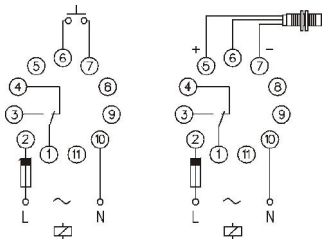
Reference

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

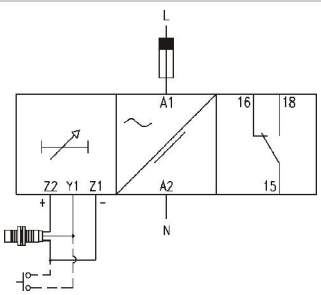
To compose the reference, select one option of each column. Example: **PTNA U24 192**

Connection diagram

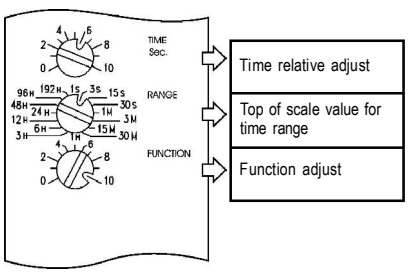
PTNA / PTNB



DTNA / DTNB



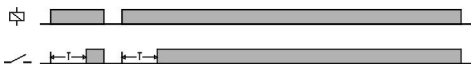
Adjustment buttons



FUNCTIONS AND DIAGRAMS

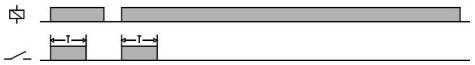
DELAY ON OPERATE

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.



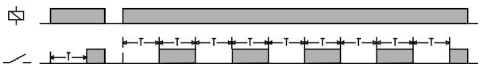
INTERVAL ON OPERATE

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



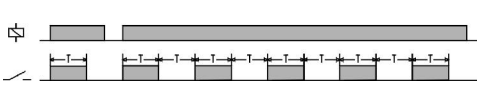
SYMMETRICAL RECYCLER OFF/ON

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.



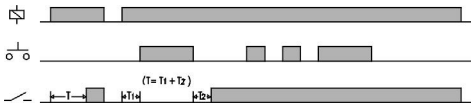
SYMMETRICAL RECYCLER ON/OFF

When the supply voltage is connected the relay operates inmediately and the time circuits 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.



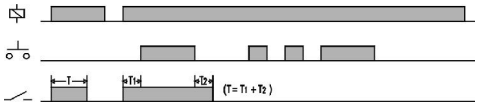
DELAY ON, WITH TIME STORAGE, WITHOUT MEMORY

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 circuits follows on. After the pre-ser time, the relay operates and remains so for an indefinite period of time. By desconnecting the suply voltage, the reset of the time and relay and relay is brought about.



INTERVAL ON, WITH TIME STORAGE, WITHOUT MEMORY

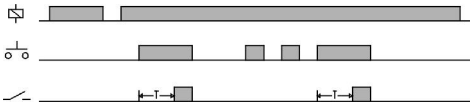
When the supply voltage is connected, the relay operates inmediately and the time circuit starts up. If the external input is activated, the time circuit stops. When the external input is deactivated, the time circuit follows on. After the pre-set time, the relay releases and remains so for an indefinite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



DELAY ON OPERATE, BY EXTERNAL INPUT

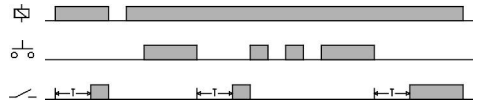
Timing while the input is activated

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.



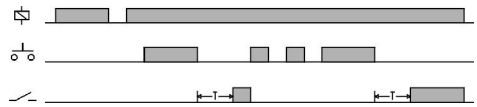
Timing when the input is deactivated

When de supply voltage is activated the time circuit starts up. After the pre-set time the relay operates and remains so until the input is activated or the supply voltage is disconnected. When the input is activated, the relay rermains released. When the input is deactivated, the time circuit is starts up. If while time is running the external input is activated and deacitivated, the rest of the time is brought about and the relay remains released.



Timing when the input is activated or deactivated

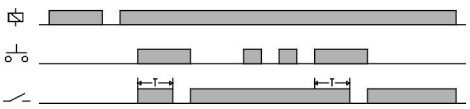
When de supply voltage is activated the time circuit starts up. After the pre-set time the relay operates. When the input is activated, the relay rermains released and the time circuit starts up. After the pre-set time the relay operates. When the input is deactivated, the relay releases and the time circuit starts up again. After the pre-set time, the relay operates. The succesion of input pulses with a cadence less and the pre-set time bring about the reset of the time and the relay



INTERVAL ON OPERATE, BY EXTERNAL INPUT

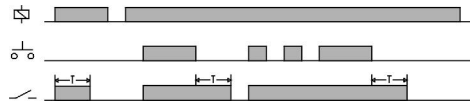
Timing while the input is activated

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 inmeditely 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.



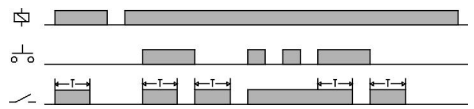
Timing when the input is deactivated

When the supply voltage is activated the relay operates immediately. After the pre-set time the relay releases and remains so. When the input is activated, the relay operates immediately and when the input is deactiveted, 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 deactivatedfor a shorter time than the pre-set one, the relay remains operated.

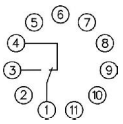
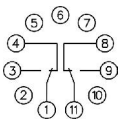
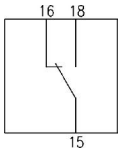
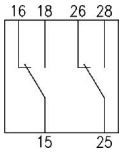


Timing when the input is activated or deactivated

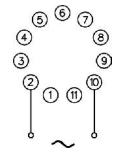
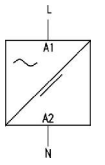
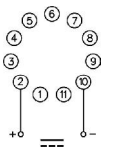
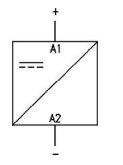
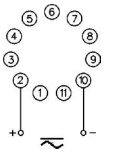
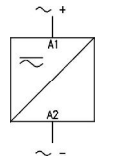
When the supply voltage is activated the relay operates immediately. After the pre-set time the relay releases and remains so. When the input is activated, the relay operates immediately and when the input is deactiveted, the time circuit starts up. After the pre-set time the relay releases. When the input is deactivated, the relay operates 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.



Output relays

		PTNA	PTNB	DTNA	DTNB
					
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 10 A / 24 V	0,25 A / 200 V 8 A / 24 V	0,4 A / 200 V 10 A / 24 V	0,25 A / 200 V 8 A / 24 V
Inductive load	AC	5 A / 250 V	2,5 A / 250 V	5 A / 250 V	2,5 A / 250 V
	DC	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	

Supply

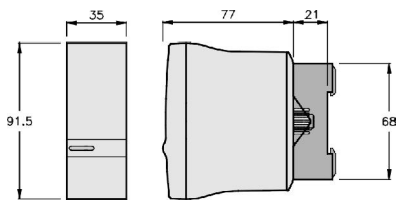
	AC		DC		AC/DC	
	PTNA / PTNB	DTNA / DTNB	PTNA / PTNB	DTNA / DTNB	PTNA / PTNB	DTNA / DTNB
						
Galvanic isolation	No		No		9XX: Yes	UXX: No
Frequency	50/60 Hz		-		-	
Operating margins	± 15%		± 10%		-	
Positive	-		Terminal 2		Terminal 2	
Protected polarity	-		Yes		Yes	

Constructive and anviromental data

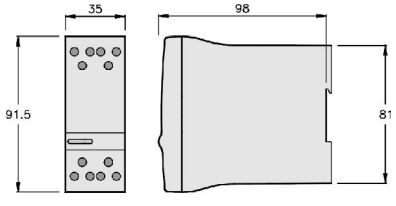
	PTNA / PTNB	DTNA / DTNB
Voltage phase-neutral	300 V	300 V
Overvoltage category	III	III
Rated impulse voltage	4 kV	4 kV
Pollution degree	2	3
Protection	IP 20	IP 20
Approximate weight	250 g	280 g
Storage temperature	-50ºC..+85ºC	-50ºC..+85ºC
Operating temperature	-20ºC..+50ºC	-20ºC..+50ºC
Humidity	30..85% HR	30..85% HR
Housing	Cycoloy - Light grey	Cycoloy - Light grey
Socket	Lexan - Light grey	-
Leds cover	Lexan - Transparent	Lexan - Transparent
Button, terminal block, clip	Technyl - Dark blue	Technyl - Dark blue
Pins of the socket	Nickel brass	-
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

PTNA / PTNB



DTNA / DTNB



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