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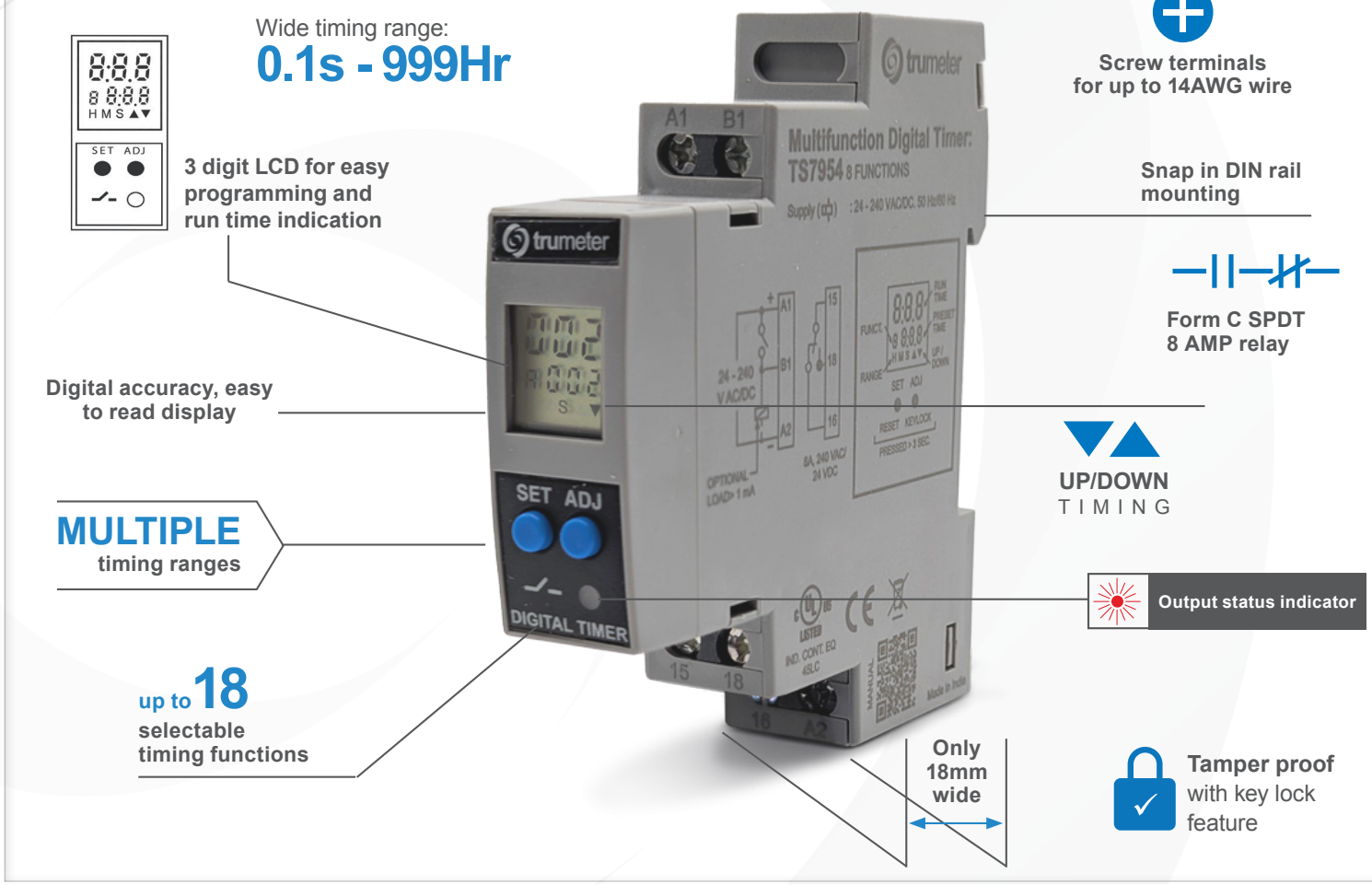
TS795X Multi-function time relays

Versatile and easy to program

Programmable DIN Rail Time Relay

Universal Voltage: **24 - 240VAC/VDC**



Trumeter's new range of digital time relays offer 8 or 18 operating modes, easily configured on the 3 digit LCD display: a wide range of 0.1s - 999Hr to suit all applications; a clear indication of the relay status via the front panel LED; can accept a wide range of operating voltages for most installations. The keylock feature means settings cannot be tampered with, for 100% reliable operation.

Programming is retained during power shut down, the current timing is lost and will reset when power is back on.

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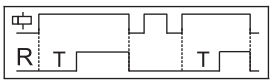
Functional Diagrams

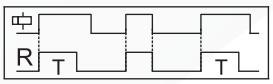
ON DELAY
On application of supply voltage, the preset time duration (T) starts. On completion of the preset time, the output is switched ON and remains ON till the supply voltage is present.



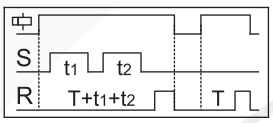
CYCLIC OFF/ON
{OFF Start, (Sym, Asym)}
On application of supply voltage, the output s initially switched OFF for the preset 'OFF time duration (TOFF) after which tis switched ON for the preset 'ON' time duration (TON). This cycle repeats and continues till the supply is present.

CYCLIC ON/OFF
{ON start, (Sym, Asym)}
On application of supply voltage, the output is initially switched ON for the preset 'ON' time duration (TON) after which it is switched OFF for the preset 'OFF time duration (TOFF). This cycle repeats and continues till the supply is present.

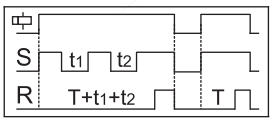
IMPULSE ON ENERGIZING
On application of supply voltage, the output is instantly switched ON for the preset time duration (T) after which it is switched OFF.



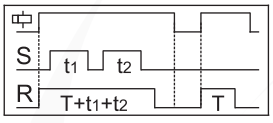
ACCUMULATIVE DELAY ON SIGNAL
On application of supply voltage, the preset timing duration commences. When input signal is applied, the timing pauses and resumes only when the input signal is removed. The output is switched ON at the end of the preset time duration (T).



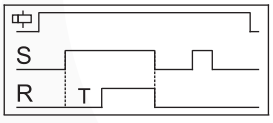
ACCUMULATIVE DELAY ON INVERTED SIGNAL
On application of supply voltage and input signal, the preset timing duration commences. When the signal is removed the timing pauses and resumes when the signal is applied. The output is switched ON at the end of the preset time duration (T).



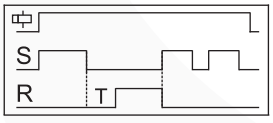
ACCUMULATIVE IMPULSE ON SIGNAL
On application of supply voltage the output is switched ON& the preset timing duration commences. When the signal is applied the timing pauses and resumes when the signal is removed. The output is switched O duration (T)



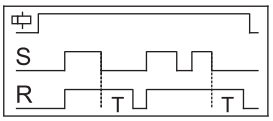
SIGNAL ON DELAY
On application of input signal, the preset time duration (T) starts. On completion of the preset time, the output is switched ON and remains ON till the input signal is present.



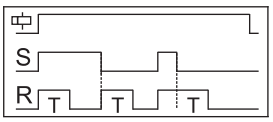
INVERTED SIGNAL ON DELAY
On application of supply voltage, the preset time duration (T) starts. When input signal is applied, the timing pauses & resumes only when the signal is removed. On 'completion of the preset time, the output is switched ON



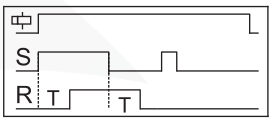
SIGNAL OFF DELAY
On application of supply voltage and input signal, the output is switched ON. When the signal is removed the preset time duration commences & the output is switched OFF at the end of the time duration.



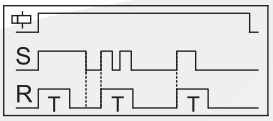
IMPULSE ON/OFF
On application or removal of input signal, the output is switched ON & the preset time duration (T) starts. On completion of the time duration the output is switched OFF. When timing commences, changing the state of the input signal resets the time.



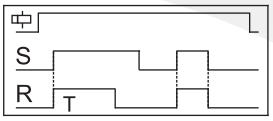
SIGNAL OFF/ON
On application of input signal, the preset delay time period (T) starts. On completion of the preset time, the output is switched ON. On removal of input signal, the preset time period starts again and the output is switched ON when the preset time duration is complete.



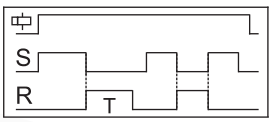
LEADING EDGE IMPULSE1
On application of input signal the output is immediately switched ON. The output remains ON for the preset time duration (T) after which it is switched OFF. If the input signal is removed during the preset time, the output remains unaffected.



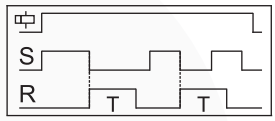
LEADING EDGE IMPULSE2
On application of input signal the output is immediately switched ON. The output remains ON for the preset time duration (T) after which it's switched OFF. If the input signal is removed during the preset time, the output is immediately switched OFF.



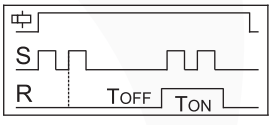
TRAILING EDGE IMPULSE1
When the input signal to the timer is removed, the output is immediately switched ON for the preset time duration (T) after which it is switched OFF. If the input signal is applied during the preset time, the output is immediately switched OFF.



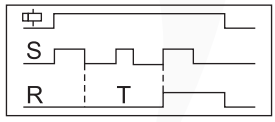
TRAILING EDGE IMPULSE2
When the input signal to the timer is removed, the output is immediately switched ON for the preset time duration (T) after which it is switched OFF. If the input signal is applied during the preset time, the output remains unaffected.



DELAYED IMPULSE
On application of input signal, the preset 'OFF' time duration (TOFF) starts. The output is switched ON at the end of the preset 'OFF' time duration &the preset 'ON' time duration commences irrespective of signal level and remains ON till the completion 'TON'.



INVERTED SIGNAL ON DELAY-TYPE 2
Timing starts only upon signal 'S' transition high to low. During timing or after completion of Time (i.e. relay on), any signal transition is ignored. To reset the timer supply has to be interrupted.



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Specifications:

Supply Voltage		24-240 VAC/DC		
Supply Variation		-15% to +10% (of supply voltage)		
Frequency		50/60 Hz		
Power Consumption (Max.)		0.5 VA (@24/48 VAC), 4 VA (@110 to 265 VAC/DC)		
Timing Range		0.1s to 999h		
Reset Time		200 ms (Max.)		
Repeat Accuracy		± 0.5%		
Output	**Relay Output**	**7954:** 1x C/O (Form C)	**7957:** 1x C/O (Form C)	**7958:** 2x NO (Form A)
	Contact Rating	8A @240 VAC / 24 VDC (Resistive)		
	Electrical Life	$1x10^5$		
	Mechanical Life	$2x10^7$		
Utilization Category	**AC-15**	Rated Voltage (Ue): 120/240 V, Rated Current (Ie): 3/1.5 A		
	DC-13	Rated Voltage (Ue): 125/250 V, Rated Current (Ie): 0.22/0.1 A		
Operating Temperature		-10C to +55C		
Storage Temperature		-20C to +65C		
Humidity (Non Condensing)		95% (Rh)		
LED Indication		Red LED ➡ Relay ON		
Enclosure		Flame Retardant UL 94-V0		
Dimension (W x H x D) (in mm)		18 x 85 x 76		
Weight (unpacked) Approx.		85g		
Mounting		DIN Rail		
Certification				
Degree of Protection		IP 20 for terminals, IP30 for enclosure, IP40 for front side		

Operating Modes:

TS7957/TS7958	TS7954
ON Delay	ON Delay
Repeat Cycle OFF/ON	Repeat Cycle OFF/ON
Repeat Cycle ON/OFF	Repeat Cycle ON/OFF
Impulse on Power Up	Signal ON/OFF
Accumulative Delay on Signal	Signal OFF Delay
Accumulative Delay on Inverted Signal	Interval
Accumulative Impulse on Signal	Signal OFF/ON
Signal ON Delay	One Shot Output
Inverted Signal ON Delay	
Signal OFF Delay	
Impulse ON/OFF	
Signal OFF/ON	
Leading Edge Impulse 1	
Leading Edge Impulse 2	
Trailing Edge Impulse 1	
Trailing Edge Impulse 2	
Delayed Impulse	
Inverted Signal ON Delay (Type 2)	

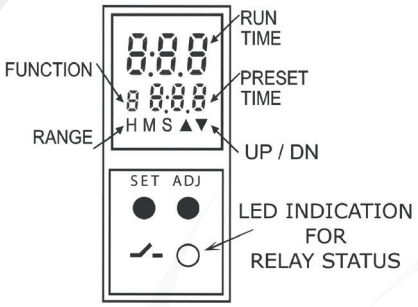
Programmable:

Preset Time: The Timer Duration selected by the user

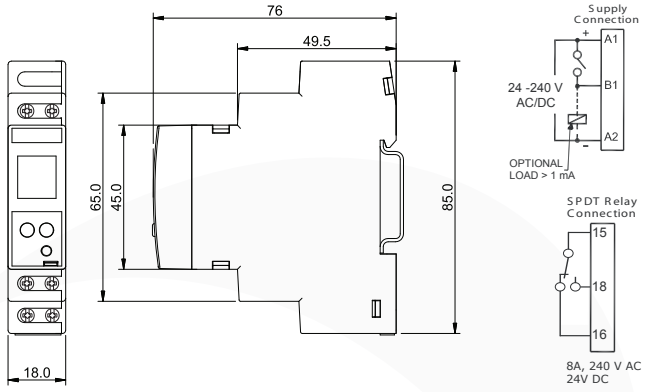
Run Time: In Down counting mode ▼ it indicates the time remaining, while in Up counting mode ▲ indicates the elapsed time.

Default Mode: Down counting ▼

Timer Duration: Up/Down ▼▲ blinks during the Timer Duration (T)



Dimensions



Part Numbers

TS7954	24-240 VAC/DC. 8 Functions, 1x C/O (Form C)
TS7957	24-240 VAC/DC. 18 Functions, 1x C/O (Form C)
TS7958	24-240 VAC/DC. 18 Functions, 2x NO (Form A)