Multifunction clock-pulse generator relay

MFT ITU24S

MFT ITU24S

- **7 functions**
- **Zoomvoltage: 12 ... 240 Vac/dc**
- **2 output contacts**

Function

TU Cycling timer multifunction

TP	Cycling timer relay beginning on a pause
TI	Cycling timer relay beginning on a pulse
EA	Delay on and delay off
EI1	Input delay pulse limitation timer voltage control
EI3	Input delay pulse limitation timer with control contact
EI2	Input delay pulse with control contact
I3	Pulse detection

Time ranges

Adjustable 0,05 s ... 100 h

Output relay

2 changers potential free 250 Vac / 8 A

Indicators

Green LED ON:	indication of supply voltage
Green LED flashes slowly:	indication of time t1
Green LED flashes fast:	indication of time t2
Yellow LED ON/OFF:	indication of relay output

Supply voltage

12 ... 240 Vac/dc -10% +10%

AC 48 ... 63 Hz, 100% duration of operation

Reference data

Selectron® MFT	Article no.
MFT ITU24S	41130005
(Order data see chapter 1)	

Multifunction clock-pulse generator relay

MFT ITU24S

Technical data		
Input circuit	**MFT IT14S**	
	12 ... 240 Vac/dc	6 VA / 2 W
	Residual ripple for dc	10%
	Drop-out voltage	>30% of minimum rated supply voltage
Control contact / Voltage controlled		
	Parallel switching of loads possible	
	Input not potential free	terminals A1 - B1
	Trigger level (senitivity)	automatic adapted to supply voltage
	Max. line length	10 m
	Min. control pulse lenght	DC 50 ms / AC 100 ms
Accuracy		
	Base accuracy	±1% of the scale limit
	Repeatability of the scale limit	<0,5% or ±5 ms
	Adjustment accuracy	<5% of the scale limit
	Temperature influence	≤0,01% / °C
Reaction times		
	Recovery time	100 ms

Type key

I U 1 3 S

Construction

I Mounting position

Functions

U Multifunction
Q 4 Functions
T Cycling timer
TU Cycling timer multifunction

Output

1 1 changer
2 2 changers

Control

S Voltage control

Connecting voltage

3 24-240 Vac/dc
4 12-240 Vac/dc

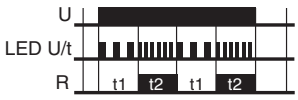
Multifunction clock-pulse generator relay

MFT ITU24S

Function descriptions

TP - Cycling timer relay beginning on a pause

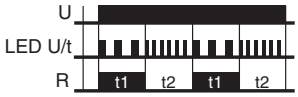
When the supply voltage U is applied, the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has



expired, the output relay switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired, the output relay switches into off-position (yellow LED not illuminated).
The output relay is triggered in the ratio of the two set intervals until the supply voltage is interrupted.

TI - Cycling timer relay beginning on a pulse

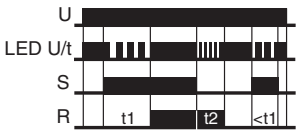
When the supply voltage is applied, the output relay R switches into on-position (yellow LED illuminated) and the set



interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired, the output relay switches into off-position (yellow LED not illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired, the output relay switches into on-position again (yellow LED illuminated).
The output relay is triggered in the ratio of the two set intervals until the supply voltage is interrupted.

EA -Delay on and delay off

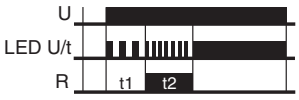
The supply voltage U must be constantly applied to the device (green LED U/t illuminated). When the control contact



S is closed, the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired, the output relay R switches into on-position (yellow LED illuminated). When the control contact S is opened, the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired, the output relay switches into off-position (yellow LED not illuminated). If the control contact S is opened before the interval t1 has expired, the interval already expired is erased and is restarted with the next cycle.

EI1 - Input delay pulse limitation timer voltage control

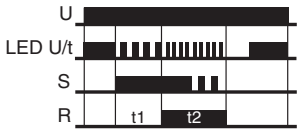
When the supply voltage U is applied, the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has



expired, the output relay switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired, the output relay switches into off-position (yellow LED not illuminated). If the supply voltage is interrupted before the interval t1+t2 has expired, the interval already expired is erased and is restarted when the supply voltage is next applied.

EI3 - Input delay pulse limitation timer with control contact

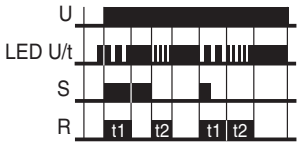
The supply voltage U must be constantly applied to the device (green LED U/t illuminated). When the control contact S is



closed, the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired, the output relay switches into on-position (yellow LED illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired, the output relay switches into off-position (yellow LED not illuminated). During the interval, the control contact can be operated any number of times. A further cycle can only be started when the cycle run has been completed.

EI2 - Input delay pulse with control contact

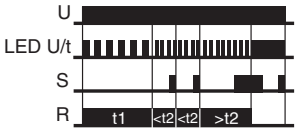
The supply voltage U must be constantly applied to the device (green LED U/t illuminated). When the control contact S is closed,



the output relay R switches into on-position (yellow LED illuminated) and the set interval t1 begins (green LED U/t flashes slowly). After the interval t1 has expired, the output relay switches into off-position (yellow LED not illuminated). When the control contact is opened, the output relay switches into on-position again (yellow LED illuminated) and the set interval t2 begins (green LED U/t flashes fast). After the interval t2 has expired, the output relay switches into off-position again. During the interval, the control contact can be operated any number of times.

I3 - Pulse detection

When the supply voltage U is applied, the set interval t1 begins (green LED U/t flashes slowly) and the output relay R switches into on-position



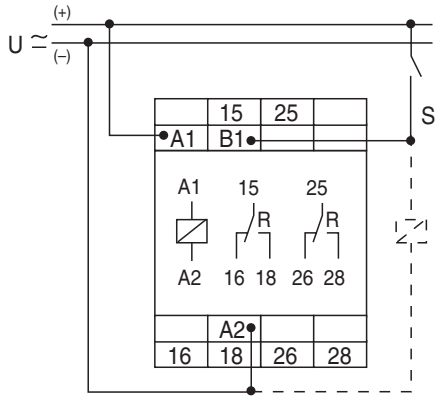
(yellow LED illuminated). After the interval t1 has expired, the set interval t2 begins (green LED U/t flashes fast). For the output relay to remain in on-position, the control contact S must be closed and reopened within the set interval t2. If this does not occur, the output relay R switches into off-position (yellow LED not illuminated) and all further pulses at the control contact S are ignored. To restart the function, the supply voltage must be interrupted and reapplied.

Multifunction clock-pulse generator relay

MFT ITU24S

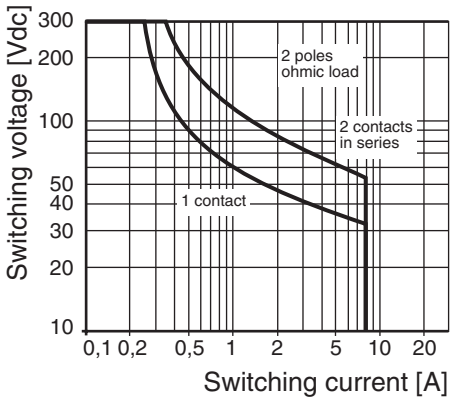
Connection

MFT ITU24S



Load limit curves

MFT ITU24S



Dimensions