

# Multifunctional time delay relay

MFT SU22S, MFT SU22P



MFT SU22S

- **7 Functions, 7 time ranges**
- **Multivoltage:**  
**12 ... 240 Vac / dc**
- **2 output contacts**

### Functions

- E** Delay on
- E** Delay on - version with control contact as opening contact
- A** Delay off
- I2** Pulse extension with control contact
- W2** Wiping on trailing edge
- E1** Delay on with control contact
- I1** Pulse limitation timer voltage control
- B2** Cycling timer starting on a pause

### Time end ranges

Adjustment range 0,05 s ... 100 h

### Output relay

2 potential free change over contacts  
250 Vac 8 A

### Indicators

- Green LED ON: indication of supply voltage
- Green LED flashes: indication of time
- Yellow LED ON/OFF: indication of relay output

### Connecting voltage

12 ... 240 Vac/dc -10% +10%  
48 ... 63 Hz, 100% duration of operation, IEC class 1c



MFT SU22P

### Reference data

Selectron® MFT	Article no.
MFT SU22S	41140010
MFT SU22P	41140012
(Order data see chapter 1)	

## Multifunctional time delay relay

MFT SU22S, MFT SU22P

Technical data	MFT SU22S	MFT SU22P
Nominal consumption		
12 ... 240 Vac/dc	6 VA / 2 W	
Control contact / Voltage controlled		
Parallel switching of loads possible	yes	no
Parallel minimum load	1 VA or 0,5 W	–
Voltage dependence:	The potential between connections 2 and 5 must cover 90% of the supply voltage	Potential free control contact between connections 6 and 7 The internal voltage on these connectors is on the same potential as supply voltage
Connecting length between connections 2 and 5:	10 m or capacity <10 nF	–
Connecting length between connections 6 and 7:	At 230 VAC 10 VDC <1 mA	10 m or capacity <10 nF
Resistance	>1 MΩ (contact K2 open)	–
Rest current at parallel load:	approx. 2 mA at contact K2 open	–
Accuracy		
Base accuracy	±1% of scale limit	
Repetition accuracy	<5 ms or <0,5%	
Adjustment accuracy	≤5% of scale limit	
Temperature influence	≤0,01% / °C	
Voltage influence		
Reaction times		
Operating return time K1	max. 60 ms / 30 ms	
Reaction time K2	max. 30 ms	
Min. pulse/pause time K2	ac 100 ms / dc 50 ms	
Recovery time	max. 100 ms	

### Type key

MFT S U 2 2 S -	
<b>Construction</b>	<b>Special functions</b>
<b>S</b> Pluggable 11 poles	<b>E</b> External Potentiometer
<b>Functions</b>	<b>Control</b>
<b>U</b> Universal	<b>S</b> Voltage control
<b>A</b> Without auxiliary voltage	<b>P</b> Potential free
<b>T</b> Cycling timer	
<b>S</b> Star-delta	
<b>D</b> Digital	
<b>Output</b>	<b>Connecting range</b>
<b>1</b> 1 changer	<b>1</b> 24 Vdc/ac and 110 ... 240 Vac
<b>2</b> 2 changers	<b>2</b> 12 ... 240 Vac/dc
<b>3</b> 1 changer / 1 immediate contact	<b>3</b> 24 ... 240 Vac/dc
<b>4</b> 1 changer / 1 closing contact	
<b>5</b> 1 closing / 1 opening contact	

# Multifunctional time delay relay

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## Function descriptions

### E - Delay on

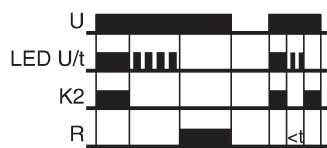
When the supply voltage U (K1 closed) is applied, the set interval t begins (green LED U/t flashes). After the interval t



has expired (green LED U/t illuminated) the output relay switches into on-position (yellow LED illuminated). This status remains until the supply voltage U (K1 opened) is interrupted. If the supply voltage U is interrupted before expiry of the interval t, the interval already expired is erased and is restarted when the supply voltage U (K1 closed) is next applied.

### E - Delay on - version with control contact as opening contact

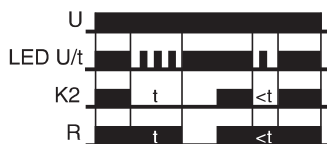
The supply voltage U must be constantly applied to the device (green LED U/t illuminated). When the control



contact K2 is opened, the set interval t begins (green LED U/t flashes). After the interval t has expired the output relay switches into on-position (yellow LED illuminated). If the control contact K2 is closed before the interval t has expired, the interval already expired is erased and is restarted with the next cycle.

### A - Delay off

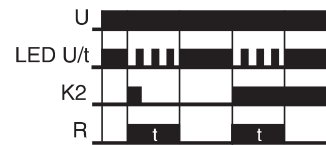
The supply voltage U (K1 closed or permanently connected) must be constantly applied to the device (green LED U/t



illuminated). When the control contact K2 is closed, the output relay R switches into on-position (yellow LED illuminated). If the control contact K2 is opened, the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated). If the control contact K2 is closed again before the interval t (green LED U/t illuminated) has expired, the interval already expired is erased and is restarted with the next cycle.

### I2 - Pulse extension with control contact

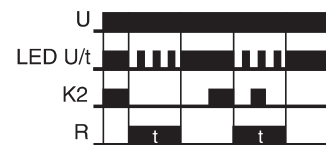
The supply voltage U (K1 closed or permanently connected) must be constantly applied to the device (green LED U/t



illuminated). When the control contact K2 is closed, the output relay R switches into on-position (yellow LED illuminated) and the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated). During the interval, the control contact K2 can be operated any number of times. A further cycle can only be started when the cycle run has been completed.

### W2 - Wiping on trailing edge

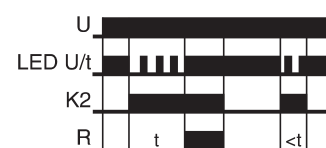
The supply voltage U (K1 closed or permanently connected) must be constantly applied to the device (green LED U/t



illuminated). Closing the control contact K2 has no influence on the condition of the output relay R. When the control contact K2 is opened, the output relay switches into on-position (yellow LED illuminated) and the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated), the output relay switches into off-position (yellow LED not illuminated). During the interval, the control contact K2 can be operated any number of times. A further cycle can only be started when a cycle run has been completed.

### E1 - Delay on with control contact

The supply voltage U (K1 closed or permanently connected) must be constantly applied to the device (green LED U/t



illuminated). When the control contact K2 is closed, the set interval t begins (green U/tLED flashes). After the interval t has expired (green LED U/t illuminated) the output relay R switches into on-position (yellow LED illuminated). This status remains until the control contact K2 is opened. If the control contact K2 is opened before the interval t has expired, the interval already expired is erased and is restarted with the next cycle.

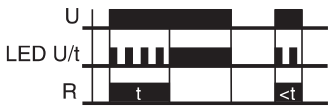
# Multifunctional time delay relay

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## Function descriptions

### I1 - Pulse limitation timer voltage control

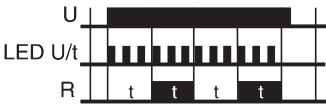
When supply voltage U (K1 closed) is applied, the output relay R switches into on-position (yellow LED illuminated)



and the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated). This status remains until the supply voltage (K1 opened) is interrupted. If the supply voltage is interrupted before the interval t has expired, the output relay switches into off-position. The interval t already expired is erased and is restarted when the supply voltage is next applied.

### B2 - Cycling timer starting on a pause

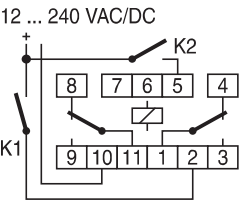
When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has



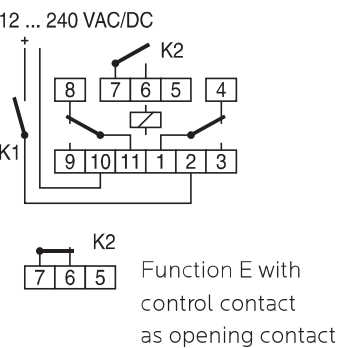
expired, the output relay R switches into on-position (yellow LED illuminated) and the set interval t begins again. After the interval t has expired, the output relay switches into off-position (yellow LED not illuminated). The output relay is triggered in the ratio 1:1 until the supply voltage is interrupted.

## Connection

### MFT SU22S

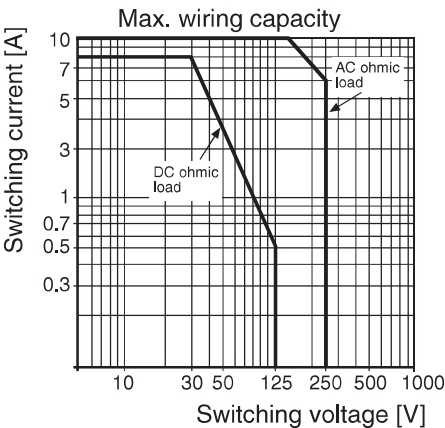


### MFT SU22P



## Load limit curves

### MFT SU22S, MFT SU22P



## Dimensions

