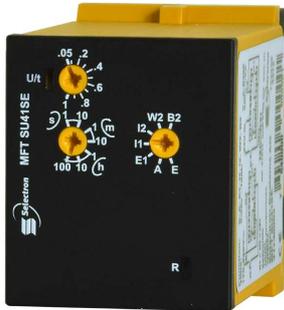


Multifunction time delay relay with external potentiometer

MFT SU41SE



MFT SU41SE

- **7 Functions, 7 time ranges**
- **Multivoltage:**
24 VAC/DC
110 ... 240 VAC
- **2 output contacts**

Functions

- E** Delay on
- A** Delay off without auxiliary voltage
- E1** Delay on with control contact
- I1** Pulse limitation timer voltage control
- I2** Pulse extension with control contact
- W2** Wiping on trailing edge
- B2** Cycling timer starting on a pause

Time end ranges

Adjustment range 0,05 s ... 100 h

Output relay

1 change over and 1 closing contact potential free
250 Vac 5 A units close together, 8 A units not close together

Indicators

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

Connecting voltage

- 24 VDC $\pm 10\%$
- 24 VAC -15% ... +10%
- 110 ... 240 VAC -15% ... +10%

Reference data

Selectron® MFT	Article no.
MFT-SU41SE	41140004
(Order data see chapter 1)	

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Technical data	
Nominal consumption	
24 VAC/DC	0.8 VA / 0.6 W
110 VAC	2.4 VA / 0.6 W
240 VAC	19 VA / 1.1 W
Control contact / Voltage controlled	
Parallel switching of loads possible	
Parallel minimum load	1 VA or 0.5 W
Voltage dependence:	The potential between connections 2 and 5, resp. 7 and 5, must cover 90% of the supply voltage
Connecting length between connections 10 and 5:	10 m or capacity <10 nF
Resistance	>1 M Ω (contact K2 open)
Rest current at parallel load:	approx. 2 mA at contact K2 open
External Potentiometer 1 M Ω	Voltage on contact 6 and 8 24 VAC/DC resp. 110 ... 240 VAC Line length max. 5m (twisted pair)
Control pulse length	DC min. 50 ms AC min.100 ms
Accuracy	
Base accuracy	$\pm 5\%$ of scale limit
Repeatability	
of the scale limit at constant conditions	$\pm 5\%$ or ± 100 ms
Adjustment accuracy	<5% of scale limit
Temperature influence	$\leq 0.05\%$ / $^{\circ}\text{C}$
Reaction times	
Operating return time K1	max. 60 ms / 30 ms
Reaction time K2	max. 30 ms
Min. pulse/pause time K2	AC 50 ms / DC 50 ms
Recovery time	max. 100 ms

Type key

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

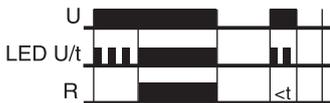
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Function descriptions

E - Delay on

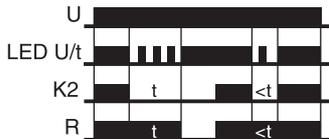
When the supply voltage U (K1 closed) is applied, the set interval t begins (green LED U/t flashes). After the interval t



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.

A - Delay off

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

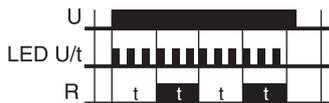


When the control contact K2 is closed, the output relay R switches into on-position (yellow LED illuminated). If the control contact K2 is opened, the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (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.

B2 - Cycling timer starting on a pause

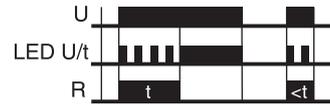
When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired, the output relay R switches into on-position



(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.

I1 - Pulse limitation timer voltage control

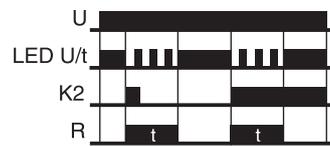
When supply voltage U (K1 closed) is applied, the output relay R switches into on-position (yellow LED illuminated) and the set interval t begins (green LED



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.

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



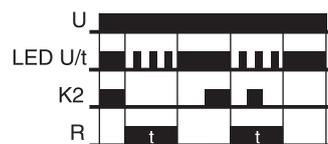
output relay R switches into on-position (yellow LED illuminated) and the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated).

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



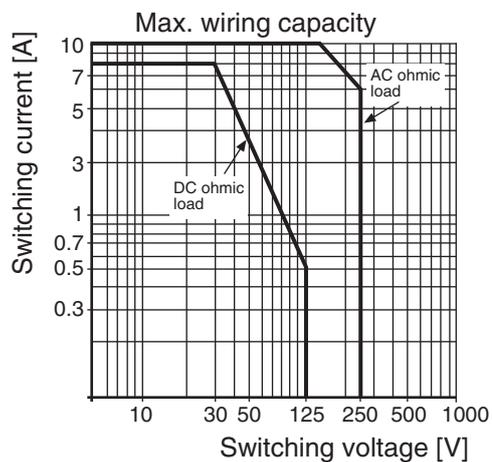
condition of the output relay R. When the control contact K2 is opened, the output relay switches into on-position (yellow LED illuminated) and the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated), the output relay switches into off-position

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Load limit curves

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Dimensions

