

## RELAYS

# MULTIFUNCTION, MULTIVOLTAGE TIMER // ECONOMY MFT

Multifunction, Multivoltage Timer assembly and installation should only be carried out by a suitably qualified person. The applicable national regulations must be complied with.

### General Characteristics

Standards	EN 60947-5
Number of poles	1CO
Contact material	AgNi
Rated Current	16A
Rated Voltage	300V
Supply Voltage	24 - 240 V AC/DC
Control circuit max cable length	10m
Control circuit min pulse time	50ms DC; 100ms AC
Coil tolerance	85 - 110 %
Reset time	100 ms
Mechanical life	20 000 000 ops
Electrical life	200 000 ops
Terminal Capacity	up to 2.5mm <sup>2</sup>
Terminal type	Screw Clamp
Tightening Torque	0.7 Nm
Width	17.5mm
Height	90mm
Depth	64mm
Weight	0.072Kg

### Timer Functions

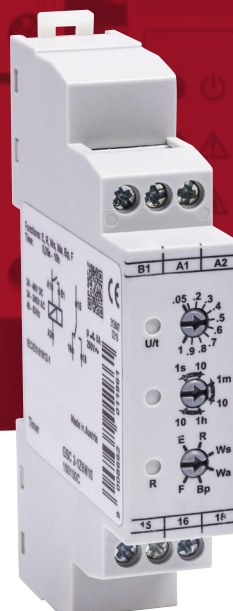
E	ON delay
R	OFF delay with control contact
Ws	Single shot leading edge with control input
Wa	Single shot trailing edge with control input
F	Flip Flop
Bp	Flasher pause on start

### Time Ranges

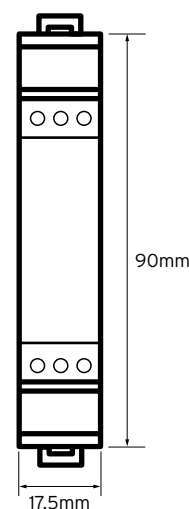
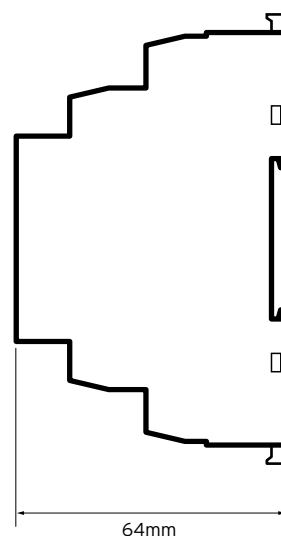
Minimum	Maximum
50ms	1s
500ms	10s
3s	1min
30s	10min
3min	1hour
30min	10hour
5hour	100hour

### Additional Information

This product is for use by skilled persons or instructed persons. The installation of this product must comply with current IEE regulations. Terminals, including those factory fitted, must be checked for correct tightness before commissioning. All terminals should be periodically checked for correct tightness. The data herein serves only to describe the product and should not be regarded as representing guaranteed properties in the legal sense. We reserve the rights of modification, whilst every care has been taken in ensuring the accuracy of this catalogue, the Supplier accepts no liability whatsoever for any eventuality arising from errors or omissions within its catalogues, brochures or within any online presence.



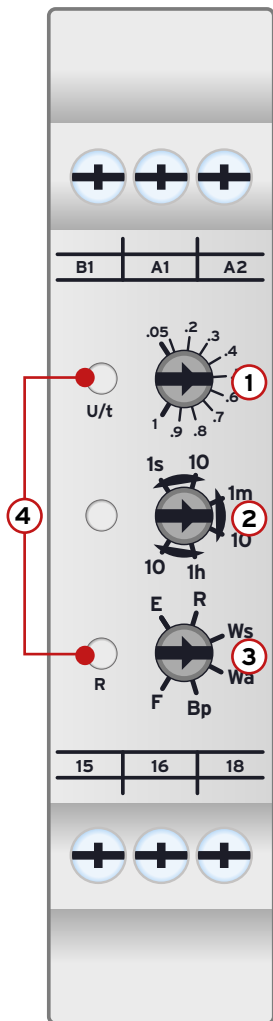
### Technical Drawing



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### Functions



① Fine adjustment

② Setting of time range

③ Selection of the desired function

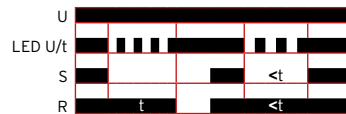
④ Status indication  
U/t: LED Green - supply voltage applied  
R: LED Yellow - relay is active

#### E - ON Delay



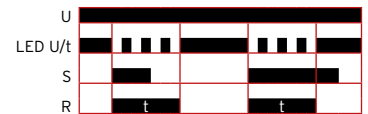
When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired (green LED U/t illuminated) the output relay R switches into on-position (yellow LED illuminated). This status remains until the supply voltage is interrupted. If the supply voltage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

#### R - OFF Delay



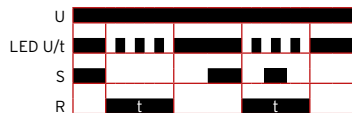
The supply voltage U must be constantly applied to the device (green LED U/t illuminated). When the control contact S is closed, the output relay R switches into on-position (yellow LED illuminated). If the control contact is opened, the set interval t begins (green LED flashes). After the interval t has expired (green LED U/t illuminated) the output relay switches into off-position (yellow LED not illuminated). If the control contact is closed again before the interval t has expired, the interval already expired is erased and is restarted.

#### Ws - Single Shot Leading Edge with Control Input



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 (green LED U/t 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 can be operated any number of times. A further cycle can only be started when the cycle run has been completed.

#### Wa - Single Shot Trialling Edge with Control Input



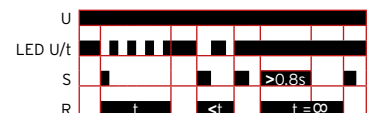
The supply voltage U must be constantly applied to the device (green LED U/t illuminated). Closing the control contact S has no influence on the condition of the output R. When the control contact is opened, the output relay switches into on-position (yellow LED illuminated) and the set interval t begins (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 can be operated any number of times. A further cycle can only be started when the cycle run has been completed.

#### Bp - Flasher Pause First



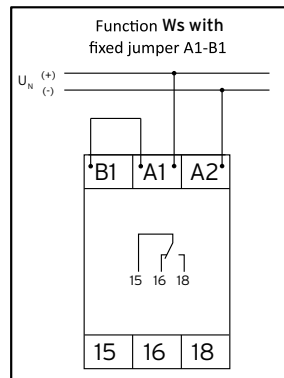
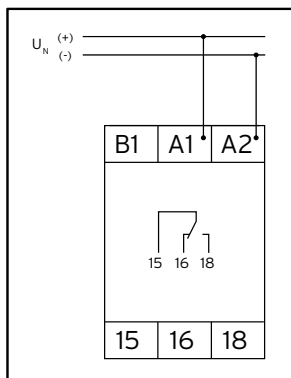
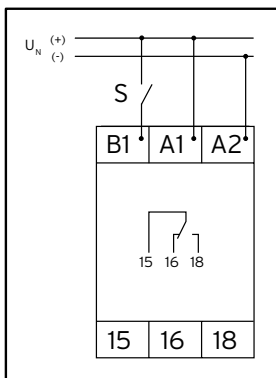
When the supply voltage U is applied, the set interval t begins (green LED U/t flashes). After the interval t has expired, the output relay R switches into on-position (yellow LED illuminated) and the set interval t begins again. After the interval t has expired, the output relay switches into off-position (yellow LED not illuminated). The output relay is triggered at a ratio of 1:1 until the supply voltage is interrupted.

#### F - T-Flip Flop (Toggle)



A permanent supply is required. Control switch 'S' controls the timers function. Closing control 'S' energises R for the set time period. If switch 'S' is pulsed during that timing period it will have no effect on relay 'R'. However when 'S' is applied for >0.8 sec 'R' will energise and hold in until 'S' is applied again. Closing and then re-opening 'S' will repeat the timing operation after the completion of the timing period.

### Connection Diagram



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