

Description

The MTR30 timer relay combines a well-proven mechanical contact system with the flexibility of an electronic timer. As a replacement for standard automotive relays, the MTR30 provides a possibly missing ON or OFF delay.

The MTR30 timer relay can be adjusted on site by means of a position switch with 10 positions and a potentiometer on the housing top with a small screw driver. Depending on the version ordered, the 10 positions of the position switch are assigned different functions and time windows. The exact time window can be adjusted with the potentiometer.

The MTR30 is suitable for standard automotive relay sockets according to ISO 7588 (ISO Mini).

Applications

The MTR30 timer relay is available for DC 12 V and DC 24 V applications.

Typical applications:

- Passenger cars
- Trucks
- Buses
- Construction machinery and emergency cars

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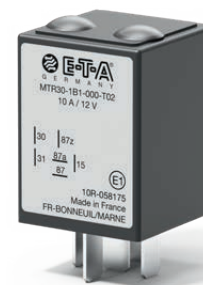
- Control of pumps, valves, lamps or motors, which are meant to overtravel or stay open for a defined time period.
- Coordinated, sequential switch-on of loads to avoid load peaks (e.g. with fans).

Benefits

- The MTR30's design ensures reverse polarity protection and is supplied with roughly pre-set timer settings. This saves time and avoids errors in production.
- The MTR30 easily provides any vehicle with ON and OFF delay without changing the controlgear software. It is sufficient to replace the standard relay by the MTR30 in the power distribution system.
- The high flexibility of the MTR30 timer relay eliminates the need of additional timer relays. Complexity of stock keeping and related costs are cut drastically.

Qualifications

Degree of protection	IP50
Noise immunity	95/54 EG & DIN 40839
E1 number	upon request.

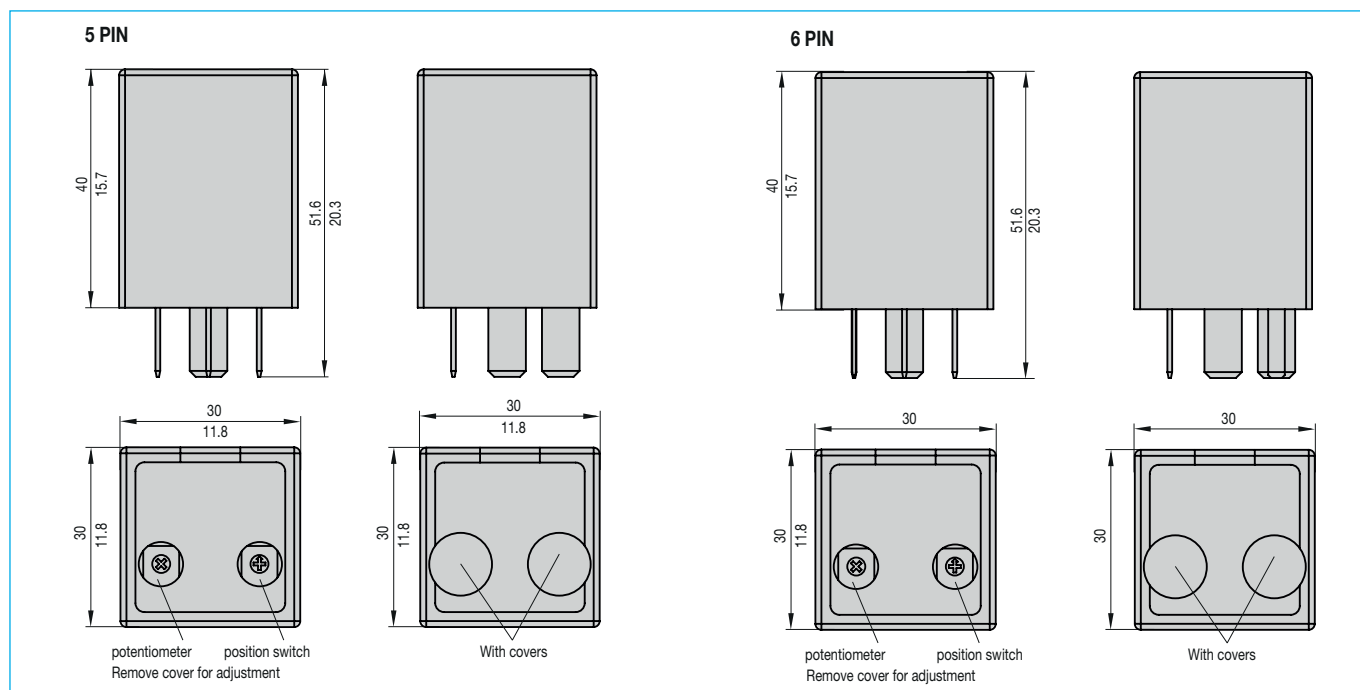


MTR30

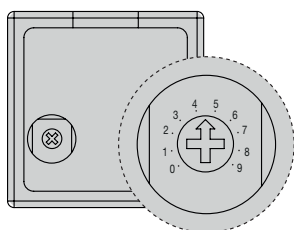
Technical data (25 °C)

Rated voltage	12 V	24 V
Operating voltage	9 V ... 15 V	18 V ... 30 V
Quiescent current	<10 mA	
Tolerance	5 %	
Time range	selection via order numbering key	
Response time	< 100 ms	
Switching time ON	typically 10ms	
Switching time OFF	typically 5ms	
Operating temperature	-40 °C ... -85 °C	
Typical life at rated current	100,000 cycles	
Mass	30 Gramm	
Dimensions (lxwxh)	30 mm x 30 mm x 40 mm	
Materials		
Blade terminals	A 6.3 x 0.8 DIN 46 244 CuZn 37 F37	
Housing material	PA6GF	
Output	change-over contact	
Continuous current	10 A	
	30 A upon request	

Dimensions

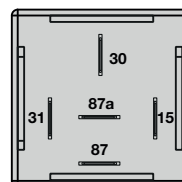


Enlarged view of position switch

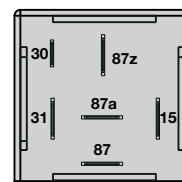


Pin assignment

Type A, C, D

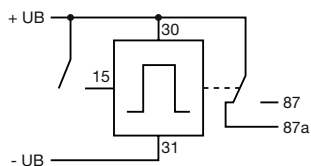


Type B

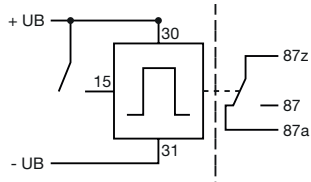


Schematic diagram / Pin assignment / Positive actuation

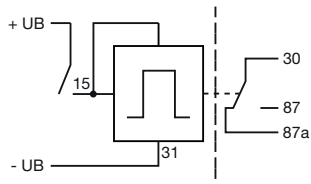
Type A
5 pins



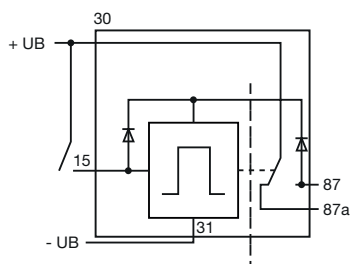
Type B
6 pins



Type C
5 pins

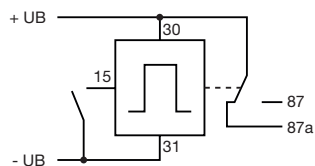


Type D
5 pins

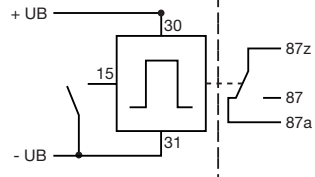


Schematic diagram / Pin assignment / Negative actuation

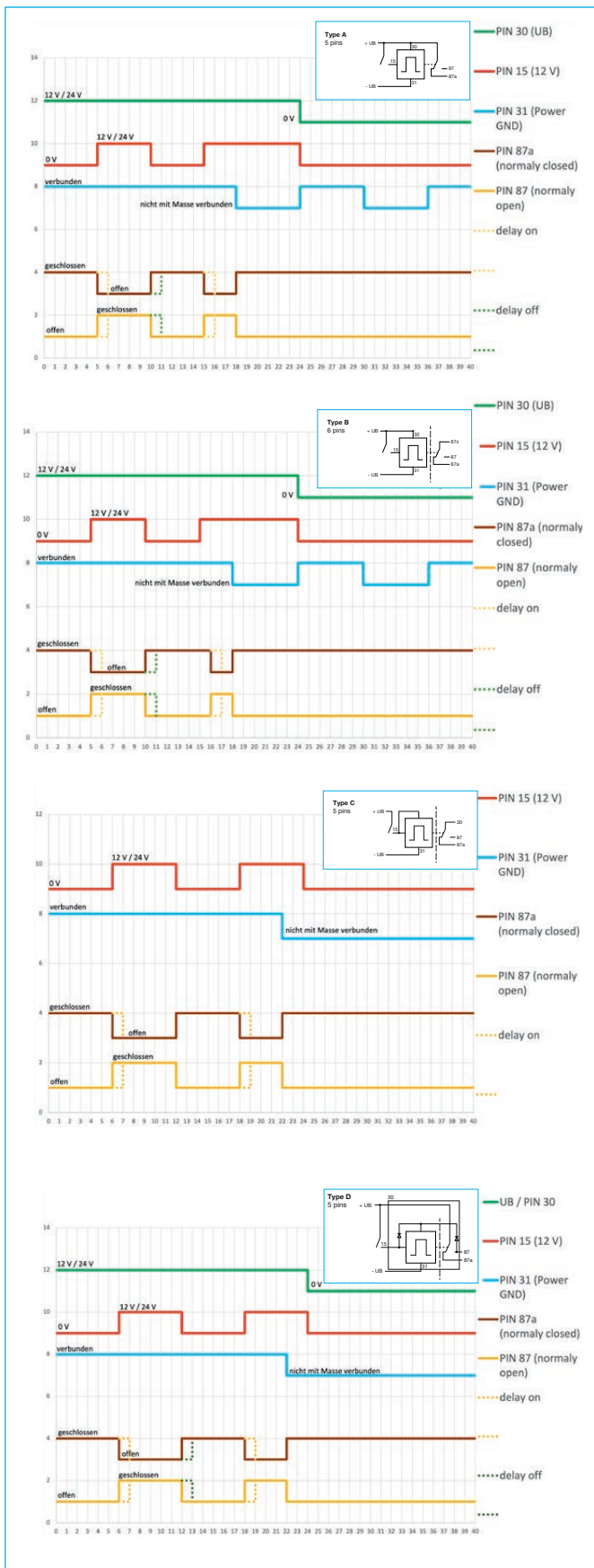
Type A
5 pins



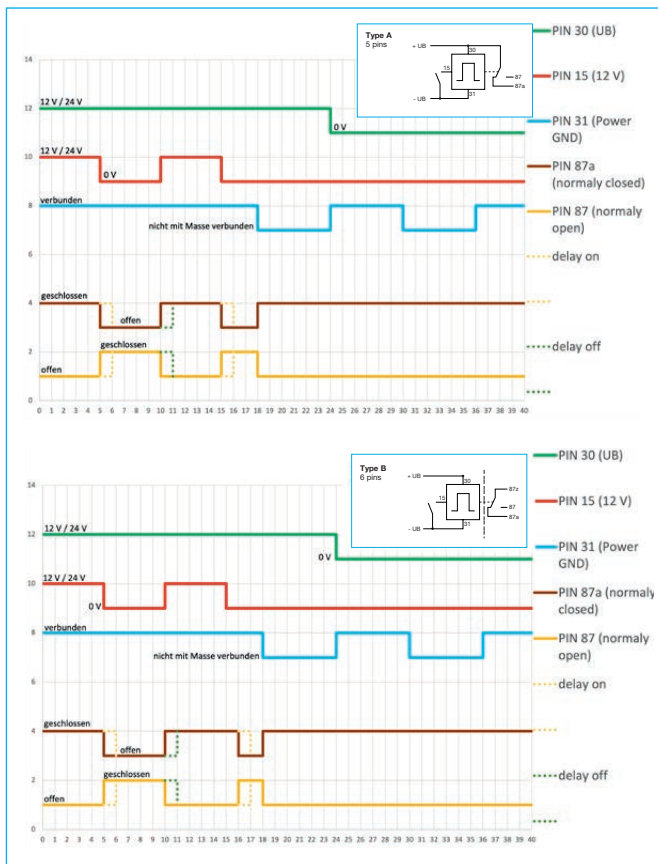
Type B
6 pins



Status chart / actuation level positive



Status chart / actuation level negative



Ordering number code

Type No.

MTR30 Mechanical timer relay

Operating voltage

1 12 V

2 24 V

Function / pin assignment

A Type A

B Type B

C Type C (no OFF delay available)

D Type D

Option 1

0 Actuation - Actuation level positive voltage and retro-triggerable (not available for type C)

1 Actuation - Actuation level by way of mass and retro-triggerable (not available for type C or type D)

2 Actuation - Actuation level positive voltage not retro-triggerable

3 Actuation - Actuation level by way of mass not retro-triggerable (not available for type C or type D)

Option 2

0 without

Option 3

0 without

Option 4

0 without

Function / time window

T You can choose between 10 different settings (functions and time windows) via position switch

Settings

01 Position 0 OFF delay 0.5 sec...10 sec
Position 1 OFF delay 5 sec...60 sec
Position 2 OFF delay 0.5 min...10 min
Position 3 OFF delay 5 min...60 min
Position 4 OFF delay 0.5 hrs...6 hrs
Position 5 ON delay 0.5 hrs...6 hrs
Position 6 ON delay 5 min...60 min
Position 7 ON delay 0.5 min...10 min
Position 8 ON delay 5 sec...60 sec
Position 9 ON delay 0.5 sec...10 sec

No off delay available for type C

02 Position 0 OFF delay 0.5 sec...3 sec
Position 1 OFF delay 2 sec...12 sec
Position 2 OFF delay 5 sec...30 sec
Position 3 OFF delay 20 sec...120 sec
Position 4 OFF delay 0.5 min...3 min
Position 5 OFF delay 3 min...12 min
Position 6 OFF delay 5 min...30 min
Position 7 OFF delay 20 min...120 min
Position 8 OFF delay 0.5 hrs...3 hrs
Position 9 OFF delay 2 hrs...12 hrs

No off delay available for type C

03 Position 0 OFF delay 0.5 sec...3 sec
Position 1 ON delay 2 sec...12 sec
Position 2 ON delay 5 sec...30 sec
Position 3 ON delay 20 sec...120 sec
Position 4 ON delay 0.5 min...3 min
Position 5 ON delay 3 min...12 min
Position 6 ON delay 5 min...30 min
Position 7 ON delay 20 min...120 min
Position 8 ON delay 0.5 hrs...3 hrs
Position 9 ON delay 2 hrs...12 hrs

MTR30 - 2 A 0 - 0 0 0 - T 01 Ordering example

Ordering number code

MTR30 - 2 A 0 - 0 0 0 - T 01 Ordering example

04 Position 0 ON delay 0 min...1 min
Position 1 ON delay 1 min...5 min
Position 2 ON delay 5 min...15 min
Position 3 ON delay 15 min...30 min
Position 4 ON delay 30 min...1 hr
Position 5 ON delay 1 hr...2 hrs
Position 6 ON delay 2 hrs...3 hrs
Position 7 ON delay 3 hrs...4 hrs
Position 8 ON delay 4 hrs...5 hrs
Position 9 ON delay 5 hrs...6 hrs

05 Position 0 OFF delay 0 min...1 min
Position 1 OFF delay 1 min...5 min
Position 2 OFF delay 5 min...15 min
Position 3 OFF delay 15 min...30 min
Position 4 OFF delay 30 min...1 hr
Position 5 OFF delay 1 hr...12 hrs
Position 6 OFF delay 2 hrs...3 hrs
Position 7 OFF delay 3 hrs...4 hrs
Position 8 OFF delay 4 hrs...5 hrs
Position 9 OFF delay 5 hrs...6 hrs

Current rating

10 A

MTR30 - 2 A 0 - 0 0 0 - T 01- 10 A Ordering example