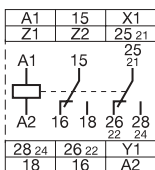


Multifunction timer MFS timetron® with relay output



- 10 time ranges from 0.05 s ... 300 h covered by one unit
- 2 SPDT contacts, 2nd SPDT contact switch as instantaneous function
- Continuous voltage range from 24 to 240 V AC/DC
- Controllable by 3-wire proximity switch
- Suitable for connection of a remote potentiometer
- Elapse timer storage
- 3 LEDs to display operational status

10 time ranges in one unit

1	0.05 - 1 s*	6	15.0 - 300 s
2	0.15 - 3 s*	7	1.50 - 30 min.
3	0.50 - 10 s	8	15.0 - 300 min.
4	1.50 - 30 s	9	1.50 - 30 h
5	5.00 - 100 s	10	15.0 - 300 h

* In this time range no flashing of the green LED while timing.

Technical data

Input circuit

Supply power - power consumption	A1-A2	24...240 V AC/DC - 2...2.5 VA / W
Tolerance of the supply voltage		-15 % ... +10 %
Control contact connections	Y1-Z2 X1-Z2	external timer start timer stop, time storage
Voltage supplied at the control contacts		Voltage supplied internally; no external supply required
Minimum controller pulse length		20 ms
Floating voltage at the control contacts		10...40 V DC
Maximum switching current in the control circuit		< 1 mA
Maximum cable length to the control inputs		50 m
Remote potentiometer connection	Z1-Z2	50 kΩ
Maximum cable length to the remote potentiometer		25 m shielded, shield connected to Z2
Duty time		100 %
Timing circuit		
Time ranges		0.05 s ... 300 h
Recovery time		< 50 ms
Repetitive accuracy (constant parameters)		< 0.2 %
Timing error within the tolerance of supply voltage		< 0.008 % / % ΔV
Timing error within temperature range		< 0.07 % / °C

Display of operational status

Supply voltage/ timer	LED green steady / flashing while timing
1st output relay energized	LED red
2nd output relay energized	LED red

Output circuit

Rated voltage	VDE 0110, IEC 947-1	250 V
Rated switching voltage		250 V AC
Rated switching current	AC 12 (resistive)	4 A (at 230 V)
Rated switching current	AC 15 (inductive)	3 A (at 230 V)
Rated switching current	DC 12 (resistive)	4 A (at 24 V)
Rated switching current	DC 13 (inductive)	2 A (at 24 V)
Maximum mechanical life		30 x 10 ⁶ operations
Maximum electrical life (to AC 12 / 230 V / 4 A)		1 x 10 ⁶ operations
Short-circuit proof, max. fuse rating		10 A / fast, operating class gL

General data

Rated impulse withstand voltage V _{imp}	4 kV
Operating temperature	-25°C ... +65°C
Storage temperature	-40°C ... +85°C
Installation position	any
Mounting of DIN rail (EN 50022)	Snap-on mounting/ Screw mounting by adapter
Wire size stranded with wire end ferrule	2 x 14 AWG (2 x 2.5 mm ²)
Weight	approx. 5.3 oz (150 g)

Operation

This multifunction timer replaces many single function timers. It reduces service time, maintenance time, and inventory by providing selectable functions, voltages, and timing ranges in one unit.

Only 22.5 mm wide, it is a compact module that has universal application.

Eight functions can be selected using a rotary switch which displays an international symbol for every function; e.g. for "delay on operate."

The 10 time ranges from 0.05 sec. to 300 hrs. are also selected using a rotary switch. The time range is indicated on a front face window display.

A desired time value is then set using a built-in potentiometer with a direct reading absolute scale. When an external potentiometer is used for control purposes, the timer's internal logic detects the external control input and automatically disengages the internal control.

Timing is displayed by a flashing green LED.

A timer for service and maintenance purposes must be suitable to replace a large variety of timers featuring various functions, voltage and time ranges. Simple and reliable setting is also essential to minimize machine and installation downtime.

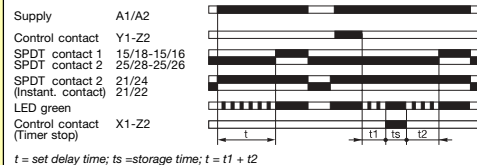
Dimensions (W x H x D): 22.5 x 78 x 100 mm

■ Approvals:

Supply voltage	P/ N:
24...240 V AC/DC	2 430 010 02
Accessories	P/ N:
Remote potentiometer	3 701 800 10
Sealable transparent cover	3 430 005 01
Adapter for screw mounting	3 440 029 01

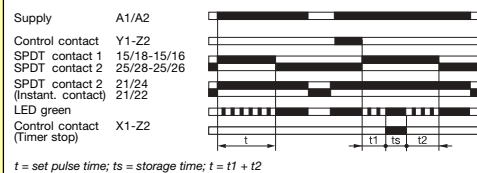
8 Functions

= Delay on operate



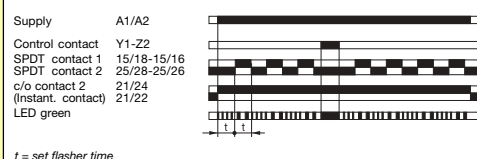
t = set delay time; ts = storage time; t = t1 + t2

= Single pulse on operate



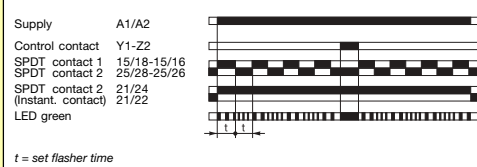
t = set pulse time; ts = storage time; t = t1 + t2

= Flasher, starting on "OFF"



t = set flasher time

= Flasher, starting on "ON"



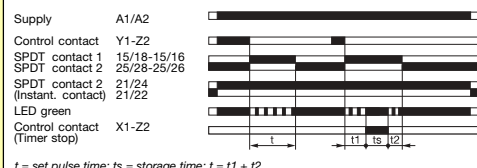
t = set flasher time

= Delay on release



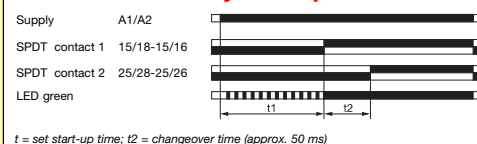
t = set delay time; ts = storage time; t = t1 + t2

= Single pulse on release



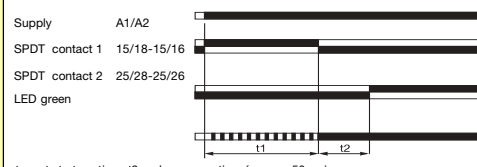
t = set pulse time; ts = storage time; t = t1 + t2

= Star-delta changeover twice delayed on operate



t = set start-up time; t2 = changeover time (approx. 50 ms)

= Star-delta changeover with wiper function



t = set start-up time; t2 = changeover time (approx. 50 ms)

Accessories: See Accessories page at end of section.