

Recycling (Pulse Generator)

TGS timetron®

with relay output



- Flashes with **individually adjustable** ON and OFF times
- Can start in "ON" and "OFF" mode
- 10 time ranges from 0.05 s ... 300 h covered by one unit
- 1 SPDT contact
- 2 Remote potentiometers connectable
- Timer stop/time storage
- 2 LEDs to indicate operational status

10 time ranges in every 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 range no flashing of the green LED while timing.

Technical Data

Input circuit

Supply voltage - power consumption	B1-A2	24 V AC/DC	-	approx. 0.6 VA / W
	B2-A2	42...48 V AC/DC	-	approx. 1.5 VA / W
	A1-A2	110...240 V AC	-	approx. 1.8...9 VA

Tolerance of the supply voltage	-15 % ... +10 %
Supply voltage frequency	50...60 Hz
Control contact connections	starting with "ON"
not electrically isolated from supply	X1-Z2 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	50 kΩ Z1-Z2 set "OFF" time 50 kΩ Z3-Z2 set "ON" time
Maximal cable length to the control inputs	25 m shielded, shield connected to Z2
Duty time	100 %

Timing circuit

Time range	0.05 s ... 300 h
Recovery time	< 50 ms
Repetitive accuracy (constant parameters)	< 0.2 %
Timing error within the tolerance of the 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
Output relay energized	LED red

Output circuit

Output relay energized	15-16/18	Relay, 1 SPDT contact
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	-20°C ... +60°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)
Dimensions (W x H x D)	22.5 x 78 x 100 mm
Accessories	See Accessories page at end of section

Operation

ON and OFF times ranging from 50 ms ... 300 h can be set independently. The time ranges are set by two rotary switches. The desired time values are set by two built-in potentiometers with direct reading scales. Remote setting can be done by 2 remote potentiometers. When connecting external potentiometers the internal potentiometer is automatically switched off.

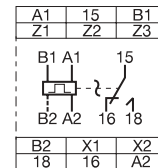
By using an external jumper for X2/Z2, the function can be programmed from "starting on "OFF" to "starting on "ON"". The relationship of internal and external potentiometers remains unchanged.

By closing the control contact X1/Z2, the timing for ON and OFF can be stopped. The time value is stored. By opening the contact again, the timer continues from this stored value.

This function can be repeated as often as required.

■ Approvals:

After connecting supply power to the B1 and A2 B2 and A2 or A1 and A2 terminals the TGS starts to work with an ON or OFF cycle. The ON or OFF clock is displayed by a flashing green LED.



1 Function

