

Operating Instructions

Multi-functional Digital Programmable Timer

Ref: v.2/0620

SDT-20-1C

- Up to 20 on-off or pulse programmes (including weekly cycle, daily cycle and manual on-off control)
- Countdown function time range setting within 1 sec. to 99min. 59sec.
- Daylight saving manual adjustment
- Integral lithium battery backup in case of power failure
- Designed for use with TS35 DIN Rail
- Viewable accumulated operating time and action number

Technical Data

85-265VAC Rated Operating Voltage: 50-60Hz Frequency Range: Number of On-Off Programmes: 20: minimum 1 min **Number of Pulsation Programmes:** 20: 1sec. - 59min. 59sec. **Resistive Load** 16A / 250V AC COS φ=1 10A / 250V AC COS φ=0.6 Inductive Load Filament/Halogen 2600W Lamp 230V Contact Load **Energy Saving Lamp** 170W Capacity: LED Lamp <2W LED Lamp 2-8W 100W LED Lamp >8W 120W Flourscent Lamp 650W Countdown Time: 1 sec. to 99min. 59sec

Contact resistance ≤100mΩ between contacts: Insulation resistance ≤100mΩ between contacts: Timing Error: ≤ ±2sec. / day (25°C) Power failure memory: 3 years Contact Form: 1 group conversion **Consumed Power:** ≤3VA

10⁵ times

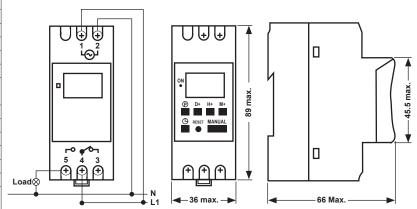
35 to 85% RH

-10 to +60°C

Approx. 130g

-10 to +50°C (non-icing)

Wiring Diagram & External Dimensions (mm)



Instructions for Use

Electrical Life:

Mechanical Life

Weight:

Operational Temperature: Ambient Humidity:

Storage Temperature:

In order to clear any existing settings, press "RESET". By pressing "D+" and "H+" at the same time for 3 seconds, the product will switch off and all previous settings will be lost, with the exception of day correction paramemters, accumulated operating times and action times, which are all retained by the unit.

1. Setting the display time (current time)

Step	Button	Programming
1	Hold ⊕ and then press H+	HOUR increases on the screen. To increase hours further, continue pressing H+
2	Hold ⊕ and then press M+	MINUTE increases on the screen. To increase minutes further, continue pressing M+
3	Hold ⊕ and then press D+	Indicator for DAY of week moves on the screen. To change the week selected, continue pressing D+

NOTE: The timer operates on a 24 hour system when initially turned on. Hold " 🕒 " for 5 seconds to convert to 12 hour system with "AM" displayed on the upper left corner. Hold " 9 "for 5 seconds again to revert back to 24 hour system. "AM" does not display in 24 hour system.

2. Timing Settings

2.1 20 Group Settings of ON/OFF Function

Step	Button	Programming
1	Press ®	To enter programming ON mode (displays 1 ON)
2	Press H+ & M+	To set the ON time, press H+ to set the hour, and press M+ to set the minute
3	Press D+	To select the day settings: MO-FR; MO-SA; SA-SU; MO-WE; TH-SA; MO WE FR; TU TH SA If the same time is required on every day, do not press D+ , and skip this step instead
4	Press P	To enter programming OFF mode (displays 1 OFF)
5	Press H+ & M+	To set the OFF time, press H+ to set the hour, and press M+ to set the minute
6	Press D+	To select the day settings: MO-FR; MO-SA; SA-SU; MO-WE; TH-SA; MO WE FR; TU TH SA If the same time is required on every day, do not press D+ , and skip this step instead
7	Repeat steps 1-6	Set the ON/OFF time for 2nd to 20th groups, or press

a: The ON/OFF program group can not overlap another time setting.

2.2 20 Pulsation Function Settings

Step	Button	Programming
1	Press & hold H+ & M+ for 3 secs.	To enter pulse width programming mode (displays 0:00 and "P")
2	Press H+ , M+ & 🕒 at same time	To set the pulse width: min / sec (max. 59 mins. 59 secs)
3	Press (9) and MANUAL	To complete the pulse width setting. "P" flashes on the screen
4	Press ®	To enter pulsation timing programming ON mode (displays 1 ON). Press again for second pulse time
5	Press H+ & M+	To set the ON time, press H+ to set the hour, and press M+ to set the minute
6	Press D+	To select the day settings: MO-FR; MO-SA; SA-SU; MO-WE; TH-SA; MO WE FR; TU TH SA If the same time is required on every day, do not press D+ , and skip this step instead
7	Repeat steps 4-6	Set the pulsation time of the 2nd to 20th groups, or press ① to exit programming mode
	Press both H+ & M+	To exit the pulsation programming mode. The "P" will not display on the screen.

a: When the programming is complete, press ② to view the set number of pulsation groups and the On and Off timings. To modify, follow the steps mentioned above. b: Press ③ to enter the pulsation programming mode. Press MANUAL to clear the pulsation time of the current group, which will then display "--:--"

2.3 Countdown Function Settings

Step	Button	Programming
1	Press & hold	To enter countdown programming mode (displays 0:00 and "d" in bottom left corner)
2	Press H+ , M+ & 🕒 at same time	To set the minutes & seconds of countdown respectively (duration range: 1sec. to 99mins. 59secs.)
3	Press MANUAL	Start the countdown function
4	Press ®	Halfway reset and wait to restart the countdown again
5	Press & hold	To exit the countdown programming mode. The "d" will not display on the screen.

3. Manual Daylight Saving Time (DST) Time Settings

Step	Button	Programming
Setting	Hold D+ and M+ for 3 secs.	The current displayed time will increase by 1 hour ("1h" will display at bottom left corner of screen)
Cancel	Hold D+ and M+ for 3 secs. again	DST will be cancelled and time will revert back one hour

NOTE: This setting will only affect the current displayed time. The ON/OFF timing program or pulsation remains unchanged. If the ON/OFF program needs to run according to DST, set it in the initial programming mode.

Troubleshooting

1. Automatic Correction of Daily Time Error

Step	Button	Programming
1	Press both MANUAL & ®	To enter Time Correction screen, and will display: 1d-00 (range setting: -3 to +3 secs)
2	Press D+	Set the number of seconds required for daily compensation. Increases or decreases in 1 second intervals
3	Press (9	To save setting and exit Time Correction screen

2. Control ON or OFF Manually - PRESS "MANUAL"

Screen Display	Work State
ON AUTO	Automatic control in the ON state
AUTO OFF	Automatic control in the OFF state
ON	Permanent ON and not controlled by timer
OFF	Permanent OFF and not controlled by timer

3. Check Accumulated Operating Times & Action Number

a: Hold M+ and MANUAL to display the operating time (h) and the action number (p) circularly.

To calculate the actual operating time and action number, multiply the displayed values by 10 (max. 99990h & 99990t).

For example: "h0013" and "p0021" refer to accumulated operating time of 130 hours and an action number of 210 times.

b: Release M+ and MANUAL to return to the clock interface.

PLEASE NOTE:

- Please do not use in environment where the product will come into direct contact with dust, corrosive gas, direct sunlight or rain.
- Please store product and use within the conditions of rated voltage, within the specified temperature and humidity ranges.

b: When the programming is complete, press [®] to view the set number of ON/OFF groups and the On and Off timings. To modify, follow the steps mentioned above.

c: Press (2) to enter the ON/OFF programming mode. Press MANUAL to clear the ON or OFF time of the current group, which will then display "----"