

# SINGLE MODULE DIGITAL PROGRAMMABLE TIME SWITCH

**TYPE: FOX.TSD-1**

## FEATURES

- Din rail mounting, single module width
- Weekly or daily programmable
- 6 ON & 6 OFF programmes
- Manual override
- Block programmable
- 100 hour battery backup
- 1NO contact output, rated 16 Amps resistive
- Choice of auxiliary supply voltages 24VDC, 24VAC, 110VAC, 230VAC

## DESCRIPTION

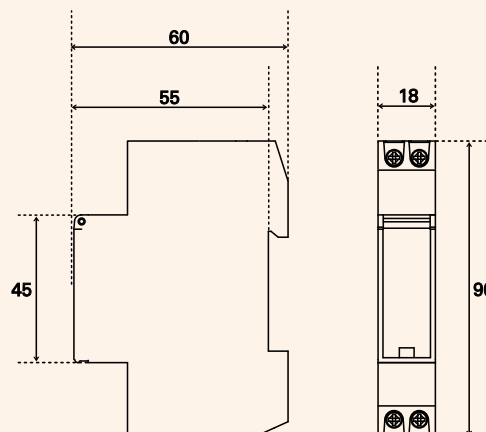
A Din rail mounted single module width, (18mm), programmable digital time switch. Designed for the more simple applications, but still with 6 "ON" and 6 "OFF" programmable times that can be if desired "blocked" up for multiple days, which then only counts as one instruction. The time switch can be utilised for both daily and weekly applications. The contact output is a single **Normally Open** volt free contact rated at 16 Amps / 230VAC resistive or 2 Amps inductive. The time switch has a simple but clear LCD display and the programming buttons are discretely behind a hinged lift up front, which has the option to be sealed shut. A battery backup of 100 hours will hold the programme in the event of an auxiliary supply failure and a manual override is also featured. A choice of auxiliary supply voltages are available 24VDC, 24VAC, 110VAC and 230VAC.

## SPECIFICATIONS

Number of channels:	1
Auxiliary supplies:	24VDC, 24VAC, 110VAC, 230VAC
Output contact:	1NO
Contact rating:	16 Amps / 230VAC (resistive) 2 Amps / 230VAC (inductive)
Shortest switching:	1 minute
Accuracy:	± 2.5 seconds per day
Programme:	Max 6 "ON" & 6 "OFF" Can be "BLOCK" programmed
Display:	LCD with 4mm high characters
Battery reserve:	100 hours
Manual override:	Yes
CE marked:	Yes
Terminals:	2.5mm <sup>2</sup> max
Dimensions mm:	90H x 18W x 55D



## DIMENSIONS



## ORDERING INFORMATION

TYPE	SUPPLY VOLTAGE
FOX.TSD-1	24VDC, 24VAC, 110VAC, 230VAC* (*specify)

See over for installation and programming instructions

## Installation/Operating Instructions for Din Rail Mounting

### Digital Time Switch Type: FOX.TSD-1

## SPECIFICATIONS

No. of channels	1
Contact rating	16A, 230V AC 2A Inductive volt free switching
Min switching time	1 minute
Capacity	6 programme blocks
Voltage supply	24VDC, 24VAC, 110VAC, 230VAC
Mains frequency	50Hz
Possible settings	Clock time, time on / time off, days of week, block programme
Display	LCD figures 4mm High
Deviation	2.5 seconds per day
Reserve	100 hours
Manual switch	Yes
Mounting	DIN rail mounted
Connections	2.5mm <sup>2</sup> max Width 18mm (1 module), projection from DIN rail 55mm, height 90mm
Size	

## IMPORTANT

**This unit should be installed by a competent person in accordance with the IEE Wiring regulations. If in doubt consult a qualified electrician.**

- Before connecting the timer to the supply, check that the supply voltage and frequency correspond to the rating plate (on side of timer).
- Do not overload. Refer to the Ampere rating (Amps) on the rating plate.
- Do not expose the timer to extremely high or low temperatures. Do not place the timer in direct sunlight.
- Do not allow the timer to come into contact with water.
- If the time switch is mounted near equipment where heat produced raises the local ambient temperature above 55°C, then a ½ module space (9mm) should be left between the time switch and the equipment.
- If used to operate a contactor, then a 1 module space should be left between timer and contactor.

## INSTALLATION

- This timer is designed to be DIN rail mounted.
- Ensure that the supply voltage is connected to terminals 1 and 2.
- Terminals 3 and 4 are volt free contacts. Live in goes to terminal 3 and Live out goes to load.
- There is no neutral switching with the FOX.TSD-1, ensure that maximum loading is not exceeded.

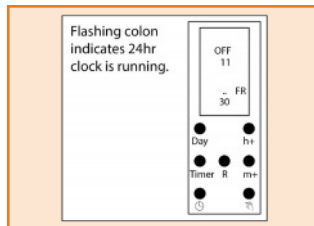
## HOW TO OPERATE

When the timer is new or when it has not been used for some time it may need to be "charged". To do this, connect the power. The built-in rechargeable battery will begin to charge. When symbols appear in the display (after approx. 2 minutes), press the "R" reset button (use a pencil or pen). **Caution:** this will cancel all memory including timer settings. The timer will be 'clean' for new commands. If a power failure should occur (or should the timer be disconnected from the power supply for a short time), the built-in rechargeable battery will then provide power to the clock and guarantee that the time and switching programmes are retained and not disturbed or lost.

## HOW TO SET 24 HOUR CLOCK

### Present time and day

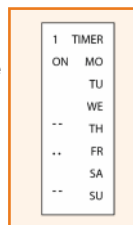
- Keep button pressed during the entire "present time and day" setting procedure.
- Set the present time using buttons "h+" (hour) and "m+" (minute). If you keep buttons "h+" and "m+" pressed for longer than a second the figures in the display will scroll continuously. Set the present day of the week using button "Day".
- Release button. The clock is now running. The flashing colon indicates this. Use a reliable time signal (e.g. telephone or radio) to set the clock accurately to the minute.



## SWITCHING TIME(S)

You can set as many as six switching-on commands and an equal number of corresponding switching-off commands in the following manner:

- Press "Timer" button once. The actual time will disappear from the display. This **TIMER ON** indication will be displayed instead, denoting a vacant "on" time in No. 1 programme.

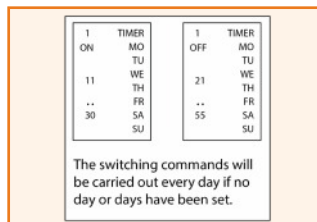


**NOTE: Setting hours and minutes: When setting switch-on time and switch-off time be sure to set minutes as well as hours. E.g. if 08.00 is required set all 4 digits: "08." and ".00"**

- Set the required switching-on time using button "h+" and "m+".
- Set the day(s). See "Day" button selection (over) on which the switching-on command must be executed.
- Depress button "Timer" once. **TIMER OFF** will be displayed.
- Set the required switching-off time using button "h+" and "m+".
- Set the day(s) on which the switching-off command must be executed. (Default setting is every day).
- Pressing the "Timer" button will move the timer to programme 2 ON.

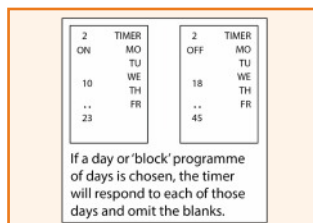
When the **2 TIMER ON** indication appears you can begin setting another switch-on command, if you wish. Six such programmes may be stored in this manner, following steps 2) to 6). After setting the required "on" and "off" times, press to revert to present time.

## EXAMPLE



**Note:** Be sure that the desired day or days are chosen on both the "on" and the "off" displays.

## EXAMPLE



## "DAY" BUTTON SELECTIONS

### Every day of the week

If you do not enter the day when setting a switching command, the switching will be carried out at the set time on every day of the week.

### Only one day of the week

If you enter a particular day while setting a switching command (using button "Day"), the command will be carried out at the set time only on that specific day of the week.

**Abbreviations** MO = Monday, TU = Tuesday, WE = Wednesday, TH = Thursday, FR = Friday, SA = Saturday, SU = Sunday.

### On a weekly combination (or 'block' programming) days

When pressing button "Day" several times, you will find by means if the display that three combinations of days are also possible:

MO TU WE TH FR = Monday to Friday

SA SU = Saturday to Sunday

MO TU WE TH FR SA = Monday to Saturday

If you enter these combinations of days instead of one individual day, the on/off command will be carried out at the set time on each of the corresponding days of the week. This programme will repeat itself week after week until the programme is changed or the timer is disconnected.

## HOW TO CHECK, CHANGE OR DELETE SWITCHING COMMANDS

### Checking

By pressing button "Timer" a number of times you can make switching-on and switching-off commands visible in the display: first set the commands are presented and then the free spaces.

### Changing

You can change a switching command by making it appear on the display and pressing "Day", "h+" and "m+" buttons accordingly.

### Deleting

Delete a timer command period (an "on" and "off" time) by pressing the "Timer" button until the required program number on time is displayed in the window and pressing "h+" until -- is displayed immediately after 23. Do the same with "m+" until-- appears after 59. Repeat this sequence for the "off" mode. The deleted command then becomes available for reprogramming. Press button "Timer" after changing or deleting a command to save the new command.

### Switching back to present time

After setting the switching commands you return to normal time reading by pressing button.

### Is power being supplied to connecting load?

The word "ON" or "OFF" in the display, above the time reading, informs you about the actual switching condition.

## OVERRIDE SWITCH

When in the "OFF" mode pressing the button marked will switch "ON" the power to the load connected to the timer. If the button is pressed again the power will switch off. If the button is not pressed again, power will remain on until the completion of the next on/off command when power will switch off. If not pressed again the power will remain off until the following "ON" command has been reached.

## GUARANTEE

Foxtam Controls DIN Rail Mounting Digital Compact Timer is guaranteed for 12 months from the date of purchase. This does not affect your statutory rights.

**PLEASE KEEP THESE INSTRUCTIONS  
SAFE FOR FUTURE REFERENCE**



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