Eltako
ELECTRONICS

RS485 Bus Display timer
FSU12D-12 V DC

CE

valid for devices from production week 37/11
(see bottom side of housing)

! Note: Select English language !*

Display timer with 8 channels for the Eltako RS485 bus. With "astro" function.
Only 0.3 watt standby loss.

Modular device for DIN-EN 60715 TH35 rail mounting.
1 module = 18 mm wide, 58 mm deep.

Connection to the Eltako RS485 Bus, terminals RSA and RSB.

A 12 V DC voltage is supplied from a switching power supply unit SNT12-12 V DC which has a width of only 1 module.

One FAM12 wireless antenna module and up to 10 FTS12EM pushbutton input modules and timers FSU12D per FAM12 may be switched in series to the RS485 bus. The wireless antenna module FAM12 has to be connected before the FSU12D.

If the lines of the RS485 bus are longer than 2 m, a terminal resistor of approx. 220 ohms must be connected **to the last actuator** under the terminal RSA/RSB.

Up to 60 timer memory locations are freely assigned to the channels. With date and automatic summer/winter time changeover. Ca. 20 days power reserve without battery.

The timer is set using the MODE and SET buttons and the settings can be interlocked.

***Set language:** Every time the power supply is applied, press SET within 10 seconds to set the language and press MODE to confirm. D = German, GB = English, F = French, IT = Italian and ES = Spanish. The normal display then appears: weekday, time, day and month.

Rapid scroll: In the following settings, the numerals scroll rapidly when you press and hold down Enter. Release then press and hold down to change the scroll direction.

Set clock: Press MODE then at PRG (program) press SET to search for the **CLK function.** Press MODE to set. In H, press SET to select the hour and press MODE to confirm. In M proceed in the same way to set the minute.

Set date: Press MODE then at PRG press SET to search for the **DAT function.** Press MODE to select. At Y, press SET to select the year and press MODE to confirm. Proceed in the same way at M to set the month and at D to set the day. The last setting in the sequence is MO

(weekday) blinking. Press SET to set it.

Set geographic position (if the astro function is required): you can find a list of German cities at the end of the operating manual. Press MODE then press SET at PRG to search for the **POS function.** Select by pressing MODE. For LAT press SET to select the latitude and press MODE to confirm. Repeat this procedure for LON to select the longitude and press MODE to confirm.
As the last setting in the sequence, GMT flashes. Here press SET to select the time zone and press MODE to confirm.

Summer/winter time changeover: Press MODE then at PRG press SET to search for the **SWT function** and press MODE to select. Now press SET to switch between ON and OFF. If you select ON, changeover is automatic.

Identification number: Up to 10 timers can be identified in the RS485 bus. 0 is saved at the factory. Press MODE then at PRG press SET to search for the **ID function.** Press MODE to select, then press SET to search for a number and press MODE to select.

Teach in channels in actuators: Press MODE then at PRG press SET to search for the **LRN function** and press MODE to select. At CH press SET to select the channel and press MODE to confirm. Now press SET to switch from ON to OFF. If you press MODE to confirm ON, LRN+ flashes and the ON function is taught in a teachable actuator. The procedure is identical to teach-in OFF.

Switch random mode on/off: Press MODE then at PRG press SET to search for the **RND function** and press MODE to select. Press SET to set to ON (RND+) or OFF (RND) and press MODE to confirm. When random mode is switched on, all switch-on time points of all channels are shifted at random by up to 15 minutes. Switch-on times are switched earlier and switch-off times are switched later.

Lock settings: Briefly press MODE and SET together and at LCK, press SET to lock. This is displayed by an arrow next to the lock symbol.

Unlock settings: Press MODE and SET together for 2 seconds and at UNL press SET to unlock.

Entering timer programs: Press MODE and then press MODE again at PRG to select the memory location. Press SET to search for one of the 60 memory locations from P01 to P60 and press MODE to confirm. To deactivate assigned memory locations, press SET to switch over from ACT+ to ACT. After you press MODE to confirm ACT+, you can press SET and MODE each time to permit the inputs ON, OFF and IMP (for pulsed switching time of 2 seconds), channel number CH, TIM in hours H and minutes M, sundown SS, sunrise SR and working week days from MO to SU.

Press SET to change each input and press MODE to confirm. After you confirm SU, the memory location is fully entered. If you press MODE for longer than 2 seconds at any confirmation, the changed values are saved and the screen returns to normal display. 20 seconds after the last operation of MODE or SET, the program returns automatically to normal display. An incomplete memory location input is not saved.

In connection with roller shutter control FSB12-12 V DC the timer will be taught-in as a 'central control pushbutton without priority', whereas ON='central up' and OFF='central down'.

Program examples:
P01/ON/CH1/TIM/7:50/MO+:
The light on Channel 1 switches on at 7:50 on Mondays.
P02/OFF/CH1/TIM/8:50/MO+:
The light on Channel 1 switches off at 8:50 on Mondays.
P03/ON/CH1/TIM/20:00/MO+:
The light on Channel 1 switches on at 20:00 on Mondays.
P04/OFF/CH1/TIM/21:00/MO+:
The light on Channel 1 switches off at 21:00 on Mondays.
P05/ON/CH2/TIM/10:00/SU+:
The light on Channel 2 switches on at 10.00 on Sundays.
P06/OFF/CH2/TIM/12:00/SU+:
The light on Channel 2 switches off at 12.00 on Sundays.
P07/ON/CH3/TIM/6:00/WE+/TH+:
The light on Channel 3 switches on at 6.00 on Wednesdays and Thursdays.
P08/OFF/CH3/TIM/6:30/WE+/TH+:
The light on Channel 3 switches off at 6.30 on Wednesdays and Thursdays.
P09/ON/CH4/TIM/9:15/MO+/TU+/WE+/TH+/FR+/SA+/SU+:
The light on Channel 4 switches on at 9.15 every day.
P10/OFF/CH4/TIM/9:45/MO+/TU+/WE+/TH+/FR+/SA+/SU+:
The light on Channel 4 switches off at 9.45 every day.
P11/OFF/CH5/SR/0:00/SU+:
The light on Channel 5 switches off at sunrise on Sundays.
P12/ON/CH5/SS/0:00/SA+:
The light on Channel 5 switches off at sunrise on Sundays.
P13/ON/CH6/TIM/6:00/MO+/TU+/WE+/TH+/FR+/SA+/SU+:
The roller shutter on channel 6 raises daily at 6:00 a.m.
P14/OFF/CH6/TIM/22:00/MO+/TU+/WE+/TH+/FR+/SA+/SU+:
The roller shutter on channel 6 lowers daily at 10:00 p.m

Clear all memory locations: press and hold down MODE and SET simultaneously for 2 seconds and press SET to confirm RES in the display.

Longitude(LON) and Latitude (LAT) in Germany
time zone (GMT): +1, summer time: +2

	BRT	LAE
Berlin	52	13
Bremen	53	9
Dresden	51	14
Düsseldorf	51	7
Erfurt	51	11
Hamburg	53	10
Hannover	52	10
Kiel	54	10
Magdeburg	52	12
Mainz	50	8
München	48	11
Potsdam	52	13
Saarbrücken	49	7
Schwerin	54	11
Stuttgart	49	9
Wiesbaden	50	8

more places on www.maps.google.de

Important Note!

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock.