Time switch
AlphaRex³ D21S - 1-channel with control input
4 126 34 - 6047 68

L legrand®

⚠ **Safety notes**

This product should be installed in line with installation rules, preferably by a qualified electrician. Incorrect installation and use can lead to risk of electric shock or fire. Before carrying out the installation read the instructions and take account of the product's specific mounting location. Do not open up, dismantle, alter or modify the device except where specifically required to do so by the instructions. All Legrand products must be opened and repaired exclusively by personnel trained and approved by Legrand. Any unauthorised opening or repair completely cancels all liabilities and the rights to replacement and guarantees. Use only Legrand brand accessories.

The device contains a LiMnO$_2$ primary cell. When the product reaches the end of its life, this cell must be correctly removed and disposed of in accordance with national legislation and the requirements of environmental protection.

Technical data

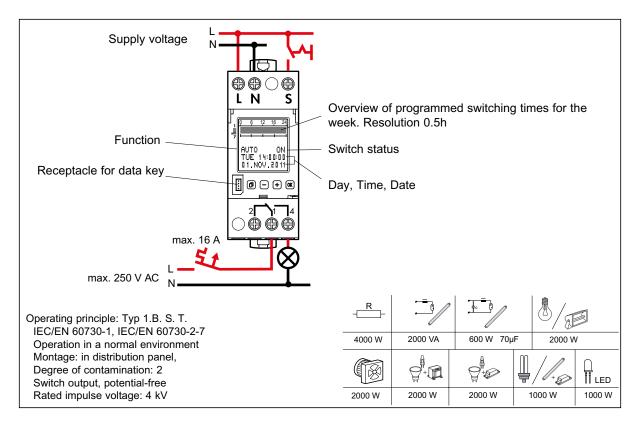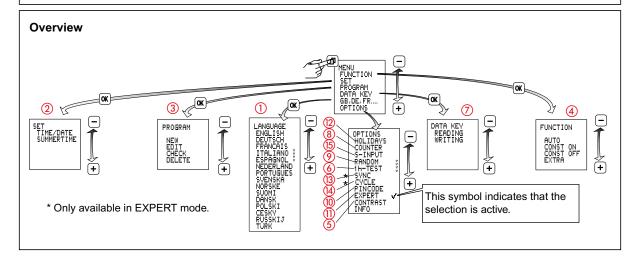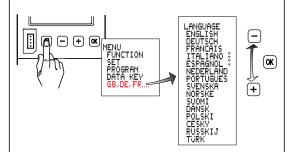|		
Supply voltage:	230V 50/60Hz	
Effective power consumption:	Approx. 1 W	
Contact rating:	1 changeover contact 16A 250V~µ cos φ = 1	
Parallel compensation:	600W max. 70µF	
Accuracy:	~ 0,1 s / day	
	single strand	multi strand
Terminal capacity:	1,5...4 mm²	1,5...2,5 mm²
Programmes :	56	
Control signal:	230V AC	
Control impuls:	100…200ms	
Control line length:	max. 50m	
Delay time:	0 min … 23h 59min 59s	
Battery reserve:	5 years	
Storage ambient:	-20°C to +60°C	
Working ambient:	-20°C to +55°C	

max. 1,4 Nm

General information
- Start-up: after applying the supply voltage, the time switch starts automatically with the last selected function. The relay position is set by the current program.
- Battery backup
  - Backlighting not active
  - Data key READ/WRITE only via the menu

Supply voltage

L
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L N S

Overview of programmed switching times for the week. Resolution 0.5h

Function

Switch status

AUTO   ON
TUE 14:00:00
01.NOV.2011

Receptacle for data key

Day, Time, Date

2 1 4

max. 16 A

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max. 250 V AC

Operating principle: Typ 1.B. S. T.
IEC/EN 60730-1, IEC/EN 60730-2-7
Operation in a normal environment
Montage: in distribution panel,
Degree of contamination: 2
Switch output, potential-free
Rated impulse voltage: 4 kV

R			
4000 W	2000 VA	600 W 70µF	2000 W
2000 W	2000 W	2000 W	1000 W	LED 1000 W

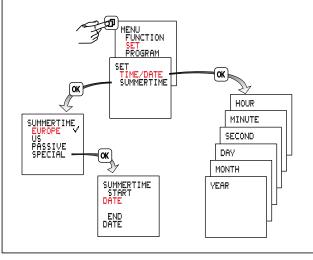|	
🗗	Select menu, back to main menu, Hold down > 1s = operating display
OK	Confirm selection or load parameters
− +	Select menu options or set parameters

Overview

MENU
FUNCTION
SET
PROGRAM
DATA KEY
GB,DE,FR....
OPTIONS

② SET
TIME/DATE
SUMMERTIME

③ PROGRAM
NEW
EDIT
CHECK
DELETE

① LANGUAGE
ENGLISH
DEUTSCH
FRANCAIS
ITALIANO
ESPAGNOL
NEDERLAND
PORTUGUES
SVENSKA
NORSKE
SUOMI
DANSK
POLSKI
CESKY
RUSSKIJ
TURK

⑫ OPTIONS
⑧ HOLIDAYS
⑮ COUNTER
⑨ S-INPUT
⑥ RANDOM
  1h-TEST
  SYNC *
⑬ CYCLE *
⑭ PINCODE
⑩ EXPERT
⑪ CONTRAST
⑤ INFO

⑦ DATA KEY
READING
WRITING

④ FUNCTION
AUTO
CONST ON
CONST OFF
EXTRA

* Only available in EXPERT mode.

This symbol indicates that the selection is active.

❶ Set language

LANGUAGE
ENGLISH
DEUTSCH
FRANCAIS
ITALIANO
ESPAGNOL
NEDERLAND
PORTUGUES
SVENSKA
NORSKE
SUOMI
DANSK
POLSKI
CESKY
RUSSKIJ
TURK

MENU
FUNCTION
SET
PROGRAM
DATA KEY
GB,DE,FR...

❷ Set time/date, summertime/wintertime

Summertime: ± 1 hour
Europe: Factory set
SPECIAL: The switchover to/from summertime can be freely programmed by entering a start date and end date and is then executed each year on the same day of the week, e.g. Sunday

MENU
FUNCTION
SET
PROGRAM

SET
TIME/DATE
SUMMERTIME

SUMMERTIME
EUROPE ✓
US
PASSIVE
SPECIAL

SUMMERTIME
START
DATE

END
DATE

HOUR
MINUTE
SECOND
DAY
MONTH
YEAR

❸ Programming

A program consists of an ON time, OFF time and associated on and off days.
Programs with predefined on/off days (Mon to Sun, Mon to Fri and Sat and Sun): for these programs, you only need to set the switching times.
With the „INDIVIDUAL" option, you can allocate switching times to specific days of your choice.
The programs of a channel are combined with a logical OR.

Set MON and TUES as on/off days

*
CHRONO = All switch commands are executed in chronological order in a week
INPUT = Programs are executed in the order in which they are entered

4 Modes

- **Auto** - Automatic operation
- **Constant ON**
- **Constant OFF**
- **Extra**
  The switch status imposed by the
  program is inverted (manual override).
  With the next effective switch command,
  the time switch resumes control of on/off
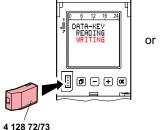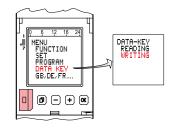 switching.

5 Contrast adjustment

6 1 h-Test

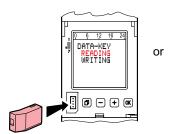When this function is activated, the output is switched on
for one hour.

After one hour, the time switch returns automatically to
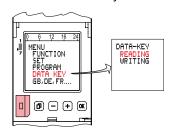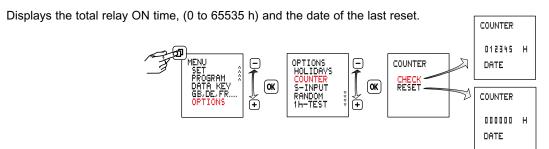the programmed mode.

7 **Data key**

4 128 72/73

Load the programs of the time switch on to a data key (WRITE KEY)
Warning! all programs stored on the data key will be overwritten.

Load the programs from the data key to the time switch (READ KEY)
Warning! all programs programmed in the time switch will be overwritten.

8 Hour counter

Displays the total relay ON time, (0 to 65535 h) and the date of the last reset.

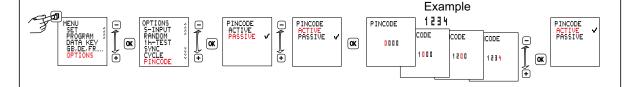### 9 Random function

Function to simulate presence.
Function active: the programmed switching cycles are shifted at random within the range of ± 15 minutes.

🔟 Pincode

PIN CODE active: The menus of the time switch will not be accessible unless the PIN CODE has been entered. When the pin code is active, access to the button and key functions is disabled 1 minute after the last button press.

PIN free access can be re-enabled by selecting PASSIVE or by resetting the device.
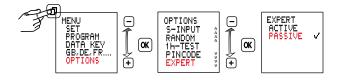
Example
1234

⑪ Expert mode
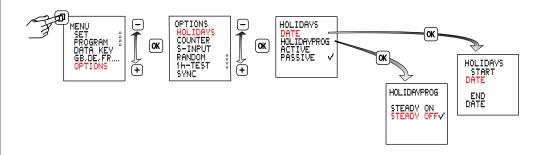
Some additional functions are available in Expert mode:
• Power grid synchronisation to improve the accuracy
• Cycle function
• Automatic channel switching

Note: Upon switching from ACTIVE to PASSIVE the additional menu items are hidden again and all the Expert mode settings are cancelled. After re-activating, Expert mode will operate again with the basic settings.

12 Holiday

After activation the holiday program is executed between 0:00h on the start date and 24:00h on the end date (Constant ON/OFF). After the holiday program has run once, it must be reactivated.

⓭ Activating and deactivating grid synchronisation

Only available in EXPERT mode.
The default setting is PASSIVE. In order to improve the long-term accuracy, it is advisable to activate synchronisation if the time switch is supplied from a on 50/60 Hz grid with frequency adjustment.
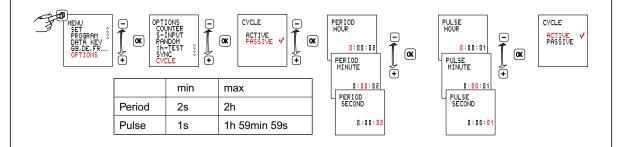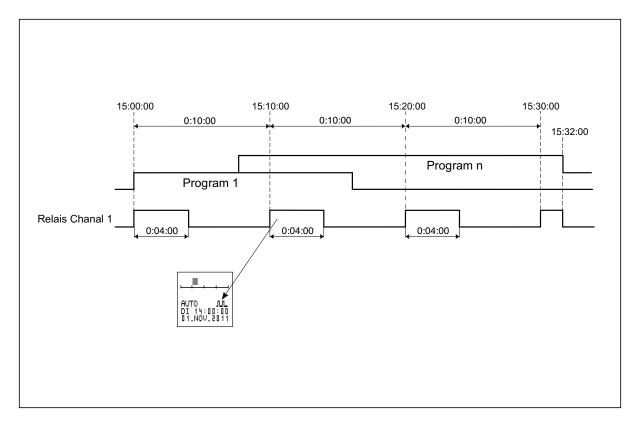
14 Cycle function

Only available in EXPERT mode

For cyclical switch commands the switching on time is set by logical "OR" of programs of all types. A fixed cycle of ON and OFF time then operates within those limits. The cycle always starts with the ON time. The cycle duration and the ON time within the cycle are the same length for all switching times. The cycle duration and the ON time can be set independently in one-second increments. If the switching time is shorter than the cycle duration, the cycle will be shortened accordingly. The ON time will remain unchanged. If the switching time is actually shorter than the ON time, the ON time will be shortened accordingly.
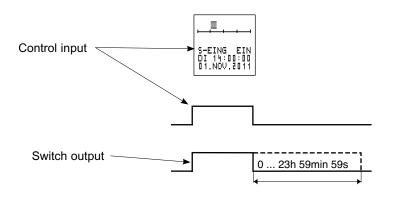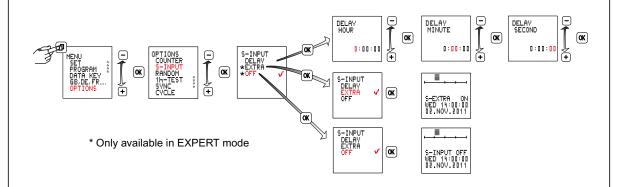

	min	max
Period	2s	2h
Pulse	1s	1h 59min 59s

15:00:00   15:10:00   15:20:00   15:30:00

0:10:00   0:10:00   0:10:00

15:32:00

Program n

Program 1

Relais Chanal 1

0:04:00   0:04:00   0:04:00

AUTO
DI 14:00:00
01.NOV.2011

15 Control input with delay time

A control signal is superimposed on all program commands (OR circuit). While this control signal is applied, the output is switched ON.
When the control signal is switched off, the output is switched OFF after a delay time, unless an ON command is applied by a program.

DELAY

The output switches on when the control input is activated and remains switched on for the duration of the set delay time after the control input has been deactivated. Delay time setting range 0h 00min 00s … 23h 59min 59s. The control input can be subsequently triggered within the delay time.

EXTRA

The control input signal inverts the switching state specified by the program.
At the next valid switching command the time switch resumes switching On and Off.

OFF

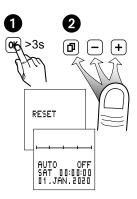The control input signal sets the switching state to OFF if the program specifies ON.

Reset

Warning!

The memory will be cleared,
and all set data will be lost.

Hold down $\boxed{\text{OK}}$ for more than 3 seconds
and at the same time press and release
$\boxed{\text{⟳}}\boxed{-}\boxed{+}$.

The language, time, date, summertime/
wintertime and switching times will have to
be reentered.

Warning: Elektrical shock - Disconnect all power from the
device before dismantling the module and replacing the
battery.

Always use a Li cell type battery (LiMnO$_2$) CR2477, 3V
high temperature type min +85 °C