Efficiency time.  
The new digital time switches from ABB D Line. Simply precise
D Line is ABB’s new range of digital time switches. An exclusive design, featuring a backlit white LCD display, plus extremely simple use with two-line text menus and only four pushbuttons, make the D Line products ideal for automating the functions of the installation.

Thanks to the pioneering way in which vacation periods can be managed, the new D Line allows you to override the normal weekly program for one or more periods of the year or even through different years. The range includes versions with 1 and 2 channels, equipped with large capacity internal batteries so they are able to function during a blackout and an EEPROM permanent data store, to ensure that the scheduled program is followed and the date and hour settings are maintained even during a power failure.

The “PLUS” versions can copy one or more programs and transfer them to different devices by means of a flash drive, without wasting time and avoiding re-programming errors. The “SYNCHRO” versions can be combined with the D DCF antenna, allowing the circuit-breaker to be automatically synchronized with the DCF77 Frankfurt timing signal, or with the D GPS antenna, which synchronizes with the signal received by the Global Positioning System and provides a more precise solution than the terrestrial transmissions. These versions are required when one or more circuit-breakers need to be kept synchronized, even when installed in unattended areas.

### D Line digital weekly time switches

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>ABB Code</th>
<th>BbN Unit EAN</th>
<th>Unit weight kg</th>
<th>Pack Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>1 channel</td>
<td>2CSM255763R0621</td>
<td>587637</td>
<td>0,14</td>
<td>1</td>
</tr>
<tr>
<td>D1 PLUS</td>
<td>1 channel with flash key</td>
<td>2CSM255763R0621</td>
<td>575832</td>
<td>0,14</td>
<td>1</td>
</tr>
<tr>
<td>D1 SYNCHRO</td>
<td>1 channel with flash key, synchronizable</td>
<td>2CSM257493R0621</td>
<td>574934</td>
<td>0,14</td>
<td>1</td>
</tr>
<tr>
<td>D2</td>
<td>2 channels</td>
<td>2CSM256313R0621</td>
<td>563136</td>
<td>0,14</td>
<td>1</td>
</tr>
<tr>
<td>D2 PLUS</td>
<td>2 channels with flash key</td>
<td>2CSM255763R0621</td>
<td>775836</td>
<td>0,14</td>
<td>1</td>
</tr>
<tr>
<td>D2 SYNCHRO</td>
<td>2 channels with flash key, synchronizable</td>
<td>2CSM257363R0621</td>
<td>773634</td>
<td>0,14</td>
<td>1</td>
</tr>
</tbody>
</table>

### Accessories for D Line digital time switches

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>ABB Code</th>
<th>BbN Unit EAN</th>
<th>Unit weight kg</th>
<th>Pack Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>D KEY</td>
<td>Flash key</td>
<td>2CSM277143R0621</td>
<td>771432</td>
<td>0,02</td>
<td>1</td>
</tr>
<tr>
<td>D SW</td>
<td>Software + interface</td>
<td>2CSM299993R0621</td>
<td>999836</td>
<td>0,22</td>
<td>1</td>
</tr>
<tr>
<td>D DCF77</td>
<td>DCF77 antenna</td>
<td>2CSM299993R0621</td>
<td>999935</td>
<td>0,22</td>
<td>1</td>
</tr>
<tr>
<td>D GPS</td>
<td>GPS antenna</td>
<td>2CSM299993R0621</td>
<td>999935</td>
<td>0,22</td>
<td>1</td>
</tr>
</tbody>
</table>
D Line digital time switches
The special functions of the new range

**Standard program**
The standard function allows one or more series of opening and closing operations to be performed so as to check loads such as the lighting and heating systems in a school. The ON time and the OFF time can differ in an independent way on both channels (lighting on from MON to FRI from 08:00 hrs to 18:00 hrs and heating on from MON to FRI from 07:00 hrs to 10:00 hrs).

*Lighting system in a school*
In the example, the school’s lighting system is on from 08:00 hrs until 18:00 hrs.

*Heating system in a school*
In the example, the school’s heating system is on from 07:00 hrs until 10:00 hrs.

**Cyclic program**
The cyclic function allows a series of impulses or a timing cycle to be performed so as to check loads such as an illuminated sign or the school bell. The ON time and the OFF time can vary from 1 second to 23 hours, 59 minutes and 59 seconds.

*Illuminated sign*
In the example, the illuminated sign comes on at 19:00 hrs and generates a series of impulses lasting for 10 seconds ON and OFF, until 02:00 hrs in the morning.

*School bell*
In the example, the school bell rings for 3 seconds every 50 minutes, from 08:00 hrs until 13:00 hrs.

**Vacation program**
The vacation program allows the normal programs to be halted for an established period. This is very useful during vacations. The vacation program can also manage periods spanning different years, such as the period from Christmas to Epiphany.

*Heating system in an office*
The example shows that the office heating system was turned off at 16:00 hrs on 24 December for the Christmas holiday period and on again at 08:00 hrs on 6 January 2010 when the office opened again.

**Random program**
The random program allows you to turn the utility on and off in the random mode, so as to simulate the presence of persons in unmanned places, for example.

*Villa*
The example shows how the random program simulates the presence of persons in a villa during the evening hours.
D Line digital time switches
The special functions of the new range

Innovations

Management of holiday periods, which can be programmed at different times of the year

Product warranty management: the clock and battery activate when the time switch is first installed

Programming via menus with 4 simple keys

1 second minimum change-over time

Multilanguage menus with a choice of 11 languages

Monitored maintenance for the connected equipment: the “countdown” function transmits a warning on the display after a preset number of operating hours

Change-over at null load, for a longer lasting relay and the actual load itself

A lithium battery provides a 6-year charge reserve from first power-on

ACCESSORIES FOR PLUS AND SYNCHRO

D KEY flash key for executing programs recorded in the key itself, transferring programs from the time switch to the key and vice versa, and for reading the programs in the key.

The programming software allows you to simply and quickly create even complex programs when seated comfortably at your desk. Once created, the program can be printed or saved in a file.

The D DCF77 antenna receives the DCF77 synchronizing radio signal transmitted by the atomic clock in Mainflingen, near Frankfurt, thus making the digital clock even more accurate.

The GPS antenna that receives the time from the Global Positioning System, offers a more precise value than the terrestrial transmissions and can also receive the signal in any part of the world.

Efficiency time | 4
Technical specifications

A generously sized 34 mm LCD display with high-level contrast, providing optimum visibility in all conditions thanks to timed backlighting

The status of each contact is clearly displayed

Vast choice of programs: standard, cyclic, random and vacation mode

Indication of GPS or DCF77 signal reception

Sealable and loss-proof cover to prevent unauthorized access

1-2 change-over contact/s

Size of 2 DIN modules

1-2 external input/s for connecting one or more remote controls, e.g.: circuit-breakers or pushbuttons

1-2 external input/s for connecting the DCF77 or GPS receiver (only for SYNCHRO version)

Permanent or temporary override function, activated with a single touch

Sealable glass and keypad lock function available to avoid tampering by unauthorized persons

Flash key drive for executing, copying or saving programs

Terminals for up to 6 mm² cables