Practical advice

## Programming principle

- For the digital time switches, this consists of memorising the days and times of the required switching operations.
- For the mechanical time switches, this is performed by positioning captive segments or jumpers on a switching dial.
Example
■ Controlling an air conditionner in a hairdressing salon:

| Monday ${ }^{(1)}$ Tuesday |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wednesday |  |  |  |  |  |  | Thursday ${ }^{(2)}$ | Etc. |  |
| On $\mathrm{n}^{\circ} 1$ |  |  |  |  |  |  |  |  |  |

## Programming by copying or blocks

Whenever identical switching operations are found at the same times, several days in the week, this function lets you program these operations once only. In this case a single switching operation is used. If this function is used wisely, the number of possible switching operations can be greatly increased.
Example


## Number of switching operations

| Designation | Number of switching operations |
| :--- | :--- |
| IHP 1c | 56 |
| IHP + 1c | 84 |
| IHP 2c | 56 |
| IHP + 2c | 84 |
| IHP 1c 18 mm | 56 |
| IHP + 1c 18 mm | 84 |
| ITA 1c, ITA 4c | 300 |
| IH 24h 1c ARM | 48 On -48 Off |
| IH 24h 1c SRM | 48 On -48 Off |
| IH 60 mn 1c SRM | 48 On -48 Off |
| IH 24h 1c SRM | 48 On -48 Off |
| IH 24h 1c ARM | 48 On -48 Off |
| IH 24h 2c ARM | 24 On -24 Off |
| IH 7 j 1c ARM | 42 On -42 Off |
| IH 24 $+7 \mathrm{j} 1+1 \mathrm{CARM}$ | 16 On -16 Off +7 On -7 Off |

## Saving on mains cut off

For digital switches equipped with this function, a lithium battery is used for saving.
The program, date and time are preserved. Switching operations are not performed.

Practical advice

Lets you control starting and stopping of a group of loads according to a cycle that is repeated every 60 minutes.

Lets you control starting and stopping of one or two groups of loads according to a daily cycle that is repeated, in identical manner, every day of the week.

Lets you control starting and stopping of one to 4 groups of loads according to a weekly cycle, that can be different each day, repeated each week.

## 60 min. time programming

Example
Controlling automatic watering

| On $n^{\circ} 1$ | 2 min .30 s |
| :--- | :--- |
| ${\text { Off } n^{\circ} 1}^{\text {On }} 2$ | 5 min. |
| $\mathrm{Off}^{\circ} 2$ | 25 min. |
|  | 37 min .30 s |

## Relevant time switches

IH 60mn 1c SRM.

## 24 h daily programming

Example

- Controlling a door of a block of flats:
- from 8 am to 7.30 pm: contact on "On", free access,
- from 7.30 pm to 8 am the next day: contact on "Off", access by confidential code every day of the week:

|  | From Monday to Sunday |
| :--- | :--- |
| On $n^{\circ} 1$ | 8 am |
| Off $\mathrm{n}^{\circ} 1$ | 7.30 pm |

## Relevant time switches

■ IH 24h 1c SRM/ARM.

- IH 24h 2c ARM.
- IHP 1c 18 mm .
- IHP + 1c 18 mm .
- IHP 1c, IHP + 1c.
- IHP $2 c$, IHP $+2 c$.
- ITA 1c, ITA 4c.


## 7 days weekly programming

Example

- Controlling an air conditionner in a hairdressing salon:

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| On $\mathrm{n}^{\circ} 1$ |  | 09 h 00 | 09 h 00 | 09 h 00 |  |  |
| Off $\mathrm{n}^{\circ} 1$ |  | 12 h 00 | 12 h 00 |  |  |  |
| On $\mathrm{n}^{\circ} 2$ |  | 14 h 00 | 14 h 00 |  |  |  |
| Off ${ }^{\circ} 2$ |  | 20 h 00 | 20 h 00 | 20 h 00 |  |  |
| On ${ }^{\circ} 3$ |  |  |  |  | 8 h 30 | 8 h 30 |
| Off $\mathrm{n}^{\circ} 3$ |  |  |  |  | 12 h 30 | 12 h 30 |
| On ${ }^{\circ} 4$ |  |  |  |  | 14 h 30 | 14 h 30 |
| Off ${ }^{\circ} 4$ |  |  |  |  | 21 h 00 | 21 h 00 |

## Relevant time switches

■ IH 7j 1cARM.

- IHP 1c, IHP + 1c.

■ IHP 2c, IHP + 2c.

- IHP 1c 18 mm .
- IHP + 1c 18 mm .
- ITA 1c, ITA 4c.

Lets you control by pulses (adjustable from 1 to 59 s) one to four groups of loads (pulse relays, bells, etc.).

## Pulse programming

Example
■ Automatic controlling of bells, lighting and distribution of food: bells sounding the resumption and finish of work (channel 1 ), lighting of premises (channel 2), feeding fish in the aquarium (channel 3):

|  | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Channel 1: bell (20 s pulse order) |  |  |  |  |  |  |  |
| On | 08 h 00 | 08 h 00 | 08 h 00 | 08 h 00 | 07 h 00 | 09 h 00 | - |
| Duration | 20 s | 20 s | 20 s | 20 s | 20 s | 20 s | - |
| On | 12 h 00 | 12 h 00 | 12 h 00 | 12 h 00 | 11 h 00 | 13 h 00 | - |
| Duration | 20 s | 20 s | 20 s | 20 s | 20 s | 20 s | - |
| On | 14 h 00 | 14 h 00 | 14 h 00 | 14 h 00 | 13 h 00 | - | - |
| Duration | 20 s | 20 s | 20 s | 20 s | 20 s | - | - |
| On | 18 h 00 | 18 h 00 | 18 h 00 | 18 h 00 | 16 h 00 | - | - |
| Duration | 20 s | 20 s | 20 s | 20 s | 20 s | - | - |
| Channel 2: lighting (latched order) |  |  |  |  |  |  |  |
| On | 07 h 30 | 07 h 30 | 07 h 30 | 07 h 30 | 06 h 30 | 08h 30 | - |
| Off | 18 h 30 | 18 h 30 | 18 h 30 | 18 h 30 | 17 h 00 | 13 h 30 | - |
| Channel 3: aquarium (15 s pulse order) |  |  |  |  |  |  |  |
| On | 10 h 00 | - | 10 h 00 | - | 10 h 00 | - | 10 h 00 |
| Duration | 15 s | - | 15 s | - | 15 s | - | 15 s |

## Programming

- Programming of a pulse takes up 2 memory spaces.
- Combination of the two order types (pulse and latched) is possible on the same channel.


## Relevant time switches

- IHP + 1c.
- IHP + 1c 18 mm .
- IHP + 2c.

■ ITA 1c, ITA 4c.

## Programming special days.

Example
■ Controlling lighting and heating in a school:

- basic programming: program lighting (channel 1) and heating (channel 2):

|  | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Channel 1: lighting |  |  |  |  |  |  |  |
| On | 07 h 00 | 07 h 00 | 07 h 00 | 07 h 00 | 07 h 00 | - | - |
| Off | 20 h 00 | 20 h 00 | 16 h 00 | 20 h 00 | 16 h 00 | - | - |
| Channel 2: heating |  |  |  |  |  |  |  |
| On | 06 h 00 | 06 h 00 | 06 h 00 | 06 h 00 | 06 h 00 | - | - |
| Off | 18 h 00 | 18 h 00 | 12 h 00 | 18 h 00 | 12 h 00 | - | - |

$\square$ dated programming: periods of non-operation, school holidays, etc.
Just memorise an Off at the start and another Off at the end of each period of absence:

|  |  | Holidays |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Winter | Spring | Summer | Autumn | End of year |
| Channel 1: lighting |  |  |  |  |  |  |
| Off | Date | 20 feb. | 17-apr | 07-july | 23 oct. | 18 dec. |
|  | Time | 12 h 00 | 17 h 00 | 12 h 00 | 17 h 00 | 12 h 00 |
| Off | Date | 08-march | 03-may | 9 sept. | 2 nov. | 4 jan. |
|  | Time | 01 h 00 | 01 h 00 | 01 h 00 | 01 h 00 | 01 h 00 |
| Channel 2: heating |  |  |  |  |  |  |
| Off | Date | 20 feb. | 17-apr |  | 23 oct. | 18 dec . |
|  | Time | 12 h 00 | 17 h 00 |  | 17 h 00 | 12 h 00 |
| Off | Date | 08-march | 03-may |  | 2 nov. | 4 jan. |
|  | Time | 01 h 00 | 01 h 00 |  | 01 h 00 | 01 h 00 |

## Relevant time switches

- ITA 1c, ITA 4c.


## Connection

|  | Type | Tightening torque | Copper cables |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rigid | Flexible or with ferrule |
|  |  |  | $\square$ | $\square B$ |
| $\cdots \infty$ | IHP 1c, 2c, +1c, +2c | 2 screwless / pole | $2 \times 2.5 \mathrm{~mm}^{2}$ | $2 \times 2.5 \mathrm{~mm}^{2}$ |
| , | IHP $18 \mathrm{~mm} \mathrm{1c}, \mathrm{+1c}$ | 2 screwless/pole | $2 \times 2.5 \mathrm{~mm}^{2}$ | $2 \times 2.5 \mathrm{~mm}^{2}$ |
|  | IH 60 mn 1 c SRM | 2 screwless/pole | $2 \times 2.5 \mathrm{~mm}^{2}$ | $2 \times 2.5 \mathrm{~mm}^{2}$ |
|  | 24h 1c SRM, ARM | 2 screwless / pole | $2 \times 2.5 \mathrm{~mm}^{2}$ | $2 \times 2.5 \mathrm{~mm}^{2}$ |
|  | 24h 2c ARM | 1.2 N.m | $\leqslant 6 \mathrm{~mm}^{2}$ | $\leqslant 6 \mathrm{~mm}^{2}$ |
|  | 7 j 1 c ARM | 2 screwless / pole | $2 \times 2.5 \mathrm{~mm}^{2}$ | $2 \times 2.5 \mathrm{~mm}^{2}$ |
|  | 24h + 7j 1+1c ARM | 1.2 N.m | $\leqslant 6 \mathrm{~mm}^{2}$ | $\leqslant 6 \mathrm{~mm}^{2}$ |
|  | IH 18 mm 24h 1c SRM/ARM | 1.2 N.m | $\leqslant 6 \mathrm{~mm}^{2}$ | $\leqslant 6 \mathrm{~mm}^{2}$ |
|  | IHH 18 mm 7 j 1 c ARM | 1.2 N.m | $\leqslant 6 \mathrm{~mm}^{2}$ | $\leqslant 6 \mathrm{~mm}^{2}$ |
|  | ITA 1c, ITA 4c | 1.2 N.m | $\leqslant 6 \mathrm{~mm}^{2}$ | $\leqslant 6 \mathrm{~mm}^{2}$ |

IHP 1c/2c, IHP+ 1c/2c are mechanical compatible with electrical distribution comb busbar.

Weight (g)

| Time switches |  |  |
| :---: | :---: | :---: |
| IHP | 1c/2c | 170/205 |
| IHP+ | 1c/2c | 190/ 211 |
| IHP 18 mm | 1c/+1c | 90 |
| IHP DCF |  | 244 |
| IH 54 mm | 60 mn 1 c SRM | 208 |
|  | 24h 1c SRM/ARM | 212 / 119 |
|  | 24h 2c ARM | 216 |
|  | 7j 1c ARM | 119 |
|  | 24h + 7j 1+1c ARM | 223 |
| 1 H 18 mm | 24h 1c SRM / ARM | 97 |
| IHH 18 mm | 7j 1c ARM | 101 |
| ITA 1c |  | 152 |
| ITA 4c |  | 303 |

