TIME-LINK type CP 70D

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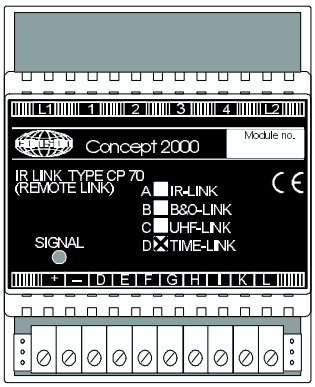


EAN-No. 5703513007089

Product description
CP 70D is a multi-functions module, which has a built-in 24-hour clock with a solution on one second and supplements the CONCEPT 2000 system with a number of subtleties, such as:

- **Burglar alarm**
- **Imitated habitation**
- **Turn on/off clock with battery back-up**
- **Ventilator control for bathroom**
- **Intelligent twilight relay**
- **Detector of direction**
- **Possibility of test of system**

Before you read on you must know that you cannot compare the module with a week clock, as it has no display. The main stress is laid on the fact that it must be a multi-function module at a reasonable price.

At programming of modules with CONKEY type CP 79 (from version 2.08) Link-type L: TL 1-4 is applicable.
On screen menus of earlier programming keys CONKEY type CP 79 (for version 2.07) this module is not implemented. In these versions Link-type L: TEB 1-4 is used at programming.

Accessories:
25 cm bus extension cord type CP 09 for connection of 2 CONCEPT 2000 modules. The cord contains plus, minus and data lead, and is applicable for horizontal and vertical connection.
EAN-NO. 5703513004101

Possible applacations of TIME-LINK

Burglar alarm at burglary

Imitated habitation as preventive protection against burglary

16 fixed clock signals from 24-hour clock with battery back-up

Control of bathroom ventilator

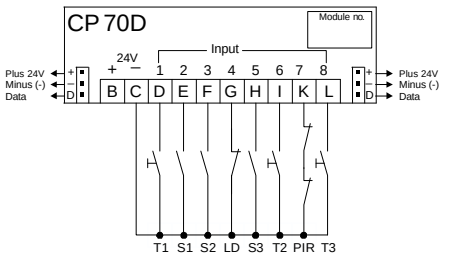
Detection of direction

Intelligent twilight relay

Channel outline TIME-LINK type CP 70D
Subsequent table shows Link number channel no., and action, which are applicable in modules type CP 24 and CP 31 at programming (TL/TEB).

Link	Chan.	Function/Time	Action
TL-1	1	Accidental gen. 1	Aux relay
TL-1	2	Accidental gen. 2	Aux relay
TL-1	3	Accidental gen. 3	Aux relay
TL-1	4	Accidental gen. 4	Aux relay
TL-1	5	Accidental gen. 5	Aux relay
TL-1	6	Accidental gen. 6	Aux relay
TL-1	7	Accidental gen. 7	Aux relay
TL-1	8	Accidental gen. 8	Aux relay
TL-2	1	Sensor 1 > Sensor 2	All action.
TL-2	2	Sensor 2 > Sensor 1	All action.
TL-2	3	Ventilator (10 min.)	Aux relay
TL-2	4	Twilight relay	Aux relay
TL-2	5	Alarm blink	Aux relay
TL-2	6	Alarm siren	Aux relay
TL-2	7	Alarm warning	Aux relay
TL-2	8	Alarm indication	Aux relay
TL-3	1	01:30 Clock	All action.
TL-3	2	03:00 Clock	All action.
TL-3	3	04:30 Clock	All action.
TL-3	4	06:00 Clock	All action.
TL-3	5	07:30 Clock	All action.
TL-3	6	09:00 Clock	All action.
TL-3	7	10:30 Clock	All action.
TL-3	8	12:00 Clock	All action.
TL-4	1	13:30 Clock	All action.
TL-4	2	15:00 Clock	All action.
TL-4	3	16:30 Clock	All action.
TL-4	4	18:00 Clock	All action.
TL-4	5	19:30 Clock	All action.
TL-4	6	21:00 Clock	All action.
TL-4	7	22:30 Clock	All action.
TL-4	8	00:00 Clock	All action.

Connection diagram TIME-LINK type CP 70D



Terminals

Terminal	Symbol	Input
Terminal B	+	Plus 24V DC
Terminal C	-	Minus (-)
Terminal D	D	Clock control (-)
Terminal E	E	Sensor 1 (-)
Terminal F	F	Sensor 2 (-)
Terminal G	G	Ventilator control (-)
Terminal H	H	Twilight relay (-)
Terminal I	I	Burglar alarm ON/OFF (-)
Terminal K	K	Closed circuit NC (-)
Terminal L	L	Accidental generator (-)

Technical data TIME-LINK type CP 70D:

Low current

Voltage	24V DC (18-28V)
Current at 18 V DC max.	30 mA
Power consumption at 18 V DC max.	0,5 VA
Current all inputs	0,5 mA
Current all presses	0.5 mA
Terminals for max.	2,5mm Ø
Cable length	R max. 1 K-Ohm

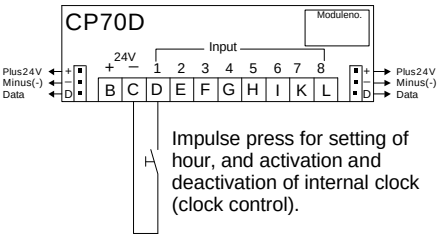
Mechanical data for CP 70D

Temperature range	-5º.....+35ºC
Installation for built-in	
Isolation	4KV > 8 mm
Insulation	DIN 40050
DIN rail symmetrical	DIN 46277
Dimensions (H x W x D)	85x70x72
Weight CP 70D	100 g

Installation guide.
Mount the module on the DIN rail and connect the plug between the modules. Via this plug +/- and "data lead" are connected. Connect low current to the module, and check connection before voltage is supplied to the module. CP 70D must have external supply from power supply type CP 11 (18-28V DC).

Attachment of power supply:
The module has a built-in 24-hour clock with a solution on one second and built-in battery for 24 hour back-up. After connection to the power supply it will take about a week before the battery is fully charged.
When the module is connected the supply the clock will automatically be blocked, i.e. the clock is not connected. This is indicated by slowly flashes in the light-emitting led in front of the module. If you want to use the clock it must first be set. When the clock is connected it will influence 3 things in the module:

1) The twilight relay is limited to the period 06.00-24.00 (see later on)
2) Imitated habitation is limited to the period 06.00-09.00 and 16.00-01.00 (see later on)
3) Turn on/off clock is connected (see later on)



Setting of internal clock (hour):
This situation is always started with 5 short activations of the press, connected minus(C) and terminal D, after this the clock will be in setting mode .This is indicated by fast flashes in the light led in the front of the module. After this, the current time in hours is entered. The time is entered as a number of activations corresponding to the hour. E.g. p.m. 14.00 is given 14 activations (therefore, the clock can only be set every hour on the hour). After this the input is permanently activated for at least 3 seconds, until the light led stops flashing. This indicated that the clock is now set, and blocking is cancelled. If the final activation on 3 seconds is neglected, the setting will be ignored and terminated.
When the entering has begun, max. 3 seconds must pass between every change on the terminal.
Is this time limit exceeded, the setting will be ignored and terminated.

Blocking of internal clock
Blocking is automatically activated when the module is turned on. Blocking is a state in which the clock is allowed to run, but moreover it has no influence on the module. This state is obviously wanted in situations where the clock is not set, or where you want to diverge from the daily routine. Blocking is indicated by slow flashes in the light led. Blocking is obtained by a short activation of press, connected minus (C) and terminal D, and is cancelled again by 2 short activations. Blocking can also be obtained by connecting the input permanently to minus. In this case blocking will be active as long as the terminal is connected to minus.

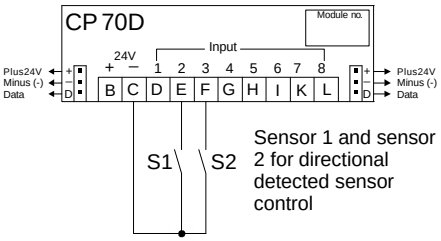
Turn on/off clock
When the clock is connected, different addresses are transmitted on the data bus every 1½ hour. Times and addresses are listed on the front page.

Test of system
Test of system is a special mode which can be used for test of the programming of the system, when the module is mounted and wired on the table. When the module is in test of system mode, the time is simulated with 60-fold speed. This applies to the clock and all the timers in the module. However, seconds is maintained at normal speed. This means in practice that a 24-hour programme is run trough on 24 minutes. With that, the electrician can in a convenient way walk around in the house with a time table and a stop watch and control that everything works optimum. Test of system mode is started with 10 fast activations on terminal D, and closed with 2 fast activations. Test of system is indicated by constant light in the light diode.
A short activation of terminal D while the module is in test of system mode, will put the clock forward 1 hour. This will happen a few seconds after the activation, and is indicated by a short flash in the light led on the module.

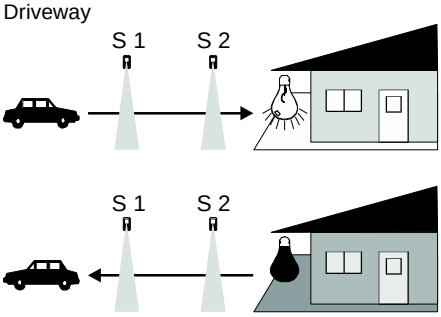
Directional detected sensor control
The module is provided with as function which can detect in which order 2 sensors are activated.
The sensors are connected minus (C) and the terminals E (sensor 1) and F (sensor 2).

The function can e.g. be used to detect the traffic direction of a car, if the inputs are connected to 2 photo cells, to turn on the outdoor light. The function can also be used for route light in a factory.

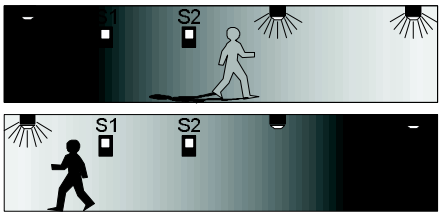
If terminal E (sensor 1) is first activated, and then terminal F (sensor 2), the address TL-2 channel 1 will be transmitted on the data bus. On the other hand, if the inputs are activated in reverse order, the address TL-2 channel 2 will instead be transmitted on the data bus.
Activation of the 2 inputs must be within 5 seconds
(sensor1>sensor2,sensor2>sensor1), otherwise this function is zerofilled.



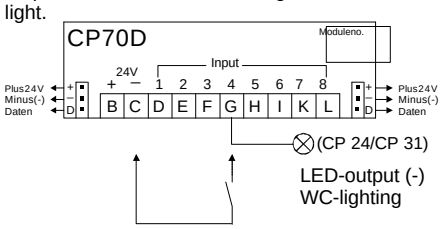
Application examples:
Driveway



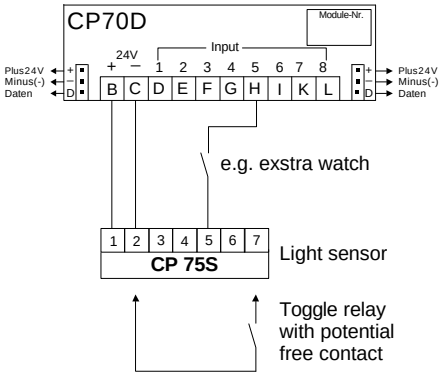
Route light



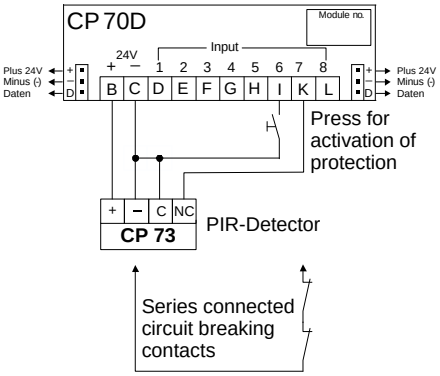
Ventilator control
The function is controlled via terminal G, and is designed to control a bathroom ventilator. The idea is that the ventilator is to start when the light is turned off, and after that run for 10 minutes. If the light is turned on again within the 10 minutes the ventilator must immediately turn off. The ventilator is connected via the address TL-2 channel 3, and terminal G is connected to the indication output on the module controlling the bathroom light.



Intelligent twilight relay
This function can be used as an extension to a ordinary twilight relay, if you want to economise on the energy consumption for outdoor lighting at night. Instead of connecting the twilight relay directly to the outdoor lighting, the twilight relay is connected to terminal H. The control of the outdoor lighting then takes place via address TL-2 channel 4. The function ensures that the outdoor lighting is always turned off in the period 24.00-06.00, regardless of the signal from the twilight relay. If the clock is blocked, the signal form the twilight relay will be used directly.
NB: If a twilight relay is not applied, and you still want to use imitated habitation, terminal H must be wired to minus.



Burglar alarm on/off
The burglar alarm can be connected if the closed circuit is connected. When the burglar alarm is connected there is 3 minutes standby, where the closed circuit is not checked . In this period it is possible to “leave the house” and close the door again. After 3 minutes the alarm will be “active”, and any breach on the closed circuit, even briefly, will result in a real alarm. An alarm will be started with a warning period on 30 seconds, where a flash signal will be transmitted on address TL-2 channel 7. This signal can e.g. control a warning lamp (e.g. In Sesam switch) or a small sounding body. After this a flash signal starts on the address TL-2 channel 5, which will last 30 minutes. This signal can be sued to flash with the light within the house (active-modules type CP 24/CP 31 is programmable with help relay function) to frighten the burglar, and with the outdoor lighting to attract attention. At the same time and activation signal is transmitted on address TL-2 channel 6, which however is followed by a deactivation signal after 3 minutes (statutory requirements in connection with sirens). This signal can e.g. be used to control a siren or to give a signal to equipment for automatic telephone call. The alarm is connected with a short activation of terminal I, and is disconnected with 2 short activations. Alternatively the alarm can be connected by connecting the input permanently to minus. In this case the burglar alarm will be connected as long as the terminal is connected to minus. When the alarm is connected, an activation signal is transmitted on address TL-2 channel 8, which is followed by a deactivation signal when the alarm is disconnected. This signal can e.g. Be used for indication lamp (e.g. in Sesamswitch).
Terminal K - Closed circuit:
This terminal is connected to minus via a number of series connected circuit breaking contacts, as it is known from ordinary alarm systems.



Imitated habitation
This function is one of the best preventive protections against burglary, because the house looks inhabited and it frightens away e.g. a burglar, even when you are on holiday.

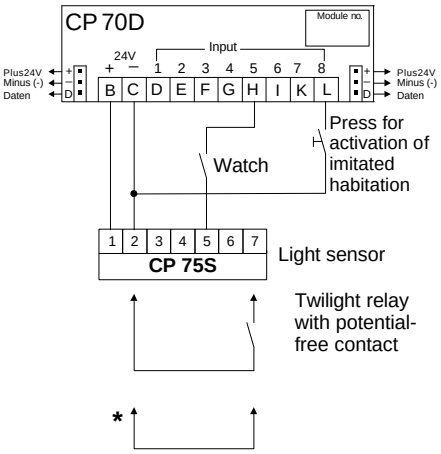
To make the imitated habitation active, 3 conditions must be fulfilled:

1) Terminal H (twilight relay) must be activated
2) Imitated habitation must be connected
3) The time must be between 06.00-09.00 or between 16.00-01.00 (if the clock is connected)

The control takes place via the addresses TL-1 channel 1-8, and takes place coincidently within the following limits:

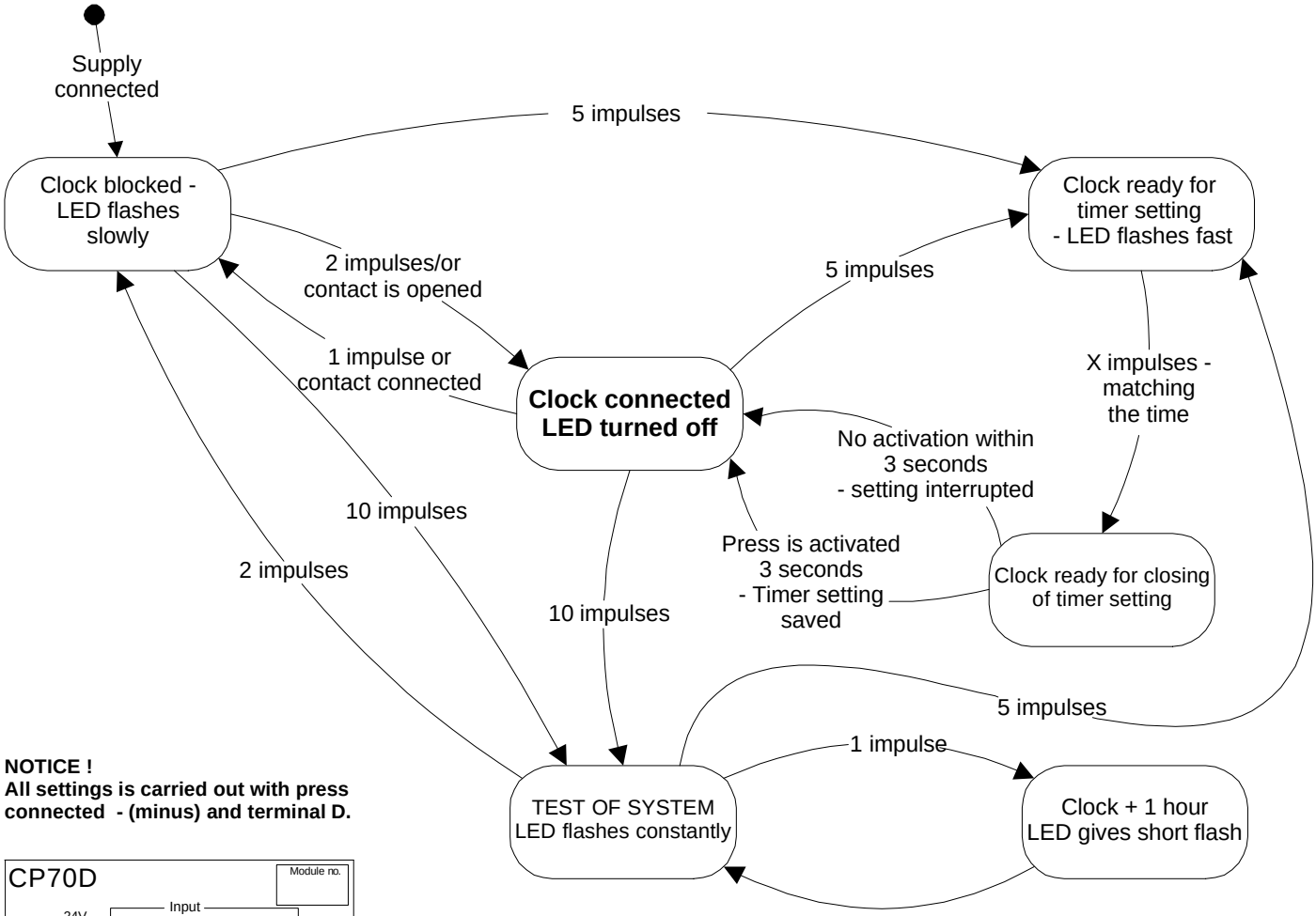
1) There will be at least 1 and not more than 2 addresses active at a time
2) Each address is active within a period of 4-20 minutes

Imitated habitation is connected by a short activation of terminal L, and is deactivated by 2 short activations. Alternatively the function can be connected by connecting terminal L permanently to minus. In this case the function will be active as long as the terminal is connected to minus.

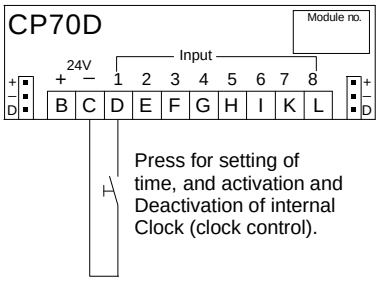


***** If a twilight relay is not applied, terminal H must be wired to minus.

Clock settings



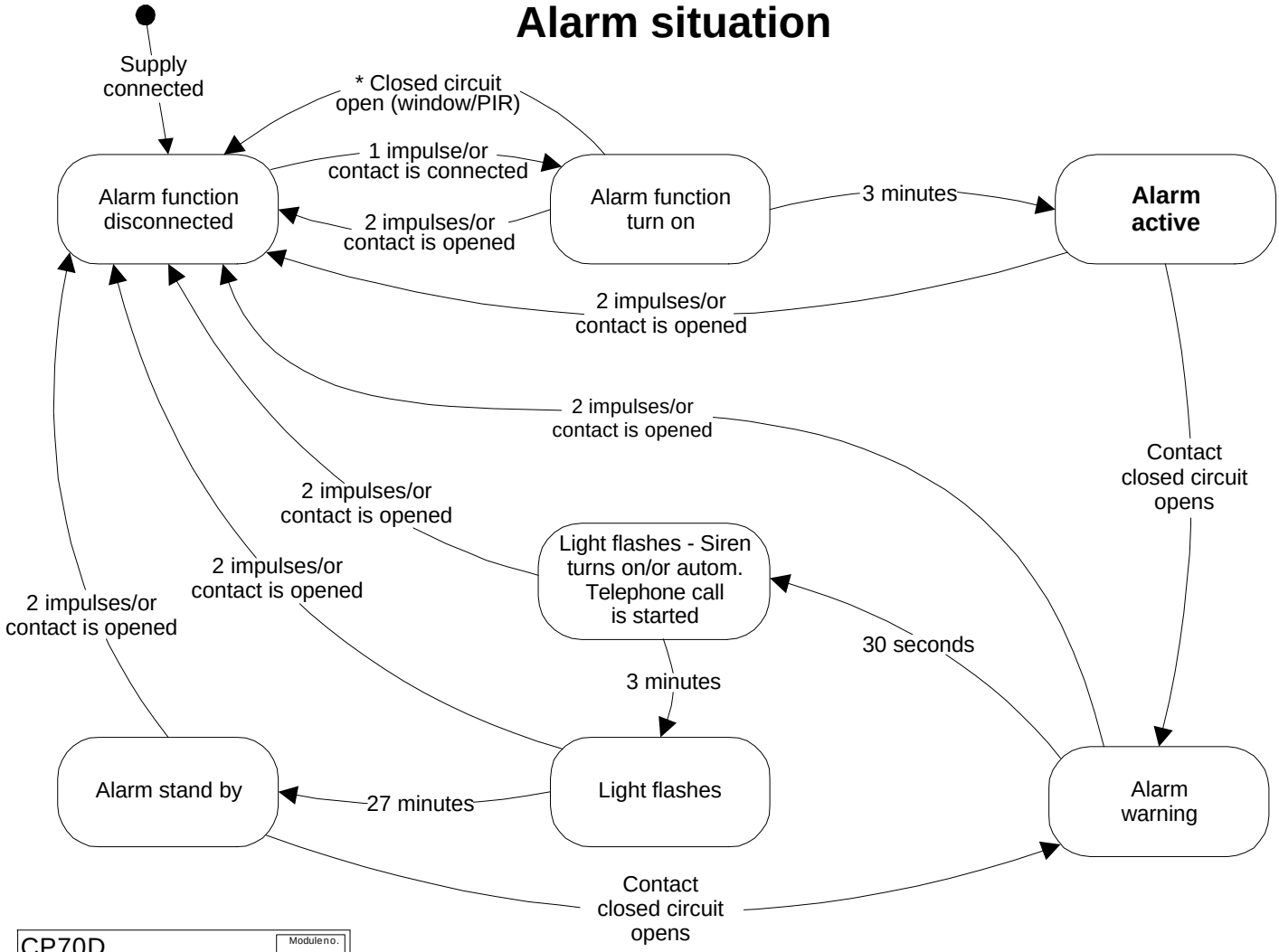
NOTICE !
All settings is carried out with press connected - (minus) and terminal D.

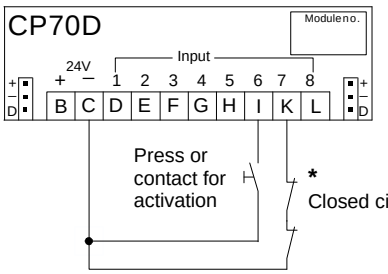


Press for setting of time, and activation and Deactivation of internal Clock (clock control).

30.06.97

Alarm situation





NOTICE !
All activations/deactivations of alarm function is carried out with press/contact connected - (minus) and terminal I.

*** NOTE! Alarm cannot be connected if one or more contacts within the closed circuit (terminal K) is opened (window contact, door contact or PIR-detector).**

30.06.97

Project				COMPANY (Business stamp)	**Projecting plan** **Time-Link type CP 70D** CONCEPT 2000
Section					
Case no.	Sign.	Date	Page		

Premises	Switch no.	Module no.	Module type	Relay no.	**Imitated habitation** TL-1								**Sensor./Wait./Alarm** TL-2								**Clock control** TL-3								**Clock control** TL-4									
					C1	C2	C3	C4	C5	C6	C7	C8	C1	C2	C3	C4	C5	C6	C7	C8	C1	C2	C3	C4	C5	C6	C7	C8	C1	C2	C3	C4	C5	C6	C7	C8		
					Acciden.1	Acciden.2	Acciden.3	Acciden.4	Acciden.5	Acciden.6	Acciden.7	Acciden.8	Sen.1>2	Sen.2>1	WC-Vent.	Twi.rel.	Al.flash	Al.siren	Al.warn.	Al.indic.	01:30	03:00	04:30	06:00	07:30	09:00	10:30	12:00	13:30	15:00	16:30	18:00	19:30	21:00	22:30	00:00		
					on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off	on off

Notes