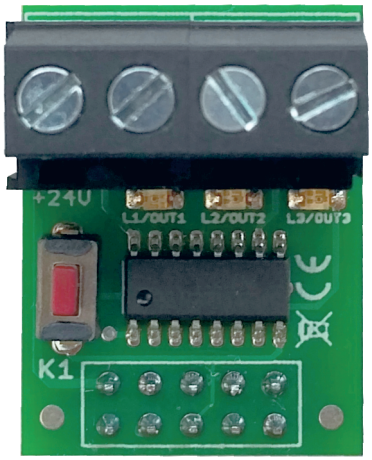
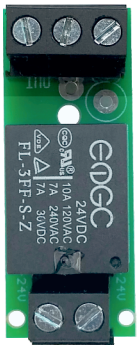
DOMUS MODULE

6 CM² OF INFINITE FUNCTIONS



DOMUS cod. EXPMU6T

Related devices:
RELAY cod. MDLMR4T



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DOMUS

USER MANUAL

ENG

MADE IN ITALY

INDEX

DOMUS EXPANSION

ATTENTION

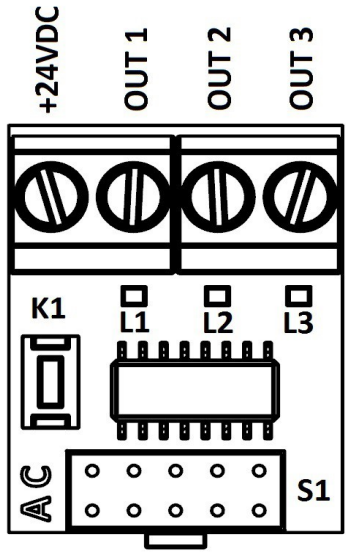
DOMUS module is compatible with following control board:

- **T011S** control board for **sliding gate motors**, starting from version **tS2111** onward.
- **T011A** control board for **swing gate motors**, starting from version **tb2113** onward.
- **T011P** control board for **roller shutters,** starting from version **tA2101** onward.

MODULES

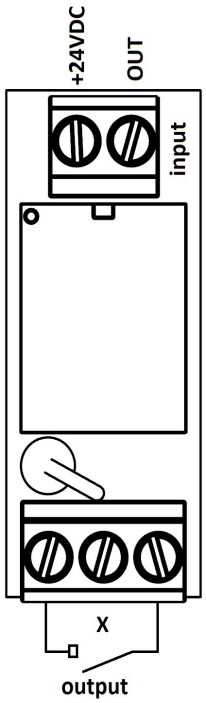
The **DOMUS** expansion consists of a **DOMUS** MODULE and up to three **RELAY** MODULES. The **DOMUS** module expands the control board with three open collector outputs. Each output controls a relay module. The **DOMUS** module has a **push-button K1** to select the outputs menu and three LEDs: **L1, L2** and **L3**. Each LED is linked to a relay status. The LED is ON when the corresponding RELAY output is closed . The **DOMUS** expansion may be used to control a variety of different applications, as for instance ***timed lights controlled by remote***, ***courtesy lights***, ***flashing lamp***, ***electric-lock***, ***traffic lights***, and ***extending an alarm system***.

DOMUS MODULE *cod. EXPMU6T*



+24VDC	**24 VDC 150 mA**
OUT1	**OPEN COLLECTOR OUTPUT 1** *24VDC - 40 mA*
OUT2	**OPEN COLLECTOR OUTPUT 2** *24VDC - 40 mA*
OUT3	**OPEN COLLECTOR OUTPUT 3** *24VDC - 40 mA*
L1	**OUTPUT 1 LED**
L2	**OUTPUT 2 LED**
L3	**OUTPUT 3 LED**
K1	**MENU SELECT PUSH-BUTTON**
S1	**CONNECTION SOCKET** *INSTALL ON CONTROL BOARD EXPANSION SOCKET*

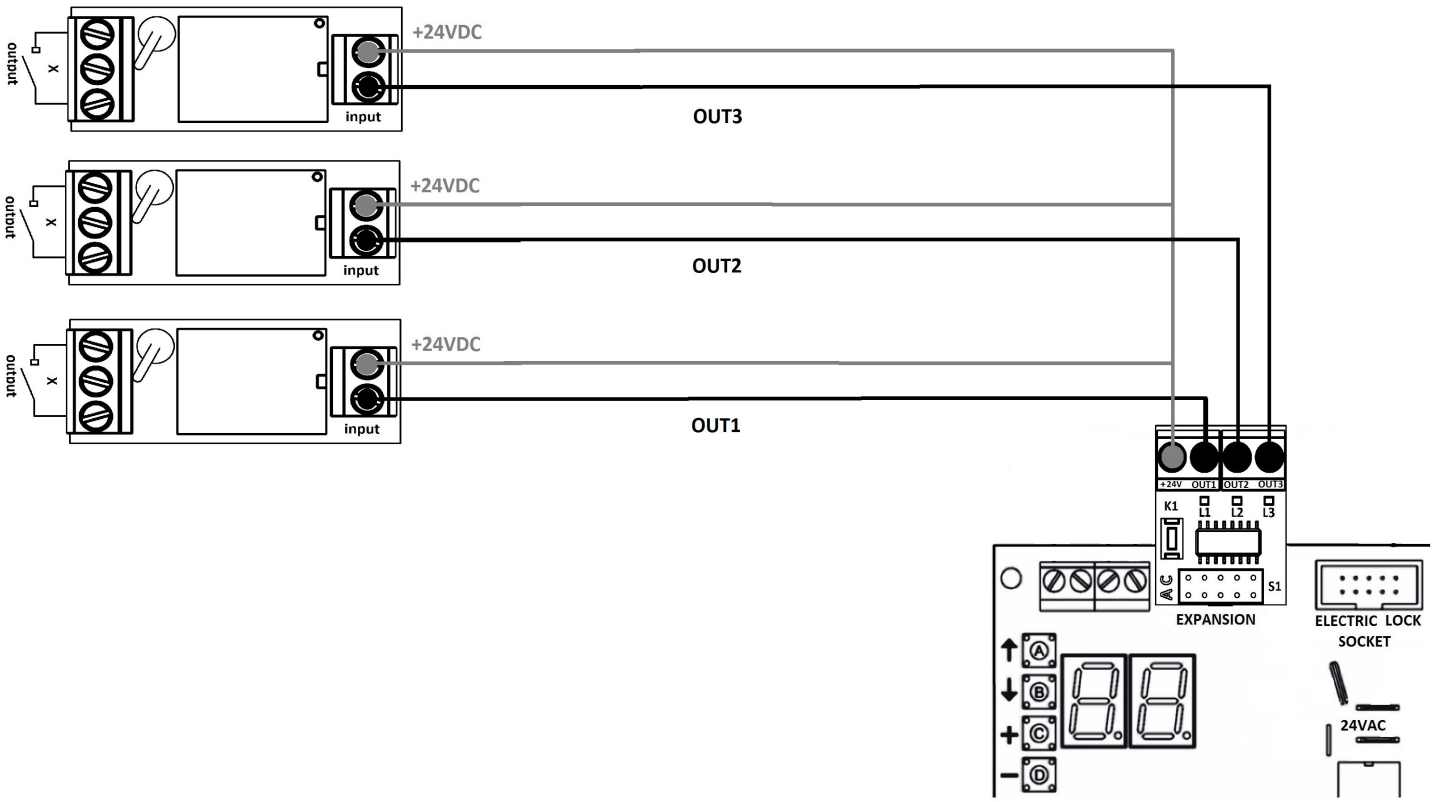
RELAY MODULE *cod. MDLMR4T*



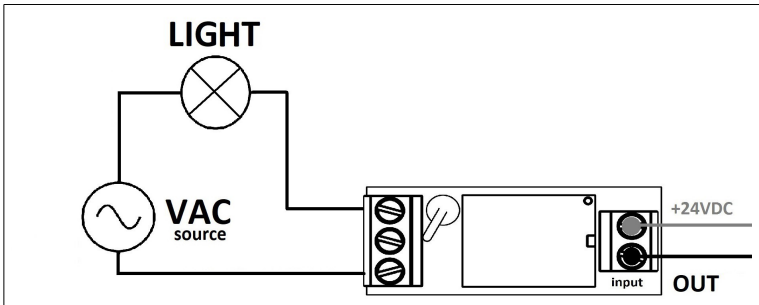
INPUT	**+24VDC**	WIRE TO **DOMUS +24VDC**
	OUT	WIRE TO **DOMUS OUT1** or **OUT2** or **OUT3**
OUTPUT	**120/240 VAC**	**7A**
	12/30 VDC	**7A**

CONNECTIONS

In the figure below is shown the connection of three relay modules with the **DOMUS** module installed on control board expansion socket.

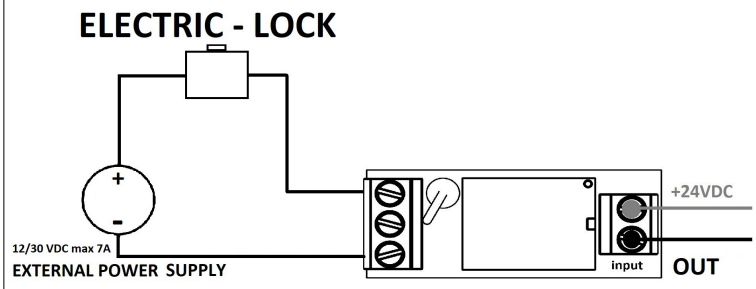


TYPICAL APPLICATIONS



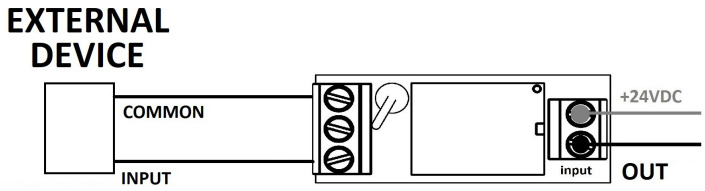
LIGHT

The light can be controlled by: terminal block input, remote key and gate status.
The most useful functions are: ON, ON/OFF, ON from 0 to 99 Seconds / Minutes / Hours. **DOMUS** controls up to 3 lights. The lights can be controlled with a single command with different function for each output (I.E. Turn On output 1 and Turn Off output 2).



ELECTRIC-LOCK

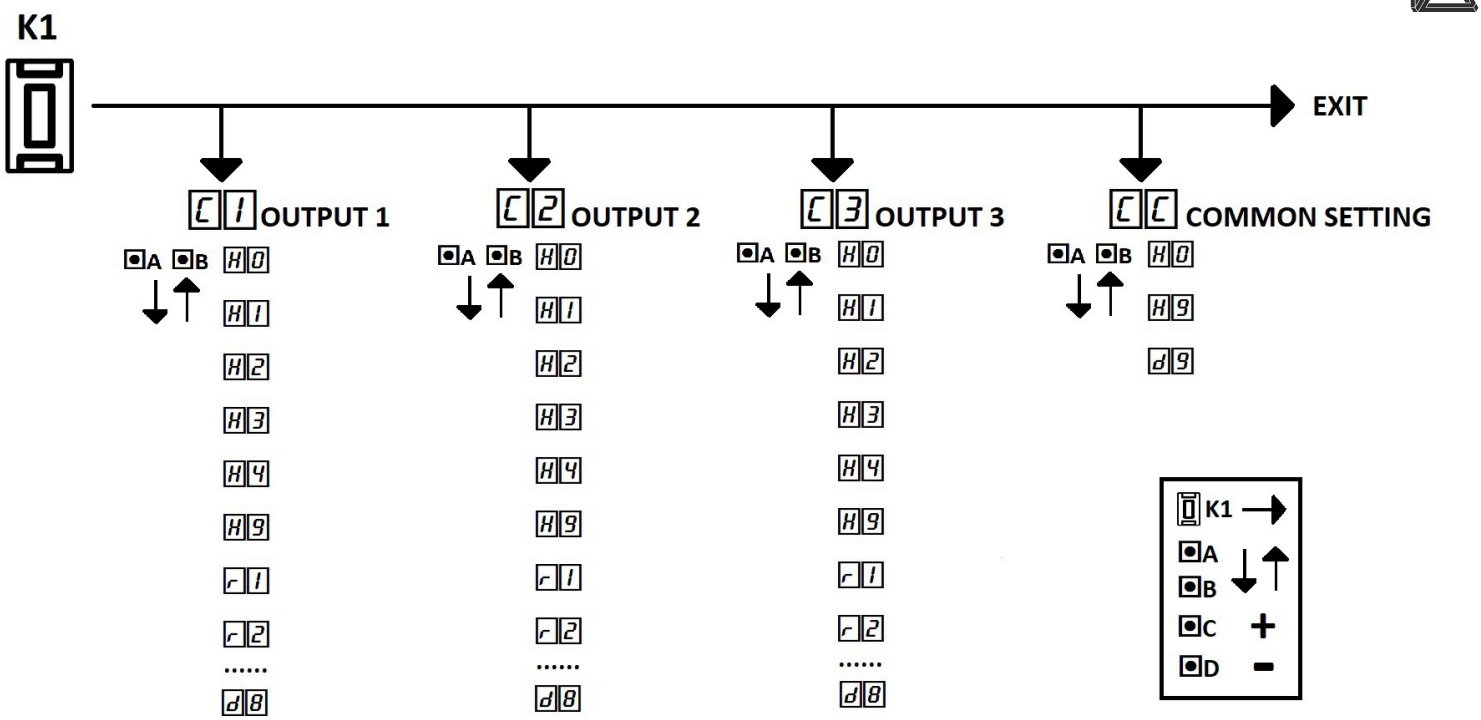
For this application you need of an **external dc power supply** and an **electric-lock**. The electric-lock can be controlled by terminal block input, remote key and gate status. This application can be used to control additional electric-lock.



EXTERNAL DEVICE

A control board with the **DOMUS** can command one or more external devices. The command can be sent by terminal block input, remote key and gate status. For instance this application can be used to open or close more devices at the same time.

MENUS AND EVENTS



MENUS

Each output has its own menu. C1/C2/C3 are the menu of output 1/2/3 respectively. The **common settings menu** CC acts on all outputs. The **output menu** acts only on its output. To select a menu press **K1 button**. To enter a menu press **A or B button.** Use **C or D button** to modify the settings . During programming all events are disabled, the outputs and LEDs are set to OFF. After programming may be necessary to restart the control board to make the settings effective. The programming phase starts when the A, B, C, D or K1 button is pressed.

EVENTS

Each output (C1, C2, C3) has the same settings. This settings allows to start a function after an event is detected. These function are called **DOMUS functions**. An event is a change in the control board status. For instance the gate opening, the pressing of remote key or switching of key selectors are events. The events are based on classes. You can distinguish events and functions of a class by a letter displayed. For instance the letter G identifies the events of gate status.

EVENT CLASS	DESCRIPTION
H	**H-TYPE** events are generated when a **H-Type remote key** is pressed. The H-Type remote are all remote keys stored using the functions H1, H2, H3 or H4. They are called **DOMUS remote** also. A **DOMUS remote key** can be stored on more outputs with different **DOMUS functions**. The **DOMUS remote** keys do not start the gate movement.
r	**R-TYPE** events are generated when a **R-Type remote key** is pressed. The R-Type remote are all remote keys stored using the functions r1 start, r2 stop, r3 pedestrian start or r4 fast closure start in the **standard menu**. They are called **STANDARD remote** also. The **DOMUS functions** are set in the **output menu** using r1, r2, r3 or r4 parameters. All **STANDARD remote** of a type (I.E. r2 stop) can start different **DOMUS functions** on outputs. The **STANDARD remote** change the status of the gate.
E	**E-TYPE** events are generated when an **input terminal block** is activated. The **gate working functions** like open or close are set in the **standard menu** using E1, E2, …, E7 parameters. The **DOMUS functions** are set in the **output menu** using E1, E2, …., E7 parameters.
G	**G-TYPE** events are generated from the control board state. The states are: G1 **turning on**, G2 **opening**, G3 **closing**, G4 **waiting for closing** (pause time), G5 **stop-opening** or **stop-closing**, and G6 **closing end**.

To enter in the standard menu: press **A** or **B** when the display show -- or one of inputs like stop(St).
To enter in the output menu: press **k1** to select the menu C1, C2, C3 or CC. Press **A** or **B** to enter.

DOMUS FUNCTIONS AND EVENTS ROUTING

Each event can be linked to a **DOMUS function**. The **DOMUS functions** are:

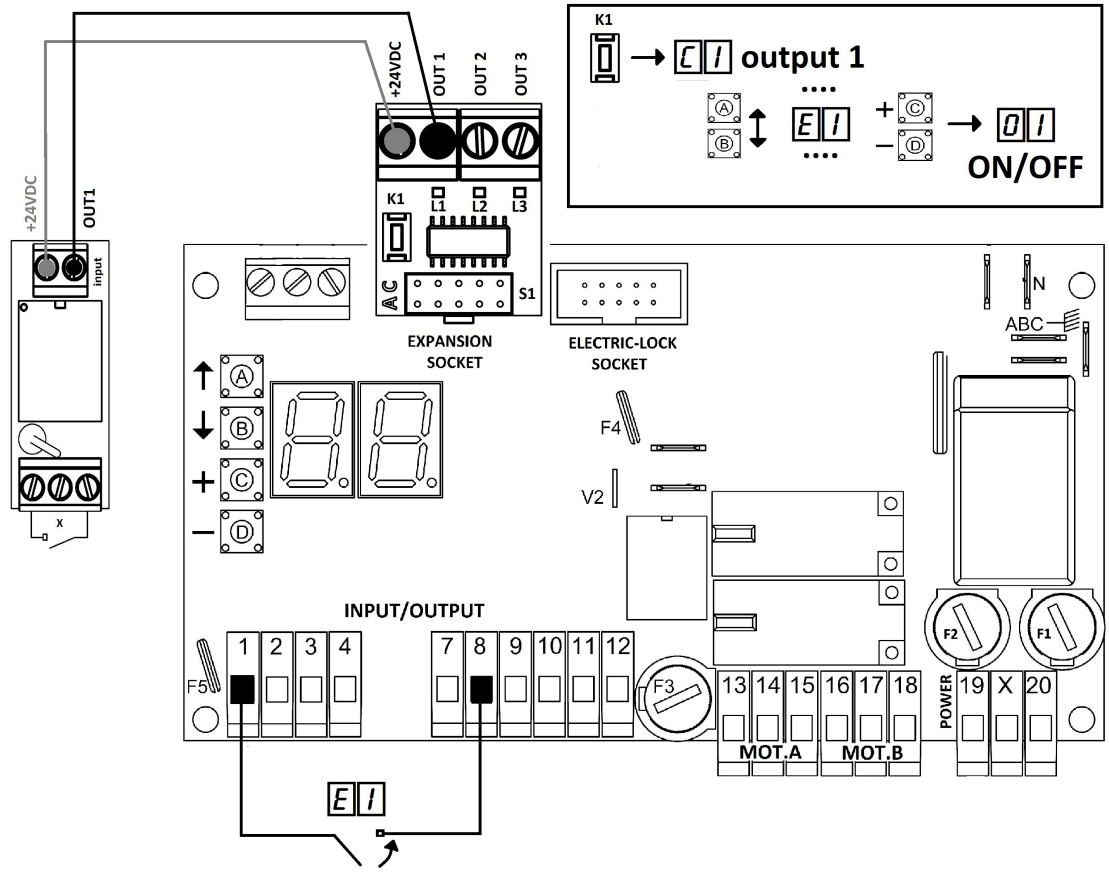
DISPLAY	DOMUS FUNCTION	DESCRIPTION
no	**DISABLED**	Event disabled. It does not have any effect.
01	**ON - OFF**	Event switches output value between ON and OFF.
02	**ON**	Event sets output to ON.
03	**OFF**	Event sets output to OFF.
04	**ON WHILE SOURCE IS ACTIVATED**	While the source is activated the output is ON. When the source is inactive the output is OFF.
05	**SUSPEND OFF WHILE SOURCE IS ACTIVATED**	The current function is suspended and the output is set to OFF while the source is activated.
06	**FAST BLINKING**	Output ON for 0.3 seconds, OFF for 0.2 seconds.
07	**SLOW BLINKING**	Output ON for 0.6 seconds, OFF for 0.4 seconds.
08	**ON FOR E1 SECONDS**	output on for E1 seconds. Min-Max value: 0-99.
09	**ON FOR E2 MINUTES**	output on for E2 minutes. Min-Max value: 0-99.
10	**ON FOR E3 HOURS**	output on for E3 hours. Min-Max value: 0-99.
11	**ON FOR E3 HOURS E2 MINUTES**	output on for E3 hours E2 minutes.

EVENTS ROUTING

Select the output C1, C2 or C3 pressing **K1**. Select the event pressing **A** or **B**. Select the **DOMUS** function pressing **C** or **D**. When the event is generated the **DOMUS function** starts.

EXAMPLE **Turn On/Off the output 1 pressing a push-button wired on input 1**

Press **K1** to select **output 1** menu. When display shows C1 press A or B to enter in the output 1 menu. Select the event E1 by pressing A or B. When the display show E1 press C or D and set the DOMUS function 01 ON/OFF.



OUTPUT MENU

Each output menu contains the same events, functions and data. In the table below are listed all events, functions, and data of an output.

DISPLAY	EVENT	FUNCTION	DATA	DESCRIPTION
H0		**ERASE**		**ERASE DOMUS REMOTE KEY:** Select the **output menu** C1, C2 or C3. Select H0 function. The display shows the remote key IDs stored on the output. To erase, hold down **C** button when the display shows the desired ID. The display blinks. When the display is off the remote key is erased.
H1 ... H4	**H – TYPE** *DOMUS REMOTE*	**STORE/SET**		**STORE DOMUS REMOTE KEY:** Select the **output menu** C1, C2 or C3. Select H1, H2, H3 or H4. Hold down the remote key and press the C button. The display shows the remote ID. **SET DOMUS FUNCTION** : Select the **output menu** C1, C2 or C3. Select the function: H1, H2, H3 or H4. **Hold down D** button. The display blinks showing the selected function. When the display stops blinking release D button. Press C or D button to set the **DOMUS function** from n0 to 11.
H9		**ERASE ALL**		**ERASE ALL DOMUS REMOTE KEYS:** Select the **output menu** C1, C2 or C3. Select H9 function. Press C button. The display blinks showing S1. When the display stops blinking showing S1, the erasing is complete.
r1 ... r4	**R - TYPE** *STANDARD REMOTE*	**SET**		The **STANDARD remote** are r1 **start**, r2 **stop**, r3 **pedestrian start**, and r4 **fast closure start**. **SET DOMUS FUNCTION** Select the **output menu** C1, C2 or C3. Select the function: r1, r2, r3 or r4. Press C or D button to set the **DOMUS function** from n0 to 11. *The storing and erasing function are available in the classic menu.*
E1 ... E7	**E - TYPE** *TERMINAL BLOCK INPUT*	**SET**		**SET DOMUS FUNCTION** Select the **output menu** C1, C2 or C3. Select the function: E1 **input1**, E2 **input 2**, E3 **input 3,** .. E7 **input 7**. Press C or D button to set the **DOMUS function** from n0 to 11.
G1 ... G6	**G-TYPE** *GATE STATUS*	**SET**		**SET DOMUS FUNCTION:** Select the **output menu** C1, C2 or C3. Select the **G-type** parameter: G1 **turning on**, G2 **opening**, G3 **closing**, G4 **waiting for closing** (pause time), G5 **stop-opening/closing**, G6 **closing end**. Press C or D button to set the **DOMUS function** from n0 to 11.
t1		**+** **-**	**TIMER** **MIN** 00 **MAX** 99	t1 → **SECONDS** t2 → **MINUTES** t3 → **HOURS** **+/-:** Select the **output menu** C1, C2 or C3. Select the timer t1, t2 or t3. Press C to increase by 1. Press D to decrease by 1.
t2				
t3				
PH		**+** **-**	**SOURCE PRIORITY** **MIN** 01 **MAX** 05	Each event type has a programmable priority. PH sets the priority of H-type remote controllers, PE sets the priority of inputs terminal block, Pr sets priority of standard type remote controllers, and PG sets priority of gate status. When two or more sources are active, only the function linked to highest priority source will be set. **+/-:** Select the **output menu** C1, C2 or C3. Select PH, Pr, PE or PG. Press C to increase by 1. Press D to decrease by 1.
Pr				
PE				
PG				

OUTPUT MENU

Each output menu contains the same events, functions and data. In the table below are listed all events, outputs and data of output.

DISPLAY	EVENT	FUNCTION	DATA	DESCRIPTION
oH or oE		**ENABLE DISABLED**	**OPTION** **MIN** 00 **MAX** 01	**ENABLE/DISABLE KEEP COUNTING OPTION:** Select the output menu C1, C2 or C3. Select the option oH, or or oE. Press C to set 01 (enabled) or Press D to set 00 (disabled). When one of following **DOMUS functions**: 08, 09, 10 or 11 is running and this option is enabled the counter is reset only from events with higher priority. This option can be enabled for these class events: H-TYPE, R-TYPE or E-TYPE.
d1 ... d8		**SET**		**SET A PRE-PROGRAMMED CONFIGURATION**: Select the **output menu** C1, C2 or C3. Select the **configuration** from d1 to d8. Press C button. The display blinks showing the selected configurations. When the display shows the output menu C1, C2 or C3 the configuration is set. There are eight per-programmed configurations. Each configuration can be used to manage an application. The applications are: d1 **Timed light** is used to control a light with a remote key. Store a DOMUS remote key with following functions for: • H1→ ON/OFF • H2→ ON for 90 seconds. • H3→ ON for 60 minutes. • H4→ ON for 12 hours. d2 **Flashing lamp** At opening/closing the flashing lamp blinks rapidly/slowly. at pause time the flashing lamp is ON. the flashing lamp is OFF When the photocells beam is broken, otherwise is OFF. d3 **Electric-lock**. The electric-lock is activated for 3 seconds when: • The gate starts opening. • A remote key stored with H2 functions is pressed. d4 **Alarm** configures the photocells as extension of an existing alarm system. When the gate is closed and a photocell beam is broken the output will be ON for 3 seconds. Press a remote key stored using H2 function to set the output ON for 3 seconds. d5 **Courtesy light** is used to control a light from more sources: gate status, photocells or remote. When the gate is opening/closing the light is ON. During the automatic closure time the light is ON. In stop-closing or stop-opening state the light is ON for 3 minutes. When a photocell beam is broken the light is ON for 30 seconds. Store a **DOMUS** remote key with following functions for: • H1→ ON/OFF. • H2→ ON for 30 seconds. • H3→ ON for 3 minutes. • H4→ ON for 1 hours. d6 **Gate open**: set the output to ON when the gate is open. d7 **Gate closed**: set the output to ON when the gate is closed. d8 **disabled**: the output is off. All events are set to no disabled.

COMMON SETTING MENU

The common settings menu acts on all output.

DISPLAY	EVENT	FUNCTION	DATA	DESCRIPITION
H0		**ERASE**		**ERASE DOMUS REMOTE:** Select common settings menu CC. Select H0 function. The display shows all the remote key IDs stored on all outputs. When the display shown the desired ID hold down C button to erase. The display starts blinking. After the remote key has been erased the display turns off
H9		**ERASE ALL**		**ERASE ALL DOMUS REMOTE KEYS:** select common settings menu CC. Select H9 function. Press C button . The display blinks showing SI. When the display stops blinking showing SI the erasing is complete. **All remote keys are erased on all outputs.**
d9		**SET**		**SET FACTORY CONFIGURATION:** select common settings menu CC. Select d9 configuration. Press C button. The display blinks showing d9. After the factory settings have been set, the display shows CC **Output 1 → *timed light*** d1 Store a DOMUS remote key with following functions for: • H1→ ON/OFF • H2→ ON for 90 seconds. • H3→ ON for 60 minutes. • H4→ ON for 12 hours. **Output 2 → *gate open*** d6 Set the output 2 to ON when the gate is open. **Output 3 → *gate closed*** d7 Set the output 3 to ON when the gate is closed.

FACTORY CONFIGURATION

The control board is supplied with the following configurations programmed:

OUTPUT 1 → *timed light* d1	OUTPUT 2 → *gate open* d6	OUTPUT 3 → *gate closed* d7
Store a **DOMUS remote key** with following functions for: • H1→ ON/OFF • H2→ ON for 90 seconds. • H3→ ON for 60 minutes. • H4→ ON for 12 hours.	The output is ON when the gate is open.	The output is on when the gate is closed.

PRE-PROGRAMMED CONFIGURATIONS

T011S Sliding control board

		d1 timed light	d2 flashing lamp	d3 electric lock	d4 alarm	d5 courtesy light	d6 gate open	d7 gate closed	d8 disabled
H1	DOMUS REMOTE	01 ON/OFF				01 ON/OFF			
H2	DOMUS REMOTE	08 ON t1 Secs		08 ON t1 Secs	08 ON t1 Secs	08 ON t1 Secs			
H3	DOMUS REMOTE	09 ON t2 Mins				09 ON t2 Mins			
H4	DOMUS REMOTE	10 ON t3 Hours				10 ON t3 Hours			
r1	START REMOTE								
r2	STOP REMOTE								
r3	PED. REMTOE								
r4	F.CL. REMOTE								
E1	T.B. INPUT 1								
E2	T.B. INPUT 2								
E3	T.B. INPUT 3		05 SUSPEND		08 ON t1 Secs	08 ON t1 Secs			
E4	T.B. INPUT 4		05 SUSPEND		08 ON t1 Secs	08 ON t1 Secs			
E5	T.B. INPUT 5						03 OFF	02 ON	
E6	T.B. INPUT 6						02 ON	03 OFF	
E7	T.B. INPUT 7								
G1	TURINING ON							02 ON	
G2	OPENING		06 FAST BL.		03 OFF	02 ON	02 ON	03 OFF	
G3	CLOSING		07 SLOW BL.		03 OFF	02 ON	02 ON		
G4	PAUSE		02 ON		03 OFF	02 ON	02 ON		
G5	STOP		03 OFF		03 OFF	08 ON t1 Secs	02 ON		
G6	CLOSING END		03 OFF			09 ON t2 Mins	03 OFF	02 ON	
t1	TIMER SECS	90 SECONDS		03 SECONDS	03 SECONDS	60 SECONDS			
t2	TIMER MINS	60 MINUTES				03 MINUTES			
t3	TIMER HOURS	12 HOURS				01 HOURS			
PH	DOMUS REMOTE PRIORITY				02	02			
Pr	START - STOP – PED – F.CL. REMOTE PRIORITY								
PE	T.B. INPUT PRIORITY								
PG	GATE PRIORITY				02	02			
oH	DOMUS REMOTE KEEP COUNTING								
or	START – STOP – PED – F.CL. REMOTE KEEPT COUNTING								
oE	T.B. INPUT KEEP COUNTING								

PRE-PROGRAMMED CONFIGURATIONS

T011A Swing control board

		d1 timed light	d2 flashing lamp	d3 electric lock	d4 alarm	d5 courtesy light	d6 gate open	d7 gate closed	d8 disabled
H1	DOMUS REMOTE	01 ON/OFF				01 ON/OFF			
H2	DOMUS REMOTE	08 ON t1 Secs		08 ON t1 Secs	08 ON t1 Secs	08 ON t1 Secs			
H3	DOMUS REMOTE	09 ON t2 Mins				09 ON t2 Mins			
H4	DOMUS REMOTE	10 ON t3 Hours				10 ON t3 Hours			
r1	START REMOTE								
r2	STOP REMOTE								
r3	PED. REMTOE								
r4	F.CL. REMOTE								
E1	T.B. INPUT 1								
E2	T.B. INPUT 2								
E3	T.B. INPUT 3		05 SUSPEND		08 ON t1 Secs	08 ON t1 Secs			
E4	T.B. INPUT 4		05 SUSPEND		08 ON t1 Secs	08 ON t1 Secs			
E7	T.B. INPUT 7								
G1	TURINING ON							02 ON	
G2	OPENING		06 FAST BL.		03 OFF	02 ON	02 ON	03 OFF	
G3	CLOSING		07 SLOW BL.		03 OFF	02 ON	02 ON		
G4	PAUSE		02 ON		03 OFF	02 ON	02 ON		
G5	STOP		03 OFF		03 OFF	08 ON t1 Secs	02 ON		
G6	CLOSING END		03 OFF			09 ON t2 Mins	03 OFF	02 ON	
t1	TIMER SECS	90 SECONDS		03 SECONDS	03 SECONDS	60 SECONDS			
t2	TIMER MINS	60 MINUTES				03 MINUTES			
t3	TIMER HOURS	12 HOURS				01 HOURS			
PH	DOMUS REMOTE PRIORITY				02	02			
Pr	START - STOP – PED – F.CL. REMOTE PRIORITY								
PE	T.B. INPUT PRIORITY								
PG	GATE PRIORITY				02	02			
oH	DOMUS REMOTE KEEP COUNTING								
or	START – STOP – PED – F.CL. REMOTE KEEPT COUNTING								
oE	T.B. INPUT KEEP COUNTING								

PRE-PROGRAMMED CONFIGURATIONS

T016P Shutter control board

		d1 timed light	d2 flashing lamp	d3 electric lock	d4 alarm	d5 courtesy light	d6 gate open	d7 gate closed	d8 disabled
H1	DOMUS REMOTE	01 ON/OFF				01 ON/OFF			
H2	DOMUS REMOTE	08 ON t1 Secs		08 ON t1 Secs	08 ON t1 Secs	08 ON t1 Secs			
H3	DOMUS REMOTE	09 ON t2 Mins				09 ON t2 Mins			
H4	DOMUS REMOTE	10 ON t3 Hours				10 ON t3 Hours			
r1	START REMOTE								
r2	STOP REMOTE								
r3	PED. REMTOE								
r4	F.CL. REMOTE								
E5	T.B. INPUT 5						03 OFF	02 ON	
E6	T.B. INPUT 6						02 ON	03 OFF	
E7	T.B. INPUT 7								
G1	TURINING ON							02 ON	
G2	OPENING		06 FAST BL.		03 OFF	02 ON	02 ON	03 OFF	
G3	CLOSING		07 SLOW BL.		03 OFF	02 ON	02 ON		
G4	PAUSE		02 ON		03 OFF	02 ON	02 ON		
G5	STOP		03 OFF		03 OFF	08 ON t1 Secs	02 ON		
G6	CLOSING END		03 OFF			09 ON t2 Mins	03 OFF	02 ON	
t1	TIMER SECS	90 SECONDS		03 SECONDS	03 SECONDS	60 SECONDS			
t2	TIMER MINS	60 MINUTES				03 MINUTES			
t3	TIMER HOURS	12 HOURS				01 HOURS			
PH	DOMUS REMOTE PRIORITY				02	02			
Pr	START - STOP – PED – F.CL. REMOTE PRIORITY								
PE	T.B. INPUT PRIORITY								
PG	GATE PRIORITY				02	02			
oH	DOMUS REMOTE KEEP COUNTING								
or	START – STOP – PED – F.CL. REMOTE KEEPT COUNTING								
oE	T.B. INPUT KEEP COUNTING								

NOTES:

DOMUS

USER MANUAL

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ENG

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