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## **ACCESSORIES**

	7.002000120	
CONNECTING LEADS		TL 2101T
TWO-LEVEL FRAME		DL 2100-2M
THREE-LEVEL FRAME		DL 2100-3M





## **POWER SUPPLIES**

## Single-Phase power Supply



**DL 2101ALA** 

Single-phase mains output voltage at safety terminals.

Protection through bipolar magneto-thermal switch.

Pilot lamp for mains. Single-phase power supply from mains.

Two single-pole switches

10 A

for domestic use, 250 Vac,

## Single-Phase power Supply



**DL 2101ALF** 

Single-phase mains output voltage at safety terminals. Protection through differential magneto-thermal switch and key operated switch with pilot lamp. Sectionable fuse holder with high breaking capacity for the protection of power circuits. Singlephase power supply from mains with signalling pilot lamp.

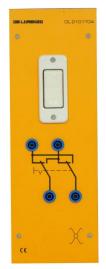
## **MODULES**

## Switches and Commutator



**DL 2101T02RM** 

## Intermediate switch



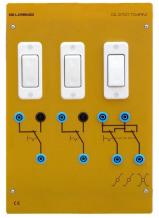
**DL 2101T04** 

Intermediate switch, 250 Vac, 10 A





## **Intermediate Switch** and Two-Way Switches



**DL 2101T04RM** 

One intermediate switch, 250 Vac, 10 A. Two two-way switches, 250 Vac, 10 A.

## **Light Pushbutton**



**DL 2101T05** 

Single-pole switch, 250 Vac, 10 A.

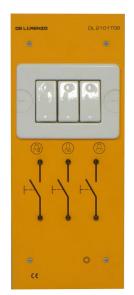
## **Bell/Door Opener Pushbuttons**



**DL 2101T07RM** 

Single-pole pushbutton, 250 Vac, 10 A, bell. Single-pole pushbutton, 250 Vac, 10 A, door opener.

## **Marked Pushbuttons**



**DL 2101T08** 

Three single pole switches, 250 Vac, 10 A.



European standard single-

phase socket, 250 Vac, 2P

Alternatively, single phase

+ T, 10/16 A.

socket suitable for the mains to be

specified.



## **Single-phase Mains**

## Socket



**DL 2101T10** 

## **Halogen Lamps**



**DL 2101T11RM** 

Single-phase

Two halogen lamps, 12 Vac, 20 W.

## **Low Consumption Fluorescent Lamps**



**DL 2101T11RM2A** 

Two low consumption fluorescent lamps with integrated starter, 230 Vac, 5 W.



**DL 2101T13A** 

Primary: 127-230 V.

Secondary: 12 V - 0 - 12 V,

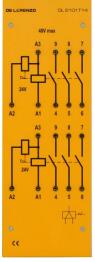
50 VA.

Fuse protection.





## **Latching Relays**

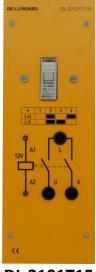


**DL 2101T14** 

Two bistable relays with coil at 24 Vac. Two NO contacts, 48 Vac,

2 A.

## **Stepping Relay**



**DL 2101T15** 

Two-contact stepping relay with 4 sequences. Coil 12 Vac - 230 Vac, 10

## **Staircase Light Timer**



**DL 2101T16** 

Automatic switch for staircase lighting control with adjustable timing, 110 - 230 Vac, 10 A.

## **Incandescent and Fluorescent Lamps**

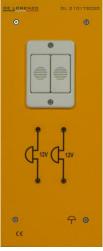


**DL 2101T17RM** 

Two incandescence lamps. One fluorescent lamp with starter.



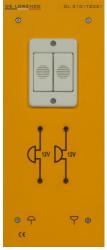
## **Bells**



**DL 2101T2020** 

Two bells, 12 Vac, 8 VA.

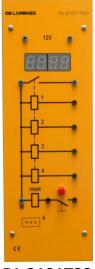
## **Bell and Buzzer**



DL 2101T2021

One bell and one buzzer, 12 Vac, 8 VA.

## **Display Signalling**



**DL 2101T23** 

## Signalling module with four displays, with reset

Operating voltage: 12 Vac.

## **Electric Lock**



**DL 2101T24** 

Lock with electromagnetic control. Coil: 12 Vac.



## **Entry Phone**



Wall standard intercom with three pushbuttons and buzzer.

## **Outdoor Entry Phone**



**DL 2101T26E** 

Pushbuttons.

## **Power Supply**



**DL 2101T27C** 

Power supply for entry phones.

Output: - J, + 6 Vdc - 6 Vdc.

Power supply from mains.

## **Emergency Light**



**DL 2101T28** 

Complete with 2 Ni-Cd rechargeable batteries, 2.4 V, 0.5 Ah.

Autonomy: 2 hours.





## **Stand-by Battery**



Sealed, rechargeable battery.
Capacity: 12 V, 1.8 Ah.

## Fire, Intrusion and Gas Alarm Control Unit



DL 2101T30/40

Eight multifunction programmable input control unit for fire, intrusion and gas detection.

- 1 anti-sabotage line, 24 h
- 5 outputs at 12 V for power supplying the sensors
- 1 output at 14 V for charging the battery
- 2 programmable alarm relays

Power supply from mains.

## **Smoke Detector**



**DL 2101T31** 

Photo-optical smoke detector with relay output. Typical protected area: 80 m<sup>2</sup>.

Connection through 4 wires, memory LED, output for remote memory LED. Absorption while in operation 60 µA. Power supply: 12 Vdc.

### **Thermal Detector**



**DL 2101T32** 

Combined thermo velocimetric and fixed 60°C conventional temperature detector.

Typical protected area: 40 m<sup>2</sup>.

Connection through 2 wires, memory LED, output for remote memory LED. Power supply: 12 Vdc.



## **Emergency Pushbutton**



**DL 2101T33** 

Red emergency pushbutton with 1 switching contact.

Gpl sensor, 12 Vdc, 200

mA.





**DL 2101T34RM** 

Alarm module with a buzzer and a red LED optical indicator, 12 Vdc.

## **Gas Detector**



**DL 2101T38RM** 

## **Signaling Lamps**



**DL 2101T39** 

Module with 9 LED pilot lamps, 3 red, 3 yellow and 3 green, 24 Vac.



### **Microwave Sensor**



**DL 2101T41** 

Combined infrared and microwave detector with either AND or OR operating modes.

Range: 10 meters and 110°.

High level of immunity from radiofrequencies. Operating temperature from -5°C to +50°C. Power supply: 12 Vdc.

### **Passive Infrared Sensor**



**DL 2101T42** 

Volumetric, passive infrared sensor.

Range: 10 meters and

110°.

High level of immunity from radiofrequencies. Operating temperature from -10°C to +40°C. Power supply: 12 Vdc.

### **Perimeter Sensors**



**DL 2101T43** 

Magnetic contact mechanical sensor for the protection of the entrances (doors, windows, etc.). The magnetic contact is made of two blocks: in one block there is a permanent magnet and in the other one a reed relay with a NO alarm contact.

Contact range: 0.5 A.

## **Blinker**



**DL 2101T44** 

Xenon optical blinking indicator, with orange cap, to signal the intrusion attempt.

Pulse: 65 - 90 per minute. Absorption: 400 mA Power supply: 12 Vdc





## Video Camera-Monitor **Power Supply**



**DL 2101T50** 

For power supplying the video camera, the outdoor pushbutton and the indoor monitor. Output power: 38 VA. Output without timer: 12 Vac, 2 A; 6 Vdc, 1 A Output with timer: 18 Vdc, 0.85 A; 16 Vdc, 0.23 A Timer: 45 ÷ 180 sec. Power supply from mains.

## **Video Camera and Outdoor Station**

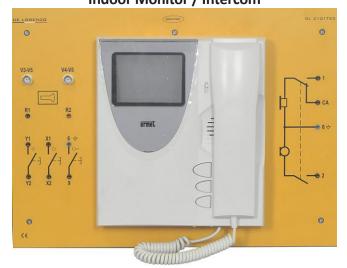


DL 2101T51/52

Complete with speaker, microphone and call pushbutton. CCD 1/3 B/W video camera with IR LED lighting group.

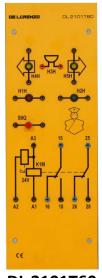
Frequency: 50 Hz.

## **Indoor Monitor / Intercom**



**DL 2101T53** 

### **Nurse Board**



**DL 2101T60** 

To be placed in the nurses room, it allows stopping the acoustic signal and calming down the patient by sending a light signal to the patient room.

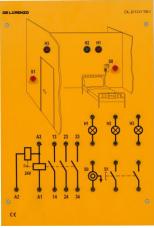
It is composed of: a red calling lamp, a green accepted call lamp, a call buzzer, a light switch, a pushbutton and a bistable relay with two switching contacts.

Operating voltage: 24 Vac

Video intercom with opening pushbuttons, volume control and mute function.



## **Patient Room Board**



**DL 2101T61** 

To be placed in the patient room. It allows calling the nurse in case of need. It is composed of: a red calling lamp, a green accepted call lamp, a red lamp outside the door, a pull button, a reset pushbutton and a bistable relay with 3 NO contacts. Operating voltage: 24

Vac.

## **Dimmer**



**DL 2101T100** 

Electronic light brightness regulator, only for resistive loads. Adjustment from 100 W to 500 W at 230 V. Adjustment from 50 W to 250 W at 127 V.

## **Pushbutton Light** Regulator



**DL 2101T101** 

Pushbutton electronic light brightness regulator, with external controls. Adjustment from 60W to 600 W, resistive. Adjustment from 60 VA to 500 VA, inductive.

## **Twilight Switch**



**DL 2101T111** 

2 to 200 lux, adjustable. Preset at 10 lux





## **Presence and Twilight Switch**



**DL 2101T112** 

Automatic infrared sensor with twilight switch.

Range: 0 to 110°, 5

meters.

Time adjustment from 10 sec. to 10

Glow regulation from 5 to 2000 lux.

## **Time Switch**



**DL 2101T113** 

Daily timer switch with tappets.

One ON/OFF switching contact, 15 min. minimum.

Output current: 250 Vac,

10 A.

Power supply from mains.

## **Connecting Leads**



Cable set for connecting the experiment modules DL 2101T.

## **TL 2101T**



Two or three level metal frame for mounting the modules of the laboratory.





## **SUGGESTED CONFIGURATIONS**

		TA	TAS	ТВ	TC	TD	TF	TG	TH	тот.
DL 2101ALA	Single-phase power supply	.,,	.,,				••		***	.0
DL 2101ALF	Single-phase power supply	1	1	1	1	1	1	1	1	1
DL 2101702RM	Switches and commutator	1	1	_	-	_	_		1	1
DL 2101T04	Intermediate switch	1	1							1
D1 1101104	Intermediate and 2-way	1								1
DL 2101T04RM	switches	_								
DL 2101T05	Light pushbutton	1	1	1		1				1
	Bell/door opener	1	1	1	İ	1				1
DL 2101T07RM	pushbuttons									
DL 2101T08	Marked pushbuttons			2		2				2
DL 2101T10	Single-phase mains socket	1								1
DL 2101T11RM	Halogen lamps		1							1
	Low consumption		1							1
DL 2101T11RM2A	fluorescent lamps									
DL 2101T13A	Single-phase transformer	1		1		1				1
DL 2101T14	Latching relays					3				3
DL 2101T15	Stepping relay	1		1	1					1
DL 2101T16	Staircase light timer	1		1	1					1
	Incandescent and	1	1							1
DL 2101T17RM	fluorescent lamps	1	1	1.	1	ļ	1			1
DL 2101T2020	Bells		1	1	1	1			-	1
DL 2101T2021	Bell and buzzer			1	1					1
DL 2101T23	Display signalling			1						1
DL 2101T24	Electric lock			1	+_					1
DL 2101T26	Entry phone				3					3
DL 2101T26E	Outdoor entry phone				1					1
DL 2101T27C	Power supply		1	1	1					1
DL 2101T28	Emergency light		1	<del>                                     </del>	-		1	1		1
DL 2101T29	Stand-by battery			1			1	1		1
DL 2101T30/40	Fire, intrusion and gas alarm control						1	1		1
DL 2101730/40	Smoke detector			1	1		1			1
DL 2101731 DL 2101732	Thermal detector			1	1		1			1
DL 2101732	Emergency pushbutton						1			1
DL 2101733	Alarms			+			1	1		1
DL 2101T38RM	Gas detector						1			1
DL 2101T39	Signalling lamps					1	-			1
DL 2101T41	Microwave sensor					_		1		1
DL 2101T42	Passive infrared sensor							1		1
DL 2101T43	Perimeter sensor							1		1
DL 2101T44	Blinker				İ			1		1
	Video camera-monitor				İ	İ		Ì	1	1
DL 2101T50	power supply	<u>L</u>		<u>L</u>	<u>L</u>	<u>L</u>	<u>L</u>	<u>L</u>	<u>l</u> _	
	Video camera and outdoor								1	1
DL 2101T51/52	station			<u> </u>						
DL 2101T53	Indoor monitor/intercom								1	1
DL 2101T60	Nurse board					1				1
DL 2101T61	Patient room		]		1	2				2
DL 2101T100	Dimmer		1							1
DL 2101T101	Pushbutton light regulator		1							1
DL 2101T111	Twilight switch		1	1	1					1
DL 2101T112	Presence and twilight sensor		1	1	1					1
DL 2101T113	Timer switch		1	1	1					1
DL 2100-2M	Two-level frame		ļ	1	1		1	1	1	1
DL 2100-3M	Three-level frame	1	1	1	1	1				2
TL 2101T	Connecting leads	1	1	1	1	1	1	1	1	1
DL 2101T13AT	Autotransformer	Necessa	ary in case	the local v	voltage is o	lifferent fr	om 230 V	ac		





### LIST OF EXPERIMENTS

### DL 2101TA - LIGHTING

- Single-point controlled lighting installation
- Single-point controlled lighting installation with socket
- Switch-controlled two-lamps lighting installation
- Two-point controlled lighting installation
- Three-point controlled lighting installation
- Four-point controlled lighting installation
- Circuit breaking relay controlled lighting installation
- Switching relay controlled lighting installation
- Time relay controlled lighting installation
- Hot-cathode fluorescent lamp installation

### DL 2101TAS - LIGHTING (ADVANCED)

- Low consumption lamps lighting installation
- Emergency light installation
- Lighting installation controlled by a dimmer
- Lighting installation controlled by a pushbutton light regulator
- Lighting installation controlled by a twilight switch (outdoor type)
- Lighting installation controlled by a presence and twilight switch (indoor type)
- Lighting installation controlled by a timer switch

### DL 2101TB - SIGNALLING

- Signalling installation
- Single-control signalling installation
- Reciprocal control signalling installation
- Light signalling installation
- Ringing installation with doors and main entrance control
- Electric lock ringing installation

### DL 2101TC - HOUSE PHONES

- Two reciprocal call entry-phone installation at short distance
- Two reciprocal call entry-phone installation at long distance
- Coupled two entry-phone installation
- Main entry-phone and two shunted entry-phones installation
- Communicating entry-phones installation
- Connection between an external unit and two shunted entry-phones





## DL 2101TD - HOTELS/HOSPITALS

- Installation for audience request
- Installation for hotel
- Installation for nurse calling

### DL 2101TF - FIRE ALARM SYSTEMS

Study of a complete installation of a fire alarm system, including: smoke sensor, thermal detector, gas detector, emergency pushbutton, alarms, auxiliary battery and control panel.

### DL 2101TG - INTRUDER ALARM SYSTEMS

Study of a complete installation of an intruder alarm system, including: microwave sensor, infrared passive sensor, perimeter sensor, blinker, alarms, auxiliary battery and control panel.

### DL 2101TH - VIDEO INTERCOM

- Signalling bell installation
- Signalling bell and plate lighting installation
- House-phone installation
- Outdoor video station
- Video/house-phone installation