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POWER SUPPLIES

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SINGLE-PHASE POWER SUPPLY

DL 2101ALA
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INTERMEDIATE SWITCH AND TWO-WAY SWITCHES
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ACCESSORIES

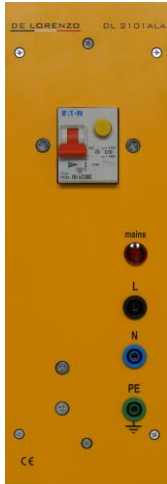
CONNECTING LEADS
TWO-LEVEL FRAME
THREE-LEVEL FRAME

TL 2101T
DL 2100-2M
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.

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. Single-phase power supply from mains with signalling pilot lamp.

MODULES

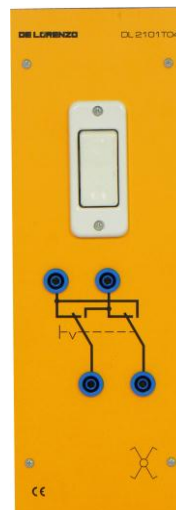
Switches and Commutator



DL 2101T02RM

Two single-pole switches for domestic use, 250 Vac, 10 A

Intermediate switch

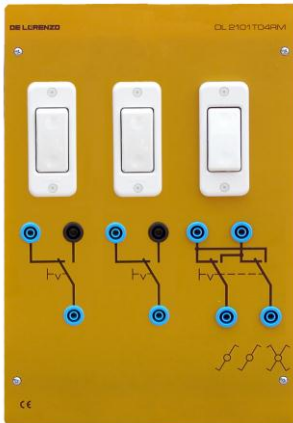


DL 2101T04

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.

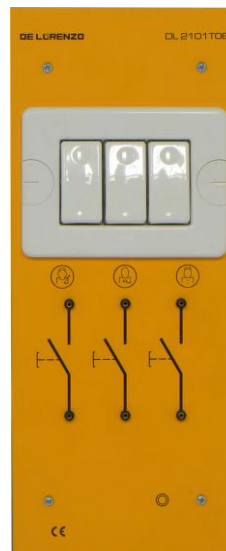
Bell/Door Opener Pushbuttons



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.



Single-phase Mains Socket

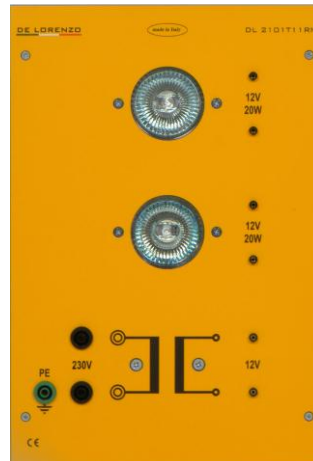


DL 2101T10

European standard single-phase socket, 250 Vac, 2P + T, 10/16 A.

Alternatively, single phase socket suitable for the mains to be specified.

Halogen Lamps



DL 2101T11RM

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.

Single-phase Transformer

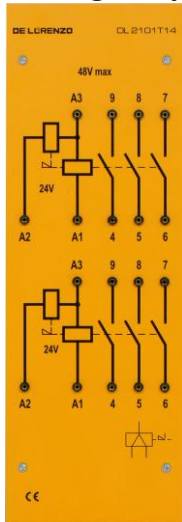


DL 2101T13A

Primary: 127-230 V.
Secondary: 12 V - 0 - 12 V,
50 VA.
Fuse protection.



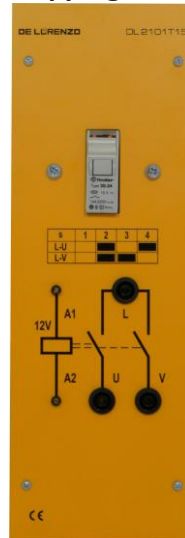
Latching Relays



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 A

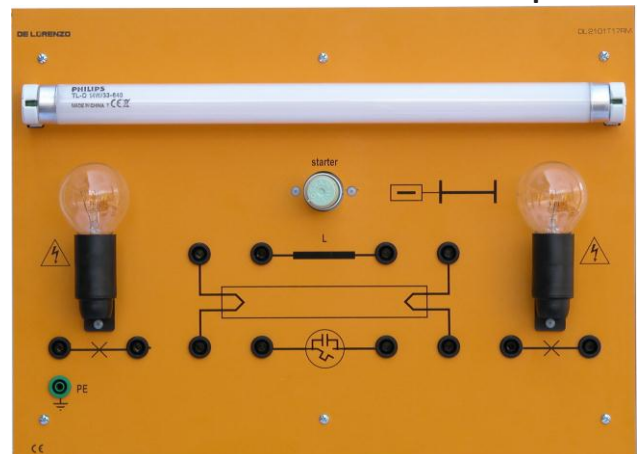
Staircase Light Timer



DL 2101T16

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

Incandescent and Fluorescent Lamps

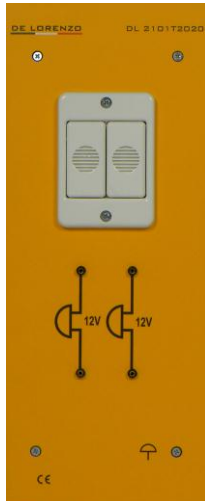


DL 2101T17RM

Two incandescence lamps.
One fluorescent lamp with starter.



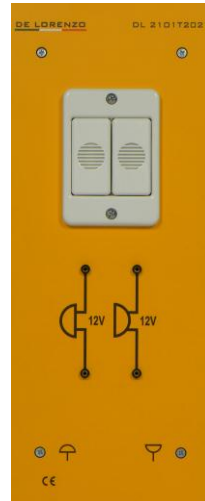
Bells



DL 2101T2020

Two bells, 12 Vac, 8 VA.

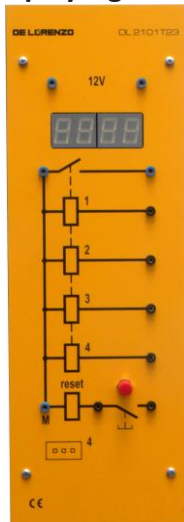
Bell and Buzzer



DL 2101T2021

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

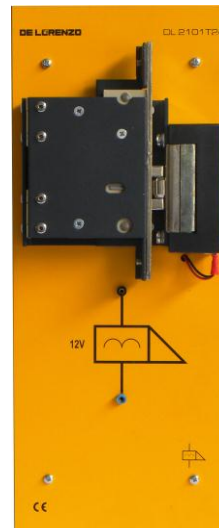
Display Signalling



DL 2101T23

Signalling module with
four displays, with reset
button.
Operating voltage: 12 Vac.

Electric Lock

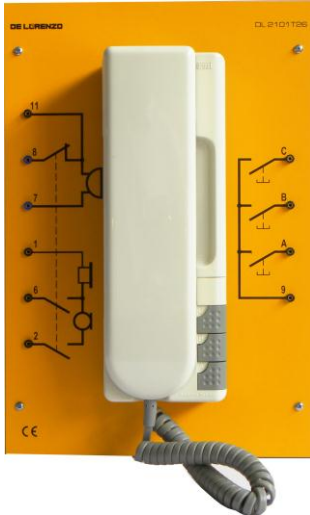


DL 2101T24

Lock with electromagnetic
control.
Coil: 12 Vac.



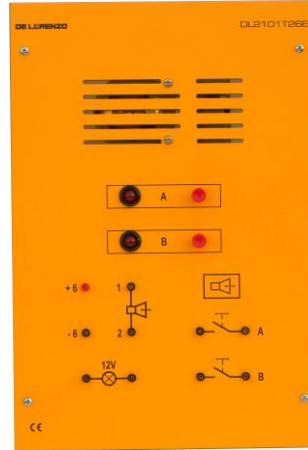
Entry Phone



DL 2101T26

Wall standard intercom with three pushbuttons and buzzer.

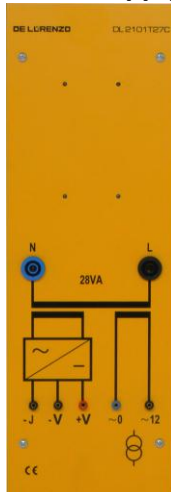
Outdoor Entry Phone



DL 2101T26E

Pushbuttons.

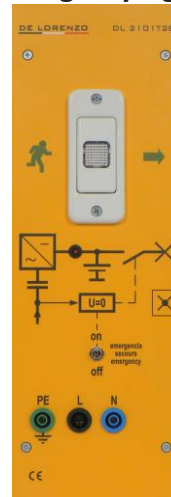
Power Supply



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



DL 2101T29

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.

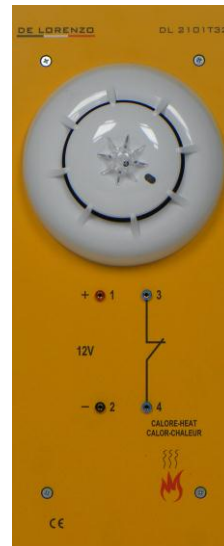
Smoke Detector



DL 2101T31

Photo-optical smoke detector with relay output. Typical protected area: 80 m². Connection through 4 wires, memory LED, output for remote memory LED. Absorption while in operation 60 µA. Power supply: 12 Vdc.

Thermal Detector

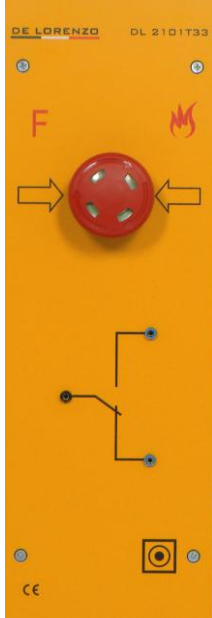


DL 2101T32

Combined thermo velocimetric and fixed 60°C conventional temperature detector. Typical protected area: 40 m². Connection through 2 wires, memory LED, output for remote memory LED. Power supply: 12 Vdc.



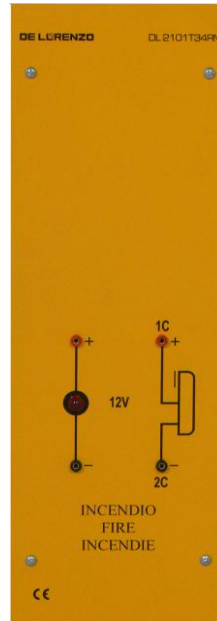
Emergency Pushbutton



DL 2101T33

Red emergency push-button with 1 switching contact.

Alarms



DL 2101T34RM

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

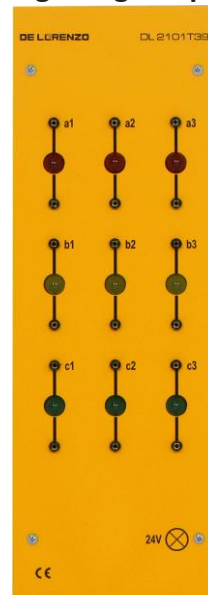
Gas Detector



DL 2101T38RM

Gpl sensor, 12 Vdc, 200 mA.

Signaling Lamps

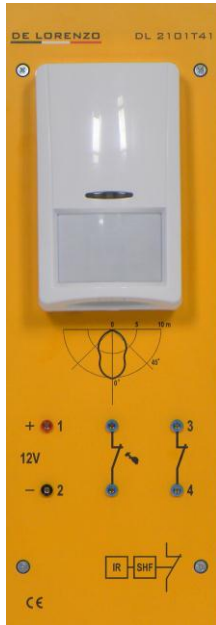


DL 2101T39

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.

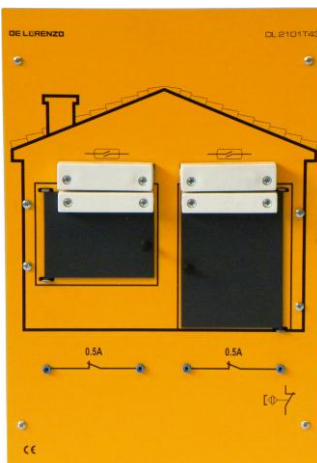
Passive Infrared Sensor



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.

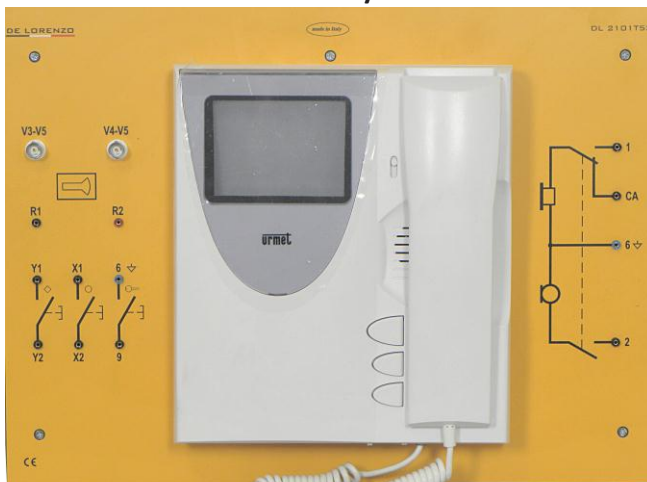
Video Camera and Outdoor Station



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.

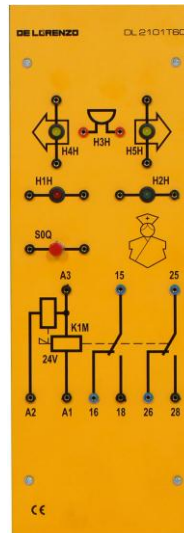
Indoor Monitor / Intercom



DL 2101T53

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

Nurse Board

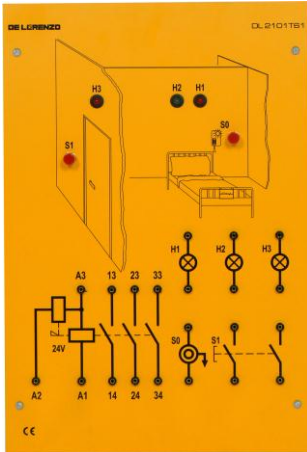


DL 2101T60

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



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 bi-stable relay with 3 NO contacts. Operating voltage: 24 Vac.

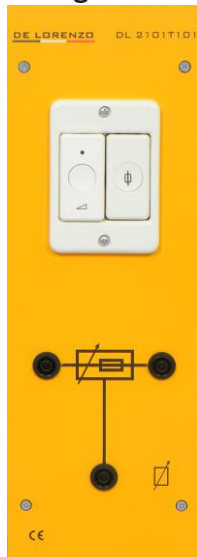
Dimmer



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 min.
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



TL 2101T

Cable set for connecting the experiment modules DL 2101T.

Frame



DL 2100-2M

DL 2100-3M

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



ELECTRICAL CIVIL INSTALLATIONS



SUGGESTED CONFIGURATIONS

		TA	TAS	TB	TC	TD	TF	TG	TH	TOT.
DL 2101ALA	Single-phase power supply									
DL 2101ALF	Single-phase power supply	1	1	1	1	1	1	1	1	1
DL 2101T02RM	Switches and commutator	1	1							1
DL 2101T04	Intermediate switch	1								1
DL 2101T04RM	Intermediate and 2-way switches	1								1
DL 2101T05	Light pushbutton	1	1	1		1				1
DL 2101T07RM	Bell/door opener pushbuttons	1	1	1		1				1
DL 2101T08	Marked pushbuttons			2		2				2
DL 2101T10	Single-phase mains socket	1								1
DL 2101T11RM	Halogen lamps		1							1
DL 2101T11RM2A	Low consumption fluorescent lamps		1							1
DL 2101T13A	Single-phase transformer	1		1		1				1
DL 2101T14	Latching relays					3				3
DL 2101T15	Stepping relay	1								1
DL 2101T16	Staircase light timer	1								1
DL 2101T17RM	Incandescent and fluorescent lamps	1	1							1
DL 2101T2020	Bells			1		1				1
DL 2101T2021	Bell and buzzer			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
DL 2101T28	Emergency light		1							1
DL 2101T29	Stand-by battery						1	1		1
DL 2101T30/40	Fire, intrusion and gas alarm control						1	1		1
DL 2101T31	Smoke detector						1			1
DL 2101T32	Thermal detector						1			1
DL 2101T33	Emergency pushbutton						1			1
DL 2101T34RM	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							1		1
DL 2101T50	Video camera-monitor power supply								1	1
DL 2101T51/52	Video camera and outdoor station								1	1
DL 2101T53	Indoor monitor/intercom								1	1
DL 2101T60	Nurse board					1				1
DL 2101T61	Patient room					2				2
DL 2101T100	Dimmer		1							1
DL 2101T101	Pushbutton light regulator		1							1
DL 2101T111	Twilight switch		1							1
DL 2101T112	Presence and twilight sensor		1							1
DL 2101T113	Timer switch		1							1
DL 2100-2M	Two-level frame				1		1	1	1	
DL 2100-3M	Three-level frame	1	1	1		1				2
TL 2101T	Connecting leads	1	1	1	1	1	1	1	1	1
DL 2101T13AT	Autotransformer	Necessary in case the local voltage is different from 230 Vac								



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



ELECTRICAL CIVIL INSTALLATIONS



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