

ACTIVE CONTROL OF LIGHTING, SHUTTERS, TEMPERATURE AND SOCKET OUTLETS







# GENERATION LIGHTING MANAGEMENT

A global specialist in electrical infrastructures in buildings and a major force in new generation buildings, Legrand has developed its system to provide complete control of a building: BUS/KNX solutions.



THE NEW LEGRAND **BUS/KNX RANGE MEETS THE SPECIFIC NEEDS OF COMMERCIAL SECTOR BUILDINGS** 

#### **Optimised energy consumption**

Designed ideally for low consumption accredited constructions, KNX solutions provide optimum management of lighting, shutters, socket outlets and ventilation: combined with energy management and supervision solutions, these "Smart Grid Ready" solutions allow you to optimise operating procedures in your installation according to your consumption. Legrand therefore contributes to reducing a building's overall operating costs and meeting the requirements of LEED and BREEAM buildings, etc. so that you can provide a perfect response to your customers' energy performance requirements.

#### **Increased comfort**

Legrand BUS/KNX solutions have the ability to manage all types of light source (LEDs, DALI, 1-10 V ballasts, etc.) in response to different situations (daylight, presence/absence, dimming, scenarios) making the user's daily life easier by adapting to their needs and living/working habits.

#### Even greater flexibility

With simple programming, Legrand BUS/KNX solutions make it possible to reconfigure the installation in a building really easily: no need for additional wiring!





A worldwide protocol in building management systems, KNX is an open, interoperable standard providing any user with great freedom of use and long-life installations. Recognised by ISO/IEC 14543-3-x as the international standard for home and building control, KNX meets the requirements of two European standards, CENELEC EN50090 and CEN EN 13321-1.

#### **COMPLETE BUILDING MANAGEMENT**

Beyond providing optimum control of lighting and shutters, the KNX protocol is interoperable with all applications installed in commercial sector building (heating and ventilation, fire alarms, emergency lighting, etc.), whoever supplies them. It can therefore be integrated into an active general building management system, making it possible to display consumption or to be alerted when a fault occurs!



The new Legrand BUS/KNX offer, with its complete high-performance solutions, meets the specific needs of a commercial sector building, so you can ensure that your customers have an optimised, flexible and open installation.





06

#### **OPTIMISED CONTROL**

A core business for Legrand, control is enhanced with multiple possibilities: lighting comfort, environment scenarios, combinations of several functions, etc. Discover the Legrand BUS/KNX offer, combining performance, aesthetics and comfort for a complete, optimised response to your customers' needs.

12

#### **SIMPLIFIED INSTALLATION**

Installed in a suspended ceiling or cabinet, controllers are easy to wire and can control all types of load.

16

#### FLEXIBLE, RELIABLE, **AND CONSISTENT CONFIGURATION**

Having access to ETS, the only tool that connects all KNX devices to a strong, well known and shared configuration method, ensures a good operating system. Legrand also offers the option of using its special configuration tool to quickly manage operating settings; it combines ease of use with reliable settings.

# OPTIMISED CONTROL

An essential solution for special or occasional applications, the Legrand BUS/KNX control unit manages lighting (ON/OFF, dimming, scenes, forcing), roller shutters (raise/lower/stop), awnings, and other client devices. A core business for Legrand, control is enhanced with multiple possibilities: lighting comfort, environment scenarios, combinations of multiple functions, etc. Discover the Legrand BUS/KNX offer, combining performance, aesthetics,

and comfort, for a full and optimised response to your customers' needs.

# Really clever, infinitely stylish!



ARTEOR

### MANUAL CONTROL UNITS

#### One offer, Many designs

Combining performance with aesthetics, control units are available in multiple finishes.



LIVING NOW



#### A wide range of mechanisms for everyday comfort

There are several types of mechanism available for user convenience.



TEMPERATURE CONTROL UNIT

#### **Functional diversity**

KNX control units provide multiple functions for managing lighting, shutters, scenarios, socket outlets and temperature.

#### "Basic" functions Optimised ergonomics thanks to programming

- ON/OFF switching
- Dimming up and down
- Roller shutters: raise, lower, stop
- Scenario: send a scenario number, save scenario
- Send one or two values: lighting level, position of shutters/slats, etc.

#### "Advanced functions" The Legrand plus!

As well as simple functions, Legrand offers you multi-control functions for a more comprehensive management of your installation:

- Send priority: ON/OFF locking and unlocking
- Send incrementing commands (by scrolling through the options): each press refers to a command. Example: 1st press = comfort (command 1), 2nd press = stand-by (command 2), 3rd press = eco (command 3), 4th press = comfort (command 1)
- Dual action transmission: send two commands. This function allows products which do not have a scenario function to be linked to a scenario.
- Mode 1/Mode 2 conditional transmission: send a command or a second different command, depending on a condition being met. The control unit has the ability to send commands to different circuits depending on an event.





LIVING NOW



WHITE - KW (Material: techno polymer)



ICE - DW (Material: techno polymer)



SKY - DA (Material: techno polymer)



SAND - KM (Material: techno polymer)



OAK - LM (Material: wood)



GOLD - **ZW** (Material: zamak)



M00N - **NW** (Material: zamak)



PIXEL - MW (Material: techno polymer - pixel effect)



COPPER - ZM (Material: zamak)

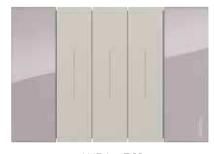


OPTIC - MM (Material: techno polymer - pixel effect)



### **Living Now**Indian standard installation - range of cover plates - 1 module installation





AURA - DM (Material: techno polymer)



BLACK - KG (Material: techno polymer)



WALNUT - LG (Material: wood)



(Material: zamak)



SPACE - NG (Material: zamak)



(Material: techno polymer)

#### Notes:

- The cover plate/cover combinations shown in these pages are purely indicative. Each cover plate can in fact be combined with covers of any colours, as required by the customer (white, sand and black).
- The zamak and wood finishes are obtained using non-mass production procedures. The differences among the various cover plates are therefore a distinguishing valuable element.

### MANUAL CONTROL UNITS

#### LEDs for clear information

All controls, whether a push-button or a touch plate, are fitted with RGB LEDs, each of which can produce twelve different colours: green, blue, white, orange, gold, yellow, turquoise, cyan, light blue, violet, magenta, purple.

Configurable using ETS software (see p. 16), LEDs display the load status and status feedback and can be used to customise the control unit status using colours, flashing, and brightness.

#### Status displays

- Status feedback from actuators/ controllers: ON or OFF
- System status feedback: context information indicated by the BUS.
   Examples: over-consumption, broken lamp, too much wind for roller shutters, etc.

#### **Customizing the status**

- Adjustment of the colour and behaviour through different modes.
   The default modes are:
- ON = steady green
- OFF = steady blue
- Alarm = flashing red (not modifiable)
- Control de-activated = steady orange
- Adjustment of brightness from 0 to 100% according to three values:
- Normal (adjustable value)
- Eco (adjustable value)
- Stand-by (non-adjustable value)







#### Thermoregulation control

The temperature control panel is a flush mounted 1,6" backlit display with 4 push buttons to manage HVAC systems as fan coil unit or floor heating.

#### THE +

- in line with Legrand design
- Flexibility: can be combined with several types of HVAC controller

#### **DETECTORS**

#### **Energy performance and operating performance**

#### A sustainable approach

Apart from simple ON/OFF and dimming controls, detectors provide access to the advanced automation functions required in any "green" building:

- stand-by/maintained dimming
- programmed lighting maintenance
- scenario triggering dependent on presence/absence, natural light levels or the time

#### Flexibility & Efficiency

- Detectors provide an installation with flexibility: their operation and programming can be adapted according to external parameters (over-consumption, alarm, etc.)
- Detectors constantly measure daylight levels. In combination with controllers they provide a better understanding of the detection area and makes it possible to adapt lighting in response to natural light levels. Note: it is possible for there to be several dimming levels within a single

#### Supervision informations

space!

KNX detectors provide any supervision system with useful key information:

- indication of presence
- load status and dimming level (as a %)
- light level in real time (in lux)

## Several fixing systems for optimum flexibility of installation

#### Suspended ceiling

The detectors are installed using springs (supplied) or in a Batibox or can be surface mounted.



SOLUTIONS FOR CORRIDORS, OUTDOOR CAR PARKS, BASEMENTS AND WORK AREAS





#### The power of two detection technologies

#### Infrared detection (PIR)

Suitable for detecting wide amplitude movements such as walking, infrared technology provides optimum lighting management in passage areas such as corridors.

CAT.NO 0 489 19 360° PIR double detection Lateral range 2 x 12 m Ceiling mounted

CAT.NO 0 489 21 PIR detection with 270° movable head Range 20 m Wall or ceiling surface mounting

#### PIR detection + with high density lens

Infrared technology is suitable to detect wide amplitude movements but with its high density lens this sensor is able to detect the thinest movement also and it is adapted for passage but working areas also.



CAT.NO 0 489 22 360° PIR detection Range 8 m IP 20 Ceiling mounted

#### Infrared + ultrasound detection (PIR/US)

The exclusive coupling of two technologies consolidates the presence information and guarantees the detection of smaller movements for greater effectiveness, which makes the difference in work areas.



CAT.NO 0 489 18 360° PIR/US detection Range 8 m IP 20 Ceiling mounted

### detection

Smart Thanks to the combination of ETS and the 0 882 40 smart configuration tool, it is possible to set/modify detector parameters simply and quickly for optimum detection!

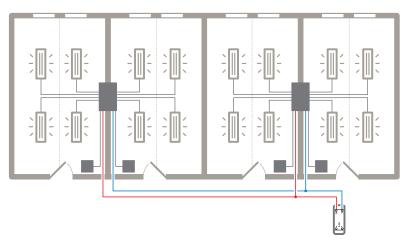
→ SEE PAGE 16

# SIMPLIFIED INSTALLATION

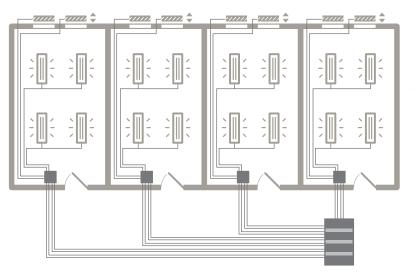
Equipped with different outputs, controllers (also called actuators) receive commands from the control units and act on lighting or shutter loads. Their installation may take one of two from factors.

### DISTRIBUTED INSTALLATION

In a system it consists in having the controllers locally installed in false ceilings where there are the load and not in the main cabinet as usual.



DECENTRALIZED SMART INSTALLATION



CENTRALIZED INSTALLATION



#### False ceiling controllers for dimming

These power units control lighting loads. In order to operate, they have to be linked to one or more detectors and/or remote auxiliary control units. Because they are situated near the loads to be controlled, they provide savings in the cables to be routed and in wiring time.

They also save space in the consumer unit.



FOR DALI PROTOCOL, 4 OUTPUTS

FOR 1-10 V BALLASTS, 4 OUTPUTS

# **G** Quicker and easier cabling

#### **Room Control Unit**

These modular controllers with integrated consumption measurement are fitted with output contacts for controlling:

- all types of ON/OFF load (lighting, roller shutters, contactors, motors, etc )
- a DALI dimming output (64 ballasts max.)
- an on-board energy meter

Loads are managed by the control units to which they are linked: either BUS/ KNX control units, or wired connection input terminals (switches, push-buttons, voltage free contacts).

They also provide a wide range of functions: ON/OFF or dimming lighting control, DALI, roller shutter and ventilation control.

These DIN controllers offer the



16 INPUTS 16 OUTPUTS 12 MODULES (Available with 8 inputs, 10 outputs, 8 modules)

possibility of controlling several circuits (voltage free contacts included) within a reduced space, and include embedded automation: an ideal solution for hotel room management! Installed in a modular cabinet, they are the ideal solution for small spaces (bedrooms, conference rooms, offices).





#### **CENTRALIZED INSTALLATION**

This consists of a traditional installation using modular products installed in the electrical panel. Note: all controllers can be controlled for each output by a detector and/or a BUS/KNX control unit.

#### **Controllers**

#### Modular controller ON/OFF

 Relay outputs to switch lighting loads with advanced operating mode.



MODULAR ON/OFF CONTROLLER



#### **Modular controllers for Dimming**

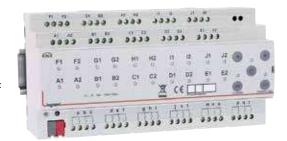
- DALI dimming management through DALI group control or individual DALI luminaire control.
- 1-10 V dimming management with switching operating mode.
- universal dimming manages all lights of lighting loads.



MODULAR DALI CONTROLLER

#### Modular controllers **Multi-applications**

- Relay outputs grouped through output channels configurable to manage different kind of equipements: lights, power sockets, shutters, HVAC.
- Independent input channel operating as universal interface with traditional wiring devices.



MODULAR CONTROLLER **MULTI-FUNCTION** 

#### **Modular controllers for HVAC**

ON/OFF and 1-10 V controllers manage any kind of fan coil units.



MODULAR FCU CONTROLLER



#### KNX INFRASTRUCTURE **PRODUCTS**

#### **Power supply**

- 320 mA and 640 mA power supplies provide power for one BUS/KNX line. There is a built-in filter to prevent the short-circuit of messages from the BUS.
- The line coupler provides galvanic insulation between lines. This is necessary to extand the system over 64 participants.



KNX 640 mA POWER SUPPLY

#### **Interface**

- BUS/KNX interfaces voltage free contact, available in a modular version or for flush-mounting, allow voltage free products (switches, push buttons, alarms, etc.) to be connected to BUS/KNX.
- A binary interface is also available allowing the connection of probes, sensors which need to ditinguish between two levels of signal.



**BUS/KNX INTERFACE** 

#### **Communication & Control**

Legrand BUS/KNX modules can send/receive commands to different controllers in the system.

- A BUS/KNX IP router makes the links between the BUS/KNX infrastructure and the IP network remotely configure the installation with ETS or enable interconnection among different KNX networks via the IP infrastructure.
- A BUS/KNX coupler to connect BUS/KNS line with galvanic isolation.



KNX /IP ROUTER

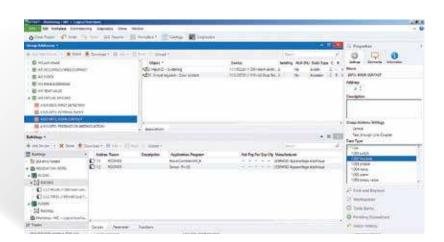
#### Connection

- BUS/KNX cables are available in a single pair version (red/black) or 2 pairs (red/black, yellow/white).
- The black/red BUS/KNX connector is used to extend, split the cable or simply connect the products.

# FLEXIBLE, RELIABLE AND CONSISTENT CONFIGURATION

#### **ETS SOLUTION**

ETS is a manufacturer independent software that has to be used to configure and commission KNX devices, as well as plan, design, commission and diagnose entire KNX installations with KNX certified products.





#### **LEGRAND SOLUTION**

#### **SMART CONFIGURATION TOOL:** AN ASSET FOR COMMISSIONING AND MAINTENANCE



LEGRAND CLOSE UP APP



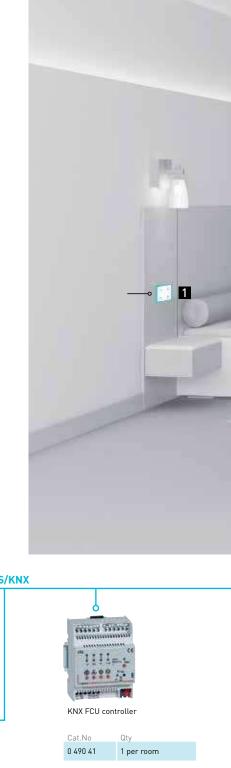
Configuration gateway Cat.No 0 882 40

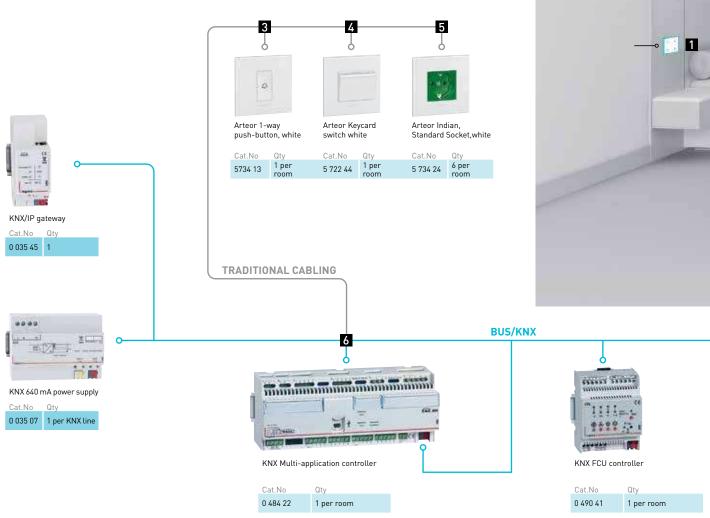
# Hotel quest room

- Temperature management
- Socket management
- Scenarios

In a hotel room there is the need to manage everything when the customer is present: lighting, sockets, HVAC.

When the customer enters the room the entrance lights are automatically turned ON and when he puts the badge in the holder the HVAC and the sockets are also enabled. The customer is able to manage everything through the different control units, choosing the conditions he prefers according to his mood or needs.

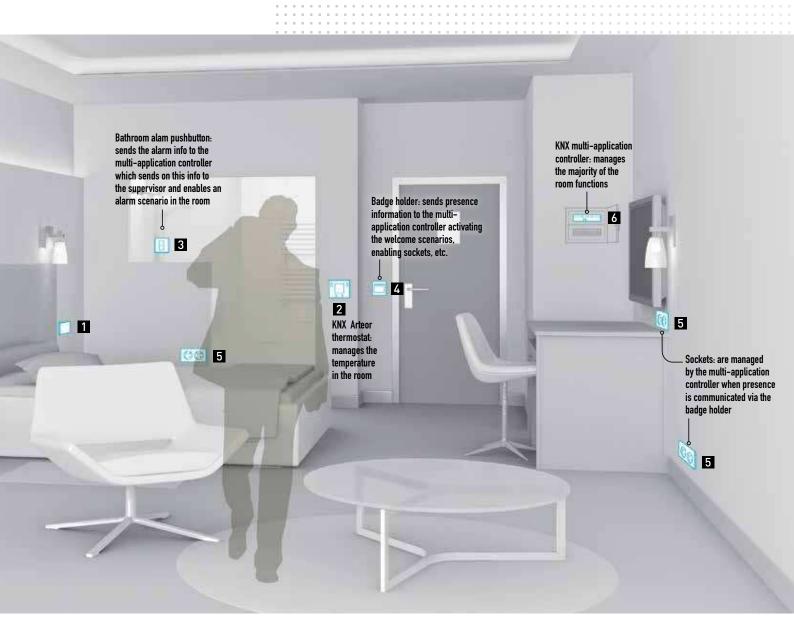




Common solution for several areas









# Open space

- Presence detection
- Movement detection
- Light level measurement
- Dimming

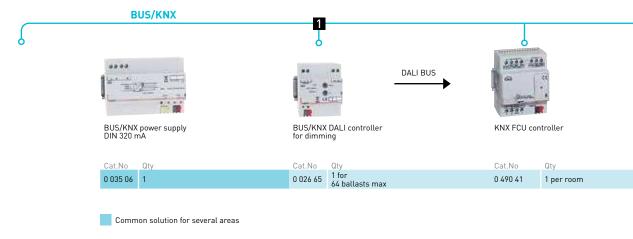


#### BUS/KNX SOLUTIONS PROVIDING AREAS WITH FLEXIBILITY

In an office suite, you need to be able to refurbish and re-arrange spaces without touching the wiring and without moving equipment. All you have to do is link detectors and control units to the luminaires, without restriction, with simple programming using the ETS software.

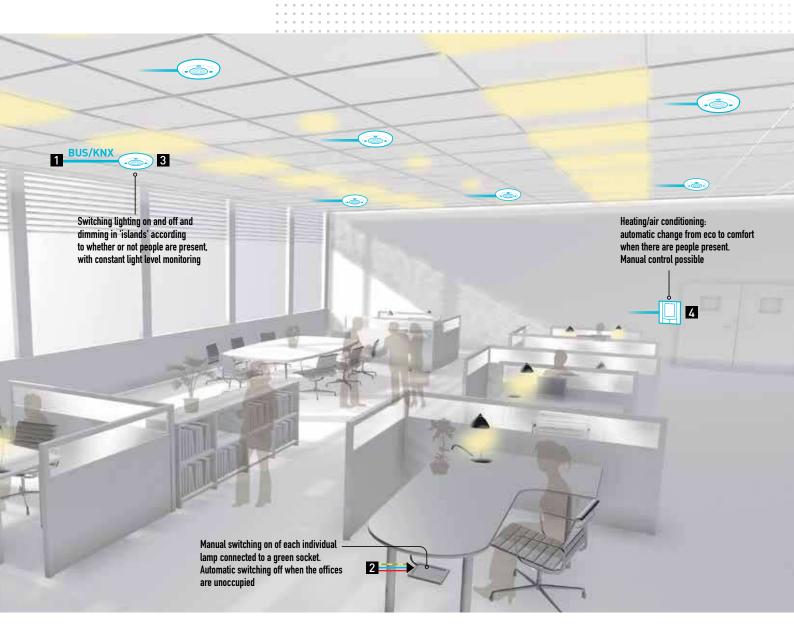














# Meeting room

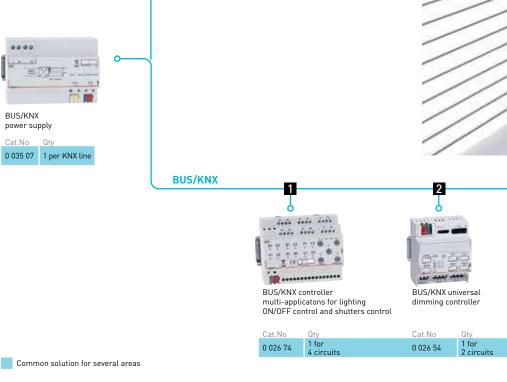
- Presence detection
- Light level measurement
- Dimming
- Scenario control
- Manual switch-on
- Management of shutters, screens

BUS/KNX - IP

Cat.No Qt 0 035 45 1 In a meeting room, you need to be able to control the lighting but also the shutters, screen, ventilation, etc. individually or via programmed scenarios.

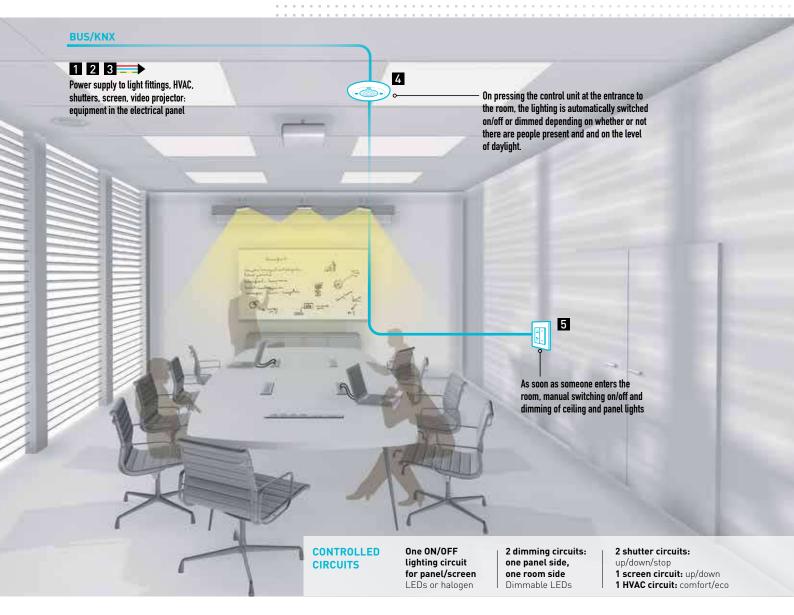














# Reception area

- Presence detection
- Movement detection
- Light level measurement
- Dimming

In a reception area, you need lighting to come on automatically when there are people present and for it to adjust according to the natural light level. In corridors you want lighting to come on only when people are passing by and only if the natural daylight is insufficient.







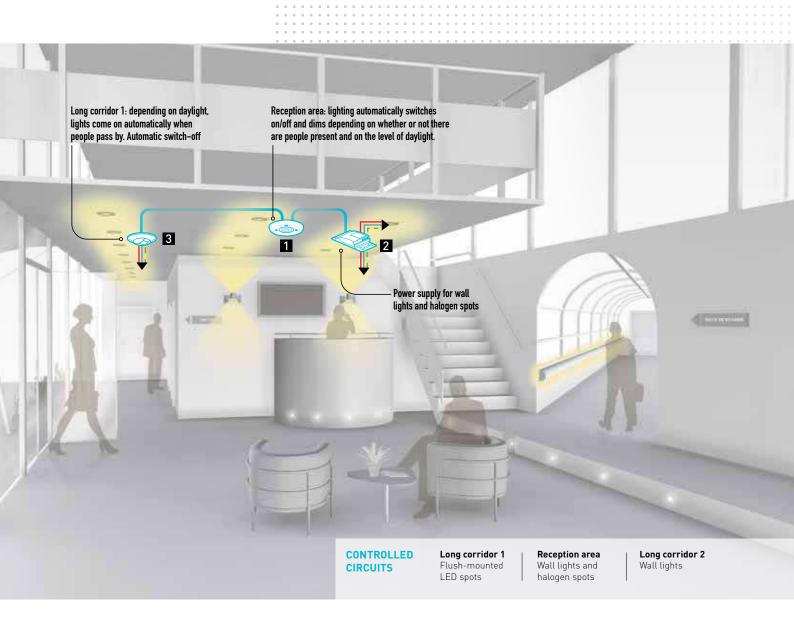
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BUS/KNX - IP gateway
Cat.No Qty
0 035 45 1
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Common solution for several areas





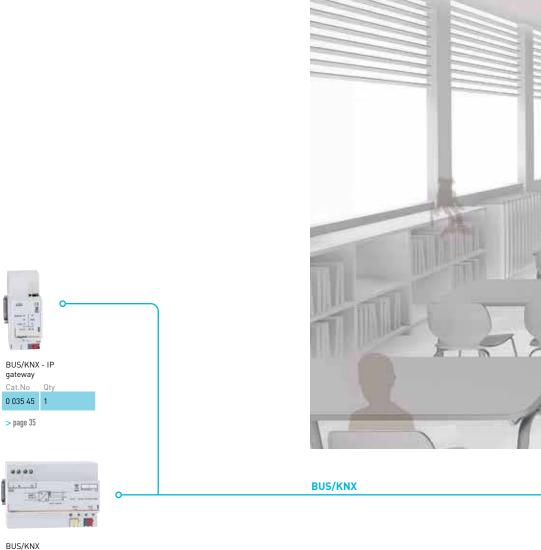




# Classroom

- Presence detection
- Light level measurement
- Dimming

In a classroom, you need to pay attention to students' comfort by adjusting the brightness of lighting according to whether it is on the window or the corridor side. The teacher controls the panel lighting. All lighting switches off when the room is unoccupied.



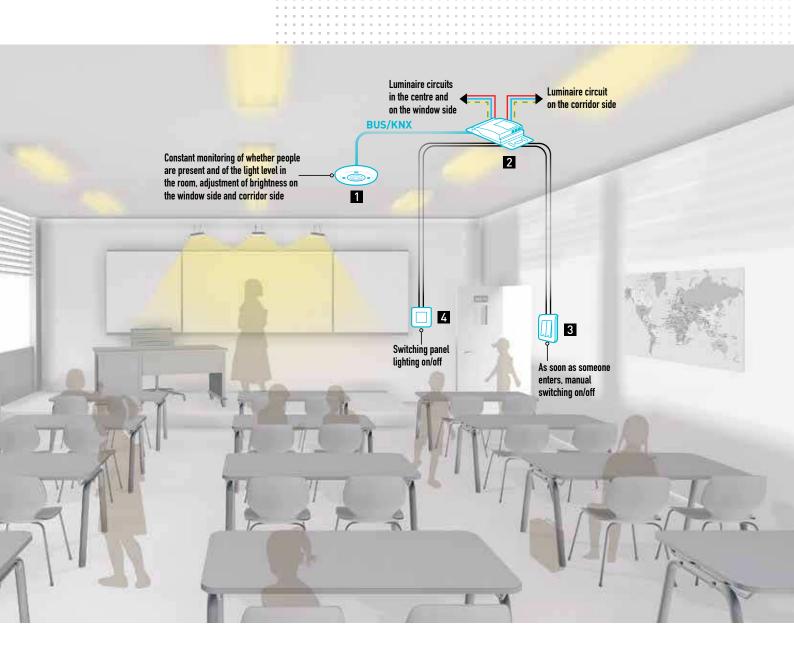
power supply

> page 35

0 035 07 1 for KNX line











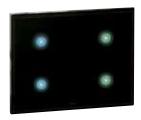
#### Arteor™

#### **BUS/KNX** manual control units









0 675 71 (Mahogany)

0 675 72

5 735 05

Connected directly to BUS/KNX cable (supplied with tap-off connector)
The control unit must be programmed using ETS software

Pack Cat.Nos Arteor wired control units

Pack	Cat.Nos	Arteor wired control units
		Used to control lighting (ON/OFF, dimming, scenario, forcing), roller shutters (raise, lower, stop), awnings, and other receivers Fitted with programmable RGB LEDs (12 colours available) for displaying load status and system status feedback (normal, forced, override, day/night pilot light, etc.), alarms To be fitted with Arteor plates and Batibox support frames
1	0 675 71	4 channels control unit without label display 4 actuation points To be equipped with key covers for control mechanism
1 1	5 742 03 5 744 04	Square version 4 actuation points - With label holder  O White  Magnesium
1 1	5 735 02 5 735 03	Round version 4 actuation points - With label holder  O White  Magnesium
1 1	5 735 04 5 735 05	4-buttons touch control units Supplied complete with white or black touch plates To be fitted with Batibox support frames  ○White - for BS flush-mounting boxes  ■ Black - for BS flush-mounting boxes
1	5 735 12 5 735 13	6-buttons touch control units Supplied complete with white or black touch plates  O White Black



#### **Living Now**

#### **BUS/KNX** manual control units





HD4657M3KNX

HS4657M3KNX





K4651M2KNX

K4651M3KNX

Connected directly to BUS/KNX cable (supplied with tap-off connector) The control unit must be programmed using ETS software

	The control and made so programmed admig 210 contract							
Pack	Cat.Nos	6-buttons touch control unit						
1 1 1	HC4657M3KNX HS4657M3KNX HD4657M3KNX	Supplied with fitted touch plate Requires Axolute support frame OWhite Black Transparent glass						
Pack	Cat.Nos	Living Now wired control units						
		Used to control (ON/OFF, dimming, scenario, forcing), roller shutters (up, down, stop), awnings, and other receivers. Fitted with programmable RGB LEDs (12 colors available) for displaying load status and system status feedback (normal, forced, override, day/night pilot light, etc.) and alarms						
1	K4651M2KNX	2 channels control unit - 4 buttons To be fitted with Living Now cover plate, plate and support frame						
1	K4651M3KNX	3 channels control unit - 6 buttons To be fitted with Living Now cover plate, plate and support frame						

#### **La legrand**

#### **Thermoregulation**

#### **BUS/KNX**







0 674 64

0 490 41

Connected directly to BUS/KNX cable (supplied with tap-off connector) The control unit must be programmed using ETS software

Pack	Cat.Nos	Temperature control panel
1 1 1 1	0 674 64	Flush mounted 1.6" backlight display with 4 pushbuttons and embedded a temperature probe Used to manage different types of heating/cooling system (FCU, heating/cooling valve, fan, electric load,) in combination through KNX with dedicated HVAC controller (Cat.Nos 0 026 97 or 0 490 41) - Monitoring the ambient temperature with desired unit - Adjustment of the temperature set-point and/or fan speed - Selection of operating mode (comfort, eco, protection, OFF) To be installed in flush-mounting boxes 2 modules Arteor Axolute Livinglight Valena Life
		DIN FCU controller ON/OFF
1		Actuator with internal thermoregulation to control FCU or thermal valves In combination with the temperature control panel, can be used to manage ambient temperature according to end-user requests: operating mode, temperature adjustment  - 2 folds valve ON/OFF control (2 A - 75~256 VAC)  - 1 fold fan control – 3 speeds (6 A - 230 VAC)  - 1 binary input check – window contact (9~265 VAC/DC)  - Operating temperature -5 to 45°C  - Operating voltage 230 VAC +/- 10% (50/60 Hz) 4 DIN modules 17.5 mm
		DIN FCU controller 0-10 V
1	0 490 41	Actuator with internal thermoregulation to control FCU, fan, thermal valves, electric load In combination with the temperature control panel, can be used to manage ambient temperature according to end-user requests: operating mode, temperature adjustment - 2 outputs 0-10 VDC to control thermal valves (5 mA) - 5 outputs (relays) to control fan (3 speeds) and/or thermal valves (10 A - 230 VAC) - Operating temperature -5 to 45°C - Operating voltage supplied by the KNX bus 4 DIN modules 17.5 mm Possibility to power the 0-10 V valves in using the transformer 24 VAC Cat.No 4 130 95



#### **Sensors**

#### **BUS/KNX**











Constantly check for presence and light levels, switching OFF as soon as the natural light level is sufficient. Switch ON and OFF automatically Accurate set-up on site with configuration device Connected directly to BUS/KNX cable (supplied with tap-off connector) The detector must be programmed using ETS software

Pack	Cat.Nos	Special corridor motion sensor
1	0 489 19	Ceiling mounted Double passive infrared detection 360°, lateral range 2 x 12 m IP 20 Consumption 0.2 W Recommended fixing height: 2.5 m Optimum distance between two sensors: 20 m Fits directly in suspended ceiling with springs (supplied) or is installed in a 50 mm deep Batibox Cat.No 0 893 58 Surface mounted on ceiling using accessory Cat.No 0 488 75
1	0 489 21	Special motion sensor for outdoor car parks and cellars  Wall or ceiling mounted - surface mounting Passive infrared detection with 270° adjustable head, range 20 m IP 55 Consumption 0.5 W Recommended fixing height: 2.5 m Can be fixed in a corner with a special accessory Cat.No 0 489 72
		Special motion sensors for small premises and bathrooms  Wall mounted - flush or surface mounting Recommended fixing height: 1.2 m  Consumption 0.2 W  Optimum distance between two sensors: 6 m  Arteor  180° passive infrared detection, range 8 m
1 1		IP 41 - Céliane Arteor plate - a Batibox support frame O White Magnesium

Pack	Cat.Nos	Special motion sensor for small premises and bathrooms (continued)
		Special presence sensors for work areas
		Suitable for meeting rooms, classrooms, open areas, etc.
		Ceiling mounted
1	0 489 18	360° passive infrared and ultrasound detection, range 8 m IP 20
		Consumption 0.5 W Optimum distance between two sensors: 6 m Fixes directly in suspended ceiling with springs (supplied) or is installed in a 50 mm deep Batibox Surface mounted on ceiling using accessory Cat.Nos 0 488 75 Connection by KNX red/black connector
1	0 489 22	360° passive infrared detection with high density lens range 8 m IP 20
		Consumption 0.5 W Optimum distance between two sensors: 6 m Fixes directly in suspended ceiling with springs (supplied) or is installed in a 50 mm deep Batibox Surface mounted on ceiling using ac Cat.No 0 488 75 Connection by KNX red/black connector



#### **Controllers**

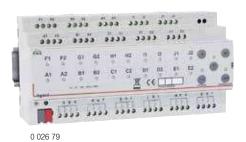
#### false ceiling and modular BUS/KNX











Connected with the BUS/KNX cable Configuration using ETS programming software

Pack	Cat.Nos	Cat.Nos False ceiling controllers for dimming					
		Each output can be controlled by a sensor and/or BUS/KNX control unit					
1	0 488 88	For DALI control 4 outputs 32 ballasts maximum per output					
1	0 488 87	For 1-10V control 4 outputs 1000 VA maximum per output Also control 4 ON/OFF circuits					
		Modular controllers for dimming					
		Each output can be controlled by a sensor and/or BUS/KNX control unit					
1	0 026 65						
1	0 026 98	per channel and up to 16 DALI scenes For DALI with Color Temp. Control					
		002891 - 1 output DALI bus(64 DALI ballasts max) to control individually up to 16 DALI groups and up to 64 DALI scenes. Supports Color Temperature Control of the ballasts.					
		002892 - 2 output DALI bus(128 DALI ballasts max) to control individually up to 32 DALI groups and up to 32 DALI scenes. Supports Color Temperature Control of the ballasts.					
1	0 026 68	For 1-10V control 10 outputs 1-10 V also controlling 10 ON/OFF circuits (16 A max) 10 DIN modules					
1	0 026 54	For LED and all others LV and ELV loads 2 outputs 2 x 300 W/VA maximum per output 4 DIN modules					
1	0 026 86	For LV and ELV loads only 2 outputs					
1	0 026 87	2 x 500 VA maximum per output 8 DIN modules 4 outputs					
		4 x 500 VA maximum per output 12 DIN modules					

Pack	Cat.Nos	
		Modular multi-applications ON/OFF controllers
		Each output can be controlled by a sensor and/or BUS/KNX control unit Multi-applications controllers with independent inpu channels and outputs configurable to control lighting loads, power sockets, roller shutters, and HVAC
1	0 026 72	equipment 8 x 16 A outputs 6 DIN modules
1	0 026 73	8 x 16 A outputs - 8 inputs 6 DIN modules
1	0 026 74	12 x 16 A outputs 6 DIN modules
1	0 026 76	16 x 16 A outputs 10 DIN modules
1	0 026 78	20 x 16 A outputs 10 DIN modules
1	0 026 79	20 x 16 A outputs - 18 inputs 10 DIN modules
		Room Controller Unit
		Power modules equipped with output contacts for controlling: - different types of ON/OFF load (lighting, roller shutters, contactors, motors, etc.) - a DALI dimming output for 64 ballasts max. Loads are managed by the controls to which they are linked: either by BUS/KNX controls, or by wired connection input terminals (switches, push-buttons, volt-free contacts) Multiphase connection and consumption measurement
1	0 484 18	8 inputs - 10 outputs 8 DIN modules
1	0 484 22	16 inputs - 16 outputs 12 DIN modules



#### Infrastructure products

#### BUS/KNX











0 035 07

Connected with the BUS/KNX cable Configuration using ETS programming software

Pack	Cat.Nos	BUS/KNX interface - voltage contact
		Connects voltage free contacts devices (switches, push-buttons, alarms, etc.) to the BUS/KNX
1	0 026 93	<b>Modular</b> 4 inputs 0 to 265 AC/DC powered 2 DIN modules
1	0 026 92	<b>Flush mounting</b> For installation in a flush-mounting box 4 inputs - 4 outputs
1	0 035 46	Line coupler Provides galvanic isolation between lines Necessary in an installation where there are more than 64 KNX participants 2 DIN modules
1	0 035 45	IP/KNX router Can acts asmain line or backbone coupler Links differerent KNX networks to each other via the IP infrastructure
		2 DIN modules

Pack	Cat.Nos	Modular power supplies
		Powers one BUS/KNX line Integrated filter to prevent the short-circuit of BUS messages Voltage 230 V ∼ - 30 V = With additional 30 V unfiltered output 7 DIN modules
1	0 035 06	320 mA
1	0 035 07	640 mA
		BUS/KNX connector
1	0 488 79	Black and red Supplied in boxes of 50
		BUS/KNX cables
1	0 492 91	Length 500 m 0.8 mm dia. quad Isolation 4000 V 1 pair: red/black
1	0 492 92	2 pairs: red/black and yellow/white



#### **Controllers**

#### BUS/KNX load tables

#### Load table at 230 V a.c. 50-60Hz

			Â					~
			<b>P+</b> II			# +		
Cat.Nos	Outputs	Halogen lamp	ELV halogen lamp with ferromagnetic or electronic transformer	Fluorescent tube	LED and compact fluorescent lamp	Fluorescent lamp with 1-10 V ballast	DALI	Motors
False ceiling cont	rollers							
0 488 88	4	-	-	-	-	-	4 x 32 ballasts	-
0 488 87	4	4 x 800 W	4 x 800 VA	4 x 1000 VA	4 x 1000 VA	4 x 1000 VA	-	-
0 026 65	1	-	-	-	-	-	64 ballasts (group control only)	-
0 026 99	1	-	-	-	-	-	64 ballasts (individual control)	-
0 026 68	10	-	-	-		4000 VA	-	-
0 026 54	2	2 x 300 W	2 x 200 VA	2 x 300 VA	2 x 75 W	-	-	-
0 026 86	2	2 x 500 W	2 x 500 W	-	-	-		-
0 026 87	4	2 x 500 W	4 x 500 W	-	-	-	-	-
0 026 80	4	2 x 3680 W	4 x 1000 VA	4 x [10 x (2 x 36 W)]	4 x 500 VA	-	-	4 x 500 VA
0 026 72	8	8 x 4000 VA	8 x 1800 VA	8 x 2400 VA	8 x 400 VA	-	-	8 x 1000 VA
0 026 73	8	8 x 4000 VA	8 x 1800 VA	8 x 2400 VA	8 x 400 VA	-	-	8 x 1000 VA
0 026 74	12	12 x 4000 VA	12 x 1800 VA	12 x 2400 VA	12 x 400 VA	-	-	12 x 1000 VA
0 026 76	16	16 x 4000 VA	16 x 1800 VA	16 x 2400 VA	16 x 400 VA	-	-	16 x 1000 VA
0 026 78	20	20 x 4000 VA	20 x 1800 VA	20 x 2400 VA	20 x 400 VA	-	-	20 x 1000 VA
0 026 79	20	20 x 4000 VA	20 x 1800 VA	20 x 2400 VA	20 x 400 VA	-	-	20 x 1000 VA
0 484 18	4 4 2	4 x 500 W 4 x 1000 W 2 x 3680 W	4 x 250 VA 4 x 500 VA 2 x 1000 VA	4 x [2 x (2 x 36 W)] 4 x [4 x (2 x 36 W)] 2 x [10 x (2 x 36 W)]	4 x 80 VA 4 x 160 VA 2 x 500 VA	-	1 x 64 ballasts	4 x 250 VA 4 x 500 VA 2 x 500 VA
0 484 22	4 8 4	4 x 500 W 8 x 1000 W 4 x 3680 W	4 x 250 VA 8 x 500 VA 4 x 1000 VA	4 x [2 x (2 x 36 W)] 8 x [4 x (2 x 36 W)] 4 x [10 x (2 x 36 W)]	4 x 80 VA 8 x 160 VA 4 x 500 VA	-	1 x 64 ballasts	4 x 250 VA 8 x 500 VA 4 x 500 VA

<sup>\*:</sup> Compatible with dimmable LED and compact fluorescent lamps

ON/OFF
Dimming
Automation



#### Sensors

#### BUS/KNX coverage patterns

Cat. Nos	Installation technology type	Range	Detection area	Examples of applications
0 489 18	4	6 m (US) 5 m (PIR)	2.5 m 1.2 m m: 3 2.5 0 2.5 3 (US) (PIR) (PIR) (US)	Classroom, meeting room, open plan office
0 489 19		2 x 12 m	2.5 m m: 12 0 12 12 9 0 9 12	Long corridor
0 489 21		18 m	2.5 m m: 3 0 5 10 15  E 2 3 m 0 5 m 10 m 15 m	High ceiling areas (warehouses, gymnasium) outdoor car park, basement, laboratory
5 740 37 5 740 79 -HC4658KNX HD4658KNX - HS4658KNX L4658KNX - N4658KNX NT4658KNX		8 m	1.2 m	Bathroom, stairways
0 489 22		8 m	2.5 m- m: 4 2 1 0 1 2 4	Individual office, corridor, stairways, restrooms etc.



#### **Head offices**

1. 61 & 62, 6<sup>th</sup> Floor, Kalpataru Square, Kondivita Road, Off Andheri-Kurla Road, Andheri (E), **MUMBAI** - 400 059.

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- Bhakta Towers, 2<sup>nd</sup> & 3<sup>rd</sup> Floor, Plot No. KB 22, Sector-III, Saltlake, **KOLKATA** - 700 098. Tel.: (033) 4021 3535
- C/203, Corporate Avenue, Atul Projects, Near Mirador Hotel, Chakala, Andheri - Ghatkopar Link Road, Andheri - (E), MUMBAI - 400 099. Tel.: (022) 6230 1000 NOWL
- Ferozes Manor, Situated at 58 Hospital Road, Shivaji Nagar, **BANGALORE** - 560 001. Tel.: (080) 80682 20000 NOWL
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- **13.** Plot No.95, 2<sup>nd</sup> Floor, Shreyash Heights, VIP Road, Ramdaspeth, **NAGPUR** – 440 010. Tel.: (0712) 2440 900
- **14.** 10 B, Prestige Center Court, Office Block, Vijaya Forum Mall, #183,N.S.K. Salai, Vadapalani, **CHENNAI** – 600 026. Tel.: (044) 6612 2800 NOW
- 15. J. B. Manjooran Estate, Door No. 50/1107 A9, 3<sup>rd</sup> Floor, Bye Pass Junction, Edappally, COCHIN 682 024. Tel.: (0484) 6604 700 NEEL
- 16. 204-205, Megapolis Square, 579, M G Road, INDORE – 452 001 Tel.: (0731) 4999 891
- 17. MF-2, Datta's Lords House, Jammi Chettu Street, Mogalrajapuram, **VIJAYAWADA** – 520 010. Tel.: (0866) 248 2393/6393

- 18. Plot No. 359, Saheed Nagar, 2nd Floor **BHUBANESWAR** – 751 007. Tel.: (0674) 254 0623
- 19. Unit 1 & 2, Vijay Park, Main Chakrata Road, **DEHRADUN**- 248 001. Uttarakhand. Tel.: (0135) 661 6100 NOW!
- 20. House No. 97, Ground Floor, Rajgarh Main Road, Opp. City Heart Nursing Home, **GUWAHATI** – 781 007.

#### Area offices

- 21. Cabin No. 9, 2<sup>nd</sup> Floor, Madhok Trade Centre, Madhok Complex, Ferozpur Road, **LUDHIANA** – 141 001. Tel.: (0161) 277 0301
- 22. 94, Udham Singh Sarani, Ground Floor, Ashrampara, **SILIGURI** - 734 001 Tel.: (353) 264 1067
- 23. A-207, Universal Business Center, Near Madhuvan Circle, L.P. Savani Road, Adajan, **SURAT** - 395 009. Tel.: (0261) 263 3861 NOWL
- 24. Aparna Towers, 1st Floor, 2/3, Bypass Road, **MADURAI** – 625 010. Telefax: (0452) 230 8414
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- 27. 515 & 516, Gera Imperium Grand, Patto centre , Panaji **GOA** – 403 001 NOWL
- 28. 1st Floor, Cordial Bharathi, Nanthancodu, Thiruvanthapuram, KERALA- 695 003 NOW!

#### Technical assistance from Legrand

Telephonic technical assistance for selection of products, technical information, guidance, wiring diagrams and estimation is now made available to you at each Regional Office. Contact the Technical Officer of Legrand at the following telephone numbers

New Delhi: Tel.: (011) 2699 0028, 3990 2200 Kolkata : Tel.: (033) 4021 3535 / 36 : Tel.: (022) 6230 1000 Mumbai : Tel.: (044) 6612 2800

Hyderabad : Tel.: (040) 4567 1717 For other places, contact the nearest Regional / Branch / Area offices

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