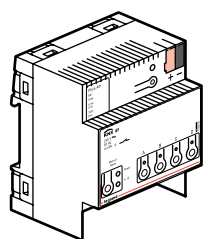


4-channel control unit/4-output actuator/Detector

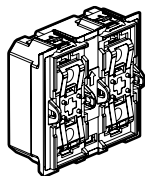
Auto ON/OFF operation

ON/OFF override and light level control

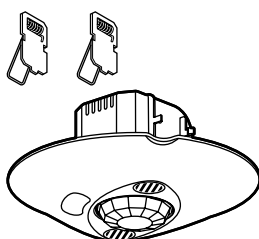
Cat. No(s): H4651
002661
048918



0 026 61



H4651



0 489 18

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1. EXAMPLE OF USE

Meeting rooms/Offices



2. DESCRIPTION

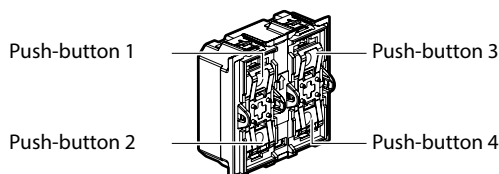
ON/OFF control of luminaires via a 4-channel KNX control unit.

Auto ON/OFF operation of actuator outputs 1 and 2 (push-button 1 on the control unit):

- The luminaires switch on automatically and regulation is enabled when human presence is detected.
- Regulation: If there is sufficient natural light, the luminaires will switch off automatically (after approximately 10 minutes).
- The luminaires will switch off automatically after the room is vacated (at the end of a defined time delay).
- The luminaires can be switched on and off using the override push-buttons 1 and 2 (Cat. No. H4651).

Manual ON/Auto OFF operation of actuator outputs 3 and 4 (push-button 3 on the control unit):

- The luminaires switch on automatically and regulation is enabled when human presence is detected.
- Regulation: If there is sufficient natural light, the luminaires will switch off automatically (after approximately 10 minutes).
- The luminaires will switch off automatically after the room is vacated (at the end of a defined time delay).
- The luminaires can be switched on and off using the override push-buttons 3 and 4 (Cat. No. H4651).



Note:

It is very easy to change the associations or types of control by modifying the H4651 push-button parameters.

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The diagram shows a KNX bus system with two relays and two switches. On the left, a relay (0 035 12) is connected to a DC 29V BUS. In the center, a relay (0 026 61) is connected to a DC 29V BUS and a 29V BUS. Below the relays, two switches (0 489 18) are shown, each with a 3 A rating. The switches are connected to the relays and the bus system. The diagram includes labels for the relays and switches, and a note indicating a maximum current of 8 A max. for the relays.

The diagram illustrates the switching control system architecture. It shows the flow of switching status and control signals between various components:

- Detectors:** Two green rounded rectangles labeled "Detector 1 0489 18" and "Detector 2 0489 18".
- Channel Control:** A purple rounded rectangle labeled "Channel 1 & 2 Manual control H4651 Channel 3 & 4".
- Controllers:** Two green rounded rectangles labeled "Controller 0026 61 Ch A&B" and "Controller 0026 61 Ch C&D".

The connections are as follows:

- Detector 1** sends "Switching status" to the top input of the system and "Switching" to the top input of the **Controller 0026 61 Ch A&B**.
- Channel 1 & 2 Manual control** sends "Switching status Ch 1-2" to the top input of the system and "Switching Ch 1-2" to the top input of the **Controller 0026 61 Ch A&B**.
- Detector 2** sends "Switching status" to the bottom input of the system and "Switching" to the bottom input of the **Controller 0026 61 Ch C&D**.
- Channel 3 & 4** sends "Switching status Ch 3-4" to the bottom input of the system and "Switching Ch 3-4" to the bottom input of the **Controller 0026 61 Ch C&D**.
- The **Controller 0026 61 Ch A&B** sends "Switching status Ch A" to the top output of the system and "Switch Ch B" to the bottom input of the **Controller 0026 61 Ch C&D**.
- The **Controller 0026 61 Ch C&D** sends "Switching status Ch C" to the bottom output of the system and "Switch Ch D" to the bottom input of the **Controller 0026 61 Ch A&B**.

This project **UC018 Auto ON/Auto OFF + derogation.knxproj** is available at **www.legrandoc.com** for import into ETS.

4-channel control unit/4-output actuator/Detector

Auto ON/OFF operation

ON/OFF override and light level control

Cat. No(s): H4651
002661
048918

6. ACTUATOR PARAMETERS 002661 - ADDR: 1.1.1

6.1 General parameters

Participant: 1.1.1 002661

Functions, Objects
Channels A-D

----- General -----

Configuration: identical for all channels

ON time during direct mode: 15 minutes

8-bit scene control: No

----- For each channel -----

Night mode: No

Status objects switch: Yes

Transmission of status objects: on change in status

6.2 Output parameters

Participant: 1.1.1 002661

Functions, Objects
Channels A-D

Operating mode: Normal mode

Logic operation: no logic operation

ON delay: disabled

OFF delay: disabled

Output state at mains voltage recovery: as before voltage failure

7. DETECTOR PARAMETERS 1.1.2 & 1.1.3

Participant: 1.1.2 048918

General
Load
Light level config.
Detection config.
Auxiliary output
Advanced
Virtual keypad
Commissioning Tool

Main function: Master : Light level & detection

Mode: Auto ON/OFF

Active regulation: Yes

Reaction speed: Normal

Participant: 1.1.2 048918

General
Load

Use dimming load: No

Participant: 1.1.2 048918

General
Load
Light level config.
Detection config.
Auxiliary output
Advanced
Virtual keypad
Commissioning Tool

Setpoint: 300

Use external daylight cell: No

Send condition: On request only

Participant: 1.1.2 048918

General
Load
Light level config.
Detection config.
Auxiliary output
Advanced
Virtual keypad
Commissioning Tool

Use detection led: Yes

Time delay : hours: 0

Time delay : minutes: 15

Time delay : seconds: 0

Transfer In Occupancy" to "Occupancy status": No

Send condition: On change

Max. number of messages per minute: 1

Participant: 1.1.2 048918

General
Load
Light level config.
Detection config.
Auxiliary output
Advanced
Virtual keypad
Commissioning Tool

US sensitivity: High

IR sensitivity: Very high

Initial scheme: PIR AND US

Maintain scheme: PIR OR US

8. H4651 PUSH-BUTTON PARAMETERS - ADDR: 1.1.4

Participant: 1.1.4 H4651

General
Channel 1-2
Channel 3-4
Led 1 configuration
Led 2 configuration
Led 3 configuration
Led 4 configuration

Leds configuration: Config independently

Normal intensity: 70%

Use additional Eco intensity: No

Participant: 1.1.4 H4651

General
Channel 1-2
Channel 3-4
Led 1 configuration
Led 2 configuration
Led 3 configuration
Led 4 configuration

Use led 1: Yes

----- Mode 1 -----

-- ON status --

Led color: Green

Led behaviour: On

-- OFF status --

Led color: Blue

Led behaviour: On

Participant: 1.1.4 H4651

General
Channel 1-2
Channel 3-4
Led 1 configuration
Led 2 configuration
Led 3 configuration
Led 4 configuration

Usage type: use jointly

Channel 1-2 function: Switching

Channel 1 - Short push reaction: On

Channel 2 - Short push reaction: Off

Participant: 1.1.4 H4651

General
Channel 1-2
Channel 3-4
Led 1 configuration
Led 2 configuration
Led 3 configuration
Led 4 configuration

Usage type: use jointly

Channel 3-4 function: Switching

Channel 3 - Short push reaction: On

Channel 4 - Short push reaction: Off

4-channel control unit/4-output actuator/Detector

Auto ON/OFF operation

ON/OFF override and light level control

Cat. No(s): H4651
002661
048918

9. KNX LINKS

Objet	Participant	Envoi	ACK (P...	Types de données	...	R	W	T	U
0/0/1 BUREAU 1/ D 1.1.2/ DETECTEUR 1									
1: Switching - Switching	1.1.2 048918	S	Non	switch	C	-	-	T	-
2: Channel 1-2 - Switching	1.1.4 H4651	S	Non	switch	C	-	W	T	-
3: Switch, Channel A - On / Off	1.1.1 002661	S	Non		C	R	W	T	-
7: Switch, Channel B - On / Off	1.1.1 002661	S	Non		C	R	W	T	-
0/0/2 BUREAU 2/ D 1.1.3/ DETECTEUR 2									
1: Switching - Switching	1.1.3 048918	S	Non	switch	C	-	-	T	-
11: Switch, Channel C - On / Off	1.1.1 002661	S	Non		C	R	W	T	-
15: Switch, Channel D - On / Off	1.1.1 002661	S	Non		C	R	W	T	-
16: Channel 3-4 - Switching	1.1.4 H4651	S	Non	switch	C	-	W	T	-
0/3/2 BUREAU 2/ NRC 1.1.1/ Ch3									
13: Status switch, Channel C - Or	1.1.1 002661	S	Non		C	R	-	T	-
17: Channel 3-4 - Switching Statu	1.1.4 H4651	S	Non	switch	C	-	W	-	-
2: Switching Status - Switching S	1.1.3 048918	S	Non	switch	C	-	W	T	U
0/3/0 BUREAU 1/ NRC 1.1.1/ Ch1									
2: Switching Status - Switching S	1.1.2 048918	S	Non	switch	C	-	W	T	U
3: Channel 1-2 - Switching Statu	1.1.4 H4651	S	Non	switch	C	-	W	-	-
5: Status switch, Channel A - On	1.1.1 002661	S	Non		C	R	-	T	-

10. MONITORING

Without override

Démarrer

Stop

Nettoyer

Ouvrir

Sauvegarder

Imprimer

Rejouer télégrammes

Options

Autodéfilement

Fonctions de Groupe

Trouver

Adresse de Groupe:

...

Data point type:

Brut (jusqu'à 6 bit)

Valeur:

☐ Envoyer cycliquement

Délai (sec):

0

Ecriture

Lu

Valeur reçue:

#	Heure	Service	...	Prio	So...	Source	Dest.adr	Dest	Rout	Type	DPT	Info
Filtre	Filtre	Filtre	Fu	Filtre	Filtre	Filtre	Filtre	BUREAU	Filtre	Filtre	Filtre	Filtre
1	2017-03-30 13:26:39.285	du bus		Low	1.1.2	1.1.2 048918	0/5/0	BUREAU 1/ D 1.1.2/ DETECTEUR 1/REGULATION	6	Ecrire	1.010 start/stop	\$01 Démarrer
2	2017-03-30 13:26:39.325	du bus		Low	1.1.2	1.1.2 048918	0/0/1	BUREAU 1/ D 1.1.2/ DETECTEUR 1	6	Ecrire	1.001 switch	\$01 Marche
4	2017-03-30 13:26:39.425	du bus		Low	1.1.1	1.1.1 002661	0/3/0	BUREAU 1/ NRC 1.1.1/ Ch1	5	Ecrire	1.001 switch	\$01 Marche
5	2017-03-30 13:26:46.944	du bus		Low	1.1.3	1.1.3 048918	0/5/1	BUREAU 2/ D 1.1.3/ DETECTEUR 2/REGULATION	6	Ecrire	1.010 start/stop	\$01 Démarrer
7	2017-03-30 13:26:46.991	du bus		Low	1.1.3	1.1.3 048918	0/0/2	BUREAU 2/ D 1.1.3/ DETECTEUR 2	6	Ecrire	1.001 switch	\$01 Marche
8	2017-03-30 13:26:47.069	du bus		Low	1.1.1	1.1.1 002661	0/3/2	BUREAU 2/ NRC 1.1.1/ Ch3	5	Ecrire	1.001 switch	\$01 Marche
11	2017-03-30 13:27:42.365	du bus		Low	1.1.2	1.1.2 048918	0/0/1	BUREAU 1/ D 1.1.2/ DETECTEUR 1	6	Ecrire	1.001 switch	\$00 Arrêt
12	2017-03-30 13:27:42.405	du bus		Low	1.1.2	1.1.2 048918	0/5/0	BUREAU 1/ D 1.1.2/ DETECTEUR 1/REGULATION	6	Ecrire	1.010 start/stop	\$00 Stop
13	2017-03-30 13:27:42.453	du bus		Low	1.1.1	1.1.1 002661	0/3/0	BUREAU 1/ NRC 1.1.1/ Ch1	5	Ecrire	1.001 switch	\$00 Arrêt
15	2017-03-30 13:27:51.462	du bus		Low	1.1.3	1.1.3 048918	0/0/2	BUREAU 2/ D 1.1.3/ DETECTEUR 2	6	Ecrire	1.001 switch	\$00 Arrêt
16	2017-03-30 13:27:51.502	du bus		Low	1.1.3	1.1.3 048918	0/5/1	BUREAU 2/ D 1.1.3/ DETECTEUR 2/REGULATION	6	Ecrire	1.010 start/stop	\$00 Stop
17	2017-03-30 13:27:51.551	du bus		Low	1.1.1	1.1.1 002661	0/3/2	BUREAU 2/ NRC 1.1.1/ Ch3	5	Ecrire	1.001 switch	\$00 Arrêt

With override

Démarrer

Stop

Nettoyer

Ouvrir

Sauvegarder

Imprimer

Rejouer télégrammes

Options

Autodéfilement

Fonctions de Groupe

Trouver

Adresse de Groupe:

...

Data point type:

Brut (jusqu'à 6 bit)

Valeur:

☐ Envoyer cycliquement

Délai (sec):

0

Ecriture

Lu

Valeur reçue:

#	Heure	Service	...	Prio	So...	Source	Dest.adr	Dest	Rout	Type	DPT	Info
Filtre	Filtre	Filtre	Fu	Filtre	Filtre	Filtre	Filtre	BUREAU	Filtre	Filtre	Filtre	Filtre
3	2017-03-30 13:30:52.972	du bus		Low	1.1.2	1.1.2 048918	0/5/0	BUREAU 1/D 1.1.2/ DETECTEUR 1/REGULATION	6	Ecrire	1.010 start/stop	\$01 Démarrer
4	2017-03-30 13:30:53.012	du bus		Low	1.1.2	1.1.2 048918	0/0/1	BUREAU 1/D 1.1.2/ DETECTEUR 1	6	Ecrire	1.001 switch	\$01 Marche
5	2017-03-30 13:30:53.092	du bus		Low	1.1.1	1.1.1 002661	0/3/0	BUREAU 1/ NRC 1.1.1/ Ch1	5	Ecrire	1.001 switch	\$01 Marche
7	2017-03-30 13:31:03.466	du bus		Low	1.1.3	1.1.3 048918	0/5/1	BUREAU 2/D 1.1.3/ DETECTEUR 2/REGULATION	6	Ecrire	1.010 start/stop	\$01 Démarrer
8	2017-03-30 13:31:03.506	du bus		Low	1.1.3	1.1.3 048918	0/0/2	BUREAU 2/D 1.1.3/ DETECTEUR 2	6	Ecrire	1.001 switch	\$01 Marche
9	2017-03-30 13:31:03.586	du bus		Low	1.1.1	1.1.1 002661	0/3/2	BUREAU 2/ NRC 1.1.1/ Ch3	5	Ecrire	1.001 switch	\$01 Marche
10	2017-03-30 13:31:17.385	du bus		Low	1.1.4	1.1.4 H4651	0/0/2	BUREAU 2/D 1.1.3/ DETECTEUR 2	6	Ecrire	1.001 switch	\$00 Arrêt
11	2017-03-30 13:31:17.465	du bus		Low	1.1.1	1.1.1 002661	0/3/2	BUREAU 2/ NRC 1.1.1/ Ch3	5	Ecrire	1.001 switch	\$00 Arrêt
12	2017-03-30 13:31:17.600	du bus		Low	1.1.3	1.1.3 048918	0/5/1	BUREAU 2/D 1.1.3/ DETECTEUR 2/REGULATION	6	Ecrire	1.010 start/stop	\$00 Stop
14	2017-03-30 13:31:19.895	du bus		Low	1.1.4	1.1.4 H4651	0/0/1	BUREAU 1/D 1.1.2/ DETECTEUR 1	6	Ecrire	1.001 switch	\$00 Arrêt
15	2017-03-30 13:31:19.988	du bus		Low	1.1.1	1.1.1 002661	0/3/0	BUREAU 1/ NRC 1.1.1/ Ch1	5	Ecrire	1.001 switch	\$00 Arrêt
16	2017-03-30 13:31:20.066	du bus		Low	1.1.2	1.1.2 048918	0/5/0	BUREAU 1/D 1.1.2/ DETECTEUR 1/REGULATION	6	Ecrire	1.010 start/stop	\$00 Stop

Note:

Monitoring is performed after a 1 minute delay.