

# Motion detector theLuxa P300 KNX



theLuxa P300 KNX	1019610 (white)
theLuxa P300 KNX	1019611 (black)

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# **2** Functional characteristics

- Motion detector (PIR)
- Automatic lighting control depending on presence and brightness
- Can be integrated into KNX building system technology
- For outdoor use
- For wall and ceiling installation
- Integrated temperature sensor
- For larger, commercial outdoor properties such as administration buildings, hotels, schools, underground car parks and warehouses
- Easy to program with ETS software for KNX
- Adjustable brightness switching value and time delay
- Sensitivity can be reduced
- Area limitation via cover clip
- Mixed light measurement
- Teach-in of current brightness value
- Pulse function
- Test function for checking the detection area
- Installation on flush-mounted box (60 mm) possible
- Single-handed plug-in installation
- Instant start-up possible thanks to presetting
- Protected adjusters
- Spacer frame and corner installation bracket included in the scope of supply

# 2.1 Operation

### 2.1.1 Test mode

The test mode is used to test the detection area and to restrict it if necessary.

The test mode can be activated via a telegram (test mode object), or via the time potentiometer (Min).

### Perform walking test:

Set the time potentiometer (Min) to test. The motion detector now only reacts to movements (independent of brightness). Walk through the detection area at a right angle. After the motion detector has detected a movement, it switches on for 2 s. The LED for test lights up. Pay attention to the direction of motion during the test.





### Important:

If the device has been discharged using ETS, the red LED will remain lit up constantly to report this.

### 2.2 Important information about unload or reset.

- Any error notification that appears following download can be ignored, provided that the LED remains lit as described above.
- The remote control does not work after downloading the application.
- Following (bus) reset the device initially always sends 0 to the movement object (C1 .. C4). If motion has been detected, 1 is sent immediately.
- Until the first download of an application the device transmits to the following group addresses:
- 15/1/0: Obj. 6 (C1 motion)
- 15/1/1: Obj. 22 (C2 motion)
- 15/1/2: Obj. 38 (C3 motion)
- 15/1/3: Obj. 54 (C4 motion)
- 15/2/0: Obj. 2 (brightness value)
- 15/2/1: Obj. 3 (Temperature value)
- 15/3/0: Obj. 116 (Software version)

# 3 Technical data

Operating voltage KNX	Bus voltage
operating voltage Kritk	Dus voltage
Bus current	< 10 mA
Brightness setting range	1 - 3000  lx
Detection angle	300°
Creep under protection	Ø 6 m
Type of installation	Wall and ceiling installation
Lighting time delay	1 s – 60 min.
Type of light measurement	Mixed light measurement
Ambient temperature	-25 °C +45 °C
Protection class	III
Protection rating	IP 55

# 4 The "theLuxa P300" application programme

# 4.1 Selection in the product database

Manufacturer	Theben AG
Product family	Physical sensors
Product type	Motion detector
Program name	theLuxa P300 KNX

The ETS database can be found on our website: www.theben.de/en/downloads\_en

Number of communication objects:	116
Number of group addresses:	254
Number of associations:	254

# 4.2 Communication objects

No.	Name	Function	Length	Flags				
0	Time	Receive	3 byte 10.001	С	R	W	-	
1	Time query	Send	1 bit 1.001	С	R	-	Т	
2	Brightness value	Physical value	2 byte 9.004	С	R	-	Т	
3	Temperature value	Physical value	2 byte 9.001	С	R	-	Т	
4	Dismounting	Report	1 bit 1.001	С	R	-	Т	
5	Sensitivity	Receive	1 byte 5.004	С	R	W	-	
6	C1 Motion	Switching	1 bit 1.001	C	R	-	Т	
7	C1 Dimming	Dimming value	1 byte 5.001	С	R	-	Т	
8	C1 Brightness threshold	Receive	2 byte 9.004	С	R	W	-	
9	C1 Brightness threshold	Teach in	1 bit 1.001	С	R	W	-	
10	C1 Alt. Brightness threshold	Receive	2 byte 9.004	С	R	W	-	
11	C1 Alt. Brightness threshold	Teach in	1 bit 1.001	С	R	W	-	
12	C1 Alt. Brightness threshold	Selection	1 bit 1.003	С	R	W	-	
13	C1 Time delay	Receive	2 byte 7.005	С	R	W	-	
14	C1 Alternative time delay	Receive	2 byte 7.005	С	R	W	-	
15	C1 Alternative time delay	Selection	1 bit 1.003	С	R	W	-	
16	C1 Plack	Block = 0	1 bit 1.003	С	R	W	-	
10		Block = 1	1 bit 1.003	С	R	W	-	
17	C1 Parm ON	Duration = 0	1 bit 1.001	С	R	W	-	
1/		Duration = 1	1 bit 1.001	С	R	W	-	

No.	Name	Function	Length				
10	C1 Denallel muitaking	Send	1 bit 1.001	С	R	-	Т
18	C1 Farallel switching	Send / Receive	1 bit 1.001	С	R	W	Т
19	C1 Test mode	1 = active, 0 = not active	1 bit 1.003	С	R	W	-
20	C1 External brightness value	Receive	2 byte 9.004	С	R	W	-
21	C1 Scene	Receive	1 byte 17.001	С	R	W	-
22	C2 Motion	Switching	1 bit 1.001	С	R	-	Т
23	C2 Dimming	Dimming value	1 byte 5.001	С	R	-	Т
24	C2 Brightness threshold	Receive	2 byte 9.004	С	R	W	-
25	C2 Brightness threshold	Teach in	1 bit 1.001	С	R	W	-
26	C2 Alt. Brightness threshold	Receive	2 byte 9.004	С	R	W	-
27	C2 Alt. Brightness threshold	Teach in	1 bit 1.001	С	R	W	-
28	C2 Alt. Brightness threshold	Selection	1 bit 1.003	С	R	W	-
29	C2 Time delay	Receive	2 byte 7.005	С	R	W	-
30	C2 Alternative time delay	Receive	2 byte 7.005	С	R	W	-
31	C2 Alternative time delay	Selection	1 bit 1.003	С	R	W	-
22		Block = 0	1 bit 1.003	С	R	W	-
52	C2 Block	Block = 1	1 bit 1.003	С	R	W	-
22	C2 Dame ON	Duration = 0	1 bit 1.001	С	R	W	-
33	C2 Perm ON	Duration = 1	1 bit 1.001	С	R	W	-
24	C2 Denallal muitabing	Send	1 bit 1.001	С	R	-	Т
54	C2 Farauel switching	Send / Receive	1 bit 1.001	С	R	W	Т
35	C2 Test mode	1 = active, 0 = not active	1 bit 1.003	С	R	W	-

36C2 External brightness valueReceive2 byte 9.004C R WW37C2 SceneReceive1 byte 17.001C RW-38C3 MotionSwitching1 bit 1.001C RR- T39C3 DimmingDimming value1 byte 5.001C RR- T40C3 Brightness thresholdReceive2 byte 9.004C R RW-41C3 Brightness thresholdTeach in1 bit 1.001C R WW-42C3 Alt. Brightness thresholdReceive2 byte 9.004C R WW-43C3 Alt. Brightness thresholdTeach in1 bit 1.001C R WW-44C3 Alt. Brightness thresholdSelection1 bit 1.001C R WW-45C3 Time delayReceive2 byte 2 byte 7.005C R WW-46C3 Alternative time delaySelection1 bit 1.003C R WW-48C3 BlockBlock = 01 bit 1.003C R WW-49C3 Perm ONDuration = 01 bit 1.001C R WW-50C3 Test modeI = active, 0 = not active1 bit 1.001C R WW-51C3 Test modeI = active, 0 = not active1 bit 1.001C R WW-52C3 External brightness valu	No.	Name	Function	Length				
37C2 SceneReceive1 byte 17,001CRW38C3 MotionSwitching1 bit 1,001CR-T39C3 DimmingDimming value1 byte 5,001CR-T40C3 Brightness thresholdReceive2 byte 9,004CRW-41C3 Brightness thresholdTeach in1 bit 1,001CRW-42C3 Alt. Brightness thresholdReceive2 byte 9,004CRW-43C3 Alt. Brightness thresholdTeach in1 bit 1,001CRW-44C3 Alt. Brightness thresholdSelection1 bit 1,001CRW-45C3 Time delayReceive2 byte 7,005CRW-46C3 Alternative time delaySelection1 bit 1,003CRW-48C3 BlockBlock = 01 bit 1,003CRW-49C3 Perm ONDuration = 01 bit 1,001CRW-50C3 Parallel switchingSendI bit 1,001CRW-51C3 Test modeI = active, 0 = not active1 bit 1,001CRW-52C3 External brightness valueReceive1 bit 1,001CRW-53C3 SceneReceive1 bit 1,001CR <td< td=""><td>36</td><td>C2 External brightness value</td><td>Receive</td><td>2 byte 9.004</td><td>С</td><td>R</td><td>W</td><td>-</td></td<>	36	C2 External brightness value	Receive	2 byte 9.004	С	R	W	-
38C3 MotionSwitching1 bit 1.001CR-T39C3 DimmingDimming value1 byte 5.001CR-T40C3 Brightness thresholdReceive2 byte 9.004CRW-41C3 Brightness thresholdTeach in1 bit 	37	C2 Scene	Receive	1 byte 17.001	C	R	W	-
39C3 DimmingDimming value1 byte 5.001CR-T40C3 Brightness thresholdReceive2 byte 9.004CRW-41C3 Brightness thresholdTeach in1 bit 1.001CRW-42C3 Alt. Brightness thresholdReceive2 byte 	38	C3 Motion	Switching	1 bit 1.001	С	R	-	Т
40C3 Brightness thresholdReceive2 byte 9,004CRW41C3 Brightness thresholdTeach in1.001CRW42C3 Alt. Brightness thresholdReceive2 byte 9,004CRW43C3 Alt. Brightness thresholdTeach in1.001CRW44C3 Alt. Brightness thresholdSelection1 bit 1.003CRW45C3 Time delayReceive2 byte 	39	C3 Dimming	Dimming value	1 byte 5.001	С	R	-	Т
41C3 Brightness thresholdTeach in1 bit 1.001CRW42C3 Alt. Brightness thresholdReceive2 byte 9.004CRW43C3 Alt. Brightness thresholdTeach in1 bit 1.001CRW44C3 Alt. Brightness thresholdSelection1 bit 	40	C3 Brightness threshold	Receive	2 byte 9.004	C	R	W	-
42C3 Alt. Brightness thresholdReceive2 byte 9.004CRW43C3 Alt. Brightness thresholdTeach in1 bit 1.001CRW44C3 Alt. Brightness thresholdSelection1 bit 1.003CRW45C3 Time delayReceive2 byte 	41	C3 Brightness threshold	Teach in	1 bit 1.001	C	R	W	-
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	42	C3 Alt. Brightness threshold	Receive	2 byte 9.004	С	R	W	-
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	43	C3 Alt. Brightness threshold	Teach in	1 bit 1.001	C	R	W	-
45C3 Time delayReceive $2 \text{ byte} \\ 7.005 \text{ C} \text{ R} \text{ W} $ 46C3 Alternative time delayReceive $2 \text{ byte} \\ 7.005 \text{ C} \text{ R} \text{ W} $ 47C3 Alternative time delaySelection $1 \text{ bit} \\ 1.003 \text{ C} \text{ R} \text{ W} $ 48 $C3 Block$ $Block = 0$ $1 \text{ bit} \\ 1.003 \text{ C} \text{ R} \text{ W} $ 49 $C3 Perm ON$ $Duration = 0$ $1 \text{ bit} \\ 1.001 \text{ C} \text{ R} \text{ W} $ 49 $C3 Parallel switching$ $Send$ $1 \text{ bit} \\ 1.001 \text{ C} \text{ R} \text{ W} $ 50 $C3 Parallel switching$ $Send$ $1 \text{ bit} \\ 1.001 \text{ C} \text{ R} \text{ W} $ 51 $C3 Test mode$ $1 = active, 0 = not active$ $1 \text{ bit} \\ 1.003 \text{ C} \text{ R} \text{ W} $ 52 $C3 External brightness value$ $Receive$ $2 \text{ byte} \\ 9.004 \text{ C}  \text{ R} \text{ W} $ 53 $C3 Scene$ $Receive$ $1 \text{ byte} \\ 1.001 \text{ C}    \text{ W} $	44	C3 Alt. Brightness threshold	Selection	1 bit 1.003	C	R	W	-
46C3 Alternative time delayReceive2 byte 7.005CRW-47C3 Alternative time delaySelection1 bit 1.003CRW-48 $C3$ BlockBlock = 01 bit 1.003CRW-48C3 BlockBlock = 11 bit 1.003CRW-49C3 Perm ONDuration = 01 bit 1.001CRW-49C3 Parallel switchingSend1 bit 1.001CRW-50C3 Parallel switchingSend1 bit 1.001CRW-51C3 Test mode1 = active, 0 = not active1 bit 1.003CRW-52C3 External brightness valueReceive2 byte 9.004CRW-53C3 SceneReceive1 bit 1.7.001CRW-	45	C3 Time delay	Receive	2 byte 7.005	C	R	W	-
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	46	C3 Alternative time delay	Receive	2 byte 7.005	С	R	W	-
48 $C3 Block$ $Block = 0$ 1 bit 1.003CRW-49 $C3 Perm ON$ $Duration = 0$ $1 bit$ 1.001CRW-49 $C3 Perm ON$ $Duration = 0$ $1 bit$ 1.001CRW-50 $C3 Parallel switching$ $Send$ $1 bit$ 1.001CRW-50 $C3 Parallel switching$ $Send$ $1 bit$ 1.001CRW-51 $C3 Test mode$ $1 = active, 0 = not active$ $1 bit$ 1.003CRW-52 $C3 External brightness value$ $Receive$ $2 byte$ 	47	C3 Alternative time delay	Selection	1 bit 1.003	С	R	W	-
48C3 Block $Block = 1$ 1 bit 1.003CRW49C3 Perm ON $Duration = 0$ 1 bit 1.001CRW49C3 Perm ON $Duration = 1$ 1 bit 1.001CRW50C3 Parallel switching $Send$ 1 bit 	40		Block = 0	1 bit 1.003	С	R	W	-
49 $C3 Perm ON$ $Duration = 0$ $1 \text{ bit} \\ 1.001$ $C$ $R$ $W$ $Duration = 1$ $1 \text{ bit} \\ 1.001$ $C$ $R$ $W$ $ 50$ $C3 Parallel switching$ $Send$ $1 \text{ bit} \\ 1.001$ $C$ $R$ $W$ $ 50$ $C3 Parallel switching$ $Send$ $1 \text{ bit} \\ 1.001$ $C$ $R$ $W$ $ 51$ $C3 Test mode$ $1 = active, 0 = not active$ $1 \text{ bit} \\ 1.003$ $C$ $R$ $W$ $ 52$ $C3 External brightness value$ $Receive$ $2 \text{ byte} \\ 9.004$ $C$ $R$ $W$ $ 53$ $C3 Scene$ $Receive$ $1 \text{ byte} \\ 17.001$ $C$ $R$ $W$ $-$	48	C3 Block	Block = 1	1 bit 1.003	С	R	W	-
49CS Perm ONDuration = 1 $1 \text{ bit} \\ 1.001$ CRW-50C3 Parallel switchingSend $1 \text{ bit} \\ 1.001$ CR-T50C3 Parallel switchingSend / Receive $1 \text{ bit} \\ 1.001$ CR-T51C3 Test mode $1 = active, 0 = not active$ $1 \text{ bit} \\ 1.003$ CRW-52C3 External brightness valueReceive $2 \text{ byte} \\ 9.004$ CRW-53C3 SceneReceive $1 \text{ byte} \\ 17.001$ CRW-	40	C2 Dame ON	Duration = 0	1 bit 1.001	С	R	W	-
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	49	CS Perm ON	Duration = 1	1 bit 1.001	С	R	W	-
50C3 Parallel switchingSend / Receive $1 \text{ bit}$ $1.001CRWT51C3 Test mode1 = active, 0 = not active1 \text{ bit}1.003CRW-52C3 External brightness valueReceive2 \text{ byte}9.004CRW-53C3 SceneReceive1 \text{ byte}17.001CRW-$	50		Send	1 bit 1.001	С	R	-	Т
51C3 Test mode $1 = active, 0 = not active$ 1 bit 1.003CRW-52C3 External brightness valueReceive2 byte 9.004CRW-53C3 SceneReceive1 byte 17.001CRW-	50	C3 Parallel switching	Send / Receive	1 bit 1.001	С	R	W	Т
52C3 External brightness valueReceive2 byte 9.004CRW53C3 SceneReceive1 byte 17.001CRW	51	C3 Test mode	1 = active, 0 = not active	1 bit 1.003	С	R	W	-
53         C3 Scene         Receive         1 byte 17.001         C         R         W         -	52	C3 External brightness value	Receive	2 byte 9.004	С	R	W	-
	53	C3 Scene	Receive	1 byte 17.001	С	R	W	-
54C4 MotionSwitching $1 \text{ bit}$ $1.001$ CR-T	54	C4 Motion	Switching	1 bit 1.001	С	R	-	Т

No.	Name	Function	Length	Flags			
55	C4 Dimming	Dimming value	1 byte 5.001	С	R	-	Т
56	C4 Brightness threshold	Receive	2 byte 9.004	С	R	W	-
57	C4 Brightness threshold	Teach in	1 bit 1.001	С	R	w	-
58	C4 Alt. Brightness threshold	Receive	2 byte 9.004	С	R	w	-
59	C4 Alt. Brightness threshold	Teach in	1 bit 1.001	С	R	W	-
60	C4 Alt. Brightness threshold	Selection	1 bit 1.003	С	R	W	-
61	C4 Time delay	Receive	2 byte 7.005	С	R	W	-
62	C4 Alternative time delay	Receive	2 byte 7.005	С	R	w	-
63	C4 Alternative time delay	Selection	1 bit 1.003	С	R	W	-
CA.	C4 Block	Block = 0	1 bit 1.003	С	R	W	-
04		Block = 1	1 bit 1.003	С	R	W	-
65	C4 Perm ON	Duration = 0	1 bit 1.001	С	R	W	-
03		Duration = 1	1 bit 1.001	C	R	W	-
66	C4 Parallel switching	Send	1 bit 1.001	С	R	-	Т
00		Send / Receive	1 bit 1.001	С	R	W	Т
67	C4 Test mode	1 = active, 0 = not active	1 bit 1.003	C	R	W	-
68	C4 External brightness value	Receive	2 byte 9.004	С	R	W	-
69	C4 Scene	Receive	1 byte 17.001	С	R	W	-
		Switching	1 bit 1.001	С	R	-	Т
70	C5.1 Universal channel	Priority	2 bit 2.001	C	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т

No.	Name	Function	Length	Flags				
		Switching	1 bit 1.001	С	R	-	Т	
71	C5.2 Universal channel	Priority	2 bit 2.001	С	R	-	Т	
		Valuator	1 byte 5.010	С	R	-	Т	
70	C5 lock	Block = 0	1 bit 1.003	С	R	W	-	
12	CS IOCK	Block = 1	1 bit 1.003	С	R	W	-	
72	C5 Prightness threshold	check	2 byte 9.004	С	R	-	Т	
75	C5 Brightness threshold	Specify/check	2 byte 9.004	С	R	W	Т	
	C6.1 Universal channel	Switching	1 bit 1.001	С	R	-	Т	
74		Priority	2 bit 2.001	С	R	-	Т	
		Valuator	1 byte 5.010	С	R	-	Т	
	C6.2 Universal channel	Switching	1 bit 1.001	С	R	-	Т	
75		Priority	2 bit 2.001	С	R	-	Т	
		Valuator	1 byte 5.010	С	R	-	Т	
76	C6 look	Block = 0	1 bit 1.003	С	R	W	-	
/6	C0 lock	Block = 1	1 bit 1.003	С	R	W	-	
77	C6 Brightness threshold	check	2 byte 9.004	С	R	-	Т	
77	Co Brigniness intesnota	Specify/check	2 byte 9.004	С	R	W	Т	

No.	Name	Function	Length		Flags		
		Switching	1 bit 1.001	С	R	-	Т
78	78 C7.1 Universal channel	Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
		Switching	1 bit 1.001	С	R	-	Т
79	C7.2 Universal channel	Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
80	C7 lash	Block = 0	1 bit 1.003	С	R	w	-
80 C7 lock	Block = 1	1 bit 1.003	С	R	w	-	
	81 C7 Brightness threshold	check	2 byte 9.004	С	R	-	Т
01		Specify/check	2 byte 9.004	С	R	w	Т
	82 C8.1 Universal channel	Switching	1 bit 1.001	С	R	-	Т
82		Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
		Switching	1 bit 1.001	С	R	-	Т
83	C8.2 Universal channel	Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
Q /	C8 lock	Block = 0	1 bit 1.003	С	R	w	-
84	Colock	Block = 1	1 bit 1.003	С	R	w	-

No.	Name	Function	Length F		Fla	Flags		
05		check	2 byte 9.004	С	R	-	Т	
65	Co Brigniness intesnota	Specify/check	2 byte 9.004	С	R	w	Т	
		Logic input 1 in OR gate	1 bit 1.002	С	R	w	-	
86	C9 Logic module	Logic input 1 in AND gate	1 bit 1.002	С	R	W	-	
		Logic input 1 in XOR gate	1 bit 1.002	С	R	W	-	
		Logic input 2 in OR gate	1 bit 1.002	С	R	W	-	
87	C9 Logic module	Logic input 2 in AND gate	1 bit 1.002	С	R	W	-	
		Logic input 2 in XOR gate	1 bit 1.002	С	R	w	-	
88	C9 Logic module	Logic input 3 in OR gate	1 bit 1.002	С	R	W	-	
		Logic input 3 in AND gate	1 bit 1.002	С	R	W	-	
89 <i>C9 Logic</i>	C0 Logic module	Logic input 4 in OR gate	1 bit 1.002	С	R	w	-	
	C9 Logic moaute	Logic input 4 in AND gate	1 bit 1.002	С	R	w	-	
00	C9 Logic module	Block = 0	1 bit 1.003	С	R	W	-	
90		Block = 1	1 bit 1.003	С	R	W	-	
		Switching	1 bit 1.001	С	R	-	Т	
91	C9. 1 Logic module	Priority	2 bit 2.001	С	R	-	Т	
		Valuator	1 byte 5.010	С	R	-	Т	
		Switching	1 bit 1.001	С	R	-	Т	
92	C9. 2 Logic module	Priority	2 bit 2.001	С	R	-	Т	
		Valuator	1 byte 5.010	С	R	-	Т	

No.	Name	Function	Length		Flags		
		Logic input 1 in OR gate	1 bit 1.002	C	R	W	-
93	C10 Logic module	Logic input 1 in AND gate	1 bit 1.002	С	R	w	-
		Logic input 1 in XOR gate	1 bit 1.002	С	R	w	-
		Logic input 2 in OR gate	1 bit 1.002	С	R	w	-
94	C10 Logic module	Logic input 2 in AND gate	1 bit 1.002	С	R	w	-
		Logic input 2 in XOR gate	1 bit 1.002	С	R	W	-
05		Logic input 3 in OR gate	1 bit 1.002	С	R	w	-
95	C10 Logic moaule	Logic input 3 in AND gate	1 bit 1.002	С	R	w	-
06		Logic input 4 in OR gate	1 bit 1.002	С	R	W	-
96 C10 Logic module	Logic input 4 in AND gate	1 bit 1.002	С	R	w	-	
97 C10 La	C10 Logia modula	Block = 0	1 bit 1.003	C	R	W	-
	C10 Logic moaute	Block = 1	1 bit 1.003	C	R	W	-
		Switching	1 bit 1.001	С	R	-	Т
98	C10. 1 Logic module	Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
		Switching	1 bit 1.001	C	R	-	Т
99	C10. 2 Logic module	Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
		Logic input 1 in OR gate	1 bit 1.002	С	R	W	-
100	C11 Logic module	Logic input 1 in AND gate	1 bit 1.002	С	R	W	-
		Logic input 1 in XOR gate	1 bit 1.002	С	R	w	-

No.	Name	Function	Length	Flags			
		Logic input 2 in OR gate	1 bit 1.002	С	R	W	-
101	C11 Logic module	Logic input 2 in AND gate	1 bit 1.002	С	R	W	-
		Logic input 2 in XOR gate	1 bit 1.002	С	R	W	-
102		Logic input 3 in OR gate	1 bit 1.002	С	R	W	-
102	C11 Logic moaute	Logic input 3 in AND gate	1 bit 1.002	С	R	W	-
102		Logic input 4 in OR gate	1 bit 1.002	С	R	W	-
105	C11 Logic module	Logic input 4 in AND gate	1 bit 1.002	С	R	W	-
104		Block = 0	1 bit 1.003	С	R	W	-
104	C11 Logic moaule	Block = 1	1 bit 1.003	С	R	W	-
105	C11. 1 Logic module	Switching	1 bit 1.001	С	R	-	Т
		Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
		Switching	1 bit 1.001	С	R	-	Т
106	C11. 2 Logic module	Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
		Logic input 1 in OR gate	1 bit 1.002	C	R	W	-
107	C12 Logic module	Logic input 1 in AND gate	1 bit 1.002	С	R	W	-
		Logic input 1 in XOR gate	1 bit 1.002	С	R	W	-
		Logic input 2 in OR gate	1 bit 1.002	С	R	W	-
108	C12 Logic module	Logic input 2 in AND gate	1 bit 1.002	С	R	w	-
		Logic input 2 in XOR gate	1 bit 1.002	С	R	W	-

No.	Name	Function	Length	Flags			
100	C12 Logic module	Logic input 3 in OR gate	1 bit 1.002	С	R	w	-
109	C12 Logic moaute	Logic input 3 in AND gate	1 bit 1.002	С	R	W	-
110		Logic input 4 in OR gate	1 bit 1.002	С	R	w	-
110 C12 Logic module	Logic input 4 in AND gate	1 bit 1.002	С	R	w	-	
111		Block = 0	1 bit 1.003	С	R	w	-
111 C12 Logic module	Block = 1	1 bit 1.003	С	R	w	-	
112 <i>C12. 1 L</i>	C12. 1 Logic module	Switching	1 bit 1.001	С	R	-	Т
		Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
		Switching	1 bit 1.001	С	R	-	Т
113	C12. 2 Logic module Pr	Priority	2 bit 2.001	С	R	-	Т
		Valuator	1 byte 5.010	С	R	-	Т
114	Remote control button 1	Send scene	1 byte 17.001	С	R	-	Т
115	Remote control button 2	Send scene	1 byte 17.001	С	R	-	Т
116	Software version	Send	14 byte 16.001	С	R	-	Т

### 4.2.1 General objects

### • Object 0 ''Receive time''

Receives time from bus for setting the internal real time clock.

### • Object 1 "Send time query"

Object sends time query to bus clock to receive the current time.

### • Object 2 ''Brightness value''

Sends the current brightness value.

### • Object 3 "Temperature value"

Sends the current temperature value, depending on configuration, in case of a change and/or cyclically.

### • Object 4 "*Dismounting*"

Permanently sends cyclical OFF telegrams. The absence of cyclical telegrams might indicate an unauthorised removal of the device.

#### • Object 5 "Sensitivity"

Overwrites the parameter as well as the potentiometer setting for the detection sensitivity of the motion sensor.

Low	Medium	High
033	3466	67100

#### • Object 116 "Software version"

For diagnostic purposes only.

Sends the software version of the device after reset or download.

Format: Vxx.yy

Code	Meaning
xx.yy	Version of the application as hexadecimal number with dividing point.

Example:  $V00.0A_h = Version 0.10_d$ 

### 4.2.2 Objects for motion channels C1-C4

### • Object 6 "*C1 Motion*"

Reports a detected movement. Sends a switch telegram. Available only with *Type of lighting = Switching*.

### • Object 7 "*C1 Dimming*"

Sends the configured dimming values (see *Dimming* parameter page).

### • Object 8 "Receive C1 brightness threshold"

This object can be used to change the configured brightness threshold of the channel via bus telegram at any time.

### • Object 9 "Teach in C1 brightness threshold"

After receiving a 1 by the object, the current brightness value is applied as threshold.

### • Objekt 10 "Receive C1 Alt. brightness threshold"

This object can be used to change the configured alternative brightness threshold of the channel via bus telegram at any time.

### • Objekt 11 "Teach in C1 Alt. brightness threshold"

After receiving a 1 by the object, the current brightness value is applied as alternative threshold.

### • Objekt 12 "SELECT C1 Alt. Brightness threshold"

Activates the alternative brightness threshold.

### • Object 13 "Receive C1 time delay"

This object can be used to change the configured time delay of the channel via bus telegram at any time.

### • Object 14 "Receive C1 Alternative time delay"

This object can be used to change the configured alternative time delay of the channel via bus telegram at any time.

### • **Object 15**, *Select C1 Alternative time delay*"

Activates the alternative time delay.

### • Objekt 16 "*Block C1*"

Only available if the block function is activated.

The behaviour on setting and cancelling the block and the acting direction can be selected on the *Motion channel C1: Function* parameter page.

### • Object 17 ,,*C1 Perm ON*"

Only available if the *Perm On* function is activated.

As long as the function is activated, the channel remains switched on or on the setting for basic light (see table below).

However, the status of the channel can be changed with the preset finish Permanent ON, or by using the remote control (see comments).

During *Perm ON*, motion will not be taken into consideration.

#### Table 3

Parameter Type of lighting	Response to Perm On
Switching	Switching on
Dimming	Basic light or switching on

#### **Comments:**

- The remote control only acts on C1.
- If the permanent condition is activated by using the remote control, it will be automatically terminated after 8 h.
- The response on Permanent ON is also influenced by setting the parameter *Execute Perm ON* (see *Motion channel C1: Function* parameter page).

• **Object 18** "C1 Parallel switching"

Parameter Operating mode	Object function	Description
Master in parallel switching	send/receive	Sends a 1 when detecting motion at the interval of the retrigger time, without considering a brightness threshold. Receives the 1 telegrams of the slave devices
		and switches the light on by considering the brightness threshold.
Slave	Send	Sends a 1 when detecting motion at the interval of the retrigger time, without considering a brightness threshold.
Master in individual switching	not present.	

### • **Object 19** "*C1 Test mode"*

The test mode is activated with a 1. It allows a fast and simple alignment of the device.

In test mode, the output (obj. 6) switches on upon each detected motion for 2 s. The brightness is not taken into consideration.

The test mode can be deactivated with a 0 on the corresponding object. Otherwise it will be terminated automatically after 10 min.

### • Object 20 "C1 External brightness value"

Receives the brightness value from another KNX sensor (e.g. motion detector) from another area.

#### • Object 21 "C1 Receive scene"

Receiving scene number 1-64 (see *Scenes* parameter page).

#### • Object 22-69

Objects for channels C2-C4. Function identical to C1.

### 4.2.3 Objects for universal channels C5-C8

• **Object 70** "C5.1 Universal channel switch/valuator/priority"

This is the first initial object of a universal channel The function of the object depends on the selected telegram type (see *Objects* parameter page, *Telegram type C5.1* parameter).

#### Table 4

Telegram type	Format	Sent telegrams		
Switching	DPT 1,001	On / Off	On / Off	
_	(On/Off)			
Priority	DPT 2,001	2 bit telegram		
	(priority	Operation	Value	
	control)	no priority (no control)	0	
		Priority OFF (control. Function value 0) 2		
		Priority ON (control. Function value 1)	3	
Value	DPT 5,010	Value between 0 and 255		

• **Object 71** "C5.2 Universal channel switch/valuator/priority"

This is the second initial object of a universal channel The function of the object depends on the selected telegram type (see *Objects* parameter page, *Telegram type C5.2* parameter).

The telegram type can be configured independently of the 1st initial object. The same setting options are available for this purpose as for the 1st initial object (see table above for object 70).

The cycle time and the block behaviour are valid together for both objects (objects 70+71).

• **Object 72** "Block C5"

Only available if the block function is activated.

The behaviour on setting/cancelling the block and the acting direction can be selected on the *Objects* parameter page.

### • **Object 73** "C5 brightness threshold"

This object can be used to change the configured brightness threshold of the channel via bus telegram at any time.

### • **Objects 74-85**

Objects for universal channels C6-C8. Function identical to C5.

### 4.2.4 Objects for logic modules C9-C12

• **Object 86** "C9 Logic module, logic input 1 in AND/OR/XOR gate"

First input object of the logic module.

• **Object 87** "C9 Logic module, logic input 2 in AND/OR/XOR gate"

Second input object of logic module.

• **Object 88** "C9 Logic module, logic input 3 in AND/OR gate"

Third input object of logic module. Not used with XOR link.

• **Object 89** "C9 Logic module, logic input 4 in AND/OR gate"

Fourth input object of logic module. Not used with XOR link.

• **Object 90** "C9 logic module, block"

Block object of the channel. Only visible if the block function is activated. The acting direction (block with 0 or 1) can be set via parameters.

• **Object 91**"*C*9.1 Logic module, switch/valuator/priority"

This is the first initial object of the logic module. The function of the object depends on the selected telegram type (see *Objects* parameter page, *Telegram type C9.1* parameter).

Telegram type	Format	Sent telegrams		
Switching	DPT 1,001	On / Off	On / Off	
	(On/Off)			
Priority	DPT 2,001	2 bit telegram		
	(priority	Operation	Value	
	control)	no priority (no control)	0	
		Priority OFF (control. Function value 0)	2	
		Priority ON (control. Function value 1)	3	
Value	DPT 5,010	Value between 0 and 255		

• **Object 92**"C9.2 Logic module, switch/valuator/priority"

This is the second initial object of the logic module. The function of the object depends on the selected telegram type (see *Objects* parameter page, *Telegram type C9.2* parameter).

The telegram type can be configured independently of the 1st initial object. The same setting options are available for this purpose as for the 1st initial object (see table above at object 91).

The cycle time and the blocking behaviour are valid together for both objects (objects 91+92).

### • Objects 93-113

Objects for the logic channels C10-C12. Function identical to C9.

### 4.2.5 Objects for the remote control

• **Object 114** "Remote control button 1, send scene"

Sends a scene number if button 1 of the remote control is pressed. See *Remote control* parameter page.

• **Object 115** "Remote control button 2, send scene"

Sends a scene number if button 2 of the remote control is pressed. See *Remote control* parameter page.

### 4.3 Parameters

### 4.3.1 Parameter pages

Motion detector theLuxa P300 has 3 different channel types:

- Motion channels
- Universal channels
- Logic channels

Function	Description
General	Selection of the used channels and general settings.
Measurement values	Settings for sending brightness and temperature.
Motion channel C1-C4: Function	Basic settings for the motion-dependent channels.
Brightness settings	Brightness threshold etc.
Time settings	Time delay, switch-on delay etc.
Dimming	Preset dimming values.
Switching times	Settings for up to 8 switching programmes.
Presets	8 presettings for brightness threshold, time delay, blocking
	behaviour, and permanent switching.
	Callable via switching times or scenes.
Scenes	Response to specific scene numbers.
Universal channel C5-C8:	Basic settings for the universal channels.
Function	
Objects	Telegram type, switch and blocking behaviour etc.
Logic channel C9-C12: Function	Basic settings for the logic channels.
Objects	Telegram type, switch and blocking behaviour etc.

# 4.3.2 General parameter page

Designation	Values	Description
Activate motion channel Cl	<i>yes</i>	
netivate motion channel C1	по	
Activate motion channel C?	yes	
	no	Activate required motion
Activate motion channel C3	yes	channels
	no	
Activate motion channel C4	yes	
	no	
Activate universal channel C5	yes	
	no	
Activate universal channel C6	yes	A
	no	Activate required universal
Activate universal channel C7	yes	channels
Activate universal channel C8	yes	
	<u> </u>	
Activate logic channel C9	yes	
	ves	
Activate logic channel C10	yes no	
	ves	Activate required logic channels
Activate logic channel C11	no	
	ves	
Activate logic channel C12	no	
	adjustable via potentiometer	Set sensitivity directly at the
		device.
Sansitivity of sansors		
sensuivuy of sensors	low	Select sensitivity level.
	normal	
	high	
	yes	Upon download, all thresholds
		and time delays stored in the
		device shall be replaced by the
Overwrite threshold and time		values configured in the ETS.
delay on download		Thresholds and time delays
	no	already stored in the device will
		be preserved even after
		download
		uo minouu.

Designation	Values	Description
	yes	The presence of the device
		should be monitored: For this
		purpose, object 4 permanently
		sends cyclical telegrams on the
		bus (theft protection).
Activate dismounting protection		If these telegrams are monitored,
		the absence of the device can be
		reported.
	no	No monitoring required.
	every min.	For this purpose, the device
	every min. every 2 min.	For this purpose, the device cyclically sends OFF telegrams.
	every min. every 2 min. every 3 min.	For this purpose, the device cyclically sends OFF telegrams. Dismounting is detected if the
Cycle time for dismounting	every min. every 2 min. every 3 min. <b>every 5 min.</b>	For this purpose, the device cyclically sends OFF telegrams. Dismounting is detected if the cyclical sending stops.
Cycle time for dismounting protection	every min. every 2 min. every 3 min. every 5 min. every 10 min.	For this purpose, the device cyclically sends OFF telegrams. Dismounting is detected if the cyclical sending stops.
Cycle time for dismounting protection	every min. every 2 min. every 3 min. every 5 min. every 10 min. every 15 min.	For this purpose, the device cyclically sends OFF telegrams. Dismounting is detected if the cyclical sending stops.
Cycle time for dismounting protection	every min. every 2 min. every 3 min. every 5 min. every 10 min. every 15 min. every 20 min.	For this purpose, the device cyclically sends OFF telegrams. Dismounting is detected if the cyclical sending stops.

### 4.3.3 Measurement values parameter page

Designation	Values	Description
Brightness adjustment in %	-3030	Correction value for brightness
	(Default = <b>0</b> )	measurement if the sent value
		deviates from the actual
		surrounding brightness.
		Example: Brightness = $1000 \text{ lx}$
		Sent = 1100 lx
		Correction value = $-10$ %
Transmit brightness value upon change	no	only send cyclically (if enabled)
	of 10 %, but at least 1 lx	Send if the value has changed by
	of 20 %, but at least 1 lx	20%,
	of 30 %, but at least 1 lx	30% etc. since it was last sent
	of 50 %, but at least 1 lux	However, if a change of 20 %
		corresponds to a change in
		brightness $< 1  lx$ ,
		then the value is not sent until
		the change is
		>1 lx.
Transmit brightness value	do not send cyclically	How often should the current
cyclically	every min.	brightness value be resent?
	every 2 min.	
	every 3 min.	
	every 5 min.	
	every 10 min.	
	every 15 min.	
	every 20 min.	
	every 30 min.	
	every 45 min.	
	every 60 min.	
Temperature calibration in	-6463	Correction value for temperature
0.1°C	(Default = <b>0</b> )	measurement if sent temperature
		deviates from the actual ambient
		temperature.
		Example: temperature = $20^{\circ}$ C
		sent temperature = $21^{\circ}C$
		Correction value
		$= -10$ (i.e. $-10 \ge 0.1^{\circ}$ C)

Designation	Values	Description
Transmit temperature in the	no	only send cyclically
event of change		(if enabled)
	of 0.5 °C	Send if the value has changed for
	of 1.0 °C	example by 0.5°C or 1°C since it
	of 1.5 °C	was last sent.
	of 2.0 °C	
	of 2.5 °C	
Send temperature cyclically	do not send cyclically	At which interval should the
	every min.	current temperature be sent
	every 2 min.	again?
	every 3 min.	
	every 5 min.	
	every 10 min.	
	every 15 min.	
	every 20 min.	
	every 30 min.	
	every 45 min.	
	everv 60 min.	

### 4.3.4 Motion channel C1..C4: Function - parameter pages.

Table 9

Designation	Values	Description
Operating mode	Slave	The channel reports motion by
		cyclical 1 telegrams.
		No time function and no
		consideration of brightness.
	Master	Normal function.
		The channel switches depending
		on motion and brightness, with
		adjustable time delay.
Master operating mode	Master in individual switching	Standard application for an area
		in which only one motion
		detector is required.
	Master in parallel switching	In addition to its own motion
		detection, the channel also
		responds to telegrams from slave
		devices.
		Furthermore, it sends 1
		telegrams upon detection of
		motion
		on the parallel switching object
		(obj. 18, cf. Slave).
Mode of operation	Fully automatic device	Switches on when all conditions
		are met (e.g. motion and
		darkness) and switches off when
		the time delay has elapsed.
	Sami automatia daviaa	The consumer (a a lighting) is
	Semi-automatic device	The consumer (e.g. lighting) is
		The motion detector switches
		off
Brightness threshold and time	adjustable via potentiometer	Brightness threshold and time
delay*	aujustable via potentiometer	delay for C1 adjustable directly
uctuy		at the device
	adiustable via ETS	The potentiometer settings have
		no influence on brightness
		threshold and time delay. Only
		ETS parameters and teach-in
		telegrams will take effect.

\*ONLY for C1



Designation	Values	Description
Used sensors	no sensor	The motion sensors left, centre,
		and right will not be used.
	left, centre, right	Selection of the zones to be
	<i>left, centre</i>	monitored.
	centre, right	
	left, right	
	left	
	centre	
	right	Madian dina da halam da
Activate sensor bottom (creep	yes	Motion directly below the
under protection)		detector shall be detected.
		Cross under protection not
	no	creep under protection not
Type of lighting	Switchizz	The channel controls a switch
Type of lighting	Swuching	actuator Sand only ON/OFF
		telegrams
		telegrams.
	Dimming	The channel controls a dimming
	Dunning	actuator
		ON/OFF and send dimming
		telegrams
Activate perm ON	via OFF telegram	Perm ON is triggered by a 0 on
		object 17.
		5
	via ON telegram	Perm ON is triggered by a 1 on
	0	object 17.
Execute perm ON	only if fallen below brightness	The channel should only switch
	value	on during perm ON if the
		brightness is below the
		brightness threshold.
	always	Do not take brightness into
		account during perm ON.
Block telegram	Block with ON telegram	0 = Cancel block
		1 = Block
	Block with OFF telegram	0 = Block
		I = Cancel block
		Note: The block is always
		deactivated after reset.

Designation	Values	Description
Telegram when setting the block	no telegram	Do not send.
	as with OFF	Same behaviour as when no
		motion is detected.
Retrigger time	30 s	As long as motion is detected,
	1 min.	object 18 sends cyclical switch
	2 min.	on telegrams for further master
	<i>3 min</i> .	devices.
	4 min.	Only for master in parallel
		switching and slave operation*.

\* In slave operation, the retrigger time must be set shorter than half of the time delay of the master device. Otherwise, no additional switching on can be triggered in the master device at the end of the cycle time.

**Example:** Time delay Master = 5 min.  $\rightarrow$  the retrigger time must be max. 2 minutes.

# 4.3.5 Brightness settings parameter page

Designation	Values	Description
Source of brightness value	internal	The brightness is measured in
		the device.
	Object	The brightness value is received
		by another device.
Brightness threshold adjustable	yes	The current brightness threshold
via bus		can be configured any time via
		bus telegrams.
	no	Changing is only possible via
		ETS download or teach in.
Brightness threshold value	independent of brightness	The brightness is not taken into
		consideration.
	1 lx, 1.5 lx, 2 lx	In case of motion, the channel
	2.5 lx, 5 lx, 5.5 lx	output is only switched on if the
	4 lx, 4.5 lx, 5 lx	measured brightness is below the
	5.5 lx, 0 lx, 7 lx	set brightness threshold.
	7.5  lx,  0  lx,  9  lx	
	10 lx, 13 lx, 20 lx 25 lx, 30 lx, 35 lx	
	$\begin{array}{c} 25 \ ix, \ 50 \ ix, \ 55 \ ix \\ 40 \ lr \ 45 \ lr \ 50 \ lr \end{array}$	
	40 lx, 45 lx, 50 lx 55 ly 60 ly 70 ly	
	75 lx, 80 lx, 90 lx	
	100  Jr 150 Jr 200 Jr	
	250 lx 300 lx 350 lx	
	<b>400 lx</b> , 450 lx, 500 lx	
	550 lx, 600 lx, 700 lx	
	750 lx, 800 lx, 900 lx	
	1000 lx, 1500 lx, 2000 lx	
	2500 lx, 3000 lx	
Light hysteresis	20 % but at least 1 lux	The hysteresis prevents frequent
	30 %, but at least 1 lux	change over after small changes
	50 %, but at least 1 lux	in brightness.
Delay time brightness	none	In case of motion and with
		brightness below the brightness
		threshold, the channel switches
		on immediately.
	5 s, <b>10</b> s, 20 s	In case of detected motion and
	<i>30 s, 1 min., 2 min.</i>	with brightness below the
	3 min., 5 min., 10 min.	brightness threshold
	15 min., 20 min.	

Designation	Values	Description
Use alternative brightness	yes	Use an additional brightness
threshold		threshold.
	no	Do not use.
Alternative brightness threshold	independent of brightness	With activated alternative
		brightness threshold, the channel
		always has to switch in case of
		motion, and not take brightness
		into account.
	1 lx, , 1.5 lx, 2 lx	Select alternative brightness
	2.5 lx, 3 lx, 3.5 lx	threshold.
	4 lx, 4.5 lx, 5 lx	
	5.5 lx, 6 lx, 7 lx	
	7.5 lx, 8 lx, 9 lx	
	10 lx, 15 lx, 20 lx	
	25 lx, 30 lx, 35 lx	
	40 lx, 45 lx, 50 lx	
	55 lx, 60 lx, 70 lx	
	75 lx, 80 lx, 90 lx	
	100 lx, 150 lx, 200 lx	
	250 lx, 300 lx, 350 lx	
	<b>400 lx</b> , 450 lx, 500 lx	
	550 lx, 600 lx, 700 lx	
	$750 \ lx, \ 800 \ lx, \ 900 \ lx$	
	1000 lx, 1500 lx, 2000 lx	
	2500 lx, 3000 lx	
Alternative brightness threshold	yes	The current alt. brightness
adjustable via bus		threshold can be overwritten via
		obj. 10.
	no	Changing is only possible via
		ETS download or teach in.

# 4.3.6 Time settings parameter page

Table	11
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Designation	Values	Description
Time delay	1 s, 5 s, 10 s	Turn-on time when motion
	15 s, 20 s, 25 s	detected.
	30 s, 40 s, 50 s	
	<b>1 min.</b> , 2 min., 3 min.	
	5 min., 10 min., 15 min.	
	20 min., 30 min., 40 min.	
	50 min., 1 h	
Time delay adjustable via bus	yes	The time delay can be
		configured any time via bus
		telegrams.
	no	Changing is only possible via
		ETS download or teach in.
Use alternative time delay	yes	Use an additional time delay.
	no	Do not use.
Alternative time delay	1 s, 5 s, 10 s	Select alternative time delay.
	15 s, 20 s, 25 s	
	30 s, 40 s, 50 s	
	<b>1 min.</b> , 2 min., 3 min.	
	5 min., 10 min., 15 min.	
	20 min., 30 min., 40 min.	
	50 min., 1 h	
Alternative time delay adjustable	yes	The alternative time delay can be
via bus		configured any time via bus
		telegrams.
		Changing is only accepted with
	no	ETS download on tooch in
Use switch on delay		E 15 download of leach in.
Ose swiich-on aelay	yes	switch on immediately upon
		detected motion
	по	Always switch on immediately
	no	Always switch on immediately.

Designation	Values	Description
Switch-on delay	1 s, 5 s, <b>10 s</b>	In case of detected motion and
	15 s, 20 s, 25 s	with brightness possibly below
	30 s, 40 s, 50 s	the brightness threshold, the
	1 min., 2 min., 3 min.	channel switches on, only after
	5 min., 10 min., 15 min.	the set delay has elapsed.
	20 min., 30 min., 40 min.	
	50 min., 1 h	
Time between switching off and	1 s	Minimum time for the channel to
on	1,4 s	remain switched off.
	2 s	Prevents unwanted switching
	<u>3 s</u>	back on.
Retrigger	yes	With the first motion, the
		channel switches on for the set
		time delay.
		With every further motion, the
		current time delay will be
		restarted.
		With this setting, the short-term
		presence function is not
		available.
	no	With the first motion, the
		channel switches on only for the
		set time delay.
		A further motion during that
		time has no effect.
Short-term presence		Energy saving function: If a
		room is entered only briefly, the
		duty cycle of the lighting will be
		reduced.
		This function is only possible if
		Retrigger = no
		(see above).
		XX X1
	yes	When the first motion is
		detected, the channel will be
		switched on for 2 min. If the
		next motion is detected after 15
		s, the current time delay will be
		applied.
		With time delays shorter than 3
		minutes, this function is not
		activated.
		Shout town another in
	no	Short-term presence is
		deactivated.

Designation	Values	Description
Cyclical transmission	do not send cyclically	At which interval should the
	every min.	channel status be sent again?
	every 2 min.	
	every 3 min.	
	every 5 min.	
	every 10 min.	
	every 15 min.	
	every 20 min.	
	every 30 min.	
	every 45 min.	
	every 60 min.	

# 4.3.7 Dimming parameter page

Designation	Values	Description
Dimming value during ON phase	0 %	Switch off lighting
	10 %, 20 %, 30 %	In case of detected motion,
	40 %, 50 %, 60 %	control the dimmer with the
	70 %, 80 %, 90 %	selected dimming value.
	100 %	
Dimming value during standby	0 %	After the time delay, there is the
phase	<b>10 %</b> , 20 %, 30 %	so called standby phase, usually
	40 %, 50 %, 60 %	with reduced dimming value.
	70 %, 80 %, 90 %	
	100 %	
Standby time	OFF	No standby function.
	30 s, 40 s, 50 s	Time limit for standby mode.
	<b>1 min.</b> , 2 min., 3 min.	
	5 min., 10 min., 15 min.	
	20 min., 30 min., 40 min.	
	50 min., 1 h, 1 h 15 min.	
	1 h 30 min., 1 h 45 min., 2 h	
Dimming value when setting the	0 %	Desired dimming value if the
block	10 %, 20 %, 30 %	block is triggered e.g. via object,
	40 %, 50 %, 60 %	time switch program, or scene
	70 %, 80 %, 90 %	(presets).
	100 %	
Dimming value when OFF	0 %	Dimming value if no motion and
	10 %, 20 %, 30 %	no standby is available.
	40 %, 50 %, 60 %	
	70 %, 80 %, 90 %	
	100 %	
Dimming value during	0 %	Desired dimming value if the
permanent switching	10 %, <b>20 %</b> , 30 %	permanent switching is triggered
	40 %, 50 %, 60 %	e.g. via object, time switch
	70 %, 80 %, 90 %	program, or scene (presets).
	100 %	

### 4.3.8 Switching times parameter page

Each motion channel has up to 8 switching times.

Each of these switching times can call up a different *preset* action.

This allows to change brightness threshold and time delay, to block the channel, or to trigger permanent switching in a time-controlled manner.

For activating switch programmes, a time must have been received at least once.

Table 13	

Designation	Values	Description
Activate switch programme 1	no	Deactivated
	yes	Switch programme has to
		execute a <i>preset</i> action at the
		defined time.
Switching time	12:00 a.m. – 11:45 p.m.	Select time for the execution of
	(in 15 min. increments)	the switching time.
Program active at	daily	Day or days on which the
	Mon - Fri	switching time is executed.
	Mon - Sat	All days can be selected
	Fri - Sun	individually or in a combination.
	Sat - Sun	
	Mon	
	Tue	
	Wed	
	Thu	
	Fri	
	Sat	
	Sun	
	and all other possible	
	combinations of weekdays.	
Action	Preset 1	Preset action which is to be
	Preset 2	executed at this switching time.
	Preset 3	
		See <i>Presets</i> parameter page.
	Preset 8	
Activate switch programme 2	по	See above, switching time 1
	yes	
Activate switch programme 3	по	See above, switching time 1
	yes	
Activate switch programme 4	по	See above, switching time 1
	yes	
Activate switch programme 5	по	See above, switching time 1
	yes	
Activate switch programme $\overline{6}$	no	See above, switching time 1
	yes	
Activate switch programme 7	no	See above, switching time 1
	yes	
Activate switch programme 8	no	See above, switching time 1
	yes	

### 4.3.9 Presets parameter page

Presets can execute the following actions:

- Selection of brightness threshold (normal/alternative)
- Selection of time delay (normal/alternative)
- Block channel or cancel block
- Trigger permanent switching (ON/OFF)

Each motion dependent channel has 8 presets. These can be called up via switching times or scene numbers.

Designation	Values	Description		
Preset 1				
Brightness threshold value	unchanged	No influence on brightness		
	_	threshold.		
	normal brightness threshold	Activate normal brightness		
		threshold.		
	alternative brightness threshold	Activate alternative brightness		
	(if available)	threshold.		
Time delay	unchanged	No influence on time delay.		
	normal time delay	Activate normal time delay.		
	alternative time delay	Activate alternative time delay.		
	(if available)	Only possible if an alternative		
		time delay is used.		
Blocking behaviour	unchanged	No influence on block.		
	block (if activated)	Block channel.		
		Only possible if the block		
		function is activated.		
	Cancel Block (if activated)	l erminate channel block.		
		Only possible if the block		
D ( 11)		Tunction is activated.		
Permanent switching	unchanged	No influence on permanent		
		switching.		
	Down ON	Switch on channel normanently		
	Perm ON	Switch on channel permanently.		
	Finish Parmanant ON	Finish Permanent ON		
	T mish T ermuhent ON			



Continuation:		
Designation	Values	Description
Preset 2		
Brightness threshold value		
Time delay	See Preset 1	
Blocking behaviour	See Fresel 1	
Permanent switching		
Preset 3		
Brightness threshold value		
Time delay	Saa Drosat 1	
Blocking behaviour	see Fresel 1	
Permanent switching		
Preset 4		
Brightness threshold value		
Time delay	Saa Prasat 1	
Blocking behaviour		
Permanent switching		
Preset 5		
Brightness threshold value		
Time delay	See Preset 1	
Blocking behaviour		
Permanent switching		
Preset 6		
Brightness threshold value	Saa Prosot 1	
Time delay		
Blocking behaviour		
Permanent switching		
Preset 7		
Brightness threshold value		
Time delay	Saa Prosat 1	
Blocking behaviour	See I lesei I	
Permanent switching		
Preset 8		
Brightness threshold value		
Time delay	See Preset 1	
Blocking behaviour		
Permanent switching		

### 4.3.10 Scenes parameter page

Each motion channel can respond to up to 8 different scene numbers. When receiving a scene number, the corresponding preset action will be executed. The 1st scene calls up preset 1, the 2nd scene calls up preset 2, etc.

Designation	Values Description	
1st scene - Preallocated preset 1		
Channel reacts to	no scene number	Do not use preset 1.
	Scene number 1	When receiving the scene
		number set here, preset 1 will be
	Scene number 64	executed.
Comment for this scene number	Free text input	Comment text for the user, e.g.
	(max. 46 characters).	business hours, weekend etc.
2nd scene - Preallocated preset 2		
Channel reacts to	no scene number	Do not use preset 2.
	Scene number 1	When receiving the scene
	Standard = <i>Scene number 2</i>	number set here, preset 2 will be
		executed.
	Scene number 64	
Comment for this scene number	Free text input	Comment text for the user.
	(max. 46 characters).	
3rd scene - Preallocated preset 3		
Channel reacts to	no scene number	Do not use preset 3.
	Scene number I	When receiving the scene
		number set here, preset 3 will be
	Standard = Scene number 3	executed.
<u> </u>	Scene number 64	
Comment for this scene number	Free text input	Comment text for the user.
	(max. 46 characters).	
4rd scene - Preallocated preset 4		
Channel reacts to	no scene number	Do not use preset 4.
	Scene number I	When receiving the scene
		number set here, preset 4 will be
	Standard = Scene number 4	executed.
	Scene number 64	
<i>Comment for this scene number</i>	Free text input	Comment text for the user.
	(max. 46 characters).	



Designation	Values Description	
5th scene - Preallocated preset 5		
Channel reacts to	no scene number	Do not use preset 5.
	Scene number 1	When receiving the scene
	Standard = <i>Scene number 5</i>	executed.
	 Scene number 64	
Comment for this scene number	Free text input (max 46 characters)	Comment text for the user.
6th scene - Preallocated preset 6	(intani to entatueters).	
Channel reacts to	no scene number	Do not use preset 6.
	Scene number 1	When receiving the scene
	Standard = <i>Scene number 6</i>	executed.
	 Scene number 64	
Comment for this scene number	Free text input	Comment text for the user.
7th scene - Preallocated preset 7	(max. 40 characters).	
Channel reacts to	no scene number	Do not use preset 7
	Scene number 1	When receiving the scene
	 Standard = <i>Scene number</i> 7	executed.
	Scene number 64	
Comment for this scene number	Free text input	Comment text for the user.
0.1 <b>D</b> 11 4 1 4 0	(max. 46 characters).	
8th scene - Preallocated preset 8	7	
Channel reacts to	no scene number	Do not use preset 8.
	Scene number 1	When receiving the scene
	Standard = <i>Scene number 8</i>	executed.
	 Scene number 64	
Comment for this scene number	Free text input	Comment text for the user.
	(max. 46 characters).	

# 4.3.11 Universal channel C5..C8: function - parameter pages

Designation	Values	Description
Use brightness sensor	yes	The channel has to switch
		depending on brightness.
	no	Do not take brightness into
<b>T</b> T		account.
Use temperature sensor	yes	I he channel has to switch
		depending on temperature.
	no	Do not take temperature into
		account.
Type of link	AND	Fulfilled if the conditions for
		temperature AND brightness
		threshold are fulfilled.
	OR	Fulfilled if the condition of <b>one</b>
		of the two thresholds is fulfilled,
		i.e. temperature OR brightness
		threshold.
Brightness threshold value	Below 1.5 lx below 90000 lx	The channel switches on if the
	(in 75 increments)	value is below the entered
		threshold.
	Above $1 lr = above 00000 lr$	The channel switches on if the
	(in 75 increments default -	value is above the entered
	(1175  increments, default = 10000  Jy)	threshold
Value can be overwritten via	ves	Should it be possible to change
object	no	the configured brightness
		threshold via bus telegrams at
		any time?
Value can be overwritten on	yes	With an ETS download, the
download		brightness threshold currently
		stored in the device is deleted
		and overwritten with the value
		set in the ETS.
	no	An EIS download, does not have
		threshold currently stored in the
		device
		Excention.
		Even if <i>no</i> is selected all ETS
		parameter values are downloaded
		during initial operation (i.e. with
		an empty device memory).

Designation	Values	Description
Light hysteresis	20 % but at least 1 lux	The hysteresis prevents frequent
	30 %, but at least 1 lux	change over after small changes
	50 %, but at least 1 lux	in brightness.
		Depending on the selected
		condition, it can be either
		negative or positive.
		Example with 20% hysteresis:
		Condition: "ABOVE 4500 lx"
		= fulfilled from 4500 lx and no
		longer fulfilled at 4500 lx - 20%
		Condition: "BELOW 4500 lx"
		= fulfilled below 4500 lx and no
		longer fulfilled at $4500 \text{ lx} + 20\%$
Delay when brightness increases	none	Response time when it gets
	5 s, 10 s, 20 s, 30 s, 1 min., 2	brighter and the selected
	min.,	threshold is passed as a result.
	3 min., 5 min., 10 min., 15 min.,	This setting prevents conflicting
	20 min.	telegrams from being sent during
		short changes in brightness
Delay when brightness decreases	none	Response time when it gets
	5 s, 10 s, 20 s, 30 s, 1 min., 2	darker and the selected threshold
	<i>min.</i> ,	is passed as a result.
	3 min., 5 min., <b>10 min.</b> , 15 min.,	I his setting prevents conflicting
	20 min.	telegrams from being sent during
	1 1 1000 / 1000	short changes in brightness
Temperature threshold	below $-10^{\circ}$ C to over $40^{\circ}$ C	Condition fulfilled if the
	(at 1 K increments)	temperature is below the set
		value.
	$a_{\rm hous} = 10$ °C to $a_{\rm hous} = 40$ °C	Condition fulfilled if the
	above = 10 C to above 40 C	tomperature is above the set
	Default – <i>above</i> 18 C	value
Town on string huston sig	10V 15V	The hystopesis provents frequent
Temperature hysteresis	1.0  K, 1.3  K	change over at small temperature
	2.0 K, 2.3 K	changes over at small temperature
		It can be negative or positive
		depending on the selected
		depending on the selected condition (above or below $xx^{\circ}C$ )
		depending on the selected

## 4.3.12 Objects parameter page

All universal and logic channels have this type of parameter page. Here, the response on fulfillment or non-fulfillment of the condition(s) is configured.

Designation	Values	Description
Telegram type C5.1	Switch command	1 bit ON/OFF
	Priority	2 bit
		Function Value
		Priority not active
		(no control)
		Priority ON 3 (11)
		(control: Function value 1) (11bin)
		Priority OFF 2 (10)
		(control: Function value 0) $2(10_{\text{bin}})$
	Value	1 byte 0 255
If the condition is met	no telegram	Transmission behaviour if the channel
	send following telegram once	condition is fulfilled.
	send cyclically	
Telegram		Type of telegram for the first initial
		object of the channel when the condition
		is fulfilled:
	ON	For telegram type Switch command.
	OFF	
	no priority	For telegram type Priority.
	Priority, ON	
	Priority, OFF	
	Telegram () 255	For telegram type Value
If the condition is not met	no telegram	Transmission behaviour if the channel
If the condition is not met	send following telegram once	condition is not fulfilled.
	send cyclically	
Telegram		Type of telegram for the first initial
0		object of the channel in case of
		unfulfilled condition:
	ON	For telegram type Switch command.
	OFF	
	no priority	For telegram type Priority.
	Priority, ON	
	Priority, OFF	
	Telegram <b>U</b> 255	For telegram type value.

Designation	Values	Description
Should a second	Yes	If yes has been selected, further
telegram be sent?	no	parameters and a second transmission
_		object appear.
		It can be used to send 2 different
		telegrams at the same time on the same
		channel.
		The cycle time and the block behaviour
		apply to both objects.
Telegram type C5.2		2nd initial object of the channel
	Switch command	1 bit ON/OFF
	Priority	2 bit
	2	Function Value
		Priority not active
		$(\text{no control})$ $0 (00_{\text{bin}})$
		Priority ON
		(control: Function value 1) $3(11_{\text{bin}})$
		Priority OFF
		$\left  \begin{array}{c} \text{(control: Function value 0)} \right ^{2} (10_{\text{bin}}) \right $
	Value	1 byte 0 255
If the condition is met	no telegram	Transmission behaviour if the channel
<i>y</i>	send following telegram once	condition is fulfilled.
	send cyclically	
Telegram		Type of telegram for the second initial
0		object of the channel in case of fulfilled
		condition:
	ON	For telegram type Switch command.
	OFF	
	no priority	For telegram type Priority.
	Priority, ON	
	Priority, OFF	
	<i>Telegram 0 255</i>	For telegram type Value.
If the condition is not met	no telegram	Transmission behaviour if the channel
	send following telegram once	condition is not fulfilled.
	send cyclically	
Telegram		Type of telegram for the second initial
		object of the channel in case of
		unfulfilled condition:
	ON	For telegram type Switch command.
	OFF	
	no priority	For telegram type Priority.
	Priority, ON	
	Priority, OFF	
	<i>Telegram</i> <b>0</b> 255	For telegram type Value.



Designation	Values	Description
Activate block function	Yes	Show block parameter and block object.
	no	No block function.
Behaviour when setting the block	do not send	No telegrams while the block is set.
	as with unfulfilled condition	Same reaction as set in the When the
	5 5	condition is not fulfilled parameter (see
		above).
		,
	as with fulfilled condition	Same reaction as set in the When the
		condition is fulfilled parameter (see
		above).
Behaviour when	do not send	Not automatically resent when the block
cancelling the block		is cancelled
	Update channel	The current channel status is sent
		immediately as soon as the block is cancelled
Cycle time (if used)	every min.	How often should the telegrams for C5.1
	every 2 min.	and C5.2 be sent?
	every 3 min.	
	every 5 min.	
	every 10 min.	
	every 15 min.	
	every 20 min.	
	every 30 min.	
	every 45 min.	
	every 60 min.	

## 4.3.12.1 "Logic channel C9..C12" - parameter pages

The logic channel block forms a separate unit, which is internally completely independent of brightness, temperature, and motion.

Thus, the logic channels can be included for the widest range of tasks within a KNX installation.

### **Principle:**

Up to four 1 bit input values can be logically linked with each other.

These input values can be:

- Input objects of the logic channels
- Status of motion channels (fulfilled/unfulfilled)
- Status of universal channels (fulfilled/unfulfilled)
- Link result of the other logic channels (a logic channel cannot be linked with itself)

The response of the initial objects with fulfilled or unfulfilled condition is set on the *Objects* parameter page.

The logic channels are activated on the General parameter page.

Designation	Values	Description
Type of link		Selection of logical link between the
		1 bit input values (see below)
	AND	2 to 4 inputs
	OR	-
	XOR	2 inputs
Use input 1	Yes	Input is used.
	Yes, inverted	Input acts inverted.
Use input 2	Yes	See above, input 1
	Yes, inverted	
Use input 3	No	Input is hidden.
	Yes	See above.
	Yes, inverted	
Use input 4	No	Input is hidden.
	Yes	See above.
	Yes, inverted	



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Designation	Values Description	
Input value for input 1	Input object	First input object of the channel
		(e.g. obj. 86 for C9)
	Motion channel C1 Motion channel C2 Motion channel C3 Motion channel C4	Status of a motion channel (ON/OFF).
	Universal channel C5 Universal channel C6 Universal channel C7 Universal channel C8	Status of a universal channel (fulfilled/unfulfilled).
	Link result logic channel C9 <sup>(1)</sup> Link result logic channel C10 <sup>(2)</sup> Link result logic channel C11 <sup>(3)</sup> Link result logic channel C12 <sup>(4)</sup>	Link result of another logic channel (a logic channel cannot be connected with itself).
Input value for input 2	See above,	2nd input object of the channel.
Innut value for innut?	Input value for input I	See above.
mpui vaiue jor input s	See above,	Siù input object of the channel.
Lunder land familian ( 4	Input value for input 1	See above.
<i>Input value for input 4</i>	See above,	4th input object of the channel.
	Input value for input I	See above.

<sup>(1)</sup> With C9 not available, <sup>(2)</sup> With C10 not available, <sup>(3)</sup> With C11 not available <sup>(4)</sup> With C12 not available.

## 4.3.13 Objects parameter page

All universal and logic channels have this type of parameter page. Here, the response on fulfillment or non-fulfillment of the condition(s) is configured.

Designation	Values	Description
Telegram type C5.1	Switch command	1 bit ON/OFF
	Priority	2 bit
		Function Value
		Priority not active
		(no control)
		Priority ON 3 (11)
		(control: Function value 1) <sup>5 (11<sub>bin</sub>)</sup>
		Priority OFF
		$(\text{control: Function value 0})^{2(10_{\text{bin}})}$
	Value	1 byte 0 255
If the condition is met	no telegram	Transmission behaviour if the channel
	send following telegram once	condition is fulfilled.
	send cyclically	
Telegram		Type of telegram for the first initial
		object of the channel when the condition
		is fulfilled:
	ON	For telegram type Switch command.
	OFF	
	· ·,	
	no priority	For telegram type Priority.
	Priority, ON Drights OFF	
	Friority, OFF	
	<i>Telegram 0 255</i>	For telegram type Value.
If the condition is not met	no telegram	Transmission behaviour if the channel
	send following telegram once	condition is not fulfilled.
	send cyclically	
Telegram		Type of telegram for the first initial
		object of the channel in case of
		unfulfilled condition:
	ON	For telegram type Switch command.
	OFF	
		<b>_</b>
	no priority	For telegram type Priority.
	Priority, ON	
	Priority, OFF	
	<i>Telegram</i> <b>0</b> 255	For telegram type Value.

Designation	Values	Description	
Should a second	Yes	If yes has been selected, further	
telegram be sent?	no	parameters and a second transmission	
_		object appear.	
		It can be used to send 2 different	
		telegrams at the same time on the same	
		channel.	
		The cycle time and the block behaviour	
		apply to both objects.	
Telegram type C5.2		2nd initial object of the channel	
	Switch command	1 bit ON/OFF	
	Priority	2 bit	
	2	Function Value	
		Priority not active	
		$(\text{no control})$ $0 (00_{\text{bin}})$	
		Priority ON	
		(control: Function value 1) $3(11_{\text{bin}})$	
		Priority OFF	
		$\left  \begin{array}{c} \text{(control: Function value 0)} \right ^{2} (10_{\text{bin}}) \right $	
	Value	1 byte 0 255	
If the condition is met	no telegram	Transmission behaviour if the channel	
<i>y</i>	send following telegram once	condition is fulfilled.	
	send cyclically		
Telegram		Type of telegram for the second initial	
0		object of the channel in case of fulfilled	
		condition:	
	ON	For telegram type Switch command.	
	OFF		
	no priority	For telegram type Priority.	
	Priority, ON		
	Priority, OFF		
	<i>Telegram 0 255</i>	For telegram type Value.	
If the condition is not met	no telegram	Transmission behaviour if the channel	
	send following telegram once	condition is not fulfilled.	
	send cyclically		
Telegram		Type of telegram for the second initial	
		object of the channel in case of	
		unfulfilled condition:	
	ON	For telegram type Switch command.	
	OFF		
	no priority	For telegram type Priority.	
	Priority, ON		
	Priority, OFF		
	<i>Telegram</i> <b>0</b> 255	For telegram type Value.	



Designation	Values	Description
Activate block function	Yes	Show block parameter and block object.
	по	No block function.
Behaviour when setting	do not send	No telegrams while the block is set.
the block		
	as with unfulfilled condition	Same reaction as set in the When the
		condition is not fulfilled parameter (see
		above).
	as with fulfilled condition	Same reaction as set in the <i>When the</i>
		condition is fulfilled parameter (see
	· · · ·	above).
Behaviour when	do not send	Not automatically resent when the block
cancelling the block		is cancelled
	The date of more of	The example terms is cont
	Upaate channel	in the current channel status is sent
		cancelled
Cycle time (if used)	overy min	How often should the telegrams for C5.1
Cycle lime (ij useu)	every min.	and C5.2 be sent?
	every 2 min.	and C5.2 be sent:
	every 5 min.	
	every 10 min.	
	every 15 min.	
	every 20 min.	
	every 30 min.	
	every 45 min.	
	every 60 min.	
Telegram after reset or	as with unfulfilled condition	Reaction of channel upon a restart.
download	as with fulfilled condition	
	unknown status: Do not send	

### 4.3.14 Remote control parameter page

By using remote control buttons Scene 1 and Scene 2, scene telegrams can be sent on the bus, as well as executed on preset actions.

Designation	Values	Description
Button scene 1		
Send scene number on bus	no scene number	Do not send scene telegrams.
	Scene 164	Sending a scene number on the
		bus by pressing scene button 1.
Call up preset for C1	Preset 1	Executing a preset action on
	Preset 2	motion channel C1, by pressing
	Preset 3	scene button 1.
	Preset 8	See Presets parameter page.
Button scene 2		
Send scene number on bus	no scene number	Do not send scene telegrams.
	Scene 164	Sending a scene number on the
		bus by pressing scene button 2.
Call up preset for C1	Preset 1	Executing a preset action on
	Preset 2	motion channel C1, by pressing
	Preset 3	scene button 2.
	Preset 8	See <i>Presets</i> parameter page.

# **5** Typical applications

These typical applications are designed to aid planning and are not to be considered an exhaustive list. It can be extended and updated as required.

# 5.1 Simple motion detector as a light switch

Motion detector theLuxa P300 KNX is installed at a front door of a house and switches a lamp. Since the house stands close to the street, passing vehicles should be ignored. This is achieved by deactivating the motion sensor in the centre via parameter. As light switch, a channel of the MIX2 switch actuator RMG 8 T is used.

### 5.1.1 Devices:

- theLuxa P300 KNX (Order no. 1019610 / 1019611)
- RMG 8 T (Order no. 4930200)

### 5.1.2 Overview



Figure 2

### 5.1.3 Objects and links

### Table 21: Motion detector and switch actuator.

No	theLuxa P300 KNX	No	RMG 8 T	Commont
INO.	Object name	INO.	Object name	Comment
6	C1 Motion switching	0	RMG 8 T channel C1 switch object	When motion is detected, channel C1 is switched on.

## 5.1.4 Important parameter settings

Standard or customer-defined parameter settings apply for unlisted parameters.

#### Table 22:

Parameter page	Parameters	Setting
General	Type of basic module	RMG 8 T
Basic module RMG 8 T	Channel C1 function	Switch actuator
RMG 8 T channel C1:	Channel function	Switching ON/OFF
Configuration options	Activation of function via	Switching object

### Table 23: theLuxa P300 KNX

Parameter page	Parameters	Setting
General	Activate motion channel C1	yes
Motion channel C1: Function	Used sensors	left, right
	Activate sensor bottom	yes
	(creep under protection)	
	Type of lighting	Switching
Brightness settings	Brightness threshold value	10 lx

# 5.2 Cark park lighting with time switch program

The cark park lighting of a company is controlled with a motion detector. However, the lighting should only be switched on on demand, i.e. when it gets too dark outside. For this purpose, the brightness threshold is set to 10 lx

The car park is permanently lit from 4:00 p.m. to 6:00 p.m., as soon as the brightness falls below the threshold. Motion will not be taken into consideration.

From 6:00 p.m. to 7:00 p.m., the lighting will be switched on for 5 minutes, when someone enters the car park.

During the remaining time, the lighting will be switched on for 2 minutes when motion is detected (by taking the brightness into consideration).

These functions are implemented with the alternative time delay and with the integrated time switch.

In order to cover the entire area, several devices will be used.

One device functions as master in parallel switching (M) and sends the switch commands to the switch actuator.

The others function as a slave (S1, S2 etc.), and only report detected motion.

The current time and week day can be received e.g. by a Meteodata 140 S GPS weather station.

### 5.2.1 Devices:

- theLuxa P300 KNX (Order no. 1019610 / 1019611)
- RMG 8 T (Order no. 4930200)
- Meteodata 140 S GPS KNX (Order No. 1409208)

### 5.2.2 Overview



#### Figure 3

# 5.2.3 Objects and links

#### Table 24: Master device and switch actuator.

No.	theLuxa P300 KNX Master device (M)	No.	RMG 8 T	Comment
	Object name		Object name	
6	C1 Motion switching	0	RMG 8 T channel C1 switch object	When motion is detected by the master or a slave device, channel C1 is switched on.

### Table 25: Master and slave devices.

No.	theLuxa P300 KNX Slave devices (S1, S2 etc.) Object name	No.	theLuxa P300 KNX Master device (M) Object name	Comment
18	C1 Parallel switching	18	C1 Parallel switching	The slave devices cyclically report each detected motion to the master.

### Table 26: Receiving time and week day.

No.	theLuxa P300 KNX Master device (M) Object name	No.	Meteodata 140 S GPS KNX Object name	Comment
1	Send time query	2	Time query	theLuxa sends time requests to Meteodata 140 GPS
0	Receive time	0	Send local time	Meteodata 140 GPS sends time and week day to theLuxa P300 KNX

### 5.2.4 Important parameter settings

Standard or customer-defined parameter settings apply for unlisted parameters.

Parameter page	Parameters	Setting		
General	Activate motion channel C1	yes		
Motion channel C1: Function	Operating mode	Master in parallel switching		
	Type of lighting	Switching		
Brightness settings	Brightness threshold value	10 lx		
	Execute perm ON	only when fallen below		
		brightness threshold		
Time settings	Time delay	2 min.		
	Use alternative time delay	yes		
	Alternative time delay	5 min.		
	Activate switch programme 1	yes		
	Switching time	4:00 p.m.		
	Program active at	Mon-Fri		
	Action	Preset 1		
	Activate switch programme 2	yes		
	Switching time	6:00 p.m.		
	Program active at	Mon-Fri		
	Action	Preset 2		
	Activate switch programme 3	Ves		
	Activate switch programme 5	yes		
	Switching time	7:00 p.m.		
	Switching time Program active at	7:00 p.m. Mon-Fri		
	Activate switch programme 5         Switching time         Program active at         Action	7:00 p.m.           Mon-Fri           Preset 3		
Presets (Preset 1)	Activate switch programme 5         Switching time         Program active at         Action         Brightness threshold	7:00 p.m. Mon-Fri Preset 3 unchanged		
Presets (Preset 1)	Activate switch programme 5         Switching time         Program active at         Action         Brightness threshold         Time delay	7:00 p.m. Mon-Fri Preset 3 unchanged unchanged		
Presets (Preset 1)	Activate switch programme 5         Switching time         Program active at         Action         Brightness threshold         Time delay         Blocking behaviour	7:00 p.m.         Mon-Fri         Preset 3         unchanged         unchanged         unchanged		
Presets (Preset 1)	Activate switch programme 3Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switching	yes         7:00 p.m.         Mon-Fri         Preset 3         unchanged         unchanged         unchanged         Perm ON		
Presets (Preset 1) Presets (Preset 2)	Activate switch programme 5Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness threshold	yes         7:00 p.m.         Mon-Fri         Preset 3         unchanged		
Presets (Preset 1) Presets (Preset 2)	Activate switch programme 5Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delay	yes         7:00 p.m.         Mon-Fri         Preset 3         unchanged         unchanged         unchanged         unchanged         Perm ON         unchanged         Alternative time delay		
Presets (Preset 1) Presets (Preset 2)	Activate switch programme 3Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayIndex thresholdTime delay	yes         7:00 p.m.         Mon-Fri         Preset 3         unchanged         unchanged         unchanged         unchanged         Alternative time delay (if available)		
Presets (Preset 1) Presets (Preset 2)	Activate switch programme 3Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourBrightness thresholdTime delayBlocking behaviour	yes         7:00 p.m.         Mon-Fri         Preset 3         unchanged		
Presets (Preset 1) Presets (Preset 2)	Activate switch programme 5Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourPermanent switching	yes         7:00 p.m.         Mon-Fri         Preset 3         unchanged         unchanged         unchanged         unchanged         Alternative time delay         (if available)         unchanged         Terminate perm ON		
Presets (Preset 1) Presets (Preset 2) Presets (Preset 3)	Activate switch programme 5Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourPermanent switchingBlocking behaviourPermanent switchingBlocking behaviourPermanent switchingBrightness thresholdBrightness threshold	yes         7:00 p.m.         Mon-Fri         Preset 3         unchanged         unchanged         unchanged         unchanged         Alternative time delay (if available)         unchanged         Terminate perm ON         unchanged		
Presets (Preset 1) Presets (Preset 2) Presets (Preset 3)	Activate switch programme 3Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBrightness thresholdTime delay	yes7:00 p.m.Mon-FriPreset 3unchangedunchangedunchangedunchangedPerm ONunchangedAlternative time delay (if available)unchangedTerminate perm ONunchangednormal time delay		
Presets (Preset 1) Presets (Preset 2) Presets (Preset 3)	Activate switch programme 3Switching timeProgram active atActionBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourPermanent switchingBrightness thresholdTime delayBlocking behaviourBrightness thresholdTime delayBlocking behaviour	yes         7:00 p.m.         Mon-Fri         Preset 3         unchanged         Inchanged         unchanged         unchanged         unchanged         unchanged         unchanged         unchanged         unchanged         unchanged         unchanged         unchanged		

#### Table 27: theLuxa master device

#### Table 28: theLuxa slave devices

Parameter page	Parameters	Setting
General	Activate motion channel C1	yes
Motion channel C1: Function	Operating mode	Slave
	Retrigger time	1 min.

#### Table 29: Meteodata 140 GPS

Parameter page	Parameters	Setting
General	Device version	with GPS module
Set date and time	Send time and set date	every hour

### Table 30: RMG 8 T

Parameter page	Parameters	Setting
General	Type of basic module	RMG 8 T
Basic module RMG 8 T	Channel C1 function	Switch actuator
RMG 8 T channel C1:	Channel function	Switching ON/OFF
Configuration options		

# 5.3 Staircase lighting with standby light

A staircase should be monitored.

The spatial conditions only allow for a monitoring area without gaps by using many motion detectors. In order to reduce the expenses, only one detector will be used on each floor, and the standby function will be used as the warning prior to switch-off.

After the time delay has elapsed, the light will remain switched on for another 5 minutes at a brightness of 20 % (standby), before it is switched off completely.

With sufficient brightness (daylight), the lighting will remain off.

One device functions as master in parallel switching (M) and sends the switch commands to the dimming actuator. The others function as a slave (S1, S2 etc.), and only report detected motion.

The outers function as a share (S1, S2 etc.), and only report detected i

### 5.3.1 Devices:

- theLuxa P300 KNX (Order no. 1019610 / 1019611)
- DMG 2 T (Order no. Nr. 4930270)

# 5.3.2 Overview



## 5.3.3 Objects and links

Table 31

No.	theLuxa P300 KNX Master device (M)	No.	DMG 2 T	Comment
	Object name		Object name	
7	C1 dimming	0	DMG 2 T channel C1	theLuxa sends the dimming value
/	dimming value	0	dimming value	to the dimming actuator

#### Table 32:

No.	theLuxa P300 KNX Slave devices (S1, S2 etc.) Object name	No.	theLuxa P300 KNX Master device (M)	Comment
18	C1 Parallel switching	18	C1 Parallel switching	The slave devices cyclically report each detected motion to the master device.

### 5.3.4 Important parameter settings

Standard or customer-defined parameter settings apply for unlisted parameters.

#### Table 33: theLuxa master device

Parameter page	Parameters	Setting
General	Activate motion channel C1	yes
Motion channel C1: Function	Operating mode	Master in parallel switching
	Type of lighting	Dimming
Brightness settings	Brightness threshold value	50 lx
Time settings	Time delay	5 min.
Dimming	Dimming value during ON	100 %
	phase	
	Dimming value during standby	20 %
	phase	
	Standby time	5 minutes
	Dimming value when OFF	0 %

### Table 34: theLuxa slave devices

Parameter page	Parameters	Setting
General	Activate motion channel C1	yes
Motion channel C1: Function	Operating mode	Slave
	Retrigger time	1 min.

#### Table 35: DMG 2 T

Parameter page	Parameters	Setting
General	Type of basic module	DMG 2 T

# 6 APPENDIX

# 6.1 Conversion of percentages to hexadecimal and decimal values

Table 36

Percentage	0 %	10 %	20 %	30 %	40 %	50 %	60 %	70 %	80 %	90 %	100 %
value											
Hexadecimal	00	1a	33	4D	66	80	99	B3	CC	E6	FF
Decimal	00	26	51	77	102	128	153	179	204	230	255

All values from 00 to FF hex. (0 to 255 dec.) are valid.