

MDT Solution Proposal

Partition wall control with the Logic Module

Possible applications:

Partition wall control can be used for example when a large conference room can be divided into several small rooms by partition walls. In the following example we have two individual rooms. Each push button should be able to switch and dim its individual room when the partition wall is closed and the entire conference room when the partition wall is open.

Used devices:

MDT Logic Module

SCN-LOG1.02

MDT Dimming Actuator

AKD-0x01.02

MDT Glass Push Button II Smart

2x BE-GT2xx.01

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Basic settings: Individual room control Room 1/2

Settings on Glass Push Button II Smart:

- Buttons as two-button function or single-button function
- Function: dimming

The figure shows the settings of push-button 1 using the example of the two-button function (settings on push button 2 accordingly with "Room 2"):

Hardware select	Description of objects	Room 1
Operation / Display	Two-button function	dimming
General settings	Assignment of push buttons	<input type="radio"/> brighter / darker <input checked="" type="radio"/> darker / brighter
Display setting	Function name	over text input
Information screen	Text	Raum 1
Push button functions	Key label for left push button	"-" Symbol
PB1/2: Room 1	Key label for right push button	"+" Symbol

Settings on the Dimming actuator:

- Two dimming channels
- Settings according to the light source used

Enter the object name (channel A for "Room 1" and channel B for "Room 2"):

Global setting	Description of objects	Room 2
A: Room 1	Load type	LED 230V eco/universal (leading-edge)
Block and Force functions	Dimming curve	LED B (recommended)
B: Room 2	Limiting the dimming range of the illuminant	<input checked="" type="radio"/> not active <input type="radio"/> active
	Staircase light	<input checked="" type="radio"/> not active <input type="radio"/> active

Partition settings on the Logic Module

Settings on the Logic Module:

- Select main function as "multiplexer/partition control"
- Operating modes "Switching On/Off" and "Dimming control"

Global settings	Description of function	Partition control Switching/Dimming
F 1 Partition control Switchin...	Additional text	
F 2 Funktion 2	Main function	Multiplexer / Partition control
F 3 Funktion 3	Mode for object 1 and 2	DPT 1.001 On/Off
F 4 Funktion 4	Mode for object 3 and 4	DPT 3.007 4Bit dimming control
F 5 Funktion 5	Multiplexer if control input = 0	Object 1 Object 2 (Object 3 Object 4)
F 6 Funktion 6	Multiplexer if control input = 1	Object 1 <=> Object 2 (Object 3 <=> Object 4)
F 7 Funktion 7	Lock/Enabling	not active

The operating mode is selected according to the functions, "On/Off" and "4-bit relative dimming". With control input = 0 (partition closed), all objects behave independently of each other. If control input = 1 (partition open), objects 1 and 2 as well as objects 3 and 4 transmit their values in both directions. This means that a change, for example in the GA to object 1, is transferred to GA object 2 and vice versa. The same applies to objects 3 and 4.

Group addresses:

The existing group addresses from the individual room control are now linked to the logic module.
GA 3/0/0 is the partition in that case.

1.1.1 SCN-LOG1.02 Logic Module											
0	F 1 Partition control Switching/Dimming	Multiplexer Input/Output 1	Switching Room 1	1/0/0	1 bit	C	R	W	T	switch	
1	F 1 Partition control Switching/Dimming	Multiplexer Input/Output 2	Switching Room 2	2/0/0	1 bit	C	R	W	T	switch	
2	F 1 Partition control Switching/Dimming	Multiplexer Input/Output 3	Dimming relative Room 1	1/0/1	4 bit	C	R	W	T	dimming control	
3	F 1 Partition control Switching/Dimming	Multiplexer Input/Output 4	Dimming relative Room 2	2/0/1	4 bit	C	R	W	T	dimming control	
4	F 1 Partition control Switching/Dimming	Multiplexer Control input	Partition wall	3/0/0	1 bit	C	-	W	-	boolean	
244	Date/Time	Receive			8 bytes	C	-	W	-	date time	
1.1.2 AKD-0201.02 Dimming Actuator 2-fold											
0	A: Room 1	Switch	Switching Room 1	1/0/0	1 bit	C	-	W	-	switch	
4	A: Room 1	Dim relatively	Dimming relative Room 1	1/0/1	4 bit	C	-	W	-	dimming control	
5	A: Room 1	Dim absolutely			1 byte	C	-	W	-	percentage (0..100%)	
6	A: Room 1	State On/Off			1 bit	C	R	-	T	state	
7	A: Room 1	State of dimming value	Status Dimming value Room 1	1/0/2	1 byte	C	R	-	T	percentage (0..100%)	
32	B: Room 2	Switch	Switching Room 2	2/0/0	1 bit	C	-	W	-	switch	
36	B: Room 2	Dim relatively	Dimming relative Room 2	2/0/1	4 bit	C	-	W	-	dimming control	
37	B: Room 2	Dim absolutely			1 byte	C	-	W	-	percentage (0..100%)	
38	B: Room 2	State On/Off			1 bit	C	R	-	T	state	
39	B: Room 2	State of dimming value	Status Dimming value Room 2	2/0/2	1 byte	C	R	-	T	percentage (0..100%)	
64	Central	Switch			1 bit	C	-	W	-	switch	
65	Central	Dim relatively			4 bit	C	-	W	-	dimming control	
66	Central	Dim absolutely			1 byte	C	-	W	-	percentage (0..100%)	
67	Central	Scene			1 byte	C	-	W	-	scene number	
68	Time	Receive current value			3 bytes	C	-	W	T	U	time of day
69	Date	Receive current value			3 bytes	C	-	W	T	U	date
70	Date/Time	Receive current values			8 bytes	C	-	W	T	U	date time
72	Day/Night	Day=1 / Night=0			1 bit	C	-	W	T	U	boolean
1.1.3 BE-GT20x.01 Glass Push Button II Smart											
0	PB1/2: Room 1	Dimming On/Off	Switching Room 1	1/0/0	1 bit	C	-	-	T	switch	
1	PB1/2: Room 1	Dimming relative	Dimming relative Room 1	1/0/1	4 bit	C	-	-	T	dimming control	
3	PB1/2: Room 1	State of dimming value for display	Status Dimming value Room 1	1/0/2	1 byte	C	-	W	T	U	percentage (0..100%)
106	Day / Night	Day = 1 / Night = 0			1 bit	C	-	W	T	U	boolean
107	Presence	Input			1 bit	C	-	W	T	U	switch
112	Time	Receive current value			3 bytes	C	-	W	T	U	time of day
114	Time/Date	Receive current values			8 bytes	C	-	W	T	U	date time
119	Message text (lowest priority)	Input			14 bytes	C	-	W	T	U	Character String (ASCII)
120	State text 1	Input			14 bytes	C	-	W	T	U	Character String (ASCII)
121	State text 2	Input			14 bytes	C	-	W	T	U	Character String (ASCII)
126	Push button operation	Output			1 bit	C	R	-	T	state	
1.1.4 BE-GT20x.01 Glass Push Button II Smart											
0	PB1/2: Room 2	Dimming On/Off	Switching Room 2	2/0/0	1 bit	C	-	-	T	switch	
1	PB1/2: Room 2	Dimming relative	Dimming relative Room 2	2/0/1	4 bit	C	-	-	T	dimming control	
3	PB1/2: Room 2	State of dimming value for display	Status Dimming value Room 2	2/0/2	1 byte	C	-	W	T	U	percentage (0..100%)