

MDT Solution Proposal

Presence-/Motion Detector in master-slave mode

Possible applications:

If several Presence/Motion detectors switch the same lighting group, it makes sense for one detector to take over the entire evaluation and switch the lighting group (Master) while the other detectors only transmit detected movements (Slave).

Used devices:

All MDT Presence/Motion Detectors can be configured as master or slave.

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Settings: Master

The basic settings can be accepted on the parameter cards "General settings" and "Channel selection" (no changes necessary)

The master is set to fully or half automatic as desired.

A value of 3 - 5 minutes is recommended as general **follow-up time**:

General setting	Active sensors	123
LED	Sensitivity	<input checked="" type="radio"/> basic setting (General setting) <input type="radio"/> individual
Scens	Brightness	<input checked="" type="radio"/> basic setting or object "Switch dark" is active <input type="radio"/> independent of brightness
Brightness	Channel mode	<input checked="" type="radio"/> fully automatic <input type="radio"/> half automatic (manual switching)
Channel selection	Motion filter in readiness	<input checked="" type="radio"/> not active, no filtering <input type="radio"/> used, delete short movement
Light channel 1	Reduction of follow-up time	<input checked="" type="radio"/> not active <input type="radio"/> active
Settings	Follow-up time	4 min
Logic	Forced guidance or lock object	force object (2Bit)
	Fallback of forced guidance/lock (General setting)	<input type="radio"/> not active <input checked="" type="radio"/> active
	Object type for output - light	Switching
	Object Output 1 sends	ON and OFF
	Object Output 1 sends cyclic ON	not active
	Output 2 (Additional switch object)	<input checked="" type="radio"/> not active <input type="radio"/> ON and OFF

Settings: Slave

The basic settings can be accepted on the parameter cards "General Settings" and "Channel Selection" (no changes necessary)

The following settings are required in the "Light channel" parameter card:

- The brightness must be set to "**independent of brightness**".
- Set the operating mode of the channel to "**fully automatic**".
- The **follow-up time** should be significantly shorter than that of the master.
- Object type for output – light to "**Switching**"
- The output object transmits "**only ON**".
- A value of **30 seconds** is recommended for the time "**sending cyclic ON**".

General setting	Active sensors	1234
LED	Sensitivity	<input checked="" type="radio"/> basic setting (General setting) <input type="radio"/> individual
Scens	Brightness	<input type="radio"/> basic setting or object "Switch dark" is active <input checked="" type="radio"/> independent of brightness
Brightness	Channel mode	<input checked="" type="radio"/> fully automatic <input type="radio"/> half automatic (manual switching)
Channel selection	Motion filter in readiness	<input checked="" type="radio"/> not active, no filtering <input type="radio"/> used, delete short movement
– Light channel 1	Reduction of follow-up time	<input checked="" type="radio"/> not active <input type="radio"/> active
Settings	Follow-up time	1 min
+ HVAC	Forced guidance or lock object	force object (2Bit)
+ Logic	Fallback of forced guidance/lock (General setting)	<input type="radio"/> not active <input checked="" type="radio"/> active
	Object type for output - light	Switching
	Object Output 1 sends	only ON
	Object Output 1 sends cyclic ON	30 s
	Output 2 (Additional switch object)	<input checked="" type="radio"/> not active <input type="radio"/> ON and OFF

Group addresses

Now only the necessary group addresses have to be created and linked accordingly.

Group addresses "Master":

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type
0	Light channel 1 - Output 1	Switching	to actuator	4/0/0	1 bit	C	R	-	T	-	switch
3	Light channel 1 - Input	External push button short			1 bit	C	-	W	-	-	switch
4	Light channel 1 - Input	External push button long			1 bit	C	-	W	-	-	switch
5	Light channel 1 - Input	External motion (Slave)	from Slave	4/0/1	1 bit	C	-	W	-	-	switch
6	Light channel 1 - Input	Status of actuator channel			1 bit	C	-	W	-	-	switch
7	Light channel 1 - Input	Lock motion detection			1 bit	C	-	W	-	-	enable
8	Light channel 1 - Input	Forced guidance			2 bit	C	-	W	-	-	switch con...
11	Light channel 1 - Input	Switch dark			1 bit	C	-	W	-	-	switch
13	Light channel 1 - Input	Follow-up time 10-65000s			2 bytes	C	-	W	-	-	time (s)

Group addresses "Slave":

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	Data Type
0	Light channel 1 - Output 1	Switching	to Master	4/0/1	1 bit	C	R	-	T	-	switch
3	Light channel 1 - Input	External push button short			1 bit	C	-	W	-	-	switch
4	Light channel 1 - Input	External push button long			1 bit	C	-	W	-	-	switch
5	Light channel 1 - Input	External motion (Slave)			1 bit	C	-	W	-	-	switch
6	Light channel 1 - Input	Status of actuator channel			1 bit	C	-	W	-	-	switch
7	Light channel 1 - Input	Lock motion detection			1 bit	C	-	W	-	-	enable
8	Light channel 1 - Input	Forced guidance			2 bit	C	-	W	-	-	switch con...
11	Light channel 1 - Input	Switch dark			1 bit	C	-	W	-	-	switch
13	Light channel 1 - Input	Follow-up time 10-65000s			2 bytes	C	-	W	-	-	time (s)

The Master now evaluates every movement that it detects itself and that is detected by the Slaves. The Master then switches the lighting groups.

Attention: As long as the Slave is in its follow-up time, it cyclically sends a "1" to the Master. After the last "1" sent to the Master, its follow-up time expires before the Master switches off its output. In this case the follow-up time of Master and Slave is added up.

For this reason, the follow-up time of the Slave" is set much shorter. A too short time for "cyclic send ON" would cause too much traffic on the bus.