

KNX M/SIS05.1 PIR Sensor User Manual

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GZ HDL Technology Co., L



Modification Record

This record accumulates instructions for each document update. The latest version of the document contains updates from all previous document versions.

Num	Version	Modification Content	Date
1	V1.0.0	First official release	2020/10/23



1 Overview

1.1 General Information

1.1.1 Description

KNX PIR Sensor (M/SIS05.1) is a multi-function sensor which contains PIR sensor, temperature sensor and brightness sensor. 4 independent logical blocks and 1 combined block are available, and each block contains 10 object outputs. Logical relations AND, OR can be set and single mode and master / slave mode are supported.

1.1.2 Device Description



- 1. KNX interface.
- 2. Dry contact connector, from left to right are COM, Dry Contact 1, Dry Contact 2.
- 3. Programming button.

4. Programming LED indicator: The LED is on when the sensor is in programming mode, off when the sensor exits programming mode, and off when the sensor works properly.

5. Screw hole.





Detection Range (25°C)									
Mounting height	Sitting / Slight movements	Small steps	Walking across						
3m	5m	8m	12m						

1.1.3 Installation Steps



• Spring clip mounting:

Step1: Rotate and fix the sensor and the spring clip together.

Step 2. Insert the spring clip into the hole. (diameter of the hole: 55mm)

Step 3. Fix the sensor into position with the assistance of the spring clips.



• Screw mounting:

Step 1. Fix the sensor on the ceiling with screws.



Step 2. Install PIR sensor board.

Step 3. Attach the cover to the sensor.



• Wall box mounting

Step 1. When installing the sensor in the thick wall, produce a hole in the wall.

- Step 2. Install the wall box in the wall.
- Step 3. Fix the sensor on the wall box with screws.
- Step 4. Install PIR sensor board.
- Step 5. Attach the cover to the sensor.

1.2 Functionalities

- 4 independent logical blocks and 1 combined block are available, and each block contains 10 object outputs. Control targets include switches, dimming, alarm devices, etc.
- 1 sensor status feedback function block, including data and status feedback for human presence detection and photosensitive sensors, and intrusion alarms.
- 2 lighting control function blocks, which support automatic and semi-automatic control, and switch control according to ambient illumination.
- 1 constant brightness automatic adjustment function block can compare the ambient illumination with the set illumination value, adjust the brightness of the light, and select the curtain combination dimming.
- 2 HVAC control blocks enable automatic and semi-automatic mode, HAVC open delay and duration settings.



- Control types: Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String(14 bytes) control, Threshold control, Logic combination control.
- Logic inputs: PIR sensor status, brightness value, temperature and humidity value, and external telegrams.
- 2 logical relations: AND, OR.
- 2 working modes: Single mode and master / slave mode.
- The logic validity can be set by external telegram.
- Support online upgrade in HDL KNX Assistant software.

2 Software Configurations

2.1 Device Import

We need to add device/database before program it.

1: Create project in ETS5, if you have project, ignore it. Suggested use Three Level when

create project.

ETS5 TM				- 0	×
Overview Bus	Catalogs Settings			KN	X
Projects Archive ETS In	nside		KNX News	New KNX Products	
+ 7 ±		Search D	KNXis30 – Do not miss the big celebration on October 20th 2020/10/15	Weinzierl MATCH 55 Push Button Series Weinzierl Engineering (mbH (Germany)	< >
Create New Project Name Sensor project Backbone ip • Topology ✓ Create Line 1.1 TP • Group Address Style Free Two Level © Three Level Create Project Cancel	itus Iting known Iting known		KNX can proudly look back at 30 years of milestones success and continuous growth of a workholds community. Although KNX is giving reasons to celebrate every day, we would like to add the final stoch to a great publice We cordially like to invite you to the celebration of the 30th birthday of KNX, the leading technology for smart homes and smart buildings! Date and time: "320th of October, from 1000 till 2000 CET*" CIRCE (bere](https://knki30.knx.org) for the detailed agenda and to join the party. But that's not all: Do not miss the unique birthday presents, which we will hand out throughout the day! Check cust our social media channels in order to know, when to tune in. Click here to follow us on [Facebook](https://www.linkedin.com/ knxasociation], [Twitter](https://www.linkedin.com/ company/knx-association/). 2020 KNX Award 'Publicity' Winner: Smart Living in the E-Haus 2020/014 **The Smart Living in the E-Haus is a 100 square meter walk- in model of a home featuring intelligenthy networked building technology using KNX. It is organised by the German Association of Electricial and Information Technology (Tade	Secure Push Buttons for KNX TF and KNX RF: Weinzierl MATCH 55 Push Button Series fits in standard 55 mm sy which are popular in Germany and many other counter this are highly compatible with a broad variety of well- design frames from different vendors. Making a different everyday use: the keystroke is remarkably soft and quiel Comprising models for wireless and wired connections MATCH 55 Push Buttons are available in versions with si and double rocker. As a hybrid, the wireless KNN KF / Eb Push Button 440 secure offers supart for both EnOcean MAX FF. in one device. The device operates in EnOcean r	rstems s and known rce in t. t. t. t. t. t. t. t. t. t. t. t. t.



2: Select Catalog, and Import the database of device which you want.

II ETS5™ - Sensor project					
ETS Edit Workplace Commission	ing <u>D</u> iagnostics <u>A</u> p	ops Wi <u>n</u> dow			
Close Project 🖉 Undo 🛝 Re		Workplace •	talogs Diagnostics		
Catalog					
📩 Import 🔹 Export 🖄 🖓 I	Download	Manufacturers			
The online catalog has not been up	pdated for your marke	t or a market is not selected.			
📌 Favorites 🔹	Sec Manufact	urer Name	Order Number Mediu Application	Version	
Device Templates	HDL	HS 24M Sensor(V1.0)	M/HSD 1605 H005 TP HS 24M Sensor(V1.0)		
Previously used	HDL	M/KNX IP Router	M/IP RT 1408 GW01 TP,IP M/KNX IP Router	1.0	
Draviouchy imported	HDL	M/SIS05.1	M/SIS 1901 S001 TP SIS 5L Sensor(V1.0)	1.0	
Previously imported	HDL	Hotel 19 Units Actuator(V		• ×	
Manufacturers T	HDL	Panel Tile 4Rockers Contr	Import successful		
▶ 🛅 HDL	HDL	Panel Tile 4Rockers Contr			
	HDL	Switch 4fold 10A (V1.2)			
	HDL	Dimmer 2fold Actuator (\	File: D:\技术支持资料\HDL技术说明书HDL folder\技术支持 \database 2017\HDL-KNY Database and Manual-EN-w	导\KNX ndate17	
	HDL HDL	Switch 4fold NA Actuator	\KNX-Motion Sensor\M-SIS05.1\V1.0\Database	puatern	
	HDL HDL	M/PTL4.1	\SIS_5L_Sensor_V1.0.knxprod		
	HDL HDL	YEE Panel 2Rocker Contro	Product: M/SIS05.1		
	HDL HDL	IR AC Controller(V1.1)			
	HDL HDL	DMX512 Gateway			
	HDL	Dry Contact 4CH Sensor			
	HDL	IS 5L Sensor(V1.1)			
	HDL	Timer Master/Slave 4CH			
	HDL	干接点4通道传感器(V1.1)			
	HDL	窗帘2通道驱动器(V1.1)		OK	
	HDL	面板3按键组控制器-PV2		DR	

3: Select Topology, and click Add Device; It will show the Catalog again, and double click

the device which in Catalog, the device will be added in Topology. add the device which

you want.



Before or after added the devices, we can modify the Area number for the devices.

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ETS Edit Workplace Commissioning Diagnostics Apps Window		^ 😗
夜 Close Project 📌 Undo 🗛 Redo 🚔 Reports 🗮 Workplace * 📗 Catalogs 🐷 Diagnostics		
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Topology Backbone • Line • Name Description Medium Typ Domain Address	Area Name	
Image: Text State Sta	New area	
A 👬 11 New area	Address	
4 11.1 New line	11 🗘	
▶ 📲 11.1.1 M/D02.1	Description	
▷ 📲 11.1.2 M/R4.10.1		
▷ 📲 11.1.3 M/SIS05.1		
	Status	
	Unknown	*

After added the device, click the device, then can enter to the Setting page.



2.2 General

We can set some general setting in here, like heartbeat/sensitivity/temperature source and

so on.

Parameter: set the parameter for sensor.

Group Objects: the group objects for sensor.

ETS5™ - Sensor project					- a ×
Close Project	ng Diagnostics Apps Window	Catalogs			^ V
Topology X Diagnostics					Properties >
Topology -				∧ □ ×	
🕂 Add Channels 🔹 🗙 Delete 👲 Down	nload 🔹 👩 Help 🥒 Highlight Chang	es Default Parameters Grant Customer Access			Settings Comments Information
Topology Backbone 🔹	1113 M/SIS051 > General				Name
Dynamic Folders	11.1.5 W/ 51505.1 > General				M/SIS05.1
4 🚻 11 New area	General	System delay(2255s) after bus voltage recovery	10	÷	Individual Address
11.1 New line 11.1.1 M/D02.1	Function status	Heartbeat telegram	Send value "1/0" inverted cyclically	•	Description
▶ 1 11.1.2 M/R4.10.1	Logic function A	-Telegram is sent time interval(165535s)	5	A V	
11.1.3 M/SIS05.1	Logic function B	Status LED indicator	ON when movement detected	*	
	-	Sensor setting: (1)Movement sensor sensitivity (1%-100%)			Last Modified 2020/10/19 13:19
	Logic function C		80%	*	Serial Number 6D83:95303DAF
	Logic function D	->Movement sensor sensitivity via object	Status		
	Logic function E	(2)Brightness quiver (530%)	5%	•	Unknown
		->Lux compensation	0	* *	
		(3)Source for temperature value	External value Internal value		
		Function Setting:			
		Light control 1	Disable Enable		
		Light control 2	Disable Enable		
		HVAC/Presence function A	O Disable C Enable		
		HVAC/Presence function B	Disable Enable		Find and Replace
		Constant brightness function	O Disable C Enable		Tada Marza
					Reading Operations
					Pending Operations
	Group Objects Parameter				 Undo History

• System delay (2..255s) after bus voltage recovery:

When the bus voltage recovery and timer start, and when the time out. The presence detector can be allowed operating. This function is selected by user. The default value is 10 seconds.

• Heartbeat telegram:

Used to check device is online or not in 3rd party software. If enable, device will send

heartbeat telegram cyclically on the Bus when online.

Disable: Disable heartbeat telegram.

Send value '0' cyclically: Send heartbeat telegram '0' cyclically.

Send value '1' cyclically: Send heartbeat telegram '1' cyclically.

Send value '1/0' inverted cyclically: Send heartbeat telegram '1/0' inverted cyclically.

Telegram is sent time interval (1..65535): The interval time for send out telegram.



• Status LED indicator:

Set the LED indicator's status, for normal use ON when movement detected.

General	System delay(2255s) after bus voltage recovery	10	
Function status	Heartbeat telegram	Send value "1/0" inverted cyclically	
Logic function A	-Telegram is sent time interval(165535s)	5	
Loaic function B	Status LED indicator	ON when movement detected	
	Sensor setting:	Alway is OFF	
Logic function C	(1)Movement sensor sensitivity	ON when movement detected	
-	(1%-100%)	ON when received '1',else OFF	
Logic function D		ON when received '0',else OFF	
	->iviovement sensor sensitivity via object	ON when logic A is lock,else OFF	
Logic function E	(2)Brightness guiver (530%)	ON when logic A is unlock, else OFF	
	(-)	ON when logic B is lock,else OFF	
	->Lux compensation	ON when logic B is unlock,else OFF	
		ON when logic C is lock,else OFF	
	(3)Source for temperature value	ON when logic C is unlock,else OFF	
	Eurotion Sotting:	ON when logic D is lock,else OFF	
	Function Setting.	ON when logic D is unlock, else OFF	
	Light control 1	ON when logic E is lock,else OFF	
		ON when logic E is unlock,else OFF	
	Light control 2		

If select anyone except 'Always is OFF', there has 'Led indicator (Enable/Disable)' function.

We can use this Group Address to enable or disable the Led indicator.

Topology ×	Diagnostics										
Topology + A 🗇 🗙											
🕂 Add Channels 🔹 💥 Delete 붗 Download 🔹 🕦 Info 🔹 💁 Reset 🤌 Unload 💌 🚔 Print Search 🔎											
Topology Backbone		Number	* Name	Object Function	Description	Group Address	Length C	R W	τU	Data	
Dynamic Folders		■2 1	General	Heartbeat telegram	hearbeat telegram	0/0/1	1 bit C		т -	enable	
🔺 🔡 11 New area		■‡ 12	Real-time humidity	External Humidity			2 bytes C	- W	т -	humidi	
I I 1 New line		■‡ 13	Real time input	The bus time			3 bytes C	- W	Т -	time of	
		📭 15	General	Led indicator(Enable/Disable)	LED enable/disable	0/0/2	1 bit C	R W	T -	enable	
11.1.1 M/D02.1											
11.1.2 M/R4.10.1											
11.1.3 M/SIS05.1											

'ON when received '1', else OFF', means if received 'Led indicator (Enable/Disable),1', then

turn ON the Led indicator.

'ON when received '0', else OFF', means if received 'Led indicator (Enable/Disable),0', then turn ON the Led indicator.

• Movement sensor sensitivity (1%-100%):

The default value is 80%. If set too high possible interference (e.g 100%), and set too low may can't detect movement (e.g 1%).

->Movement sensor sensitivity via object: If enable, we can modify sensor sensitivity via

Group Address.

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Topology Backbone		*		Number	Name		Object Function		Description	Group Address		Length	C	R	wт	U	Data '
Dynamic Folders			‡	1	General		Heartbeat telegram		hearbeat telegram	0/0/1		1 bit	С		Т	-	enable
4 🔡 11 New area			7	9	General		Movement sensor sensitivity					1 byte	С	- \	νт	- 1	percen
A E 11.1 Nouvline			4	12	Real-time humidity		External Humidity					2 bytes	С	- \	νT	-	humidi
E 11.1 New line			‡	13	Real time input		The bus time					3 bytes	С	- \	VТ	-	time of
11.1.1 M/D02.1			∎ ‡	15	General		Led indicator(Enable/Disable)		LED enable/disable	0/0/2		1 bit	С	R V	νт	-	enable
11.1.2 M/R4.10.1																	
11.1.3 M/SIS05.1																	

• Brightness quiver (5..30%):

The quiver value is used for brightness in logic.

-> Lux compensation: If Lux value is not correct, you can use this to adjust the Lux value.

If Quiver is 5% and Threshold_1 <= Threshold_2. Threshold_1 = 100 Lux and Threshold_2

= 300 Lux. Then effective value is 95~315 Lux.

Threshold_1 * (1 - 5%) = 100 * (1 - 5%) = 95 Lux

Threshold_2 * (1 + 5%) = 300 * (1 + 5%) = 315 Lux





If Quiver is 5% and Threshold_1 > Threshold_2. Threshold_1 = 300 Lux and Threshold_2 =

100 Lux. Then effective value is >285 or <105 Lux.

Quiver_1 = Threshold_1 * (1 - 5%) = 300 * (1 - 5%) = 285 Lux

Quiver_2 = Threshold_2 * (1 + 5%) = 100 * (1 + 5%) = 105 Lux



 $Threshold_1 > Threshold_2$

• Source for temperature value:

External value: Used temperature from BUS. You can set 2 bytes Group Address to read

temperature from BUS.

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Dynamic Folders		■#1	General	Heartbeat telegram	hearbeat telegran	n 0/0/1	1 bit	с -	-	т -	- ena	able ¹
11 New area		🚅 11	Real-time temperature	External Temperature			2 bytes	с -	W	T -	ten	npei
A H AAA Neu Kee		12	Real-time humidity	External Humidity			2 bytes	с -	W	T -	- hur	midi
		1 3	Real time input	The bus time			3 bytes	с -	W	T -	tim	ne of
11.1.1 M/D02.1		1 5	General	Led indicator(Enable/Disable)	LED enable/disab	le 0/0/2	1 bit	C F	۷ s	т -	- en/	able
11.1.2 M/R4.10.1												
11.1.3 M/SIS05.1												

Internal value: Used temperature inside sensor.

-> Temperature hysteresis (0.1'C): The hysteresis for Logic Temperature input.

If hysteresis is 10 and Threshold_1 <= Threshold_2. Threshold_1 = 20C and Threshold_2 =

30 C. Then effective value is 19~31C.

Threshold_1 - 1C= 19C

Threshold_2 + 1C= 31C



Topology 🕶				∧ ⊡ ×
🕂 Add Channels 🔹 🗙 Delete ± Do	wnload 🔹 🕜 Help 🥒 Highlight Cha	nges Default Parameters Grant Customer Acce		
Topology Backbone	11.1.3 M/SIS05.1 > Logic functi	on A		
Dynamic Folders				
🔺 🔡 11 New area	General	(3)Enable temperature sensor	🔵 Disable 🔘 Enable	^
▲ 📙 11.1 New line ▶ 🕕 11.1.1 M/D02.1	Function status	->Temperature >= Threshold lower (0.1'C)	20	
11.1.2 M/R4.10.1	Logic function A	>Temperature <= Threshold upper (0.1'C)	30	
• • • • • • • • • • • • • • • • • • •	Block A	->Changed temperature threshold valu via bus	e 💿 No 🔵 Yes	
Quiver_1	Qu	iver_2		
i i tr	ue 🖡			
		→		
	1			
Threshold	1 Threshold_2			
Threshold	_1			

If hysteresis is 10 and Threshold_1 > Threshold_2. Threshold_1 = 30C and Threshold_2 =

20 C. Then effective value is <21C or <29C.

Threshold_1 - 1C= 29C

Threshold_2 + 1C= 21C





-> Temperature compensation (0.1'C): If temperature value is not correct, you can use this

to adjust the temperature value.



2.2.1 Light Control1

Lighting control function. If just use PIR or PIR+brightness to control the light, you can set the parameter in Light Control1 or Light Control2. Take Light Control1 as example.

Enable the Light Control1 in General.

Topology -				~ @
🕂 Add Channels 🔹 🗙 Delete 🛨 🛙	Download 🔹 🕜 Help 🥒 Highlight Chang	ges Default Parameters Grant Customer Acces	s	
III Topology Backbone	* 11.1.3 M/SIS05.1 > Light control	1		
Dynamic Folders	General	Oneration mode	Eully automatic Comi automatic	
▲ 🗄 11.1 New line		Eollow up time coconde		A
▶ 📘 11.1.1 M/D02.1	Function status	-Follow-up time minutes	0	<u> </u>
11.1.2 M/R4.10.1	Light control 1	-Follow-up time hours	0	<u>v</u>
	Logic function A	-Follow-up time change via object?	No Ves	¥
	Logic function B	Threshold value brightness	200	•
	Logic function C	-Threshold value brightness via object?	No O Yes	v
	Logic function D	Use brightness shutdown?	No Yes	
		Short Presence(if Follow-up time>2min)	Disable Enable	
	Logic function E	Output		
		Output mode	Individual OParallel	
		-Object type	1bit 1byte	
		-Value when detection	OFF-"0" ON-"1"	
		-Value when non-detection time out	OFF-"0" ON-"1"	
		Safety time(seconds)	0	▲ ▼
		Lock		
		Use lock object?	'1'-lock,'0'-unlock	•
		Lock	Only lock Cock and transmit value	
	Group Objects Parameter			

• Operation mode:

Fully-automatic: The logic can start by auto.

Semi-automatic: The logic needs to start when receive External switching telegram '1'.

No meter which mode you select, it has Number27.

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🕂 Add Channels 🔹 🗙 Delete	🛨 Down	load 💌 🚯	Info 🔹 👩 Reset 🧳 Unload 🔹 🚔	Print				Se	arch			P
Topology Backbone	*	Number	* Name	Object Function	Description	Group Address	Length	C R	wт	U	Data Type	Priority
Dynamic Folders		■ ‡ 1	General	Heartbeat telegram			1 bit	c -	- T	-	enable	Low
4 👫 11 New area		■‡ 12	Real-time humidity	External Humidity			2 bytes	c -	WΤ	-	humidity (Low
A E 111 New line		■‡ 13	Real time input	The bus time			3 bytes	- 2	WΤ	-	time of day	Low
		■‡ 15	General	Led indicator(Enable/Disable)			1 bit	C R	W T	-	enable	Low
11.1.1 M/D02.1		26	Light channel 1 slave input	Movement status from bus			1 bit	c - 1	WТ		switch	Low
11.1.2 M/R4.10.1		27	Light channel 1 input	External switching telegram			1 bit	c -	WΤ	-	switch	Low
11.1.3 M/SIS05.1		■2 9	Light channel 1 lux input	Brightness(Lux) threshold			2 bytes	c -	WΤ	-	lux (Lux)	Low
		1 2 30	Light channel 1 lock input	1'-lock,'0'-unlock			1 bit	c - 1	W T		enable	Low
		■ ≵ 31	Light channel 1 output	Switching			1 bit	C R	- T		switch	Low

- Follow-up time: If no detection after this time, will trigger the output for non-detection.

- Follow-up time change via object? If Yes, then can use Group address to change the follow-up time from BUS.



• Threshold value brightness:

The brightness value which you want to use in Logic for Light Control1. The logic relationship is AND, means PIR and Brightness. If no need brightness, set=1200. For example: If the brightness is less then Threshold value and detects movement, will turn on the light. If the brightness is over then Threshold value even detects movement, will not turn on the light.

- Threshold value brightness via object? If yes, then can use Group address to change the threshold value from BUS.

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Topology 🔻										^ □ ×	
🕂 Add Channels 🔹 🗙 Delete 🗌	🛨 Download 🔹	🕦 Info 🔹 🕤 Reset 🧳 Unloa	d 🔻 🚔 Print				S	earch		Ģ	
III Topology Backbone	* Nur	nb Name	Object Function	Description	Group Address	Length C	R	ΝT	U Data Type	Priority	
Dynamic Folders	■# 1	General	Heartbeat telegram			1 bit C		Т	- enable	Low	
🔺 🔡 11 New area	1 2	Real-time humidity	External Humidity			2 bytes C	- V	/Т.	 humidity (. Low	
4 E 111 New line	■‡ 13	Real time input	The bus time			3 bytes C	- V	/т	- time of day	Low	
	■2 15	General	Led indicator(Enable/Disable)			1 bit C	R V	/т.	- enable	Low	
11.1.1 M/D02.1	■2 6	Light channel 1 slave input	Movement status from bus			1 bit C	- V	ΙΤ	- switch	Low	
11.1.2 M/R4.10.1	■27	Light channel 1 input	External switching telegram			1 bit C	- V	/т	- switch	Low	
11.1.3 M/SIS05.1	29	Light channel 1 lux input	Brightness(Lux) threshold			2 bytes C	- V	/ T	- lux (Lux)	Low	
	■‡ 30	Light channel 1 lock input	1'-lock,'0'-unlock			1 bit C	- V	/ T	- enable	Low	
	■2 31	Light channel 1 output	Switching			1 bit C	R -	Т	- switch	Low	

• Use brightness shutdown:

If Yes, it will trigger the output for non-detection when value is in Threshold value brightness

during delay time.

Use brightness shutdown?	No OYes	
-Calculate delay time(150minutes)	1	*
-Threshold value brightness	1000	*

When the brightness is 1000 lux during 1 minute, will turn off the light directly.

• Short Presence (if Follow-up time > 2minutes)

It is for Fully-automatic mode. For example: If somebody is in room and leave the room after 30s, the light will turn off after 2 minutes.

• Output mode:

Individual: It can send out one output, you can select the output type (1bit or 1byte) and the value for detection/non-detection.



Parallel: It can send out two outputs, you can set the value for detection/non-detection and

dimming offset between Value2 and Value1. The output type just 1byte.

For example: You want Value2 brightness always higher than Value1.

• Safety time (seconds):

When non-detection now, and if detection during this safety time, will not trigger output.

• Lock:

'1'-lock, '0'-unlock; '0'-lock, '1'-unlock: Used 1bit Group Address to lock/unlock the logic for Light Control1.

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Topology Backbone	*	Nur	nb Name	Object Function	Description	Group Address	Length	С	R W	τι	J Data Type	Priority
Dynamic Folders		■ ‡ 1	General	Heartbeat telegram			1 bit	с -	-	т -	enable	Low
11 New area		₽ ‡ 12	Real-time humidity	External Humidity			2 bytes	C -	W	τ -	humidity (Low
4 E 11 1 New line		1 3	Real time input	The bus time			3 bytes	C -	W	T -	time of day	Low
		15	General	Led indicator(Enable/Disable)			1 bit	C R	W	т -	enable	Low
11.1.1 M/D02.1		■‡ 26	Light channel 1 slave input	Movement status from bus			1 bit	C -	W	T -	switch	Low
11.1.2 M/R4.10.1		27	Light channel 1 input	External switching telegram			1 bit	C -	W	T -	switch	Low
11.1.3 M/SIS05.1		₽2 30	Light channel 1 lock input	1'-lock,'0'-unlock			1 bit	с -	W	Τ-	enable	Low
		2 31	Light channel 1 output	Switching			1 bit	C R	-	т -	switch	Low

Scene: When receive scene Group Address, then lock/unlock the logic for Light Control1.

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Topology Backbone	 Numb Name 	Object Funct	ion Description	Group Address	Length C R W T U Data Type Prior
Dynamic Folders	■2 1 General	Heartbeat tele	gram		1 bit C T - enable Low
11 New area	12 Real-time humid	lity External Humio	dity		2 bytes C - W T - humidity (Low
I I 1 New line	13 Real time input	The bus time			3 bytes C - W T - time of day Low
	15 General	Led indicator(E	nable/Disable)		1 bit C R W T - enable Low
P 1 11.1.1 M/D02.1	26 Light channel 1 s	lave input Movement sta	tus from bus		1 bit C - W T - switch Low
11.1.2 M/R4.10.1	27 Light channel 1 i	nput External switch	ing telegram		1 bit C - W T - switch Low
11.1.3 M/SIS05.1	📑 30 Light channel 1 l	ock input Scene telegran	n		1 byte C - W T - scene numLow
	2 31 Light channel 1 c	output Switching			1 bit C R - T - switch Low
Topology -					∧ □ ×
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Topology Backbone	* 11.1.3 M/SIS05.1 > Light cont	rol 1			
Dynamic Folders					
11 New area	General	-Object type	1bit 1byte		î
4 🗄 11.1 New line	Function status	-Value when detection	OFF-"0" ON-"1"		
11.1.1 M/D02.1					
11.1.2 M/R4.10.1	Light control 1	-Value when non-detection time out	OFF-"0" ON-"1"		
11.1.3 M/SIS05.1		Safety time(seconds)	0	* *	
	Logic function A	Lock			
	Logic function B	Use lock object?	Scene	•	
	Logic function C	Function lock when telegram is	Scene NO.01	•	
		Function lock when telegram is	Invalid	-	
	Logic function D	Evention in devices to be seen in	Annual Kak		
	Logic function F	Function lock when telegram is	Invalid	•	
	Logic Innearth L	Function lock when telegram is	Invalid	•	
		Function lock when telegram is	Invalid	*	
		>Founction when locking	Only lock Occk and transmit value	ie	Default Value: Invalid
		Function unlock when telegram is	Scene NO.02	*	
		Function unlock when telegram is	Invalid	*	
		Function unlock when telegram is	Invalid	*	
		Function unlock when telegram is	Invalid	-	
		Function unlock when telegram is	Invalid	•	
		>Founction when unlocking	Only unlock Unlock and transmi	t value	



-- Only lock/unlock: Just lock/unlock the logic for Light Control1.

-- Lock/Unlock and transmit value: Lock/Unlock the logic for Light Control1 and send out the

Logic value. For example: Lock the logic and turn on the light when you press button.

-- Automatic unlock after lock delay: It will auto unlock after delay time.

2.2.2 HVAC/Presence function

It can control HVAC according presence. You can enable the HVAC/Presence function in General page.

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Topology Backbone	11.1.3 M/SIS05.1 > HVAC/Presen	ce function A		
 Dynamic Folders 11 New area 11.1 New line 11.1 1 M/D02.1 	General Function status	Operation mode -Follow-up time minutes	 Fully-automatic Semi-automatic \$ 	
▶ 1 1.1.2 M/R4.10.1	HVAC/Presence function A	-Follow-up time hours	0	
▷ 📲 11.1.3 M/SIS05.1	Logic function A	-Follow-up time change via object? Monitoring window	 No Yes Disable Enable 	
	Logic function B	-Number of monitoring	3	Default Value: Disable
	Logic function C	-Monitoring time in seconds	1 ‡	Denant Parael Disable
	Logic function D	-Monitoring time in minutes	0	
	Logic function E	Change trigger function via object? Temperature Threshold and output:	Disable Disable	
		Use temperature composite control ?	Disable Enable	
		Lock:		
		Use lock object?	No	
		The status of HVAC after power on	ON .	

• Operation mode:

Fully-automatic: The logic can start by auto.

Semi-automatic: The logic needs to start when receive External switching telegram.

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Topology Backbone	*	Num	b Name		Object Function	D	escription	Group Address		Length	C R	w	τU	Data Type	Priority
Dynamic Folders		■ ‡ 1	General		Heartbeat telegram				1	l bit	с -	- T	- 1	enable	Low
🔺 🔡 11 New area		■‡ 12	Real-time humidity		External Humidity				â	2 bytes	C -	WΤ	- 1	humidity (. Low
1 111 Now line		■ ‡ 13	Real time input		The bus time				3	3 bytes	с -	WΤ	- 1	time of day	Low
A C TIT New line		■‡ 15	General		Led indicator(Enable/Disable)				1	l bit	C R	WΤ	- 1	enable	Low
11.1.1 M/D02.1		■ 2 46	HVAC A input		External switching telegram					l bit	C -	WT	Г - Т	switch	Low
11.1.2 M/R4.10.1	1	■‡ 48	HVAC A trigger input		Movement(Enable/Disable)				1	l bit	с -	WΤ	- 1	enable	Low
11.1.3 M/SIS05.1		₽ ₽ 57	HVAC A output		Switching				1	l bit	C R	- T	- 1	switch	Low

- Follow-up time: When not detect movement for this time, will trigger the output for non-

detection.

- Follow-up time change via object? If Yes, then can use Group address to change the follow-up time from BUS.



• Monitoring window:

Monitoring window	Oisable O Enable	
-Number of monitoring	3	* *
-Monitoring time in seconds	1	* *
-Monitoring time in minutes	0	▲ ▼

This used for avoid error trigger.

3 monitoring windows and each window interval time is 1s. If has detection in 3 monitoring windows, means has someone in the room. Els no one in room.

• Change trigger function via object?

If enable, you can use 1bit Group address to enable/disable the logic.

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III Topology Backbone		Numb	Name		Object Function	Description	Group Address	Length	C R	w	τU	Data Type	Priorit
Dynamic Folders	■2 1		General		Heartbeat telegram			1 bit	C -	- T	F - 1	enable	Low
11 New area	■2 1	2	Real-time humidity		External Humidity			2 bytes	с -	WT	F - 1	humidity (. Low
	■2 1	3	Real time input		The bus time			3 bytes	с -	W T	Γ -	time of day	Low
	■2 1	5	General		Led indicator(Enable/Disable)			1 bit	C R	W T	F - 1	enable	Low
11.1.1 M/D02.1	■2 4	16	HVAC A input		External switching telegram			1 bit	с -	W T	r - 1	switch	Low
▶ 📗 11.1.2 M/R4.10.1	Z 4	18	HVAC A trigger input		Movement(Enable/Disable)			1 bit	C -	W	Г - I	enable	Low
11.1.3 M/SIS05.1	■2 9	57	HVAC A output		Switching	relay1	1/0/1	1 bit	C R	- 1	r -	switch	Low

• Use temperature composite control?

If enable, it needs external temperature. And temperature as logic input condition.

Temperature Threshold and output:		
Use temperature composite control ?	Oisable O Enable	
-Threshold lower temperature(0.1'C)	100	*
-Threshold upper temperature(0.1'C)	280	*
-Changed temperature threshold value via bus	No Yes	
-When temperature <threshold lower,outputing</threshold 	Switching Comand HVAC Mode	
-When temperature>Threshold upper ,outputing	Switching Comand OHVAC Mode	

- 1) Disable: means not use temperature composite control.
- Enable: means use temperature composite control, can control the HVAC according temperature.
- 3) Threshold lower/upper temperature: The temperature range for logic input.



- Changed temperature threshold value via bus: If enable, can use 2bytes Group Address to change Threshold lower/upper temperature value.
- When temperature < Threshold lower, outputting: Set the output for lower than Threshold lower temperature value.
- 6) When temperature > Threshold upper, outputting: Set the output for over then Threshold upper temperature value.
- 7) Switching Comand: Means output object is 1bit.
- 8) HVAC Mode: Means HVAC mode, it can control preset mode/temperature/speed/swing.

Function status	-When temperature <threshold lower,outputing</threshold 	Switching Comand O HVAC Mode	
HVAC/Presence function A	->HVAC operation mode:	Auto	•
Logic function A	->HVAC control mode:	Heat	•
Logic function B	->HVAC temperature(0.1'C):	260	÷
Logic function b	->HVAC Fan Speed:	100	*
Logic function C	->HVAC Swing Mode:	Stop/Start Swing O Defined Swing	
Logic function D	>HVAC Defined Swing:	150	*
Logic function E	>When presence is over,HVAC close:	O False True	
	>>HVAC operation mode:	Economy	•
	>>HVAC control mode:	Dehumidification	•
	>>HVAC Automatic close after delay	🔵 False 🔘 True	
	>>Delay time minutes	0	* *
	>>Delay time hours	1	÷

--> When presence is over, HVAC close: If False, it can trigger the preset HVAC operation mode and control mode when non-detection.

--> HVAC Automatic close after delay: If True, the HVAC will automatic close after nondetection delay.

• Lock:

'1'-lock, '0'-unlock; '0'-lock, '1'-unlock: Used 1bit Group Address to lock/unlock the logic for

HVAC A.

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Topology Backbone	* Nu	imb Name	Object Function	Description	Group Address	Length	C R	w	r u	Data Type	Priorit
Dynamic Folders	■2 1	General	Heartbeat telegram			1 bit	с -	- T	-	enable	Low
11 New area	■2 12	Real-time humidity	External Humidity			2 bytes	с -	W T	-	humidity (Low
A E 11 1 New line	■2 13	Real time input	The bus time			3 bytes	с -	W T	-	time of day	Low
	■2 15	General	Led indicator(Enable/Disable)			1 bit	C R	WΤ	-	enable	Low
11.1.1 M/D02.1	■₹ 46	HVAC A input	External switching telegram			1 bit	с -	W T	-	switch	Low
11.1.2 M/R4.10.1	■2 57	HVAC A output	Switching	relay1	1/0/1	1 bit	C R	- T	-	switch	Low
11.1.3 M/SIS05.1	58	HVAC A lock input	1'-lock,'0'-unlock			1 bit	с -	WΤ	-	enable	Low

HDL

- -- Only lock: Just lock the logic for HVAC A.
- -- Lock and transmit value: Lock the logic for HVAC A and send out the Logic value.
- -- Only unlock: Just unlock the logic for HVAC A.
- -- Unlock and transmit value: Unlock the logic for HVAC A and send out the Logic value.

For example: Lock the logic and turn on the light when you press button.

- -- Automatic unlock after lock delay: It will automatic unlock after lock delay time.
- The status of HVAC after power on: Set the HVAC status after power on.

2.2.3 Constant Brightness

It can make the brightness in constant value.

Trigger condition: Detection and Brightness as logic input conditions. When sensor detects movement and brightness lower than the preset value, then turn on the light (100%), and then the light will be dimming to preset value by auto. If no movement after delay time, the Constant Brightness function will stop.

You can enable the Constant Brightness function in General page.

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Topology -				▲ □ ×
🕂 Add Channels 💌 🗙 Delete 🛨 Down	nload 🔹 🕜 Help 🥒 Highlight Chang	es Default Parameters Grant Customer Acces	55	
Topology Backbone 🔹	11.1.3 M/SIS05.1 > Constant brig	htness		
Dynamic Folders				
A 🔡 11 New area	General	Operation mode	Fully-automatic Semi-automatic	^
11.1 New line	Function status	-Follow-up time seconds	0	▲ ▼
▶ 1 11.1.1 M/D02.1		-Follow-up time minutes	5	\$
11.1.2 M/R4.10.1	Constant brightness	-Follow-up time hours	0	÷
U	Logic function A	Follow up time change via chiest?		
		-Follow-up time change via object?	IND O TES	
	Logic function B	Constant brightness value(0~1200 lux)	40	÷
	Logic function C	-Change constant brightness value via bus	Disable Enable	
	Logic function D	Dimming setting:		
	Logic function E	Minimum dimming time interval limit (0.1~5.0 s)	1.0 s	•
		Minimum dimming step value limit (1~10%)	1%	-
		Maximum dimming step value limit (1~10%)	5%	•
		Minimum dimming value limit	0%	•
		Maximum dimming value limit	100%	-
		Dimming Output Mode	Individual OParallel	
		Curtain Setting:		
		Use curtain composite control ?	Disable Enable	
		Lock:		
		Use lock object?	No	•
	Parameter Group Objects			



• Operation mode:

Fully-automatic: The logic can start by auto.

Semi-automatic: The logic needs to start when receive External switching telegram '1'.

No matter Fully or Semi mode, when receive External switching telegram '0', will stop the

Constant Brightness function, and then dimming output is the Minimum value.

Topology Backbone	٠	1	Numb	Name	Object Function	Description	Group Address	Length	с	R	w	r u	J Data Type	Priority
Dynamic Folders		1		General	Heartbeat telegram			1 bit	с -		· T	-	enable	Low
11 New area		1 2	2	Real-time humidity	External Humidity			2 bytes	с -	- 1	ΝT	-	humidity (Low
4 H 11 1 Now line		213	3 1	Real time input	The bus time			3 bytes	с -	- 1	ΝT	-	time of day	Low
		Z	5 (General	Led indicator(Enable/Disable)			1 bit	CF	3	ΝT	-	enable	Low
11.1.1 M/D02.1		7	6 (Constant Brightness A input	External switching telegram			1 bit	с -		ΝT		switch	Low
11.1.2 M/R4.10.1		79	9 1	Constant Brightness A	Dimming output(0%100%)			1 byte	C F	۲ -	T	-	percentag	Low

-- Follow-up time: Presence over time, means the time for light ON. After this time will trigger the output for non-detection.

-- Follow-up time change via object? If Yes, then can use Group address to change the follow-up time from BUS.

• **Constant brightness value:** The value for constant brightness.

-- Change constant brightness value via bus: If Yes, then can use Group address to change the constant brightness value from BUS.

• Dimming Setting:

- -- Minimum dimming time interval limit (0.1~5.0):
- -- Minimum dimming step value limit (1~10%):
- -- Maximum dimming step value limit (1~10%):
- -- Minimum dimming value limit:
- -- Maximum dimming value limit:
- -- Dimming Output Mode:
 - -- Individual: Just can send out one 1byte output.
 - -- Parallel: It can send out two 1byte output.
 - -> Dimming offset: Value2-Value1 (-100%..100%): The offset for two lights.

For example: You want Value2 brightness always higher then Value1



• Curtain Setting: Enable/disable curtain control to make more brightness.

Use curtain composite control?

Curtain Setting:		
Use curtain composite control ?	🔿 Disable 🔘 Enable	
-Curtain standby	Disable 🔘 Enable	
->Begin time minutes	5	* *
->Begin time hours	18	*
->End time minutes	5	*
->End time hours	8	÷
->Curtain value	0%	•
-When disable,curtain value	0%	•
-When presence is over,curtain value	Unchanged	•
-Curtain adjusting time interval limit (5~120 s)	5s	•
-Minimum adjusting step value limit (1~10%)	1%	•
-Maximum adjusting step value limit (1~10%)	5%	•
-Minimum curtain value limit	10%	•
-Maximum curtain value limit	100%	•

- -- Disable: Disable curtain control to make more brightness.
- -- Enable: Enable curtain control to make more brightness.
 - -- Curtain standby
 - -- Disable: Not have curtain standby time.
 - -- Enable: Set the standby time for curtain. Curtain will not action in this time. Before

you use this, need to use extra time from Bus.

1 2	Real-time humidity	External Humidity	2 bytes	С	-	WТ	-	humidity (Low
1 3	Real time input	The bus time	3 bytes	С	-	WΤ	-	time of day	Low
1 5	General	Led indicator(Enable/Disable)	1 bit	С	R	WΤ	-	enable	Low
■2 76	Constant Brightness A input	External switching telegram	1 bit	С	-	WΤ	-	switch	Low
■2 79	Constant Brightness A	Dimming output(0%100%)	1 byte	С	R	- T	-	percentag	Low
■‡ 81	Constant Brightness A & Curtain	Curtain(Enable/Disable)	1 bit	С	-	WΤ	-	enable	Low
■‡ 84	Constant Brightness A & Curtain	Curtain output(0%100%)	1 byte	С	R	- T	-	percentag	Low

-- When disable, curtain value:

Control the preset value, when use 1bit group address to disable curtain control.

■2 76	Constant Brightness A input	External switching telegram	1 bit	С	-	w	г -	switch	Low
■2 79	Constant Brightness A	Dimming output(0%100%)	1 byte	С	R	- 1	Г-	percentag	Low
₽2 81	Constant Brightness A & Curtain	Curtain(Enable/Disable)	1 bit	С	-	W	Γ-	enable	Low
■₹ 84	Constant Brightness A & Curtain	Curtain output(0%100%)	1 byte	С	R	- 1	г -	percentag	Low

-- When presence is over, curtain value:

Control the curtain value when presence is over (after follow-up time).



- -- Curtain adjusting time interval limit (5~120s)
- -- Minimum adjusting step value limit (1~10%)
- -- Maximum adjusting step value limit (1~10%)
- -- Minimum curtain value limit:
- -- Maximum curtain value limit:

Set the curtain control adjust time interval/adjust step/ range.

Notice: If has detection, curtain will be maximum value; when dimming value less than 50%, the curtain will start to be adjusted; when dimming value more than 80%, the curtain will be maximum value.

• Lock: Use object to lock the Constant Brightness function or not.

■2 76	Constant Brightness A input	External switching telegram	1 bit	С	- 1	wт	•	switch	Low
■2 79	Constant Brightness A	Dimming output(0%100%)	1 byte	С	R	- T	-	percentag	. Low
■2 81	Constant Brightness A & Curtain	Curtain(Enable/Disable)	1 bit	С	- 1	wт	-	enable	Low
■2 84	Constant Brightness A & Curtain	Curtain output(0%100%)	1 byte	С	R	- 1	-	percentag	. Low
1	Constant Brightness A lock input	1'-lock,'0'-unlock	1 bit			wт		enable	Low

Use lock object

-- No:

- -- '1'-lock,'0'-unlock:
- -- '0'-lock,'1'-unlock:

• PI:u(k)=Kp(Proportional coefficient)[e(k)-e(k-1)]+Ki(integration time)e(k):

Dimming speed (for PI): You can select the dimming speed for constant brightness function.

2.3 Function Status

11.1.3 M/SIS05.1 > Function status	5	
General	(1)Slave Movement sensor status report	◯ No
Function status	->Transmit telegram value when Movement sensor detected	Slave value-'0' 🔘 Slave value-'1'
Logic function A	(2)Brightness report	● No
Logic function B	(3)Temperature report	No Yes
Logic function C	(5)Intruder alarm	O No Ves

Report the status to Bus.

(1): Slave Movement sensor status report: Report current status to the Bus, there can set 5

different group address.

Num	b Name	Object Function	Description	Group Address	Length	c	R	w	τu	Data Type	Priority
■‡ 1	General	Heartbeat telegram			1 bit	С	-	- 1	т -	enable	Low
12	Real-time humidity	External Humidity			2 bytes	С	-	W	Г -	humidity (Low
■‡ 13	Real time input	The bus time			3 bytes	С	-	W	T -	time of day	Low
■‡ 15	General	Led indicator(Enable/Disable)			1 bit	С	R	W	T -	enable	Low
■‡ 16	Function status	Slave status to bus			1 bit	С	2	W	Т -	switch	Low
■≵ 20	Function status	Slave status to bus(Logic A)			1 bit	С	-	W	т -	switch	Low
■⊉ 21	Function status	Slave status to bus(Logic B)			1 bit	С	-	W	T -	switch	Low
■≵ 22	Function status	Slave status to bus(Logic C)			1 bit	С	-	W	Г -	switch	Low
■‡ 23	Function status	Slave status to bus(Logic D)			1 bit	С	-	W	Γ-	switch	Low

(2): Brightness report:

You can select report when changed or cyclic. If select report when changed, it will report when the brightness changed in preset value.

G	ieneral	(1)Slave Movement sensor status r	eport 🔘 N	lo 🔵 Yes							
F	unction status	(2)Brightness report		lo 🔘 Yes					٦		
Ŀ	ogic function A	->Lux report mode	OR	eport when changed	Report o	yclic	2				
L	ogic function B	->Differential value for report (12	00lux) 20					* *			
L	ogic function C	(3)Temperature report	() N	lo 🔵 Yes				-			
L	ogic function D	(5)Intruder alarm	0	lo 🔾 Yes							
Nu	mb Name	Object Function De	escription	Group Address	Length	C F	RV	wт	U	Data Type	Priority
₹1	General	Heartbeat telegram			1 bit	C -	-	т	-	enable	Low
2 12	Real-time humidity	External Humidity			2 bytes	C -	W	/ Т	-	humidity (Low
13	Real time input	The bus time			3 bytes	с -	W	/ Т	-	time of day	Low
¢ 15	General	Led indicator(Enable/Disable)			1 bit	C R	W	ΙΤ	-	enable	Low
							-	-	-		

(3): Temperature report: The local source temperature.

It will report the temperature when change preset value, or report in cyclic.

11.1.3	M/SIS05.1 > Function	status											
G	eneral	(1)Slave Movement sensor s	tatus report	O No	◯ Yes								
F	unction status	(2)Brightness report		O No	◯ Yes								
L	ogic function A	(3)Temperature report		O No	O Yes								
L	paic function B	->Temperature report mode	•	🔘 Rep	oort when change	ed 🔵 Repo	ort c	ycl	ic				
		->Differential value for repo	rt (0.1'C)	10							▲ ▼		
L	ogic function C	(5)Intruder alarm		O No	O Yes								
Nu	mb Name	Object Function	Description		Group Address	Lengt	h C	R	w	т	U Di	ata Type	e Priority
₹1	General	Heartbeat telegram				1 bit	С	-		Т	- ena	able	Low
12	Real-time humidity	External Humidity				2 bytes	С	-	W T	Т	- hur	midity (. Low
₽ 13	Real time input	The bus time				3 bytes	С	-	W T	Т	- tim	ne of day	Low
₽ 15	General	Led indicator(Enable/Disable)				1 bit	С	R	W T	Т	- ena	able	Low
18	Function status	Temperature value				2 bytes	С	R	- 1	т	- ten	nperatu	Low

(4): Intruder alarm:

After enable the intruder alarm, when has detection, will send out the alarm status to Bus.

Num	b Name	Object Function	Description	Group Address	Length	n C	R	w	т	U	Data Type	Priority
■‡ 1	General	Heartbeat telegram			1 bit	С	-	-	T -	- e	nable	Low
1 2	Real-time humidity	External Humidity			2 bytes	С	-	W	T -	- h	umidity (Low
■‡ 13	Real time input	The bus time			3 bytes	С	-	W	T -	- ti	ime of day	Low
1 5	General	Led indicator(Enable/Disable)			1 bit	С	R	W	T -	- e	nable	Low
24	Function status	Intruder alarm to bus			1 bit	С	R	-	τ·	- a	larm	Low
₽ ₽ 25	Intruder alarm	'1'-Enable,'0'-Disable			1 bit	С	-	W	T -	- e	nable	Low

1.1.3 M/SIS05.1 > Function status	5	
General	(1)Slave Movement sensor status report	◎ No ○ Yes
Function status	(2)Brightness report	◎ No ○ Yes
Logic function A	(3)Temperature report	O No Yes
Logic function B	(5)Intruder alarm	No O Yes
Logic function C	->Follow-up time seconds	5
Logic function D	>Repeat time interval(059 min)	0
Logic function E	>Repeat time interval(059 sec)	10
	->Intruder alarm enable/disable via bus	 '1'-Enable,'0'-Disable '1'-Disable,'0'-Enable
	->Intruder alarm after power on	Disable 👻



-- Follow-up time seconds: The present time, if select 5s, means when there has detection for 5s, will trigger intruder alarm.

-- Output repeat telegram when detected: If need, it will repeat in preset interval time.

-- Intruder alarm enable/disable via bus: Use 1bit group address to enable/disable the

Intruder alarm.

Num	b Name	Object Function	Description	Group Address	Length	C	R	V	νт	U	Data Type	Priority	y
■‡ 1	General	Heartbeat telegram			1 bit	С	-	-	Т	-	enable	Low	
1 2	Real-time humidity	External Humidity			2 bytes	С	-	W	Т	-	humidity (Low	
■‡ 13	Real time input	The bus time			3 bytes	С	-	W	Т	-	time of day	Low	
1 5	General	Led indicator(Enable/Disable)			1 bit	С	R	W	Т	-	enable	Low	
■24	Function status	Intruder alarm to bus			1 bit	С	R	-	Т	-	alarm	Low	
25	Intruder alarm	'1'-Disable,'0'-Enable			1 bit	С	-	W	Τ	-	enable	Low	

-- Intruder alarm after power on: Disable/Enable/Recovery

2.4 Logic Function A/B/C/D

There are four independent logic, you can select movement /brightness /temperature

/humidity /external telegram as logic input conditions, and you can use 1bit group address

to enable/disable the logic function.

Take Logic Function A as example:

11.1.3 M/SIS05.1 > Logic function	Α		
General	Use logical block A	No O Yes	
Function status			
Logic function A	(1)Enable Movement sensor	Disable	•
Block A	(2)Enable brightness(Lux) sensor	O Disable Enable	
BIOCK A	(3)Enable temperature sensor	Disable Enable	
A1: Switching	(4)Enable humidity sensor	Disable Enable	
Logic function B	(5)Enable external telegram 1	Disable	•
Logic function C	(6)Enable external telegram 2	Disable	•
Logic function D	Logical relation of block A		
	Result of logic A inverted	◎ No ○ Yes	
Logic function E			
	Status(True/False) of logic A to bus	Disable Enable	
	<1>Use logical A function lock?	No Yes	
	<2>Use logical A function lock?	No Yes	
	Logic A output status when logic function unlock	n True	•
	Feekback logic A function lock status	◎ No ○ Yes	

(1): Enable Movement sensor: If enable, the movement sensor as logic input condition.

-- Disable: The movement sensor not use in this logic.

-- Single mode (independent sensor): This movement sensor work as logic input condition,

and you can select the sensor status. Suggest select detected is True.

-- Master/Slave mode (Master sensor): More sensors work as logic input condition, but this sensor as master. It can use 1bit group address to link to slave sensor, when receive salve value, then the master set to Ture.

(1)Enabl	le Movement sensor	Master/Slave mode(Master sensor)	•							
->	Local	Movement sensor status	 Movement sensor detected is False,else is Movement sensor detected is True,else is 	 F							
->	Maste	er is set to TRUE when received	◯ Slave value-'0' ◎ Slave value-'1'								
-			~ ~								
■ ‡	13	Real time input	The bus time		3 bytes	с -	W	νT	-	time of day	Low
7	15	General	Led indicator(Enable/Disable)		1 bit	C R	W	V T	-	enable	Low
7	100	Object input A	Movement status from bus		1 bit	с -	V	/Т	U	switch	Low
7	120	Object output A1	Switching		1 bit	C R	-	Т	-	switch	Low

(2): Enable brightness (Lux) Sensor: It supports up to 3 brightness thresholds. You can select the brightness value.

-- Change Lux threshold value via bus: If enable, can modify the value via group address.

-- Brightness (Lux) status: Select the Ture/False status for logic.

-- Independent control < object output 8> : It can independent control the object output8

when brightness in the range. This is separated from Logic A.

->Independent control <object output<br="">8></object>	 No Yes(Separated from logic and output)
>>Lock independent control via bus	No OYes
>>Operation mode	'1'-Unlock,'0'-Lock 👻
>> <object 8="" output=""> status when independent control disabled</object>	False and immediately output
Enable brightness(Lux) threshold B	Disable Enable

(3): Enable temperature sensor: If enable, the local temperature works as logic input

condition, you can select the temperature range and the temperature status.

And it supports modify the temperature threshold value from Bus.



(3)Enable temperature sensor	🔵 Disable 🔘 Enable
->Temperature >= Threshold lower (0.1'C)	30
->Temperature <= Threshold upper (0.1'C)	20
->Changed temperature threshold value via bus	O No Ves
->Temperature status	In range is True,else False 🔹

(4): Enable humidity sensor: If enable, the humidity which from Bus works as logic input

condition, you can select the humidity range and the humidity status.

And it supports modify the humidity threshold value from Bus.

(4)	Enable humidity sensor	🔵 Disable 🔘 Enabl	e									
->1	Humidity >= Threshold lower	45		* *								
->	Humidity <= Threshold upper	65		*								
->(bus	Changed Humidity threshold value via	O No O Yes										
->	Humidity status	In range is True,else Fal	se	•								
N	umb Name	Object Function	Description	_	Group Address	Length	С	R	wт	U	Data Type	Priority
∎‡1	General	Heartbeat telegram	humidity from	Bus		1 bit	C ·		Т	-	enable	Low
■2 12	Real-time humidity	External Humidity				2 bytes	C ·	۰V	νT	-	humidity (Low
■‡ 13	Real time input	The bus time				3 bytes	C ·	v	VТ	-	time of day	Low

(5) Enable external telegram 1

(6) Enable external telegram 2

-- There are two external telegram which from Bus can work as logic input condition.

• Logic relation of block A:

AND: All input conditions which enable are true, means the Logic is true.

OR: One of input conditions which enable is true, means the Logic is true.

- Result of logic A inverted: Inverted the logic A result or not.
- Status (True/False) of logic A to bus: If enable, it will send out the logic A status to Bus via group address.



• Use logical A function lock?

-- Use telegram via bus: If yes, then can use Big telegram or Scene telegram to lock/unlock the Logical A.

-- Logic A output status when logic function lock: Set the output status when logic lock.

-- Logic A automation unlock after logic function lock: It will auto unlock after delay time.

• Logic A output status when logic function unlock:

-- Set the output status when logic unlock.

• Feedback logic A function lock status: If enable, it can use 1bit group address to feedback the lock status to Bus.

2.4.1 Block A

Enable the output object for logic, take Logic function A as example. Logic function B/C/D are same.

For example: Logic function A has two outputs, one is control single light, second is control curtain.

Topology 🔻				
🕂 Add Channels 🔹 🗙 De	lete 붗 Download 🔹 🔞 Help 🤌 Hi	ghlight Changes Default Parameters Grant Cust	tomer Access	
III Topology Backbone	* 11.1.3 M/SIS05.1 > Block A			
 Dynamic Folders I1 New area 	General	Object output 1 (to bus)	Switch controller	•
 11.1 New line 11.1 1 M/D02.1 	Function status	Object output 2 (to bus)	Shutter controller	*
11.1.2 M/R4.10.1	Logic function A	Object output 3 (to bus)	Invalid	•
11.1.3 M/SIS05.1	Block A	Object output 4 (to bus)	Invalid	•
	A1: Switching	Object output 6 (to bus)	Invalid	-
	A2: Shutter	Object output 7 (to bus)	Invalid	•
	Logic function B	Object output 8 (to bus)	Invalid	•
	Logic function C	Object output 9 (to bus)	Invalid	•
	Logic function D	Object output 10 (to bus)	Invalid	•
	Logic function E	Output repeat telegram on true	O Disable C Enable	

Output repeat telegram on true: Enable/disable the repeat telegram on true.

2.4.2 Output for True/False

After enable the output objects in Block A, then it will show the output setting for logic

ture/false. For example below has two output objects (A1 and A2)

Topology 🔻				
🕂 Add Channels 🔹 🗙 Delete 🚽	🖞 Download 🔹 🕜 Help 🥒 Highlight	Changes Default Parameters Grant Custome	r Access	
Topology Backbone	11.1.3 M/SIS05.1 > A1: Switching			
▲ 🔢 11 New area	General	The status after bus voltage recovery	Invalid	•
 11.1 New line 11.1.1 M/D02.1 	Function status	Logical block output when TRUE	oN when logic true, send	out '1'
▶ 1 11.1.2 M/R4.10.1	Logic function A	-> Delay time (017 Hours)	0	* *
11.1.3 M/SIS05.1	Block A	-> Delay time (059 Minutes)	0	▲ ▼
	A1: Switching	 -> Delay time (059 seconds) -> Change delay time via bus (0 s17 h) 	© No () Yes	v
	A2: Shutter	Logical block output when FALSE	off when logic false, sen	d out '0'
	Logic function B	-> Delay time (017 Hours)	0	▲ ▼
	Logic function C	-> Delay time (059 Minutes)	0	▲ ▼
	Logic function D	-> Delay time (059 Seconds)	10	▲ ▼
	Logic function F	-> change delay time via bus (0 s17 1)		

• The status after bus voltage recovery: Set the status after bus voltage recovery.

Logical block output when True: Set the detail function when logic true.
 Delay time: After delay time, will trigger the output.
 Change delay time via bus (0s..17h): The delay time can be changed by bus.

• Logical block output when False: Set the detail function when logic false. Delay time: After delay time, will trigger the output.

Change delay time via bus (0s..17h): The delay time can be changed by bus.

2.5 Logic Function E

Logic function E has combination function, it can combine logic A/B/C/D. For example, when logic A and logic B are both true, then turn on the light.

HUL				KNX M/SIS05.1 PIR S	5
🕂 Add Channels 🔹 🗙 Delete	🛨 Download 👻 🔞 Help 🤌 H	ighlight Changes Default Parameters Grant Customer	r Access		
Topology Backbone	* 11.1.3 M/SIS05.1 > Logic fu	nction E			
 In New area 	General	Use logical block E	🔿 No 🔘 Yes		
11.1 New line	Function status				
11.1.2 M/R4.10.1	Logic function A	Enable logic A	Oisable O Enable		
11.1.3 M/SIS05.1	Block A	->Result of logic A inverted	No Yes		
	A1: Switching	->Logical relation	AND OR Disable		
	A2: Shutter	Enable logic B	Disable Enable		
	Lacia frantica D	->Logical relation			
	Logic function B	Enable logic C	Disable Enable		
	Block B	Enable logic D	O Disable Enable		
	B1: Switching	NOTE: Logic E = A o B o C o D (o = AND/C	DR)		
	Logic function C	Result of logic E inverted	No Yes		
	Logic function D				
	Logic function E	Status(True/False) of logic E to bus	Ulsable Enable		
	Block E	<1>Use logical E function lock?	No Yes		
	E1: Switching	<2>Use logical E function lock?	◎ No ○ Yes		
		Logic E output status when logic function unlock	True	•	
		Feekback logic E function lock status	No Yes		

- Enable logic A/B/C/D: Enable logic A/B/C/D as logic E input condition or not. Result of logic A/B/C/D inverted: Inverted the result of logic A/B/C/D or not.
- **Result of logic E inverted:** Inverted the result of logic E or not.
- Status (True/False) of logic E to bus: If send out the logic E status to bus or not.

Use logical E function lock?

-- Use telegram via bus: If yes, then can use Big telegram or Scene telegram to lock/unlock the Logical E.

-- Logic E output status when logic function lock: Set the output status when logic lock.

-- Logic E automation unlock after logic function lock: It will auto unlock after delay time.

- Logic E output status when logic function unlock:
 - -- Set the output status when logic unlock.
- Feedback logic E function lock status: If enable, it can use 1bit group address to feedback the lock status to Bus.



2.5.1 Block E

Enable the output object for logic E.

For example: Logic function E has one output (Switch controller to control single light).

🕂 Add Channels 🔹 🗙 Delete 📩	🖢 Download 🔹 🕜 Help 🌛 Highlight	Changes Default Parameters Grant Custom	er Access	
Topology Backbone	11.1.3 M/SIS05.1 > Block E			
Dynamic Folders In the second seco	General	Object output 1 (to bus)	Switch controller	•
11.1 New line	Function status	Object output 2 (to bus)	Invalid	•
 11.1.1 M/D02.1 11.1.2 M/R4.10.1 	Logic function A	Object output 3 (to bus)	Invalid	•
11.1.3 M/SIS05.1		Object output 4 (to bus)	Invalid	•
	BIOCK A	Object output 5 (to bus)	Invalid	-
	A1: Switching	Object output 6 (to bus)	Invalid	•
	A2: Shutter	Object output 7 (to bus)	Invalid	•
	Logic function B	Object output 8 (to bus)	Invalid	•
	Block B	Object output 9 (to bus)	Invalid	•
	B1: Switching	Object output 10 (to bus)	Invalid	·
	Logic function C	Output repeat telegram on true	Disable Enable	
	Logic function D			
	Logic function E			
	Block E			
	E1: Switching			

Output repeat telegram on true: Enable/disable the repeat telegram on true.

2.5.2 Output for True/False

After enable the output objects in Block E, then it will show the output setting for logic

true/false.

Topology Backbone	* 11.1.3 M/SIS05.1 > E1: Swite	ching		
Dynamic Folders				
In the second	General	The status after bus voltage recovery	Invalid	•
11.1 New line	Function status	Logical block output when TRUE	on when logic true	ie, send-out '1
11.1.1 M/D02.1 11.1.2 M/R4.10.1	Logic function A	-> Delay time (017 Hours)	0	* *
11.1.3 M/SIS05.1		-> Delay time (059 Minutes)	0	÷
	Block A	-> Delay time (059 Seconds)	0	*
	A1: Switching	-> Change delay time via bus (0 s17 h)	No Yes	
	A2: Shutter	Logical block output when FALSE	OFF when logic fals	se, send out '0
	Logic function B	-> Delay time (017 Hours)	0	* *
	Block B	-> Delay time (059 Minutes)	0	* *
	B1: Switching	-> Delay time (059 Seconds)	10	Ç
	Logic function C	-> Change delay time via bus (0 s17 h)	No Yes	
	Logic function D			
	Logic function E			
	Block E			
	E1: Switching			



- The status after bus voltage recovery: Set the status after bus voltage recovery.
- Logical block output when True: Set the detail function when logic true.

Delay time: After delay time, will trigger the output.

Change delay time via bus (0s..17h): The delay time can be changed by bus.

• Logical block output when False: Set the detail function when logic false.

Delay time: After delay time, will trigger the output.

Change delay time via bus (0s..17h): The delay time can be changed by bus.

3 Examples

3.1 Single movement control one light

1) Enable Logic function A and select Single mode.

Topology 🔻			
🕂 Add Channels 🔹 🗙 Delete	붗 Download 🔹 🕜 Help 🌙 Hig	hlight Changes Default Parameters Grant Cust	omer Access
Topology Backbone	* 11.1.3 M/SIS05.1 > Logic fun	ction A	
Il New area	General	Use logical block A	No Yes
I 11.1 New line I 11.1.1 M/D02.1	Function status		
11.1.2 M/R4.10.1	Logic function A	(T)Enable Movement sensor	Movement sensor detected is False,else is
2 1.1.5 M/31303.1	Block A	->Movement sensor status	Movement sensor detected is True,else is F
	A1: Switching	(2)Enable brightness(Lux) sensor	Disable Enable

 Enable one output object, because control one light turns on/off, so we can use Switch controller type.

Topology 🕶				
🕂 Add Channels 🔹 🗙 Delete 🚦	🖢 Download 🔹 🕜 Help 🌙 Highligh	nt Changes Default Parameters Grant	Customer Access	
Topology Backbone • Image: Dynamic Folders •	11.1.3 M/SIS05.1 > Block A		Enable one o	utput object
▲ 🔡 11 New area	General	Object output 1 (to bus)	Switch controller	· ·
 ▲ 11.1 New line ▶ 11.1.1 M/D02.1 	Function status	Object output 2 (to bus)	Invalid	•
▶ 11.1.2 M/R4.10.1	Logic function A	Object output 3 (to bus)	Invalid	.
11.1.3 M/SIS05.1	Block A	Object output 4 (to bus)	Invalid	•
	A1: Switching	Object output 5 (to bus) Object output 6 (to bus)	Invalid	• •



3) Set the detail function for output.

Topology -				
🕂 Add Channels 🔹 🗙 Delete 🚽	🖢 Download 🔹 🕜 Help 🌛 Highlight	Changes Default Parameters Grant Custome	er Access	
Topology Backbone	11.1.3 M/SIS05.1 > A1: Switching			
Dynamic Folders				
🔺 🔡 11 New area	General	The status after bus voltage recovery	Invalid	•
🔺 📘 11.1 New line	Function status	Logical block output when TRUE	○N When true, send '1'	•
▶ 📗 11.1.1 M/D02.1	Tunction status			
▶ 📗 11.1.2 M/R4.10.1	Logic function A	-> Delay time (017 Hours)	0	v
11.1.3 M/SIS05.1	-	-> Delay time (059 Minutes)	0	*
	Block A	-> Delay time (059 Seconds)	0	* *
	A1: Switching	-> Change delay time via bus (0 s17 h)	◎ No ◯ Yes	
	Logic function B	Logical block output when FALSE	^{OFF} When false, delay 10s	•
	Logic function C	-> Delay time (017 Hours)	^o and send '0'	▲ ▼
	Logic function D	-> Delay time (059 Minutes)	0	* *
	Logie lancton D	-> Delay time (059 Seconds)	10	÷
	Logic function E	-> Change delay time via bus (0 s17 h)	◎ No ○ Yes	

 Link the address to light. That means if has detection, will turn on relay1; when no detection for 10s, will turn off relay1.

Dynamic Folders C T - enable 11 New area C T - enable 11 New ine 12 Real-time humidity External Humidity 11 New ine 13 Real time input The bus time 11 1. New line 13 Real time input The bus time	Low
11 New area 12 Real-time humidity External Humidity 2 bytes C - W T - humidity 11 New area 13 Real time input The bus time 3 bytes C - W T - humidity 11 1.1 New line 14 C - W T - humidity 14 C - W T - humidity	
It 11.1 New line The bustime 3 bytes C - W T - time of 11.1 New line 115 G and Lod indicated Ender/Olicybia) 1 bytes C - W T - orbital	(Low
This Gaparal Lod indicator(Gaphia)	day Low
	Low
🔟 11.1.1 M/D02.1 🔢 120 Object output A1 Switching relay1 1/0/1 1 bit C R - T - switch	
11.1.2 M/R4.10.1	
1113 M/SIS051	

Topology 👻									^ □
🕂 Add Channels 🔹 🗙 Dele	ete 🛨 Downlo	ad 💌 🕕 Info 🔹 💋 Re	set 🖑 Unload 🔹 🚔 Print				Search		
Topology Backbone	• Nur	nb Name	Object Function	Description	Group Address	Length C R	ΨТ	U Data Type	Priority
Dynamic Folders	■‡ 10	Output A	Channel output	relay1	1/0/1	1 bit C -	W - I	J switch	Low
🖌 🔡 11 New area	20	Output A	Scene(8bit)			1 byte C -	W - 1	J	Low
· H AAA New Kee	1	Output B	Channel output			1 bit C -	W - I	J switch	Low
	■₹ 40	Output B	Scene(8bit)			1 byte C -	W - 1	J	Low
11.1.1 M/D02.1	1	Output C	Channel output			1 bit C -	W - 1	J switch	Low
11.1.2 M/R4.10.1	■2 70	Output D	Channel output			1 bit C -	W - 1	J switch	Low
11.1.3 M/SIS05.1									

3.2 Master/Slave movement control one light

Some projects will use two sensors to control same light. One of sensors has detection,

will turn on the light; If master sensor no detection for 10s and slave sensor not sent '1'

in 10s, will turn off relay1.

 Master sensor enable Logic function A and select Master/Slave mode (Master sensor).



Topology 🔻			
🕂 Add Channels 💌 🗙 Delete	🛨 Download 🔹 🕜 Help 🥒 High	hlight Changes Default Parameters Grant Custom	er Access
Topology Backbone	* 11.1.3 M/SIS05.1 > Logic func	ction A	
 Dynamic Folders I1 New area 	General	Use logical block A	◯ No .
 11.1 New line 11.1.1 M/D02.1 	Function status		
▶ 1 11.1.2 M/R4.10.1	Logic function A	(1)Enable Movement sensor	Master/Slave mode(Master sensor)
11.1.3 M/SIS05.1	Block A	->Local Movement sensor status	Movement sensor detected is True,else is F
	A1: Switching	->Master is set to TRUE when received	Slave value-'0' 🔘 Slave value-'1'
		(2)Enable brightness(Lux) sensor	Disable Enable status from slave sensor

 Master sensor enable one output object, because control one light turns on/off, so we can use Switch controller type.

Topology 🔻				
🕂 Add Channels 🔹 🗙 Delete 🚽	🖢 Download 🔹 🕜 Help 🌙 Highligh	nt Changes Default Parameters Grant Ci	ustomer Access	
Topology Backbone • > image: Dynamic Folders •	11.1.3 M/SIS05.1 > Block A		Enable one o	output object
▲ 🔡 11 New area	General	Object output 1 (to bus)	Switch controller	•
 11.1 New line 11.1.1 M/D02.1 	Function status	Object output 2 (to bus)	Invalid	•
▶ 1 1.1.2 M/R4.10.1	Logic function A	Object output 3 (to bus)	Invalid	•
11.1.3 M/SIS05.1	Block A	Object output 4 (to bus)	Invalid	•
	A1: Switching	Object output 6 (to bus)	Invalid	*

3) Set the detail function for master sensor output.

🛛 Add Channels 🔹 🔀 Delete 🔰	🕻 Download 🔹 🕜 Help 🤌 H	Highlight Changes Default Parameters Grant Custome	er Access			
Topology Backbone	11.1.3 M/SIS05.1 > A1: Switching					
11 New area	General	The status after bus voltage recovery	Invalid	•		
▲ 📘 11.1 New line	Function status	Logical block output when TRUE	○N When true, send '1'	•		
 11.1.1 M/D02.1 11.1.2 M/R4.10.1 	Logic function A	-> Delay time (017 Hours)	0	*		
11.1.3 M/SIS05.1		-> Delay time (059 Minutes)	0	*		
	Block A	-> Delay time (059 Seconds)	0	*		
	A1: Switching	-> Change delay time via bus (0 s17 h)	No Yes			
	Logic function B	Logical block output when FALSE	^{OFF} When false delay 1()c *		
	Logic function C	-> Delay time (017 Hours)	and send '0'	* *		
	Logic function D	-> Delay time (059 Minutes)	0	*		
	Logic function D	-> Delay time (059 Seconds)	10	*		

 Link the Movement status from bus (other sensor's status), and link the address to light. That means current sensor or other sensor has detection, will turn on relay1;



when master sensor no detection for 10s and slave sensor not sent '1' in 10s, will

turn off relay1.

Topology 🔻							^ 0	
🕂 Add Channels 🔹 🗙 Dele	ete 🛨 Downlo	vad 🔹 🅕 Info 👻 💋 Reset 🤞	🗸 Unload 💌 🚔 Print			Search		P
Topology Backbone	* Nur	nb Name	Object Function	Description	Group Address	Length C R W T	U Data Type Priority	1
Dynamic Folders	■# 1	General	Heartbeat telegram			1 bit C T -	enable Low	
4 🔛 11 New area	■2 12	Real-time humidity	External Humidity	master	sensor	2 bytes C - W T -	humidity (Low	
A E 11.1 Now line	■‡ 13	Real time input	The bus time			3 bytes C - W T ·	time of day Low	
	■2 15	General	Led indicator(Enable/Disable)			1 bit CRWT-	enable Low	
11.1.1 M/D02.1	■2 100	Object input A	Movement status from bus	sensor2 status	0/0/12	1 bit C - W T U	J switch Low	
11.1.2 M/R4.10.1	■2 120	Object output A1	Switching	relay1	1/0/1	1 bit CR - T -	switch Low	
11.1.3 M/SIS05.1								
Topology -							^ 🗇	
🕂 Add Channels 🔹 🗙 Dele	te 🛨 Downlo	ad 🖃 🕕 Info 🔹 💋 Reset 👘	🖓 Unload 👻 🚔 Print			Searc	h	\$
Topology Backbone	* Nur	nb Name	Object Function	Description	Group Address	Length C R W T	U Data Type Priori	ty
Dynamic Folders	10	Output A	Channel output	relay1	1/0/1	1 bit C - W -	U switch Low	
11 New area	2 0	Output A	Scene(8bit)			1 byte C - W -	U Low	_
· E 11.1 New Kee	2	Output B	Channel output			1 bit C - W -	U switch Low	
	■2 40	Output B	Scene(8bit)	11 mile		1 byte C - W -	U Low	
▶ 🚻 11.1.1 M/D02.1	■2 50	Output C	Channel output	lign	L Contraction of the second seco	1 bit C - W -	U switch Low	
11.1.2 M/R4.10.1	■2 70	Output D	Channel output			1 bit C - W -	U switch Low	
11.1.3 M/SIS05.1								

5) Slave sensor report status to bus. And send out status via group address.

- Add Charnels - 🔨 Delete		nop 🥜 nignight c	changes beraam anameters Grant Custom	ICT ACCOS						
Topology Backbone	* 11.1.4 M/SIS05.1	1 slave > Function	status							
i Dynamic Folders										
🔡 11 New area	General		(1)Slave Movement sensor status report	: 🔿 No 🔘 Yes						
 H 11.1 New line I 11.1 M/D02.1 	Function stat	tus	->Transmit telegram value when Movement sensor detected	Slave value-'0' O Slave	e value-'1'					
 11.1.2 M/R4.10.1 11.1.3 M/SIS05 1 	Logic function	n A	(2)Brightness report	◎ No ○ Yes						
11.1.4 M/SIS05.1 slave	Logic function	1 B	(5)Intruder alarm	No Yes						
	Logic function	٦C								
opology 🔻	Logic function	nſ								^ □
opology - Add Channels - X Delete	Logic function	n C Info 💌 🔨 Reset 👍	🐉 Unload 🔹 🚔 Print				5	Search		^ □
Add Channels * 💥 Delete Topology Backbone	Logic function Download The second se	Info 🔻 👩 Reset	VInload • 🚔 Print Object Function	Description	Group Address	Length	C R V	Search W T U	Data Type	∧ □ Priority
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Add Channels * 🗙 Delete Topology Backbone Dynamic Folders 11 New area	Download Ownload	Info 🔹 🕥 Reset 🦂	Unload v An Print Object Function Heartbeat telegram External Temperature	Description	Group Address	Length 1 bit C 2 bytes C	C R 1	Search WTU T-	Data Type enable temperatu	Priority Low Low
Add Channels * X Delete Topology Backbone Dynamic Folders 11 11 New area		Info • 🕥 Reset 4	Unload + Im Print Object Function Heartbeat telegram External Temperature External Humidity	Description	Group Address	Length 1 bit C 2 bytes C 2 bytes C	C R 1 C C - W C - W	Search WTU T- VT-	Data Type enable temperatu humidity (Priority Low Low Low Low
Add Channels * X Delete Topology Backbone Dynamic Folders 11 New area E 11.1 New line	Download Downl	Info v 🔊 Reset 🤇	Vulload v Aprint Object Function Heartbeat telegram External Temperature External Humidity The bus time	Description	Group Address	Length 1 bit C 2 bytes C 2 bytes C 3 bytes C	C R 1 C C - W C - W C - W	Search W T U T - / T - / T - / T - / T -	Data Type enable temperatu humidity (time of day	Priority Low
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Add Channels ▼	Download Downl	Info V 🔊 Reset 4 Etemperature Etempidity Einput Status	Vinload	Description Slave sensor	Group Address	Length 1 bit C 2 bytes C 3 bytes C 1 bit C 1 bit C	C R 1 C C - W C - W C - W C - W C - W C - W	Search W T U T - V T - V T - V T - V T - V T -	Data Type enable temperatu humidity (time of day enable switch	Priority Low
Add Channels * X Delete Topology 8ackbone Dynamic Folders 11 New area 11 1.1 NeW line 11.1.1 M/D02.1 11.1.2 M/R4.10.1 11.1.3 M/SIS05.1	Lonic function Lonic function Download One of the second seco	Info • • Reset 4 temperature temperature tinput status status	Unload Diject Function Hearbeat telegram External Temperature External Humidity The bus time Led indicator(fnable/Disable) Slave status to bus Slave status to bus	Description slave sensor sensor2 status	Group Address	Length 1 bit C 2 bytes C 3 bytes C 1 bit C 1 bit C	C R N C W C - W C - W C - W C - W C - W C - W	Search W T U T - V T - V T - V T - V T - V T - V T -	Data Type enable temperatu humidity (time of day enable switch switch	Priority Low
Add Channels ▼	Download Downl	Info - Reset 4	Vulload v Arrint Object Function Heartbeat telegram External Temperature External Humidity The bus time Led indicator(Enable/Disable) Slave status to bus(Logic A) Slave status to bus(Logic (B))	Description Slave sensor sensor2 status	Group Address OF 0/0/12	Length 1 bit C 2 bytes C 3 bytes C 1 bit C 1 bit C 1 bit C 1 bit C	C R N C W C - W	Search W T U T - V T -	Data Type enable temperatu humidity (time of day enable switch switch	Priority Low
Topology • Add Channels • X Delete Dopology Backbone Dynamic Folders 11 New area 11 11 New ine 11 11.1 M/D02.1 11 11.12 M/R4.10.1 11 11.13 M/SIS05.1 11 11.14 M/SIS05.1 slave		Info * 🔊 Reset 4 temperature humidity input status status status status	✓ Unload ▼ → Print Object Function Heartbeat telegram External Temperature External Humidity The bus time Led indicator(Enable/Disable) Slave status to bus(Logic A) Slave status to bus(Logic B) Slave status to bus(Logic C)	Description Slave sensor sensor2 status	Group Address DF 0/0/12	Length 1 bit C 2 bytes C 3 bytes C 1 bit C 1 bit C 1 bit C 1 bit C 1 bit C	C R 1 C C - W C - W	Search T U V T - V T -	Data Type enable temperatu humidity (time of day enable switch switch switch	Priority Low

3.3 Light Control 1 (Fully-automatic)

Use movement and brightness as logic input. When the brightness in under preset value and has detection, then turn on light. If no detection after delay time, turn off the light.

1) Enable fully-automatic mode, set the delay time and object type.



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🕂 Add Channels 🔹 🗙 Delete 🚦	🖢 Download 🔹 🕜 Help 🥒 Highligi	ht Changes Default Parameters Grant Custome	r Access	
Topology Backbone •	11.1.3 M/SIS05.1 > Light control	1		
Il 11 New area	General	Operation mode	Fully-automatic Se	mi-automatic
 11.1 New line 11.1.1 M/D02.1 	Function status	-Follow-up time seconds	10	*
11.1.2 M/R4.10.1	Light control 1	-Follow-up time minutes	• if no detec	tion after 10s, turn off light
▷ 1 1.1.3 M/SIS05.1	Logic function A	-Follow-up time change uit object?	0 No. Var	÷
	Logic function B	Threshold value brightness	50	\$
	Logic function C	-Threshold value brightness via object?	No Yes	
	Logic function D	Use brightness shutdown?	No Yes	
	Logic function E	Short Presence(if Follow-up time>2min)	Disable Enable	
		Output		
		Output mode	Individual Parallel	
		-Object type	Ibit 1byte	
		-Value when detection	OFF-"0" ON-"1"	output control 1bit object
		-Value when non-detection time out	OFF-'0' ON-'1'	
		Safety time(seconds)	0	▲ ▼

2) Link the output of Light channel 1.

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Topology Backbone	▼ Nu	imb Name	Object Function	Description	Group Address	Length (C R	wт	: U	Data Type	Priority
Dynamic Folders	■‡ 1	General	Heartbeat telegram			1 bit C	-	- T	- 1	enable	Low
11 New area	1 2	Real-time humidity	External Humidity			2 bytes C	-	W T	- 1	humidity (Low
A E 111 Nourling	■2 13	Real time input	The bus time			3 bytes C	-	W T	- 1	time of day	Low
	■2 15	General	Led indicator(Enable/Disable)			1 bit C	R	W T	- 1	enable	Low
11.1.1 M/D02.1	2 6	Light channel 1 slave input	Movement status from bus			1 bit C	-	W T	- 1	switch	Low
11.1.2 M/R4.10.1	■2 27	Light channel 1 input	External switching telegram	External switch telegram	0/0/3	1 bit C	-	W T	- 1	switch	Low
11.1.3 M/SIS05.1	■ ‡ 31	Light channel 1 output	Switching	relay 2	1/0/2	1 bit C	R	- T	-	switch	Low
Topology -											^ 🖻
🖶 Add Channels 🔹 🗙 Dele	te 🛨 Down	Ioad 🔹 🌖 Info 🔹 幻 Reset 🧳 U	Inload 💌 🚔 Print					Searc	sh		
Topology Backbone	* Nu	imb Name	Object Function	Description	Group Address	Length C	R	νт	U	Data Type	Priority
Dynamic Folders	■‡ 10	Output A	Channel output	relay1	1/0/1	1 bit C	-	W -	Us	switch	Low
E 11 New area	■7 20	Output A	Scene(8bit)			1 byte C		- W	U		Low
	1 2 30	Output B	Channel output	relay 2	1/0/2	1 bit C	-	W -	Us	switch	Low
11.1 New line	■₹ 40	Output B	Scene(8bit)			1 byte C	-	W -	U		Low
11.1.1 M/D02.1	■2 50	Output C	Channel output	light		1 bit C	-	w -	Us	switch	Low
11.1.2 M/R4.10.1	■2 70	Output D	Channel output	ngne		1 bit C	-	- W	Us	switch	Low
1113 M/SIS051											

Result:

- a) Now is in fully-automatic mode, no matter has External switching telegram or not, the logic will start by auto. If has group address for External switching telegram: When receive External switching telegram '1', will turn on the light directly.
 When receive External switching telegram '0', will turn off the light directly.
- b) When the brightness is less than 50 and has movement, then turn on the light.
- c) When no movement after 10s, turn off the light.

3.4 Light Control 1 (Semi-automatic)

Use movement and button as logic input. When press the button, will turn on the light,

if no detection for preset time or the brightness are in preset value for a time, will turn off the light.



1) Enable fully-automatic mode, set the delay time and object type.

Topology -				^ d 🔀				
🕂 Add Channels 🔹 🗙 Delete 🚦	🖢 Download 🔹 🕜 Help 🌛 Highlight	Changes Default Parameters Grant Custome	r Access					
Topology Backbone •	11.1.3 M/SIS05.1 > Light control 1							
▶ ■ Dynamic Folders ↓ 11 New area ↓ 11.1 New line ▶ ■ 11.1.1 M/D02.1 ▶ ■ 11.1.2 M/R4.10.1 ▶ ■ 11.3.2 M/R6.10.1	General	Operation mode	Fully-automatic Semi-automatic	A				
	Function status	-Follow-up time seconds	0	if we detection for this time, will turn off light				
	Light control 1	-Follow-up time minutes	2					
■ 11.14 M/PT4RA1	Logic function A	-Follow-up time change via object?	No Yes	×				
	Logic function B	Threshold value brightness	50	*				
	Logic function C	-Threshold value brightness via object?	No Yes					
	Logic function D	Use brightness shutdown?	No O Yes					
	Logic function E	-Calculate delay time(150minutes)	1	if brightness from dark to this vaule, and over				
		-Threshold value brightness	400					
		Short Presence(if Follow-up time>2min)	Disable Enable					
		Output						
		Output mode	Individual Parallel					
		-Object type	Ibit 1byte					
		-Value when detection	OFF-"0" ON-"1"					
		-Value when non-detection time out	OFF-*0* ON-*1*					
		Safety time(seconds)	0	•				
		Lock		J. J				

2) Link the group address for sensor/relay/button.

Topology 👻							^ 🗗 🗡
🕂 Add Channels 🔹 🗙 Delete	🛨 Downl	oad 💌 🚯 Info 🔹 💋 Reset 🧳 U	Inload 🔹 🚔 Print			Search	Q
III Topology Backbone	* Nu	mb Name	Object Function	Description	Group Address	Length C R W T U Data Type Priority	
Dynamic Folders	1	General	Heartbeat telegram			1 bit C T - enable Low	
11 New area	1 2	Real-time humidity	External Humidity			2 bytes C - W T - humidity (Low	
	1 3	Real time input	The bus time	sensor		3 bytes ⊂ - W T - time of day Low	
A E 11.1 New line	■‡ 15	General	Led indicator(Enable/Disable)			1 bit C R W T - enable Low	
11.1.1 M/D02.1	17	Function status	Brightness(Lux) value			2 bytes C R - T - Iux (Lux) Low	
11.1.2 M/R4.10.1	1	Light channel 1 slave input	Movement status from bus			1 bit C - W T - switch Low	
11.1.3 M/SIS05.1	27	Light channel 1 input	External switching telegram	External switch telegrar	m 0/0/3	1 bit C - W T - switch Low	
11.1.4 M/PT4RA.1	2 31	Light channel 1 output	Switching	relay 2	1/0/2	1 bit C R - T - switch Low	
Topology *	_						
🕂 Add Channels 🔹 X Delete	🛨 Downl	oad 🔹 🌖 Info 🔹 🛃 Reset 🧳 U	Inload 💌 🚔 Print			Search	م م
Topology Backbone	* Nu	mb Name	Object Function	Description	Group Address	Length C R W T U Data Type Priority	
Dynamic Folders	1 0	Output A	Channel output	relay1	1/0/1	1 bit C - W - U switch Low	
1 P 11 New area	■2 20	Output A	Scene(8bit)			1 byte C - W - U Low	
	2 30	Output B	Channel output	relay 2	1/0/2	1 bit C - W - U switch Low	
A E 11.1 New line	■7 40	Output B	Scene(8bit)			1 byte C - W - U Low	
11.1.1 M/D02.1	2 50	Output C	Channel output	rolay		1 bit C - W - U switch Low	
11.1.2 M/R4.10.1	■2 70	Output D	Channel output	relay		1 bit C - W - U switch Low	
11.1.3 M/SIS05.1							
11.1.4 M/PT4RA.1							
Topology -							∧ ¤ ×
🕂 Add Channels 🔹 🗙 Delete	🛨 Downl	oad 🔹 🊯 Info 🔹 💋 Reset 🧳 U	nload 👻 🚔 Print			Search	م ا
Topology Backbone	* Nu	mb Name	Object Function	Description	Group Address	Length C R W T U Data Type Priority	
Dynamic Folders	1 2 81	Rocker A short	Switching	External switch telegram	n 0/0/3	1 bit C - W T U switch Low	
4 👯 11 New area	1	Rocker A long	Switching			1 bit C - W T U switch Low	
A E 11 1 New Fee	111	Rocker B short	Switching			1 bit C - W T U switch Low	
- E namewille	2 112	Rocker B long	Switching	button		1 bit C - W T U switch Low	
▶ ∎ 11.1.1 M/D02.1	1 41	Rocker C short	Switching	button		1 bit C - W T U switch Low	
11.1.2 M/R4.10.1	142	Rocker C long	Switching			1 bit C - W T U switch Low	
11.1.3 M/SIS05.1	2 171	Rocker D short	Switching			1 bit C - W T U switch Low	
ି 📘 11.1.4 M/PT4RA.1	172	Rocker D long	Switching			1 bit C - W T U switch Low	

Result:

1: When press the button, the light will turn on.

2: If no detection for 2minutes, will turn off the light. OR the brightness from dark to

400lux and over 400lux for 1minute, will turn off the light.