APPLICATION PROGRAM INFORMATION

Microwave Sensor

M/WS05.1

KNX/EIB-BUS

Document Version: 1.0, Date: _____

This document describes the M/WS05.1-functions with the KNX-product-application:_____

This product is specified in its Technical Product Information V1.0, date_____

Compiled by (english name):_____

HDL-Position:_____

Location:_____Date:_____ Signature:_____

Approved by (english name):_____

HDL-Position:_____

Location:_____Date:_____ Signature:_____

Document History			
Version	Date	Comments	Author (english name)
1.0	7/7/2015	First issue	Jie

A. General description
B. Function overview flowchart
C. Function description
D. Communication objects

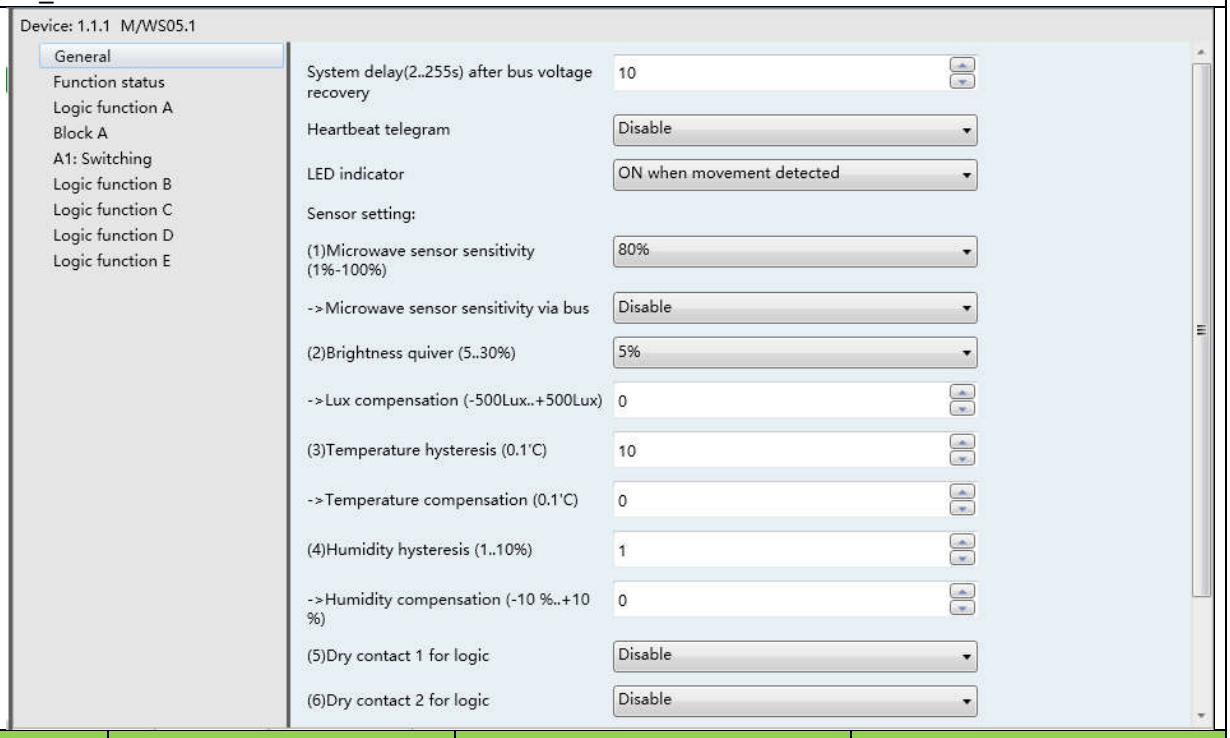
A.

The Microwave Sensor is used to operate building functions. This manual contains the programming of this device.

B.

C.

1.0_General



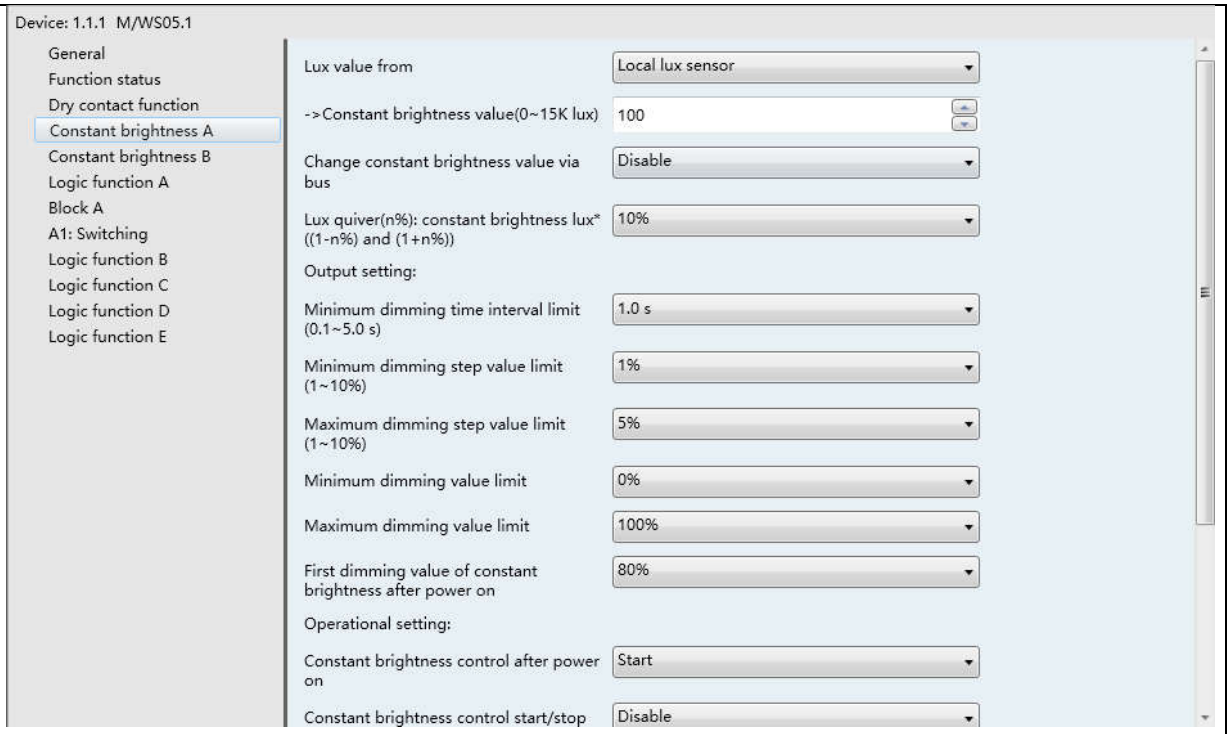
No.	ETS-Parameter	Range (default)	Description
1	System delay(2...255s) after bus voltage recovery	(2)...255S	*Set the delay time for the device after power on, the range is 2~255s*
2	Heartbeat telegram	(Disable) Send value '0' cyclically Send value '1' cyclically Send value '0/1' inverted cyclically	*If the value is set '0', send '0', the device will send telegram cyclically; If the value is set '1',send '1', the device will send telegram cyclically; If the value is set '0/1',the device will send telegram(alternately between 0 and 1)cyclically. If set disable, the heart telegram is invalid.*
3	Telegram is sent time interval(1..65535s)	(1)...65535s	*Set the parameter, the device will send the telegram cyclically after time out.*
4	LED indicator	-Always is OFF -ON when movement detected -ON when received '1', else OFF -ON when received '0', else OFF -ON when logic A is disable, else OFF -ON when logic A is enable, else OFF	*Set the parameter for LED indicator*

		-ON when logic B is disable, else OFF -ON when logic B is enable, else OFF -ON when logic C is disable, else OFF -ON when logic C is enable, else OFF -ON when logic D is disable, else OFF -ON when logic D is enable, else OFF -ON when logic E is disable, else OFF -ON when logic E is enable, else OFF	
5	(1)Microwave sensor sensitivity (1%-100%)	1…(80)…100	*Set the parameter for microwave sensor sensitivity*
6	-> Microwave sensor sensitivity via bus	-Enable -(Disable)	*Enable/disable for microwave sensor sensitivity via bus*
7	(2) Brightness quiver (5…30%)	-(5%) -10% -15% -20% -25% -30%	*Set the parameter for brightness quiver*
8	->Lux compensation (-500Lux…+500Lux)	-500…(0)…+500	*Set the parameter for lux compensation*
9	(3)Temperature hysteresis(0.1'C)	1…(10)…50	*Set the parameter for temperature hysteresis*
10	->Temperature compensation 0.1'C	-100…(0)…100	*Set the parameter for temperature compensation*
11	(4)Humidity hysteresis (1…10%)	(1)…10	*Set the parameter for humidity hysteresis*
12	-> Humidity compensation (-10%...+10%)	-10…(0)…10	*Set the parameter for humidity compensation*
13	(5)Dry contact 1 for logic	-(Disable) -Mechanical switch -Electronic switch	*Set the parameter for dry contact 1 for logic*
Mechanical switch			
14	-> Status when closing the contact	-Unchanged -Toggle -(Constant to True ('1')) -Constant to False ('0')	*Set the parameter for status when closing the contact* *Unchanged: when closing the contact, the status will be unchanged* *Toggle: when closing the contact, status will be toggle between true and false* *Constant to True(1): when closing the contact, the*

			status will be constant to true *Constant to False: when closing the contact, the status will be constant to false*
15	-> Status when opening the contact	-Unchanged -Toggle -Constant to True (‘1’) -(Constant to False (‘0’))	*Set the parameter for status when opening the contact* *Set the parameter for status when opening the contact* *Unchanged: when opening the contact, the status will be unchanged* *Toggle: when opening the contact, status will be toggle between true and false* *Constant to True(1): when opening the contact, the status will be constant to true* *Constant to False: when opening the contact, the status will be constant to false*
Electronic switch			
16	->Button value when voltage recovery	-(Last value) -Value is True (‘1’) -Value is False(‘0’)	*Set the parameter for button value when voltage recovery*
17	Status when short button operation	-Invalid -(Toggle) -Constant to True (‘1’) -Constant to False (‘0’)	*Set the parameter for status when short button operation* *Unchanged: when short press the button, the status will be unchanged* *Toggle: when short press the button, status will be toggle between true and false* *Constant to True(1): when short press the button, the status will be constant to true* *Constant to False: when short press the button, the status will be constant to false*
18	Status when long button operation	-(Invalid) -Toggle -Constant to True (‘1’) -Constant to False (‘0’)	*Set the parameter for status when long button operation* *Unchanged: when long press the button, the status will be unchanged* *Toggle: when long press the button, status will be toggle*

			between true and false *Constant to True(1): when long press the button, the status will be constant to true* *Constant to False:when long press the button, the status will be constant to false*
19	-->>Long button time after 0.1s(0.2s~20S)	0.2…(10)…20	*Set the parameter for long button time after 0.1s*
20	(6)Dry contact 2 for logic	-(Disable) -Mechanical switch -Electronic switch	*Set the parameter for dry contact 2 for logic*
Mechanical switch			
21	-> Status when closing the contact	-Unchanged -Toggle -(Constant to True (‘1’)) -Constant to False (‘0’)	*Set the parameter for status when closing the contact* *Unchanged: when closing the contact, the status will be unchanged* *Toggle: when closing the contact, status will be toggle between true and false* *Constant to True(1): when closing the contact, the status will be constant to true* *Constant to False: when closing the contact, the status will be constant to false*
22	-> Status when opening the contact	-Unchanged -Toggle -Constant to True (‘1’) -(Constant to False (‘0’))	*Set the parameter for status when opening the contact* *Set the parameter for status when opening the contact* *Unchanged: when opening the contact, the status will be unchanged* *Toggle: when opening the contact, status will be toggle between true and false* *Constant to True(1): when opening the contact, the status will be constant to true* *Constant to False: when opening the contact, the status will be constant to false*
Electronic switch			
23	->Button value when voltage recovery	-(Last value) -Value is True (‘1’)	*Set the parameter for button value when voltage recovery*

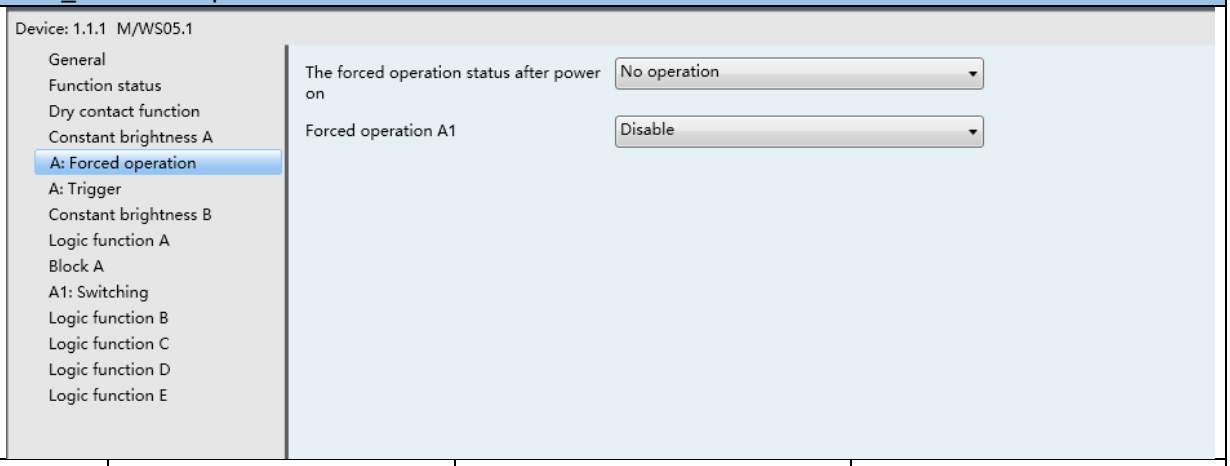
		-Value is False('0')	
24	Status when short button operation	-Invalid -(Toggle) -Constant to True ('1') -Constant to False ('0')	*Set the parameter for status when short button operation* *Unchanged: when short press the button, the status will be unchanged* *Toggle: when short press the button, status will be toggle between true and false* *Constant to True(1): when short press the button, the status will be constant to true* *Constant to False: when short press the button, the status will be constant to false*
25	Status when long button operation	-(Invalid) -Toggle -Constant to True ('1') -Constant to False ('0')	*Set the parameter for status when long button operation* *Unchanged: when long press the button, the status will be unchanged* *Toggle: when long press the button, status will be toggle between true and false* *Constant to True(1): when long press the button, the status will be constant to true* *Constant to False:when long press the button, the status will be constant to false*
26	-->>Long button time after 0.1s(0.2s~20S)	0.2…(10)…20	*Set the parameter for long button time after 0.1s*
27	Extend dry contact function	-Enable -(Disable)	*Enable/disable for extend dry contact function*
28	Constant brightness function A	-Enable -(Disable)	*Enable/disable for constant brightness function A*
29	Constant brightness function B	-Enable -(Disable)	*Enable/disable for constant brightness function B*
1.1_Constant brightness A (Constant brightness A's setting is same as B, here, take A as an example)			



30	Lux value from	-(Local lux sensor) -External lux telegram	*Set the parameter for lux value* *Local lux sensor: the lux value is depend on the local lux sensor* *External lux telegram: the lux value is depend on the external lux telegram*
31	-> Constant brightness value (0-15K lux)	0…(100)…1500	*Set the value for constant brightness*
32	Change constant brightness value via bus	-Enable -(Disable)	*Enable/disable for changing constant brightness value*
33	Lux quiver(n%): constant brightness lux (1-n%) and (1+n%)	-5% -(10%) -15% -20% -25% -30%	*Set the value for lux quiver*
34	Minimum dimming time interval limit (0.1~5.0s)	0.1…(1)…5.0s	*Set the dimming time for interval limit*
35	Minimum dimming step value limit (1~10%)	(1)…10	*Set the value for minimum dimming step value limit*
36	Maximum dimming step value limit (1~10%)	1…(5)…100	*Set the value for maximum dimming step value limit*
37	Minimum dimming value limit	(0)…100%	*Set the value for minimum dimming*
38	Maximum dimming value limit	0…(100)	*Set the value for maximum dimming*
39	First dimming value of constant brightness after	0…(80)…100 Last dimming value	*Set the first dimming value for constant brightness*

	power on		*when power on*
40	Constant brightness control after power on	-Stop -(Start) -Recovery	*Set the parameter for constant brightness control when power on*
41	Constant brightness control start/stop via bus	-Enable('1'-Start/ '0'-Stop) -Enable ('1'-Start/ '0'-Stop) -(Disable)	*Set the parameter for constant brightness control* *Enable('1'-Start/ '0'-Stop): if receive the telegram value '1', the constant brightness will be started, if receive the telegram value '0', the constant brightness will be stopped* *Enable('1'-Start/ '1'-Stop): if receive the telegram value '1' or '0', the constant brightness will be started*
42	Output dimming value after constant brightness control stopped	-0…100% -(Unchanged)	*Set the parameter for output dimming value when constant brightness control stopped*
43	Forced operation	-Enable -(Disable)	*Enable/disable for forced operation*
44	Trigger	-Enable -(Disable)	*Enable/disable for trigger*
45	Dimming speed (for PI)	-Defined -Lowest(Ki=1%,Kp=1%) -Lower (Ki=5%, Kp=5%) -Low (Ki=10%, Kp=10%) -Middle (Ki=15%, Kp=15%) -Fast (Ki=30%, Kp=30%) -Faster (Ki=60%, Kp=60%) -Fastest (Ki=100%, Kp=100%)	*Set the parameter for dimming speed (for PI)*
46	-> Constant brightness Kp (for PI)	1…(15)…100	*Set the parameter for constant brightness Kp*
47	-> Constant brightness Ki (for PI)	1…(15)…100	*Set the parameter for constant brightness Ki*

1.1.1_A: Forced operation



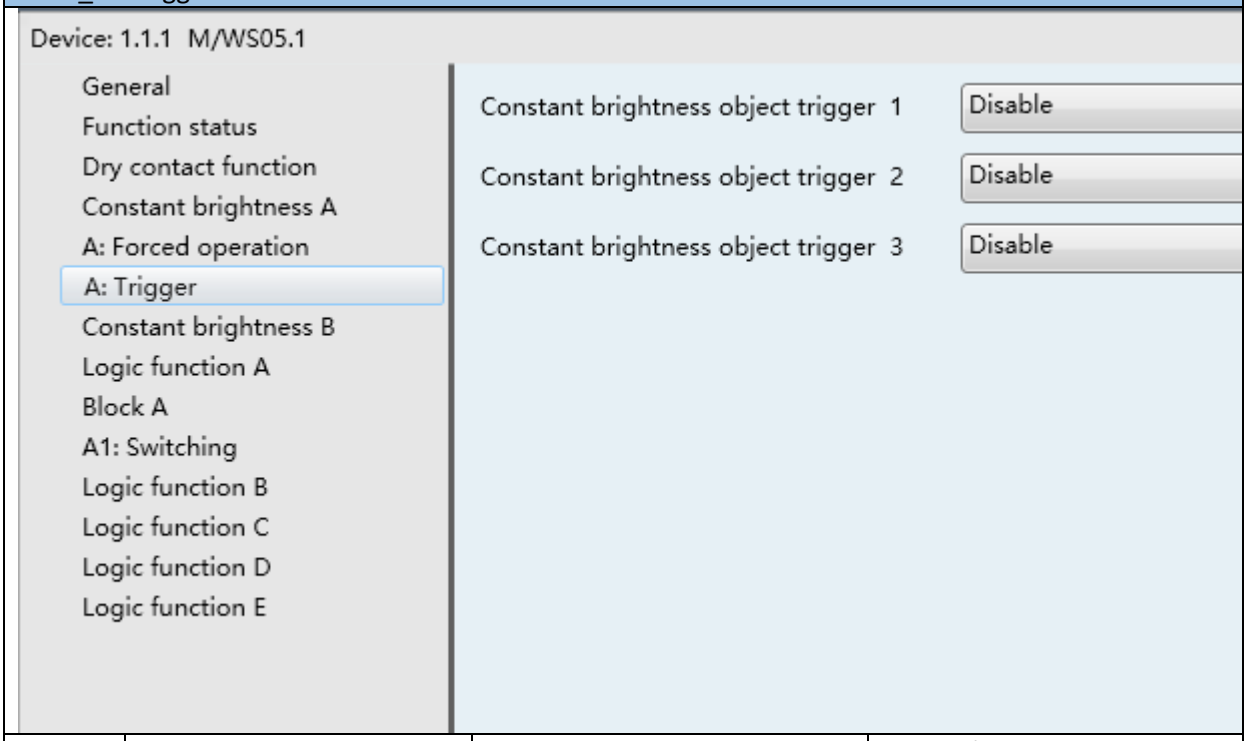
48	The forced operation	-No operation	*Set the parameter for forced*

	status after power on	-Last forced operation -To forced operation A1 -To forced operation A2 -To forced operation A3 -To forced operation A4	*operation*
49	-> Forced operation start/ stop (stop: back to constant brightness output)	-(‘1’- Start, ‘0’-Stop) -‘0’-Start, ‘1’-Stop - ‘1/0’- Start - ‘1/0’- Stop	*Set the parameter for forced operation* *‘1’-Start, ‘0’- Stop: if receive telegram value ‘1’, will start, if receive telegram value ‘0’, will stop: back to constant brightness output* *‘0’-Start, ‘1’- Stop: if receive telegram value ‘0’, will start, if receive telegram value ‘1’, will stop: back to constant brightness output* *‘1/0’-Start: if receive telegram value ‘1’ or ‘0’, will start* *‘1/0’-Stop: if receive telegram value ‘1’ or ‘0’, will stop: back to constant brightness output*
50	->Forced operation dimming value	(0)…100	*Set the dimming value for forced operation*
51	-> Change forced dimming value via bus	-Enable -(Disable)	*Enable/disable for changing forced dimming value via bus*
52	Forced operation A2	-Enable -(Disable)	*Enable/disable for forced operation A2*
53	->Forced operation start/stop (stop: back to constant brightness output)	-(‘1’- Start, ‘0’-Stop) -‘0’-Start, ‘1’-Stop - ‘1/0’- Start - ‘1/0’- Stop	*Set the parameter for forced operation* *‘1’-Start, ‘0’- Stop: if receive telegram value ‘1’, will start, if receive telegram value ‘0’, will stop: back to constant brightness output* *‘0’-Start, ‘1’- Stop: if receive telegram value ‘0’, will start, if receive telegram value ‘1’, will stop: back to constant brightness output* *‘1/0’-Start: if receive telegram value ‘1’ or ‘0’, will start* *‘1/0’-Stop: if receive telegram value ‘1’ or ‘0’, will stop: back to constant brightness output*
54	->Forced operation	0…(100%)	*Set the dimming value for*

	dimming value		*forced operation*
55	-> Change forced dimming value via bus	-Enable -(Disable)	*Enable/disable for changing forced dimming value via bus*
56	Forced operation A3	-Enable -(Disable)	*Enable/disable for forced operation A3*
57	->Forced operation start/stop (stop: back to constant brightness output)	-(‘1’- Start, ‘0’-Stop) -‘0’-Start, ‘1’-Stop - ‘1/0’- Start - ‘1/0’- Stop	*Set the parameter for forced operation* *‘1’-Start, ‘0’- Stop: if receive telegram value ‘1’, will start, if receive telegram value ‘0’, will stop: back to constant brightness output* *‘0’-Start, ‘1’- Stop: if receive telegram value ‘0’, will start, if receive telegram value ‘1’, will stop: back to constant brightness output* *‘1/0’-Start: if receive telegram value ‘1’ or ‘0’, will start* *‘1/0’-Stop: if receive telegram value ‘1’ or ‘0’, will stop: back to constant brightness output*
58	->Forced operation dimming value	0…(80)…100%	*Set the dimming value for forced operation*
59	-> Change forced dimming value via bus	-Enable -(Disable)	*Enable/disable for changing forced dimming value via bus*
60	->Forced operation start/stop (stop: back to constant brightness output)	-(‘1’- Start, ‘0’-Stop) -‘0’-Start, ‘1’-Stop - ‘1/0’- Start - ‘1/0’- Stop	*Set the parameter for forced operation* *‘1’-Start, ‘0’- Stop: if receive telegram value ‘1’, will start, if receive telegram value ‘0’, will stop: back to constant brightness output* *‘0’-Start, ‘1’- Stop: if receive telegram value ‘0’, will start, if receive telegram value ‘1’, will stop: back to constant brightness output* *‘1/0’-Start: if receive telegram value ‘1’ or ‘0’, will start* *‘1/0’-Stop: if receive telegram value ‘1’ or ‘0’, will stop: back to constant brightness output*
61	->Forced operation dimming value	0…(50)…100	*Set the dimming value for forced operation*

62	-> Change forced dimming value via bus	-Enable -(Disable)	*Enable/disable for changing forced dimming value via bus*

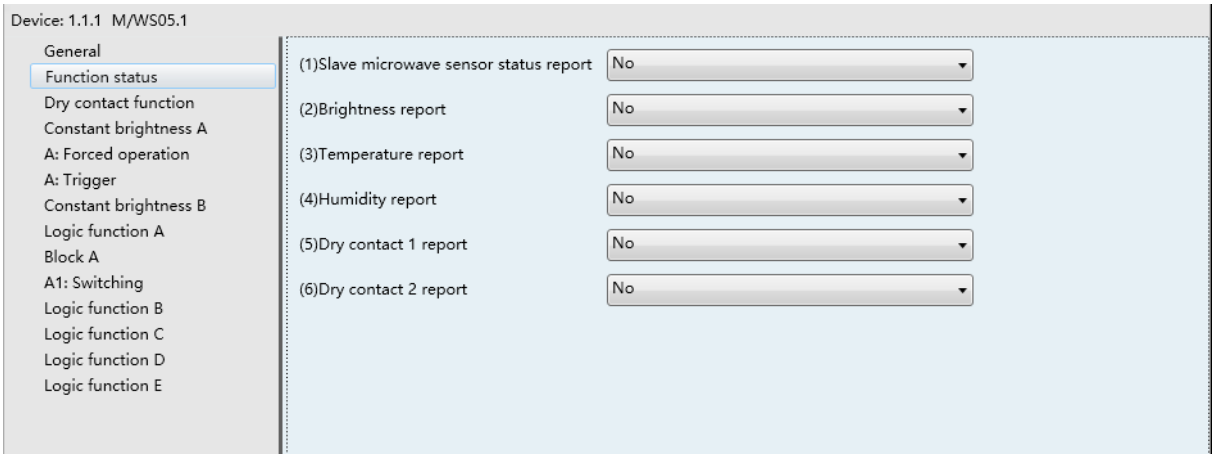
1.1.2_ A: Trigger



63	Constant brightness object trigger 1	-Enable -(Disable)	*Enable/disable for constant brightness object trigger1*
64	Object value ‘0’ trigger	-(Enable) -Disable	*Enable/disable for object value ‘0’ trigger*
65	-> Constant brightness value	-(To new lux) -To the lux before triggered	*Set the parameter for constant brightness value*
66	->> New lux (0~15K lux)	(0)…15000	*Set the value for new lux*
67	Object value ‘1’ trigger	-(Enable) -Disable	*Enable/disable for object value ‘0’ trigger*
68	-> Constant brightness value	-(To new lux) -To the lux before triggered	*Set the parameter for constant brightness value*
69	->> New lux (0~15K lux)	0…(40)…15000	*Set the value for new lux*
70	Constant brightness object trigger 2	-Enable -(Disable)	*Enable/disable for constant brightness object trigger 2*
71	Object value ‘0’ trigger	-(Enable) -Disable	*Enable/disable for object value ‘0’ trigger*
72	-> Constant brightness value	-(To new lux) -To the lux before triggered	*Set the parameter for constant brightness value*
73	->> New lux (0~15K lux)	0…(60)…15000	*Set the value for new lux*
74	Object value ‘1’ trigger	-(Enable) -Disable	*Enable/disable for object value ‘0’ trigger*
75	-> Constant brightness value	-(To new lux) -To the lux before triggered	*Set the parameter for constant brightness value*
76	->> New lux (0~15K lux)	0…(90)…15000	*Set the value for new lux*
77	Constant brightness object trigger 3	-Enable -(Disable)	*Enable/disable for constant brightness object trigger 2*
78	Object value ‘0’ trigger	-(Enable)	*Enable/disable for object*

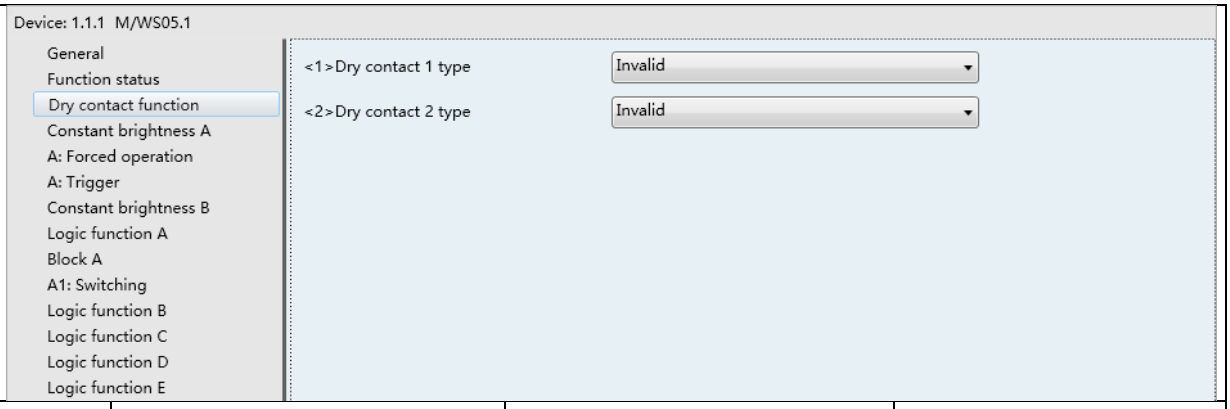
		-Disable	*value '0' trigger*
79	-> Constant brightness value	-(To new lux) -To the lux before triggered	*Set the parameter for constant brightness value*
80	->> New lux (0~15K lux)	0…(120)…15000	*Set the value for new lux*
81	Object value '1' trigger	-(Enable) -Disable	*Enable/disable for object value '0' trigger*
82	-> Constant brightness value	-(To new lux) -To the lux before triggered	*Set the parameter for constant brightness value*
83	->> New lux (0~15K lux)	0…(150)…15000	*Set the value for new lux*

2.0_Function status



No.	ETS-Parameter	Range (default)	Description
84	(1)Slave movement status	-Yes -(No)	*Enable/disable for slave movement status*
85	->Transmit telegram value when movement detected	-Slave value '0' -(Slave value '1')	*Set the parameter for transmit telegram value when movement detected*
86	(2)Brightness report	-Yes -(No)	*Enable/disable for brightness report*
87	->Lux report mode	-(Report when changed) -Report cyclic	*Set the parameter for lux report mode* *Report when changed: when the lux is changed, will report* *Report cyclic: the lux will report cyclically*
88	-> Differential value for report (1…200lux)	1…(20)…200	*Set the parameter for differential value for report*
89	->Minimum time interval (1…255s)	(1)…255	*Set the parameter for minimum time interval*
90	->Lux report cycle (1…255s)	1…(10)…255	*Set the time for lux report cycle*
91	(3)Temperature report	-Yes -(No)	*Enable/disable for temperature report*
92	->Temperature report mode	-(Report when changed) -Report cyclic	*Set the parameter for temperature report mode* *Report when changed:*

			when the temperature is changed, will report *Report cyclic: the temperature will report cyclically*
93	->Differential value for report 0.1'C	1…(10)…50	*Set the parameter for differential value for report*
94	->Temperature report cycle (1…255s)	1…(10)…255	*Set the parameter for temperature report cycle*
95	(4)Humidity report	-Yes -(No)	*Enable/disable for humidity report*
96	-> Humidity report mode	-(Report when changed) -Report cyclic	*Set the parameter for humidity report mode* *Report when changed: when the humidity is changed, will report* *Report cyclic: the humidity will report cyclically*
97	->Differential value for report (1..10%)	1…(3)…10	*Set the parameter for differential value for report*
98	->Humidity report cycle (1…255s)	1…(10)…255	*Set the parameter for humidity report cycle*
99	(5)Dry contact 1 report	-Yes -(No)	*Enable/disable for dry contact 1 report*
100	-> Dry contact 1 report mode	-(Contact action) -When status value changed -True -False -Contact action and periodically -When status value changed and periodically -True and periodically -False and periodically	*Set the parameter for dry contact 1 report mode*
101	->> Report cycle time(1…255s)	1…(10)…255	*Set the parameter for report cycle time*
102	(6)Dry contact 2 report	-Yes -(No)	*Enable/disable for dry contact 1 report*
103	-> Dry contact 1 report mode	-(Contact action) -When status value changed -True -False -Contact action and periodically -When status value changed and periodically -True and periodically -False and periodically	*Set the parameter for dry contact 1 report mode*
104	->> Report cycle time(1…255s)	1…(10)…255	*Set the parameter for report cycle time*
3.0_Dry contact function			

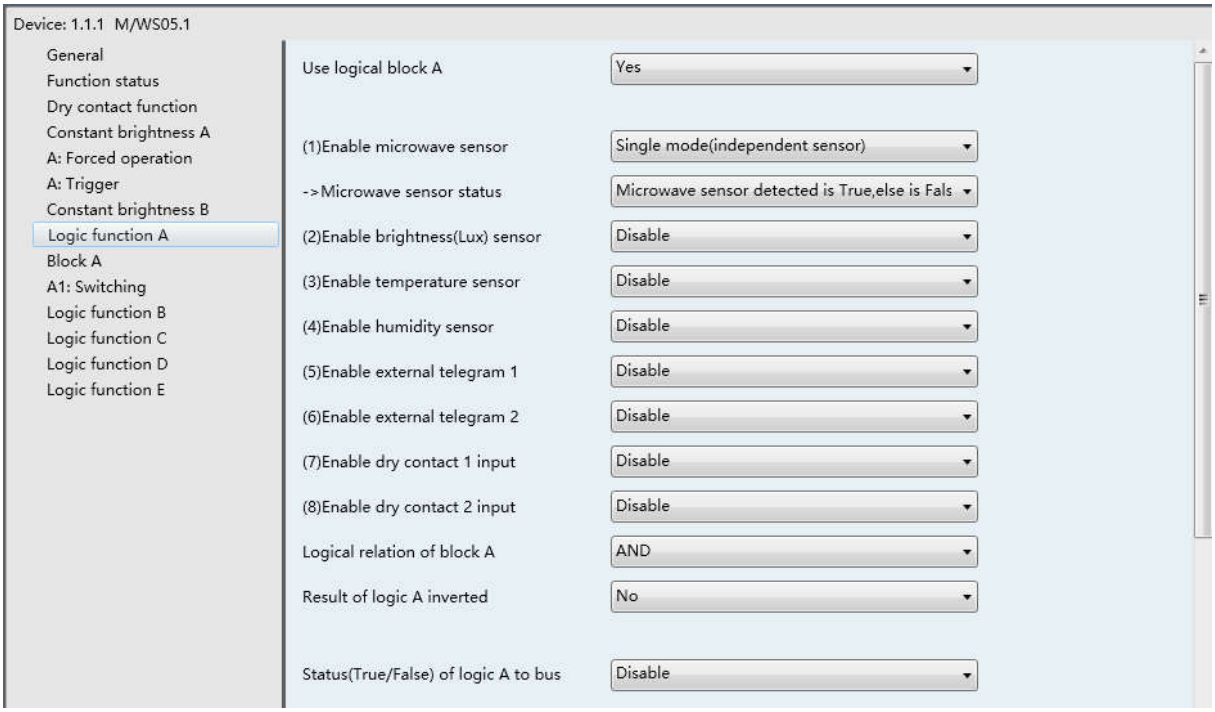


105	<1>Dry contact 1 type	-(Invalid) -Mechanical switch -Electronic switch -LED status display	*Set the parameter for dry contact 1 type*
Mechanical switch			
106	Dry contact operation function	-Switch controller -Dimming controller -(Scene controller) -Percentage controller	*Set the parameter for movement sensor*
107	Reaction on dry contact closing	-Invalid -Toggle -(ON) -OFF	*Set the parameter for reaction on dry contact closing*
108	->Delay for switch ON of closing	(0)…255	*Set the parameter for delay for switch ON for closing*
109	->Delay for switch OFF of closing	(0)…255	*Set the parameter for delay for switch OFF of closing*
110	Reaction on dry contact opening	-Invalid -Toggle -ON -(OFF)	*Set the parameter for reaction on dry contact opening*
111	->Delay for switch ON of closing	(0)…255	*Set the parameter for delay for switch ON for closing*
112	->Delay for switch OFF of closing	(0)…255	*Set the parameter for delay for switch OFF of closing*
113	Reaction on dry contact closing	(1)...255	*Set the parameter for reaction on dry contact closing*
114	Reaction on dry contact closing	-Invalid -Dim->Brighter -Dim->Darker -(Dim->Brighter/Darker) -Dim->Stop	*Set the parameter for reaction on dry contact closing*
115	->Delay operation for dry contact closing	(0)…255	*Set the parameter for delay operation for dry contact closing*
116	Reaction on dry contact opening	-Invalid -Dim->Brighter -Dim->Darker -Dim->Brighter/Darker -(Dim->Stop)	*Set the parameter for reaction on dry contact opening*
117	->Delay operation for dry contact opening	(0)…255	*Set the parameter for delay operation for dry contact*

			opening
118	Dimming steps	-(Step1(100%)) -Step 2 (50%) -Step3 (25%) -Step4 (12.5%) -Step5 (6.25%) -Step6 (3.13%) -Step7(1.65%)	*Set the parameter for dimming steps*
119	Dimming telegram repeat enabled (valid only when dimming up/down)	-Enable -(Disable)	*Enable/disable for dimming telegram repeat enabled*
120	->Dimming telegram repeat time 0.1s (0.2-20s)	0.2…(10)…20	*Set the parameter for dimming telegram repeat time*
121	->Dimming telegram repeat Number (1…255, 0-unlimited)	1…(10)…255	*Set the parameter for dimming telegram repeat Number*
122	Reaction on dry contact closing	-Invalid -Scene NO.01…(Scene NO04)…Scene NO.64	*Set the parameter for reaction on dry contact closing*
123	->Delay operation for dry contact closing	(0)…255	*Set the parameter for delay operation for dry contact closing*
124	Reaction on dry contact opening	-Invalid -Scene NO.01…(Scene NO07)…Scene NO.64	*Set the parameter for reaction on dry contact opening*
125	->Delay operation for dry contact opening	(0)…255	*Set the parameter for reaction on dry contact opening*
126	Reaction on dry contact closing	-Invalid 0% (0-OFF)…(100%(255))	*Set the parameter for reaction on dry contact closing*
127	->Delay operation for dry contact closing	(0)…255	*Set the parameter for delay operation for dry contact closing*
128	Reaction on dry contact opening	-Invalid (0% (0-OFF))…100%(255)	*Set the parameter for reaction on dry contact opening*
129	->Delay operation for dry contact opening	(0)…255	*Set the parameter for delay operation for dry contact opening*
130	<2>Dry contact 2 type	All setting is same as 1	All setting is same as 1

4.0_Logic function

4.1_Logic function A (Logic function B-E's setting is same as A, here take logic function A as an example)



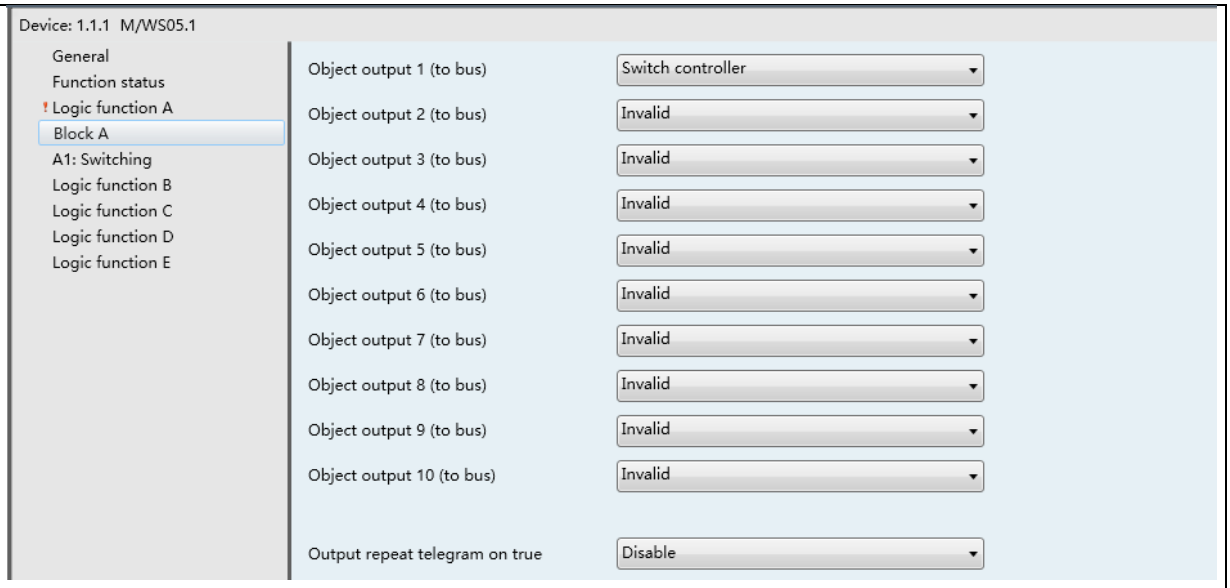
No.	ETS-Parameter	Range (default)	Description
131	Use logical block A	-(Yes) -No	*Enable/disable for using logical block A*
132	(1)Enable microwave sensor	-Disable -(Single mode(independent sensor)) -Master/slave mode (Master sensor)	*Set the parameter for enable microwave sensor*
133	->Microwave sensor status	-Microwave sensor detected is False, else is True (Microwave sensor detected is True, else is False)	*Set the parameter for microwave sensor status*
134	->Local microwave sensor status	-Microwave sensor detected is False, else is True -(Microwave sensor detected is True, else is False)	*Set the parameter for local microwave sensor status*
135	->Master is set to True when receive	-Slave value- '0' -(Slave value- '1')	*Set the parameter for master is set to True when receive*
136	Enable brightness(Lux) sensor	-Enable -(Disable)	*Enable/disable for enable brightness(Lux) sensor*
137	Enable brightness (Lux) threshold A	-(Enable) -Disable	*Enable/disable for enable brightness(lux) threshold A*
138	->Lux>=Threshold lower (0~15k lux)	0…(100)…15000	*Set the parameter for lux>=Threshold lower*
139	->Lux<=Threshold upper (0~15k lux)	0…(300)…15000	*Set the parameter for lux<=Threshold upper*
140	->Changed lux threshold value via bus	-Yes -(No)	*Enable/disable for changing lux threshold value via bus* *Yes: can change lux threshold*

			value via bus *No: cannot change lux threshold value via bus*
141	->Brightness(Lux) status	-(In range is True, else False) -Out range is True, else False -Under lower is True, above upper is False -Under lower is False, above upper is True	*Set the parameter for brightness(lux) status*
142	-->>The status after bus voltage recovery	-True -(False)	*Set the parameter for the status*
143	->Independent control <object output 8>	-Yes(separated from logic and output) -(No)	*Enable/disable for independent control <object output 8>*
144	-->>Enable/disable independent control via bus	-Yes -(No)	*Yes: Enable independent control via bus* *No: Disable independent control via bus*
145	-->>Operation mode	-('1'-Enable, '0'-Disable) - '0'-Enable, 1'-Disable -'1/0'-Disable -'1/0'-Enable -'1'-Enable, '0'-Invalid -'0'-Enable, '1'-Invalid -'1'-Disable, '0'-Invalid -'0'-Disable, '1'-Invalid	*Set the parameter for operation mode*
146	-->><Object output 8> status when independent control disabled	-Unchanged -True -False -True and immediately output -(False and immediately output)	*Set the parameter for< object output8>status*
147	(3)Enable temperature sensor	-Enable -(Disable)	*Enable/disable for temperature sensor*
148	->Temperature>=Threshold lower (0.1'C)	-300…(220)…700	*Set the parameter for temperature>=Threshold lower(0.1'C)*
149	->Temperature<=Threshold upper (0.1'C)	-300…(260)…700	*Set the parameter for temperature<=Threshold upper(0.1'C)*
150	->changed temperature threshold value via bus	-Yes -(No)	*Enable/disable for changing temperature threshold value via bus* *Yes: can change temperature threshold value via bus* *No: cannot change temperature threshold value via bus*
151	->Temperature status	-(In range is True, else False) -Out range is True, else False -Under lower is True, above upper is False -Under lower is False, above upper is True	*Set the parameter for temperature status*
152	-->>The status after bus voltage recovery	-True -(False)	*True/False for the status after bus voltage recovery*
153	(4)Enable humidity sensor	-Enable	*Enable/disable for humidity*

		-(Disable)	*sensor*
154	->Humidity >=Threshold lower (20%...95%)	(20)…95	*Set the parameter for humidity>=Threshold lower*
155	->Humidity<=Threshold upper (20%...95%)	20…(60)…95	*Set the parameter for humidity<=Threshold upper*
156	->Changed humidity threshold value via bus	-Yes -(No)	*Enable/disable for changing humidity threshold value via bus* *Yes: can change humidity threshold value via bus* *No: cannot change humidity threshold value via bus*
157	->Humidity status	-(In range is True, else False) --Out range is True, else False -Under lower is True, above upper is False -Under lower is False, above upper is True	*Set the parameter for humidity status*
158	-->>The status after bus voltage recovery	-True -(False)	*True/false for the status after bus voltage recovery*
159	Enable external telegram 1	-(1 bit value (‘1’/’0’)) -1 byte threshold (0…255) -2 bytes threshold (0…65535) -2 bytes float threshold (-50’C…100’C) -4 bytes threshold (0…2147483647)	*Set the parameter for enable external telegram 1*
160	->Extern telegram status	-(‘1’ is True, ‘0’ is False) -‘0’ is True, ‘1’ is False	*Set the parameter for extern telegram status*
161	->Default status after bus voltage recovery	-(True) -False -Recovery	*Set the parameter for default status after voltage recovery*
162	->1byte threshold (0…255)	0…(100)…255	*Set the parameter for 1 byte threshold*
163	->Extern telegram status	-(True if REV value >= Threshold, else False) -True if REV value <= Threshold, else False	*Set the parameter for extern telegram status*
164	->2 byte threshold (0…65535)	0…(1000)…65535	*Set the parameter for 2 byte threshold*
165	->2 byte float threshold (0.1’C)	-500…(250)…1000	*Set the parameter for 2 byte Float threshold*
166	->4 byte threshold (0…2147483647)	0…(1000000)…2147483647	*Set the parameter for 4 byte threshold*
167	Enable external telegram 2	All setting is same as 1	*All setting is same as 1*
168	Enable dry contact 1 input	-Enable -(Disable)	*Enable/disable for dry contact 1 input*
169	->Dry contact 1 status	-(‘1’ is True, ‘0’ is False) -‘0’ is True, ‘1’ is False	*Set the parameter for dry contact 1 status*
170	Enable dry contact 2 input	All setting is same as 1	*All setting is same as 1*
171	Logical relation of block A	-(AND) -OR	*Set the parameter for logical relation of block A* *AND: All conditions should be satisfied* *OR: One condition is satisfied, the logic will trigger*

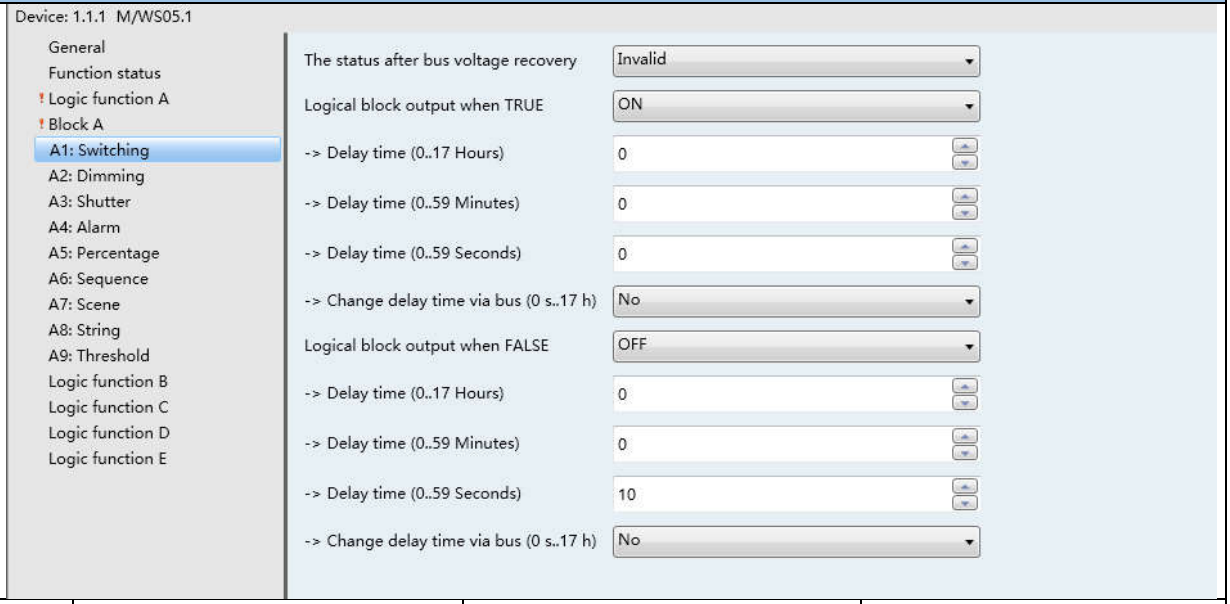
172	Result of logic A inverted	-Yes -(NO)	*Enable/disable for result of logical A inverted*
173	Status(True/False) of logic A to bus	-Enable -(Disable)	*Enable/disable for status (True/false) of logic A to bus*
174	->Send status when	-(Status changed) -Status is True -Status is False -Status changed and periodically -Status is True and periodically -Status is False and periodically	*Set the parameter for sending status* *Status changed: when the status is changed, will send* *Status is True: when the status is true, will send* *Status is false: when status is false, will send* *Status changed and periodically: if the status is changed, will send the status periodically* *Status is True and periodically: if the status is true, will send the status periodically* *Status is false, will send the status periodically*
175	->Cycle time(1…255s)	1…(10)…255	*Set the parameter for cycle time*
176	<1>Logical A function 'Enable/disable' status	-Yes -(No)	*Yes: use logical A function 'Enable/disable' status* *No: do not use logical A function 'Enable/disable' status*
177	->Telegram via bus	-(Enable) -Disable	*Enable/disable for telegram via bus*
178	-->>Operation mode	-('1'-Enable, '0'-Disbale) -'0'-Enable, '1'-Disable -'1/0'-Disable -'1/0'-Enable -'1'-Enable, '0'-Invalid -'0'-Enable, '1'-Invalid - '0'-Disable, '1'-Invalid -'1'-Disable, '0'-Invalid	*Set the parameter for operation mode*
179	->Dry contact 1	-Enable -(Disable)	*Enable/disable for dry contact 1*
180	Operation mode	-('1'-Enable, '0'-Disbale) -'0'-Enable, '1'-Disable -'1/0'-Disable -'1/0'-Enable -'1'-Enable, '0'-Invalid -'0'-Enable, '1'-Invalid - '0'-Disable, '1'-Invalid -'1'-Disable, '0'-Invalid	*Set the parameter for operation mode*
181	Logic A output status when logic function disabled	-Unchanged -True -False -True and immediately output -(False and immediately output)	*Set the parameter for logic A output status when logic function disabled* *Unchanged: when logic function disabled, logic A will output Unchanged status* *True: when logic function disabled, logic A will output*

			True status *False: when logic function disabled, logic A will output False status* *True and immediately output： when logic function disabled, logic A will output true status immediately* *False and immediately： when logic function disabled, logic A will output false status immediately*
182	->Logic A automatic enabled after logic function disabled	-Yes -(No)	*Enable/disable for logic A automatic enabled after logic function disabled*
183	-->> Delay time (0…17hours)	(0)…17	*Set the parameter for delay time*
184	-->>Delay time (0…59min)	(0)…59	*Set the parameter for delay time*
185	-->>Delay time (0…59sec)	0…(30)…59	*Set the parameter for delay time*
186	<2>Logical A function 'Enable/Disable' status control	All setting is same as <1>	*All setting is same as <1>*
187	Logic A output status when logic function enabled	-(True) -False -Current logic status	*True: when logic function enabled, logic A will output True status* *False: when logic function enabled, logic A will output False status* *Current logic status: when logic function enabled, logic A will output current logic status*
188	Feedback logic A function enable/disable status	-Yes -(No)	*Yes: will feedback logic A function 'enable/disable' status* *No: will not feedback logic A function 'enable/disable' status*
4.1.1_Block A			



189	Object output 1-10 (to bus)	-Invalid -(Switch controller) -Absolute dimming controller -Shutter controller -Alarm controller -Percentage controller -Sequence controller -Scene controller -String (14bytes) controller -Threshold controller	*Set the parameter for object output 1-10 to bus*
190	Output repeat telegram on true	-Enable -(Disable)	*Enable/disable for output repeat telegram on true*
191	->Repeat time interval (0…59min)	0…(2)…59	*Set the time for repeat time interval*
192	->Repeat time interval (0…59sec)	(0)…59	*Set the time for repeat time interval*

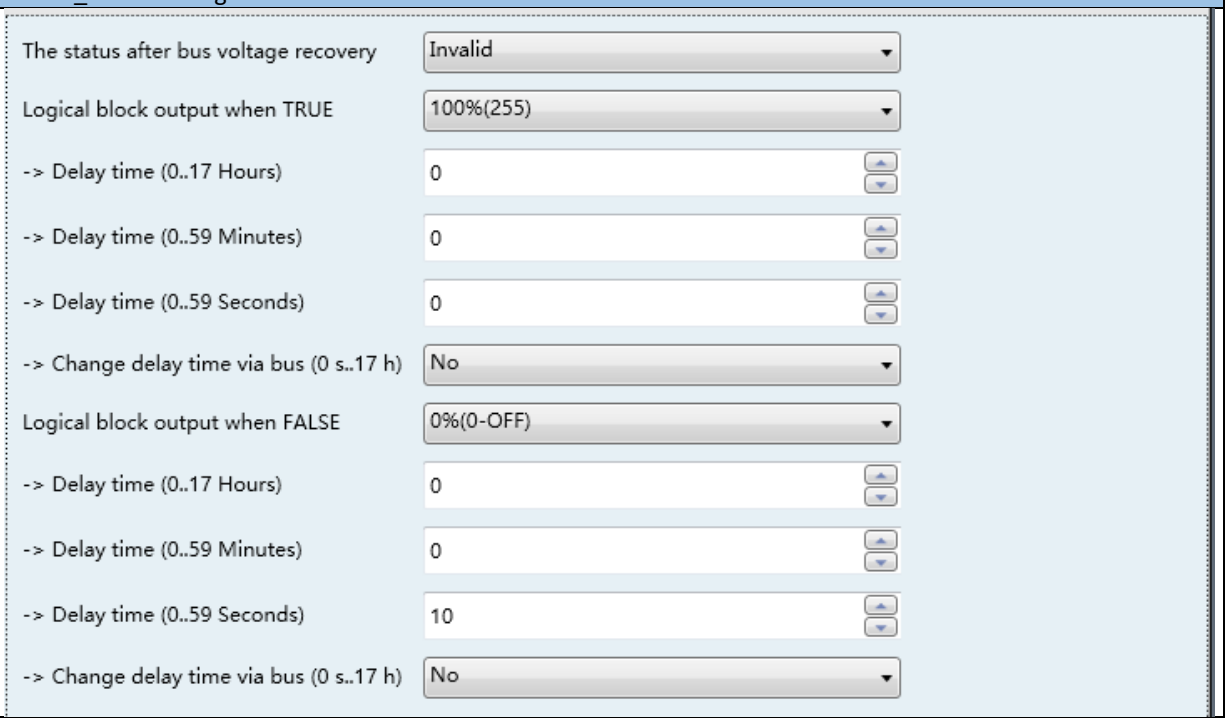
4.1.1.1_A1:Switching



193	The status after bus voltage recovery	-(Invalid) -On	*Set the parameter for the status after bus voltage*

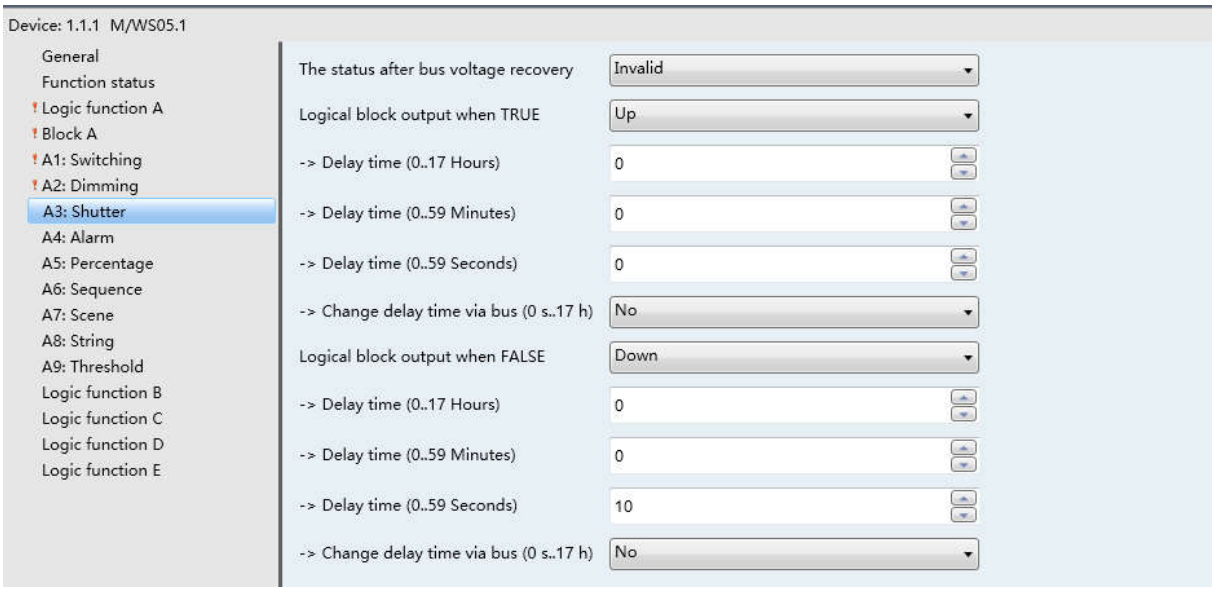
		-Off -Recovery	*recovery*
194	Logic block output when TRUE	-Invalid -OFF -(ON) -Toggle	*Set the parameter for logic block output when TRUE*
195	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
196	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
197	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
198	->Change delay time via bus (0s…17h)	-Yes -(No)	*Set the parameter for changing delay time via bus* *Yes: can change delay time via bus* *No: cannot change delay time via bus*
199	Logical block output when False	-Invalid -(OFF) -ON -Toggle	*Set the parameter for logic block output when False*
200	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
201	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
202	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*
203	->Change delay time via bus(0s…17h)	-Yes -(No)	*Set the parameter for changing delay time via bus* *Yes: can change delay time via bus* *No: cannot change delay time via bus*

4.1.1.2_A2: Dimming



204	The status after bus voltage recovery	-(Invalid) -Recovery -Defined dimming	*Set the parameter for the status after bus voltage recovery*
205	->Recovery defined dimming	-(0%(0-OFF))…100%(255)	*Set the parameter for recovery defined dimming*
206	Logical block output when TRUE	-Invalid -0…(100%)	*Set the parameter for logical block output when true*
207	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
208	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
209	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
210	->Change delay time via bus (0s..17h)	-Yes -(No)	*Enable/disable for changing delay time via bus* *Yes: can change delay time via bus* *No: cannot change delay time via bus*
211	Logic block output when False	-Invalid -(0)…100%	*Set the parameter for logic block output when False*
212	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
213	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
214	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*
215	->Change delay time via bus (0s..17h)	-Yes -(No)	*Enable/disable for changing delay time via bus* *Yes: can change delay time via bus* *No: cannot change delay time via bus*

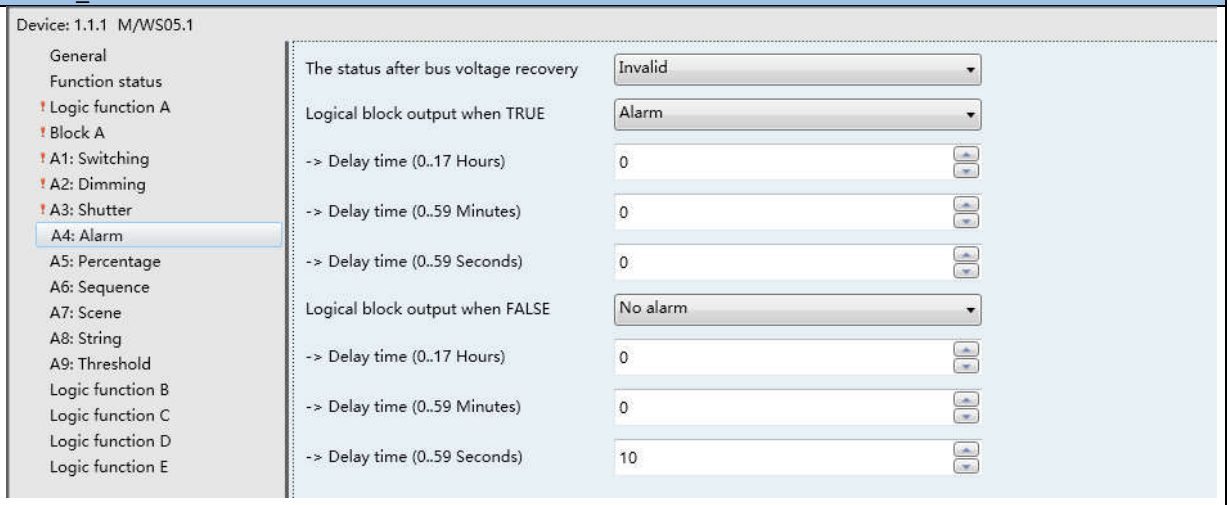
4.1.1.3_A3:Shutter



216	The status after bus voltage recovery	-(Invalid) -UP	*Set the parameter for the status after bus voltage*

		-Down -Recovery	*recovery*
217	Logical block output when TRUE	-Invalid -(Up) -Down -Toggle	*Set the parameter for logic block output when TRUE*
218	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
219	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
220	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
221	->Change delay time via bus (0s..17h)	-Yes -(No)	*Enable/disable for changing delay time via bus* *Yes: can change delay time via bus* *No: cannot change delay time via bus*
222	Logical block output when FALSE	-Invalid -(Up) -Down -Toggle	*Set the parameter for logical output when FALSE*
223	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
224	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
225	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*
226	->Change delay time via bus (0s..17h)	-Yes -(No)	*Enable/disable for changing delay time via bus* *Yes: can change delay time via bus* *No: cannot change delay time via bus*

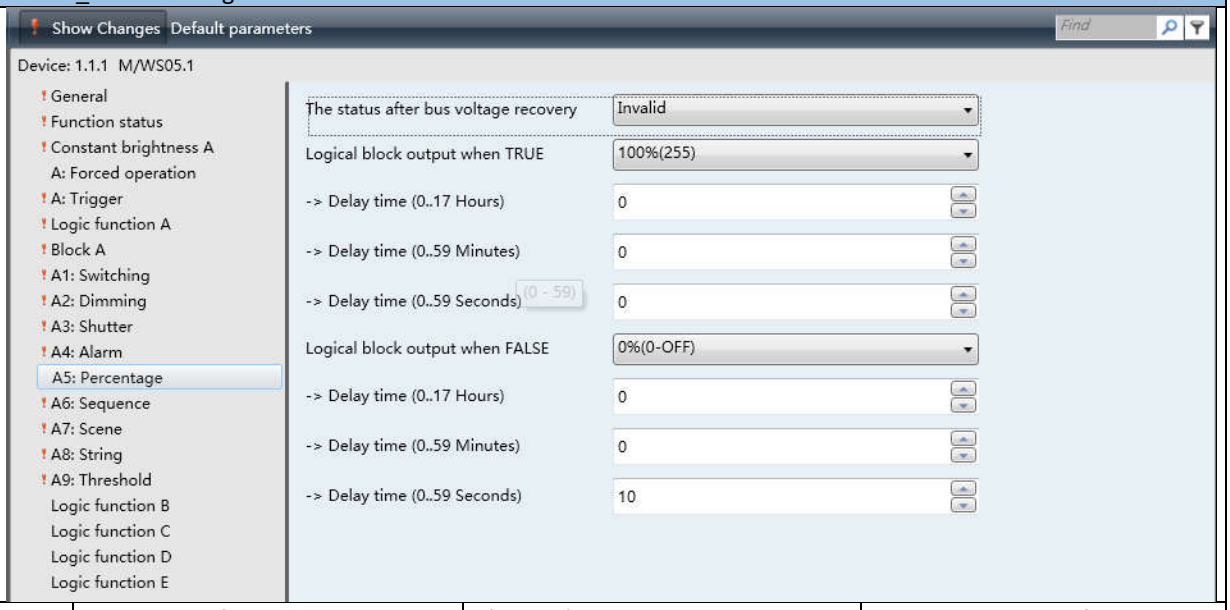
4.1.1.4_A4:Alarm



227	The status after bus voltage recovery	-(Invalid) -No alarm -Alarm -Recovery	*Set the parameter for the status after bus voltage recovery*
228	Logical block output when TRUE	-Invalid	*Set the parameter for logical*

		-(Alarm) -No alarm -Toggle	*block output when TRUE*
229	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
230	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
231	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
232	Logical block output when FALSE	-Invalid -Alarm -(No alarm) -Toggle	*Set the parameter for delay time*
233	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
234	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
235	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*

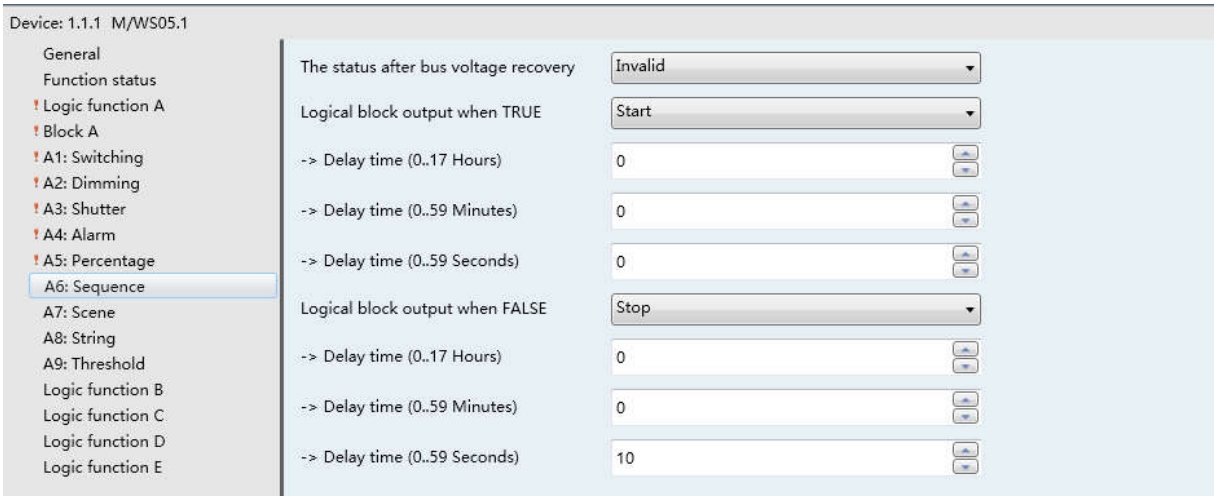
4.1.1.5_A5:Percentage



236	The status after bus voltage recovery	-(Invalid) -Recovery -Defined percentage	*Set the parameter for the status after bus voltage recovery*
237	->Recovery defined percentage	-(0%(0-OFF)…100(255)	*Set the parameter for recovery defined percentage*
238	Logical block output when TRUE	-Invalid -0%(0-OFF)…(100%(255))	*Set the parameter for logical block output when TRUE*
239	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
240	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
241	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
242	Logical block output when FALSE	-Invalid -(0%(0-OFF)…100(255)	*Set the parameter for logical block output when FALSE*
243	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
244	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay*

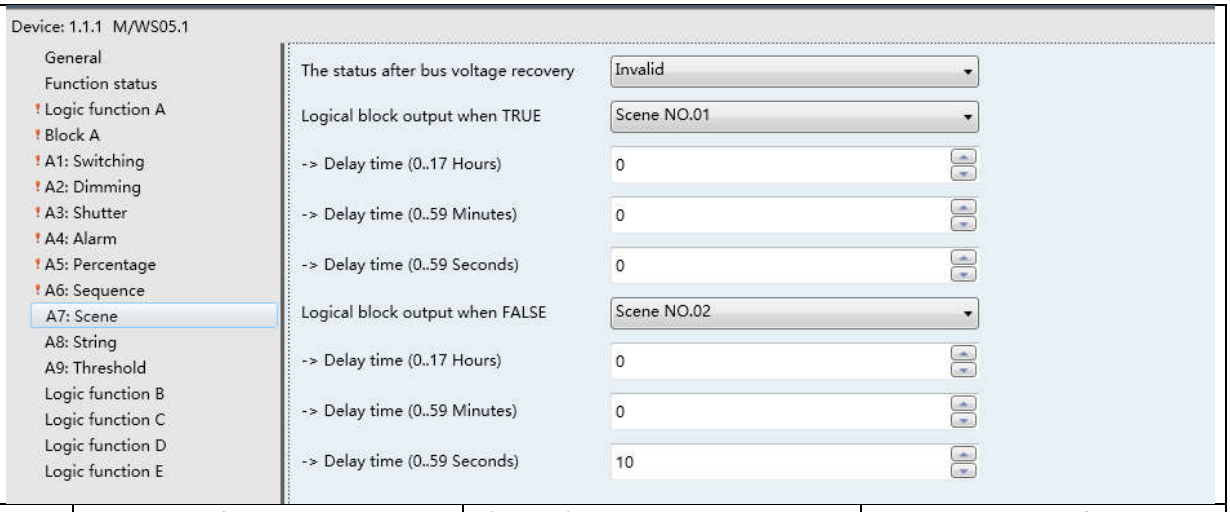
			time
245	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*

4.1.1.6_A6:Sequence



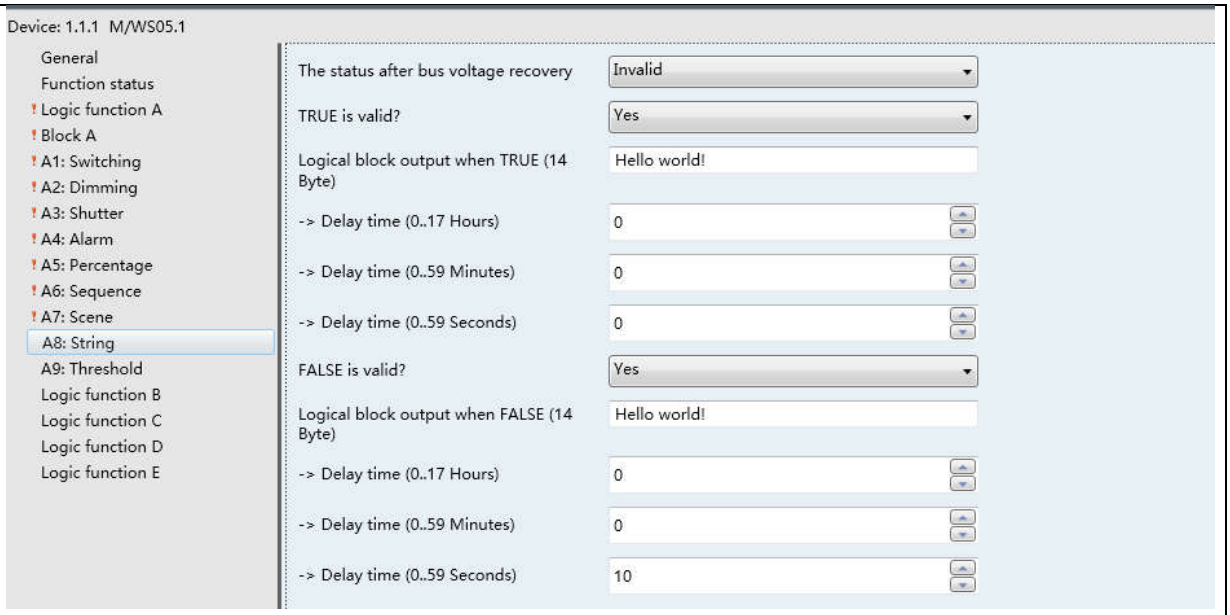
246	The status after bus voltage recovery	-(Invalid) -Stop -Start -Recovery	*Set the parameter for the status after bus voltage recovery*
247	Logical block output when TRUE	-Invalid -Stop -(Start) -Toggle	*Set the parameter for logical block output when TRUE*
248	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
249	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
250	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
251	Logical block output when FALSE	-Invalid -(Stop) -Start -Recovery	*Set the parameter for logical block output when FALSE*
252	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
253	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
254	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*

4.1.1.7_A7:Scene

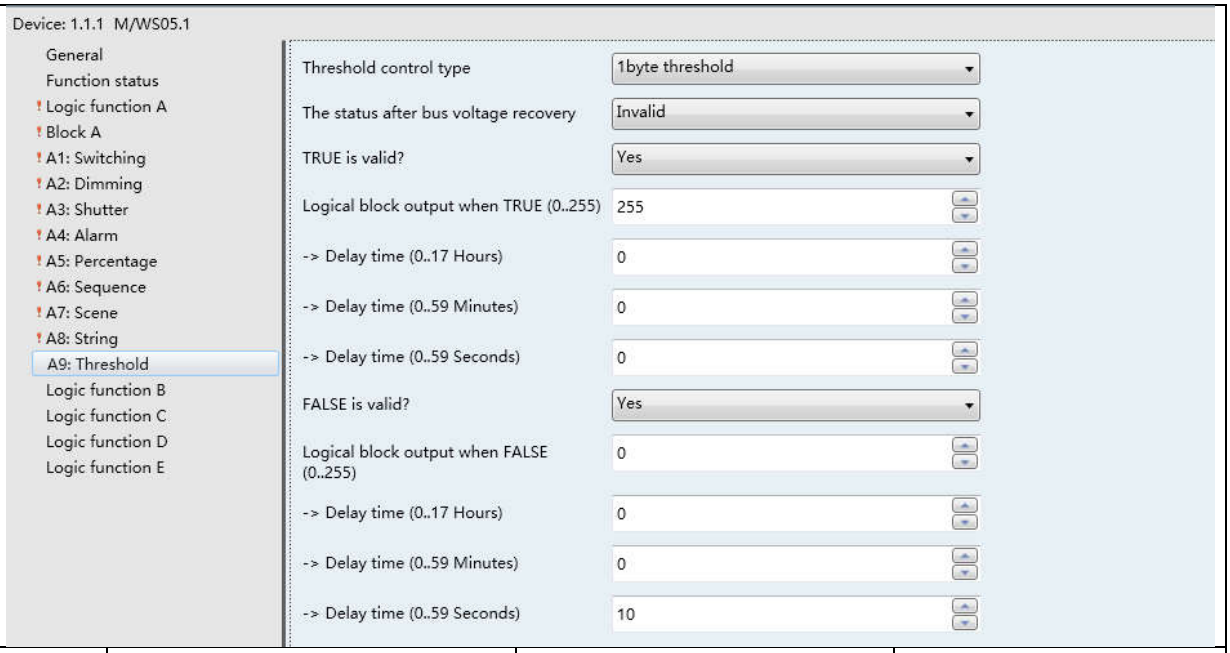


255	The status after bus voltage recovery	-(Invalid) -Recovery -Defined scene	*Set the parameter for the status after bus voltage Recovery: after bus voltage recovery, the status will be recovery*
256	Recovery defined scene NO.	-(Scene NO.01)…Scene NO.64	*Set the parameter for recovery defined scene NO.*
257	Logical block output when TRUE	-(Scene NO.01)…Scene NO.64	*Set the parameter for logical block output when TRUE*
258	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
259	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
260	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
261	Logical block output when FALS	-Scene NO.01…(NO.02)…NO.64	*Set the parameter for logical block output when FALSE*
262	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
263	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
264	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*

4.1.1.8_A8: String



No.	ETS-Parameter	Range (default)	Description
265	The status after bus voltage recovery	-(Invalid) -Defined string	*Set the parameter for the status after bus voltage recovery*
266	Recovery defined string (14 Byte)	Hello world!	*Set the parameter for recovery defined string (14 Byte)*
267	True is valid?	-(yes) -No	*Enable/disable for true is valid* *Yes: true is valid* *False: true is invalid*
268	Logical block output when TRUE (14 byte)	Hello world!	*Set the parameter for logical block output when TRUE(14 byte)*
269	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
270	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
271	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
272	FALSE is valid?	-(yes) -No	*Enable/disable for FALSE is valid* *Yes: FALSE is valid* *No:FALSE is invalid*
273	Logical block output when FALSE (14 byte)	Hello world!	*Set the parameter for logical block output when FALSE (14 byte)*
274	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
275	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
276	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*
4.1.1.9_A9: Threshold			



277	Threshold control type	-(1 byte threshold) -2 byte threshold	*Set the parameter for threshold control type*
278	The status after bus voltage recovery	-(Invalid) -Recovery -Defined threshold	*Set the parameter for the status after bus voltage recovery*
279	Recovery defined threshold(0..255)	0…(1)…255	*Set the parameter for recovery defined threshold*
280	Recovery defined threshold(0…65535)	(0)…65535	*Set the parameter for recovery defined threshold*
281	TRUE is valid?	-(Yes) -No	*Set the parameter for true is valid* *Yes: TRUE is valid* *No: TRUE is invalid*
282	Logical block output when TRUE(0…255)	0…(255)	*Set the parameter for logical block output when TRUE(0…255)*
283	Logical block output when TRUE (0…65535)	0…(1000)…65535	*Set the parameter for logical block output when TRUE (0…65535)*
284	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*
285	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
286	->Delay time (0…59Sec)	(0)…59	*Set the parameter for delay time*
287	FALSE is valid?	-(Yes) -No	*Set the parameter for false is valid* *Yes: FALSE is valid* *No: FALSE is invalid*
288	Logical block output when FASLE (0...255)	(0)...255	*Set the parameter for logical block output when FALSE*
289	Logical block output when FALSE (0...65535)	(0)...65535	*Set the parameter for logical lock output when FALSE*
290	->Delay time (0…17 Hours)	(0)…17	*Set the parameter for delay time*

291	->Delay time (0…59Min)	(0)…59	*Set the parameter for delay time*
292	->Delay time (0…59Sec)	0…(10)…59	*Set the parameter for delay time*

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

D. Communication Objects (A-E's setting is same, here, take A as an example)

D. 0 General

Objects 'General'

0	General	Heartbeat telegram	1 bit	C	-	-	T	-
1	General	Microwave sensor sensitivity	1 Byte	C	R	W	T	-
2	General	Led indicator status	1 bit	C	R	W	T	-

NO.	Objectname	Function	Flags	Data type
0	General	Heartbeat telegram	C T	DPT 1.003 1bit
This communication object is 'Heartbeat telegram'. When set '0', will send the telegram value '0' cyclically , when set '1', will send the telegram value '1' cyclically; when set '0/1', will send the telegram value '0/1' cyclically				
1	General	Microwave sensor sensitivity	C R W T	DPT 5.001 1 byte
This communication object is used to set the microwave sensor senstivity				
2	General	LED indicator status	C R W T	DPT1.001 1bit
This communication object is used to set the led indicator status				

D. 1 Function status

Objects 'Function status'

3	Function status	Microwave status to bus	1 bit	C	-	W	T
5	Function status	Brightness(Lux) value	2 Byte	C	R	-	T
6	Function status	Temperature value	2 Byte	C	R	-	T
7	Function status	Humidity value	2 Byte	C	R	-	T
8	Function status	Dry contact 1 status	1 bit	C	R	-	T
9	Function status	Dry contact 2 status	1 bit	C	R	-	T

NO.	Objectname	Function	Flags	Data type
3	Function status	Microwave status to bus	C WT	DPT 1.001 1bit
This communication object is used to set the microwave status to bus				
5	Function status	Brightness (Lux) value	C R T	DPT 9.004 2 byte
6	Function status	Temperature value	C R T	DPT9.001 2 byte
7	Function status	Humidy value	C R T	DPT9.007 2 byte
These communication objects are used to set the brightness/temperature/humidity value				
8	Function status	Dry contact 1 status	C R T	DPT1.001 I bit

9	Function status	Dry contact 2 status	C R T	DPT1.001 I bit
These communication objects are used to set the dry contact 1/2 status				

Objects 'Lux threshold'

11	Object input A	Lux threshold A lower(0~15K)	2 Byte	C	R	W	T	U
12	Object input A	Lux threshold A upper(0~15K)	2 Byte	C	R	W	T	U
13	Object input A	Lux threshold A Independent	1 bit	C	R	W	T	U
14	Object input A	Lux threshold B Independent	1 bit	C	R	W	T	U
15	Object input A	Lux threshold C Independent	1 bit	C	R	W	T	U

NO.	Objectname	Function	Flags	Data type
11	Output input A	Lux threshold A lower (0~15K)	C R W T U	DPT9.004 2 byte
12	Output input A	Lux threshold A upper (0~15K)	C R W T U	DPT9.004 2 byte
These communication objects are used to set the lux threshold A lower (0~15K)				
13	Output input A	Lux threshold A independent	C R W T U	DPT1.003 1bit
14	Output input A	Lux threshold B independent	C R W T U	DPT1.003 1bit
15	Output input A	Lux threshold C independent	C R W T U	DPT1.003 1bit
These communication objects are used for lux threshold A/B/C independent				

Objects 'Temperature threshold'

16	Object input A	Temperature threshold lower	2 Byte	C	R	W	T
17	Object input A	Temperature threshold upper	2 Byte	C	R	W	T

NO.	Objectname	Function	Flags	Data type
16	Object input A	Temperature threshold lower	C R W T	DPT 9.001 2 byte
17	Object input A	Temperature threshold upper	C R W T	DPT 9.001 2 byte
These communication objects are used to set the temperature threshold				

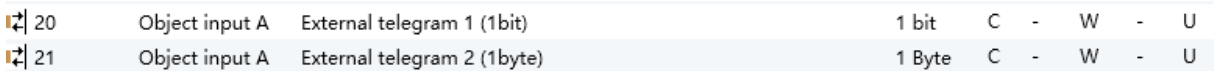
Objects 'Humidity threshold'

18	Object input A	Humidity threshold lower	2 Byte	C	R	W	T
19	Object input A	Humidity threshold upper	2 Byte	C	R	W	T

NO.	Objectname	Function	Flags	Data type
18	Object input A	Humidity threshold lower	C R W T	DPT 9.007 2 byte

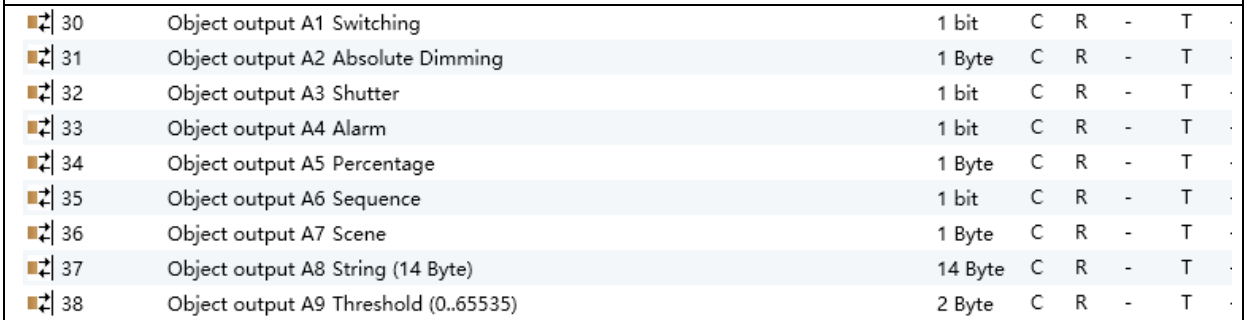
19	Object input A	Humidity threshold upper	C R W T	DPT 9.007 2 byte
These communication objects are used to set the humidity threshold lower and upper				

Objects 'External telegram'



NO.	Objectname	Function	Flags	Data type
20	Object input A	External telegram 1 (1bit)	C W U	DPT 1.001 1 byte
20	Object input A	External telegram 1 (1 byte)	C W U	DPT 5.004 1byte
20	Object input A	External telegram 1 (2 bytes)	C W U	DPT7.001 2bytes
20	Object input A	External telegram 1 (float)	C W U	DPT9.001 2bytes
20	Object input A	External telegram 1 (4bytes)	C W U	DPT12.001 4bytes
21	Object input A	External telegram 2 (1bit)	C W U	DPT 1.001 1 byte
21	Object input A	External telegram 2 (1 byte)	C W U	DPT 5.004 1byte
21	Object input A	External telegram 2 (2 bytes)	C W U	DPT7.001 2bytes
21	Object input A	External telegram 2 (float)	C W U	DPT9.001 2bytes
21	Object input A	External telegram 2 (4bytes)	C W U	DPT12.001 4bytes
These communication objects are used to set the external telegram 1/2				

Objects 'Object output'



NO.	Objectname	Function	Flags	Data type
30	Object output A1	Switching	C R T	DPT1.001 1bit
31	Object output A2	Absolute Dimming	C R T	DPT5.001 1byte
32	Object output A3	Shutter	C R T	DPT1.008 1bit

33	Object output A4	Alarm	C R T	DPT1.005 1bit
34	Object output A5	Percentage	C R T	DPT5.001 1byte
35	Object output A6	Sequence	C R T	DPT1.010 1bit
36	Object output A7	Scene	C R T	DPT17.001 1byte
37	Object output A8	String (14 Byte)	C R T	DPT16.000 14byte
38	Object output A9	Threshold (0...65535)	C R T	DPT7.001 2byte
38	Object output A9	Threshold (0...255)	C R T	DPT5.004 1byte
These communication objects are used to set the object output, you can set the switching/dimming/shutter/alarm/percentage/sequence/scene/string/threshold				

Objects ‘object input’

40	Object input A1	Switch delay time on TRUE	2 Byte	C	R	W	T	-
41	Object input A1	Switch delay time on FALSE	2 Byte	C	R	W	T	-
42	Object input A2	Dimming delay time on TRUE	2 Byte	C	R	W	T	-
43	Object input A2	Dimming delay time on FALSE	2 Byte	C	R	W	T	-
44	Object input A3	Shutter delay time on TRUE	2 Byte	C	R	W	T	-
45	Object input A3	Shutter delay time on FALSE	2 Byte	C	R	W	T	-

NO.	Objectname	Function	Flags	Data type
40	Object input A1	Switching delay time on TRUE	CWRT	DPT7.005 2byte
40	Object input A1	Switching delay time on FALSE	CWRT	DPT7.005 2byte
These communication objects are used to change delay time via bus, you can set the switching, dimming, shutter, alarm, percentage, sequence, scene, string, threshold delay time on TRUE or FALSE				

Objects ‘Logic A’

46	Logic A status '1'-True/'0'-False	1 bit	C	R	-	T
47	<1>Logic A funct Disable/Enable logic function	1 bit	C	R	W	T
48	<2>Logic A funct Disable/Enable logic function	1 bit	C	R	W	T
49	Logic A function Disable/Enable status feelback	1 bit	C	R	W	T

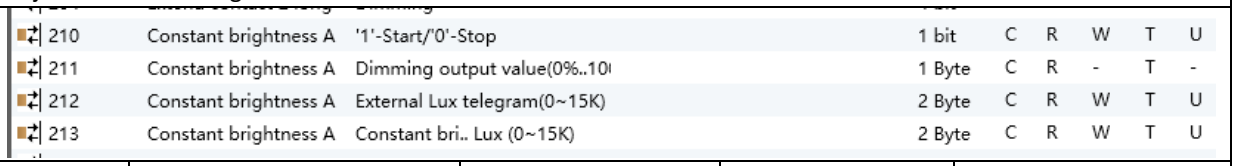
NO.	Object name	Function	Flags	Data type
46	Logic A status	'1'-True/'0'-False	C R T	DPT 1.002 1bit
47	<1>Logic A function	Disable/Enable logic function	C R W T	DPT 1.003 1 bit
48	<2>Logic A function	Disable/Enable logic function	C R W T	DPT 1.003 1 bit
49	Logic A function	Disable/Enable status feedback	C R W T	DPT 1.003 1 bit
These communication objects are used to set the logic A				

Objects 'Extend contact'

200	Extend contact 1 short	Switching(Toggle)	1 bit	C	R	W	T
201	Extend contact 1 long	Switching(ON)	1 bit	C	R	W	T
203	Extend contact 2 short	Switching(Toggle)	1 bit	C	R	W	T
204	Extend contact 2 long	Dimming	4 bit	C	R	W	T

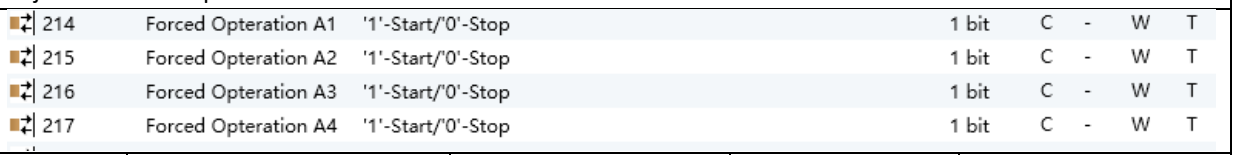
NO.	Objectname	Function	Flags	Data type
200	Extend contact 1	Switching	C R W T	DPT 1.001 1bit
200	Extend contact 1	Dimming	C R W T	DPT3.007 4bit
200	Extend contact 1	Call scene	C R W T	DPT17.001 1byte
200	Extend contact 1	Percentage	C R W T	DPT5.001 1byte
200	Extend contact 1 short	Switching(Toggle)	C R W T	DPT1.001 1bit
200	Extend contact 1 short	Switching (ON)	C R W T	DPT1.001 1bit
200	Extend contact 1 short	Switching (OFF)	C R W T	DPT1.001 1bit
200	Extend contact 1 short/long scene save	Call scene	C R W T	DPT18.001 1byte
200	Extend dry contact 1 short/long	Percentage	C R W T	DPT5.001 1byte
200	Extend dry contact 1	LED status	C R W T	DPT1.001 1bit
201	Extend contact 1 long	Switching(Toggle)	C R W T	DPT1.001 1bit
201	Extend contact 1 long	Switching (ON)	C R W T	DPT1.001 1bit
201	Extend contact 1 long	Switching (OFF)	C R W T	DPT1.001 1bit
201	Extend contact 1 long	Dimming	C R W T	DPT3.007 4bit
201	Extend contact 1 long	Scene dimming	C R W T	DPT3.007 4bit
These communication objects are extend contact, according to the short/long, set the switching, scene, percentage and LED status				

Objects ‘Constant brightness A ’



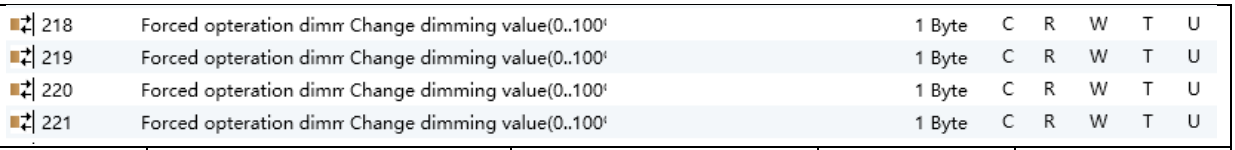
NO.	Objectname	Function	Flags	Data type
210	Constant brightness A	‘1’- Start/ ‘0’-Stop ‘0’- Start/ ‘1’-Stop	C W T U	DPT 1.001 1bit
211	Constant brightness A	Dimming output value (0...100%)	C R T	DPT 5.001 1 byte
212	Constant brightness A	External Lux telegram (0~15K)	C R W T	DPT9.004 2byte
213	Constant brightness A	Constant bri. Lux (0~15K)	C R W T	DPT9.004 2byte
These communication objects are used to set the constant brightness A				

Objects ‘Forced operation’



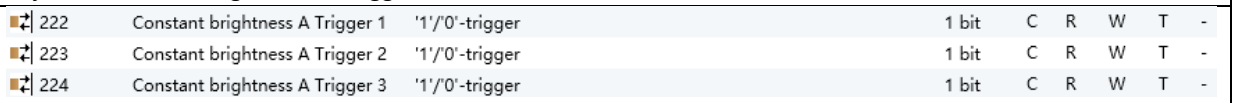
NO.	Objectname	Function	Flags	Data type
214	Forced operation A1	‘1‘-Start/‘0‘-Stop ‘0‘-Start/‘1‘-Stop ‘1/0’ –Start ‘0/1’ –Stop	C W T	DPT 1.010 1 bit
215	Forced operation A2	‘1‘-Start/‘0‘-Stop ‘0‘-Start/‘1‘-Stop ‘1/0’ –Start ‘0/1’ –Stop	C W T	DPT 1.010 1 bit
216	Forced operation A3	‘1‘-Start/‘0‘-Stop ‘0‘-Start/‘1‘-Stop ‘1/0’ –Start ‘0/1’ –Stop	C W T	DPT 1.010 1 bit
217	Forced operation A4	‘1‘-Start/‘0‘-Stop ‘0‘-Start/‘1‘-Stop ‘1/0’ –Start ‘0/1’ –Stop	C W T	DPT 1.010 1 bit
These communication objects are used to set the forced operation A1-A4				

Objects ‘Forced operation dimming’



NO.	Objectname	Function	Flags	Data type
218	Forced operation dimming A1	Change dimming value (0…100%)	C R W T U	DPT 5.001 1 byte
219	Forced operation dimming A2	Change dimming value (0…100%)	C R W T U	DPT 5.001 1 byte
220	Forced operation dimming A3	Change dimming value (0…100%)	C R W T U	DPT 5.001 1 byte
221	Forced operation dimming A4	Change dimming value (0…100%)	C R W T U	DPT 5.001 1 byte
These communication objects are forced operation dimming, used to changed the dimming value				

Objects ‘Constant brightness A Trigger’



NO.	Object name	Function	Flags	Data type
222	Constant brightness A Trigger 1	‘1/0’ -trigger	C R W T	DPT1.017 1bit
223	Constant brightness A Trigger 2	‘1/0’ -trigger	C R W T	DPT1.017 1bit
224	Constant brightness A Trigger 3	‘1/0’ -trigger	C R W T	DPT1.017 1bit
These communication objects are constant brightness A trigger, if send ‘1/0 ’,will trigger				

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