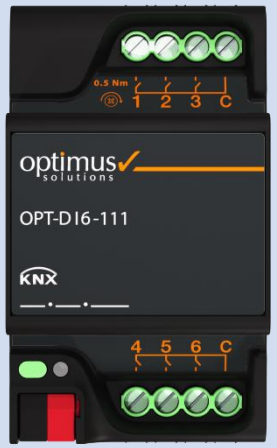
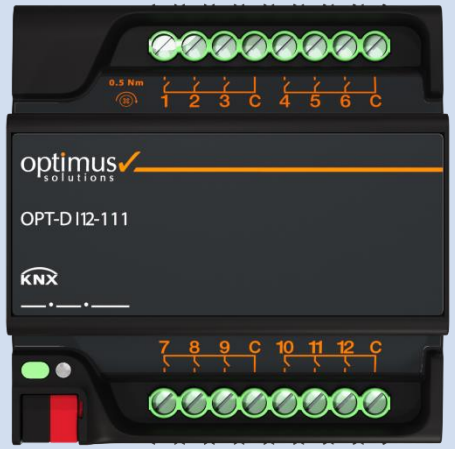
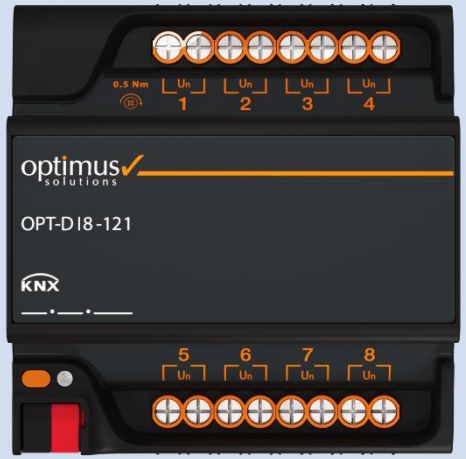
OPT-DI6-111	OPT-DI12-111	OPT-DI4-121	OPT-DI8-121
			

4,8 Channel 230V and 6,12 Channel DIN Rail Mounted Interface Device

General Specifications

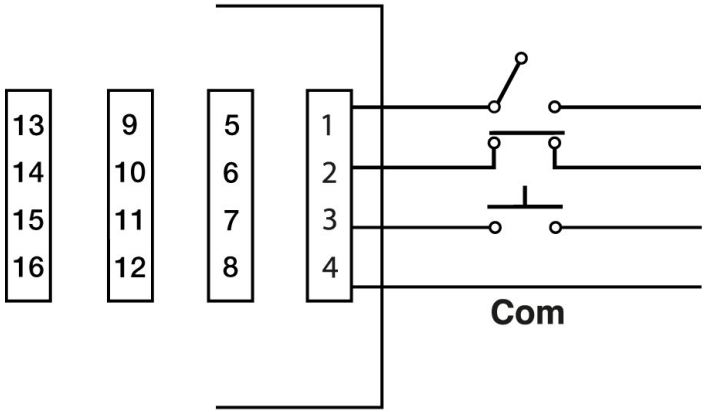
- OPT-DIx-111 and OPT-DIx-121 device is a universal input device that can be used indoors.
- It detects the status of the contact transmits the appropriate data type information to the KNX line.
- The device is powered from the KNX line, so a separate power supply is not required for contact scanning.
- If desired, the device can perform contact scanning when energized.
- Devices have 6 or 12 channel dry contact inputs or 4,8 channel 230V inputs and each channel can be programmed as an input.
- Input functions: Value Sender, Dimmer, Shutter, Counter.
- Permanent or classical type switches can be connected to each input, normally open or normally closed can be selected with active/ passive feature.
- In permanent type contact connections, it is possible to get different data type information from different outputs for both states of the contact, and in normal or long press conditions in spring type switches.
- Both states of permanent type switches and normal or long press conditions of classical type switches information can be transmitted to KNX line with different data types.

Technical Specifications

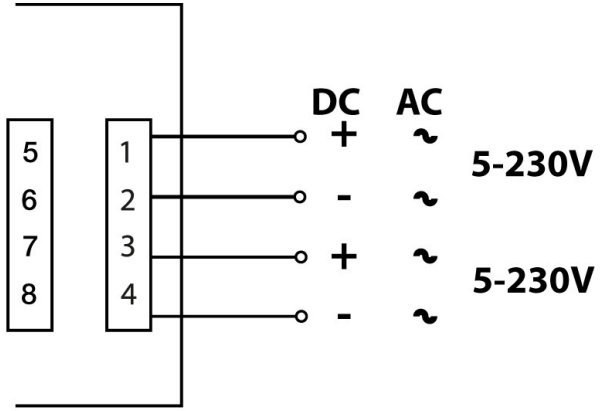
Supply Voltage	**KNX 30 VDC**
KNX Current Consumption	**8 mA**
KNX mode	**S-Mode**
Connection	**KNX Connection**
Protection Class	**IP 20**
Mounting	**DIN Rail Mounting**
Number of Input	**4,8 ch for 230V AC/DC 6,12 ch for Dry Contact**
Input Functions	**Value Sender, Dimmer,Shutter, Counter**
Cable Length	**Maximum 100 m**
Temperature Range	**Operation -5...+45 °C** **Transport -25...+70 °C** **Storage -25...+55 °C**
Dimensions **4 Channel, 6 Channel** **8 Channel, 12 Channel**	**(WxHxD)** **54 x 92 x 64 mm (3 MW)** **90 x 92 x 64 mm (5 MW)**
Housing	**ABS V0**
Certificate	**CE**

*MW : Module Width (18 mm)

Connection Diagrams



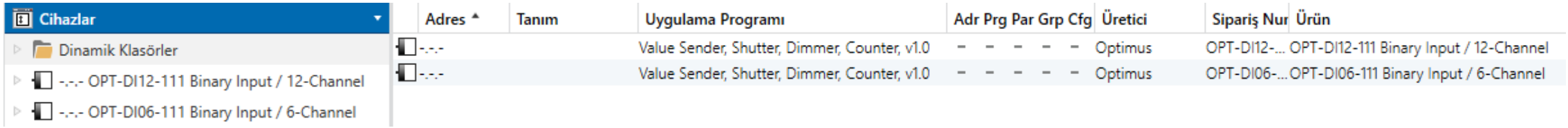
OPT-DI6-111
OPT-DI12-111



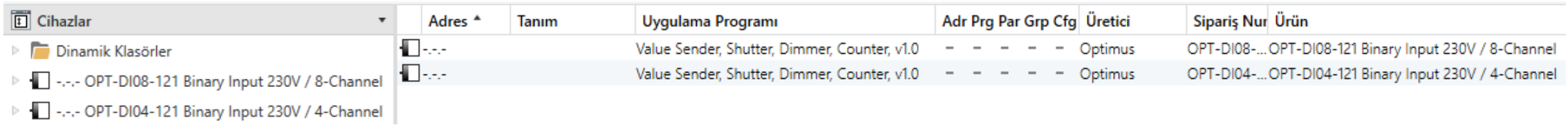
OPT-DI4-121
OPT-DI8-121


Programming and Commissioning


- It is commissioned with ETS 5.0 or higher software.
- First view of the devices



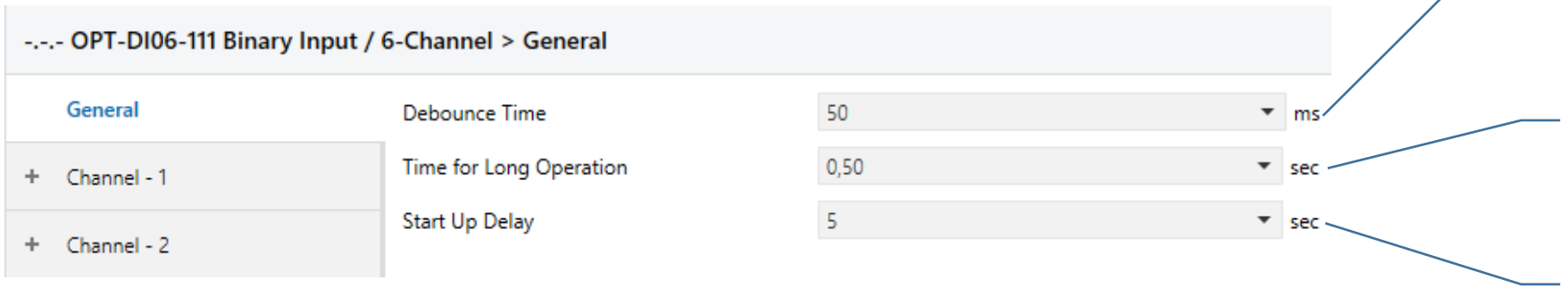
- Since all channels of the device are inactive, no communication objects are opened.



Prepared in English and Turkish.

Programming and Commissioning


- Landing page of parameters



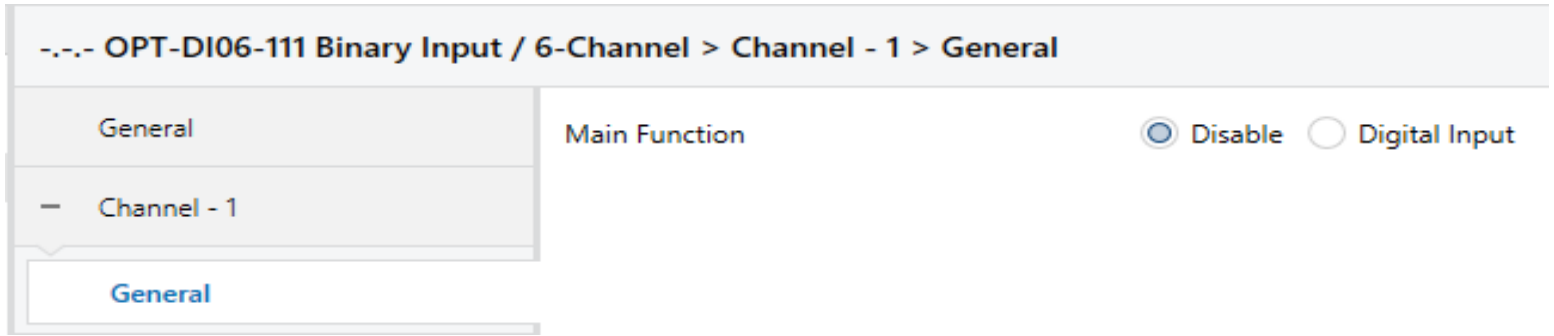
Debounce time: Minimum valid contact time for input channels (list from 20-150ms)

Long press time for input channels (250ms to 60s list)

Device overall startup delay (list from 2-60s)

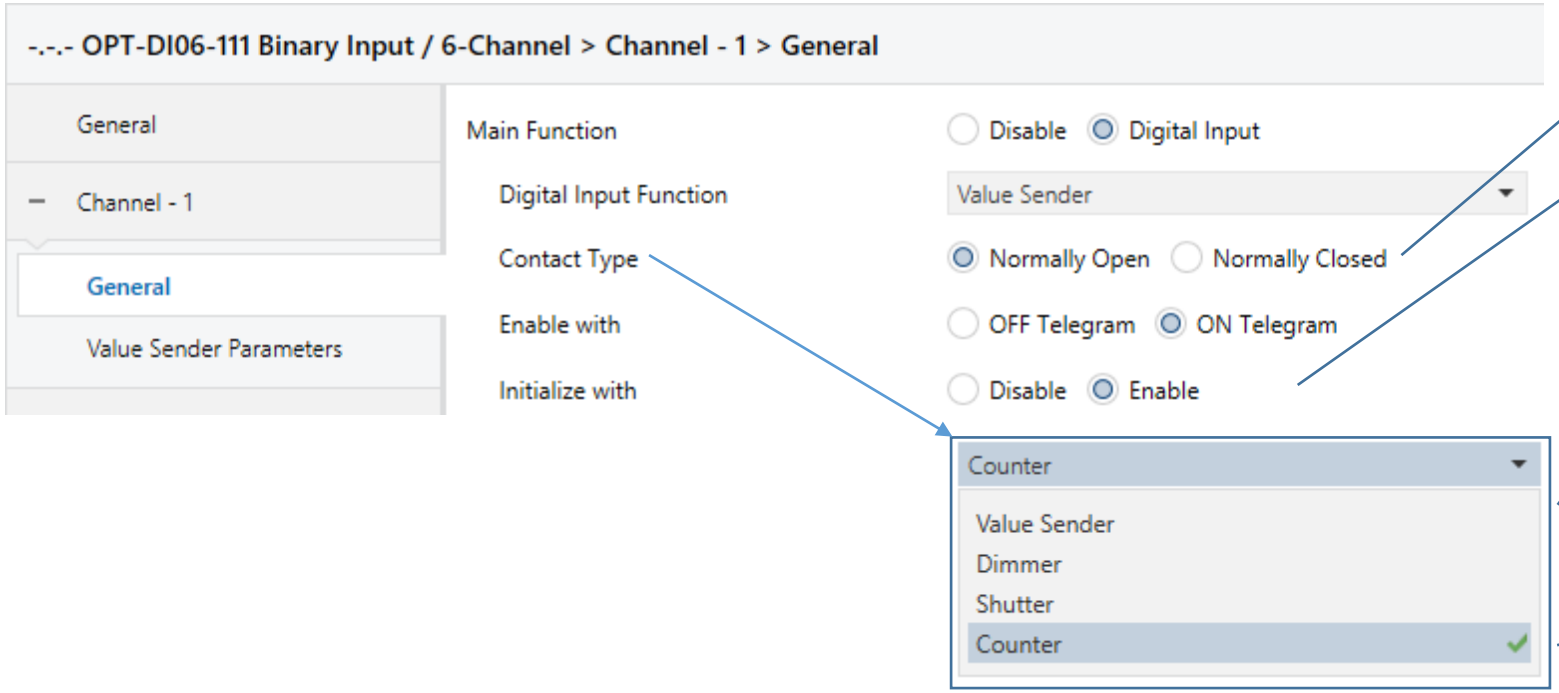
Programming and Commissioning


- Channel x / General Settings



All channels come as Passive, firstly Digital Input is selected.

- Channel x / General Settings / Digital Input



Contact type selection

Initial activity of the channel

Value Sender: Defines the information to be sent during push or pull.

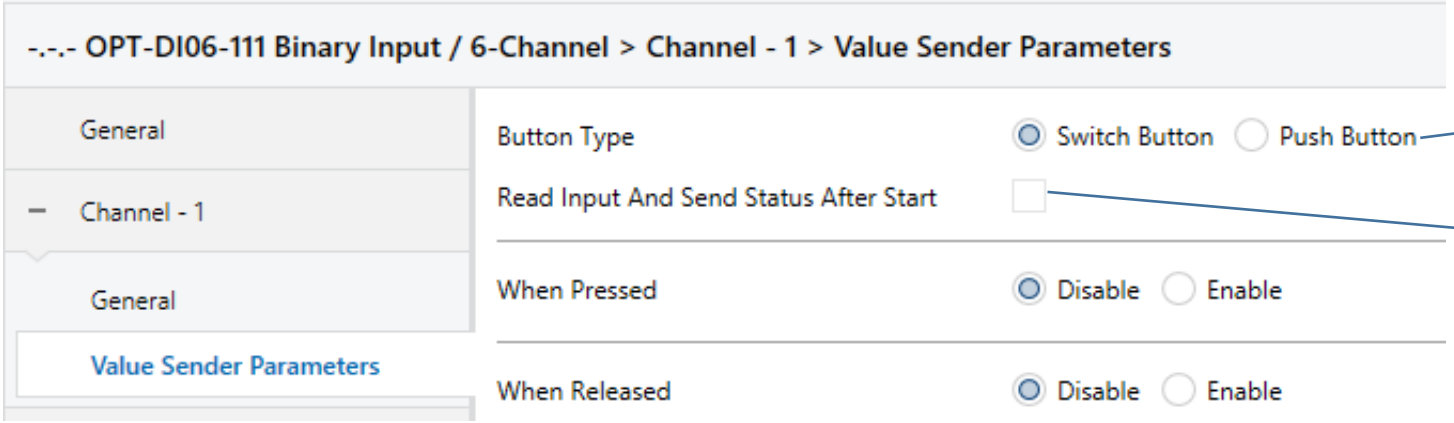
Dimmer: Used to work as a dimmer switch

Shutter: Shutter switch

Counter

Programming and Commissioning


- Channel x / Value Sender Parameters



Key type is selected as **Classic** or **Spring**.

Classic keys may be prompted to send their current position at startup.

Compressing and pulling events are designed independently of each other.

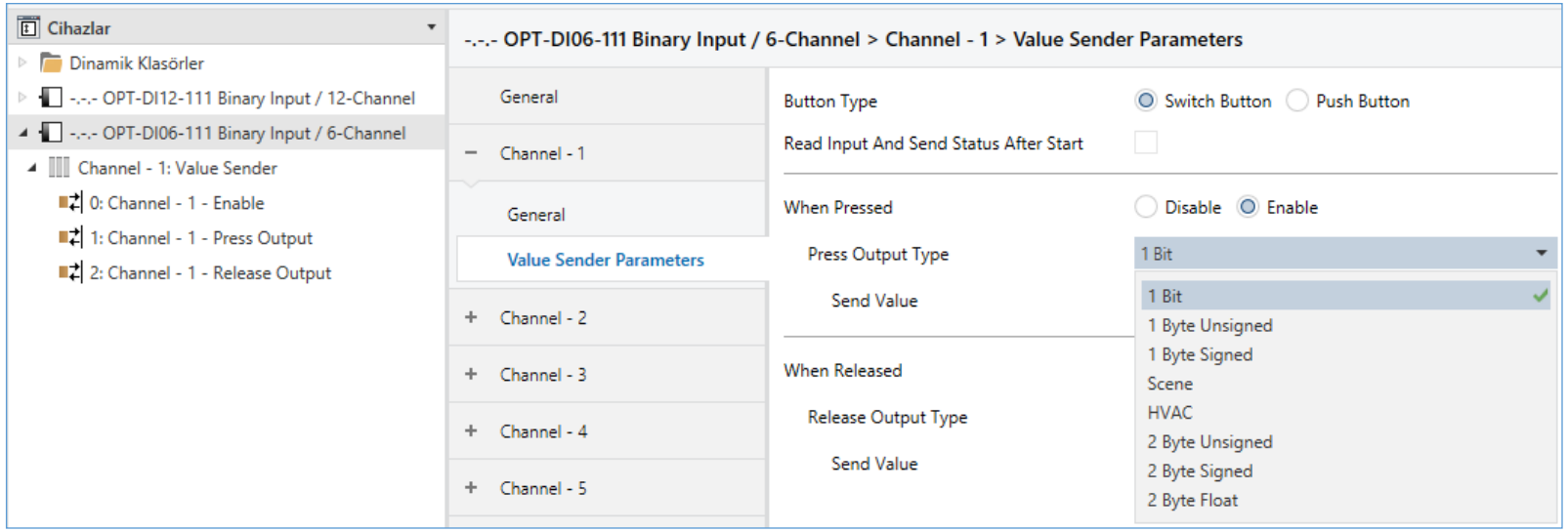
- Initial Communication Objects

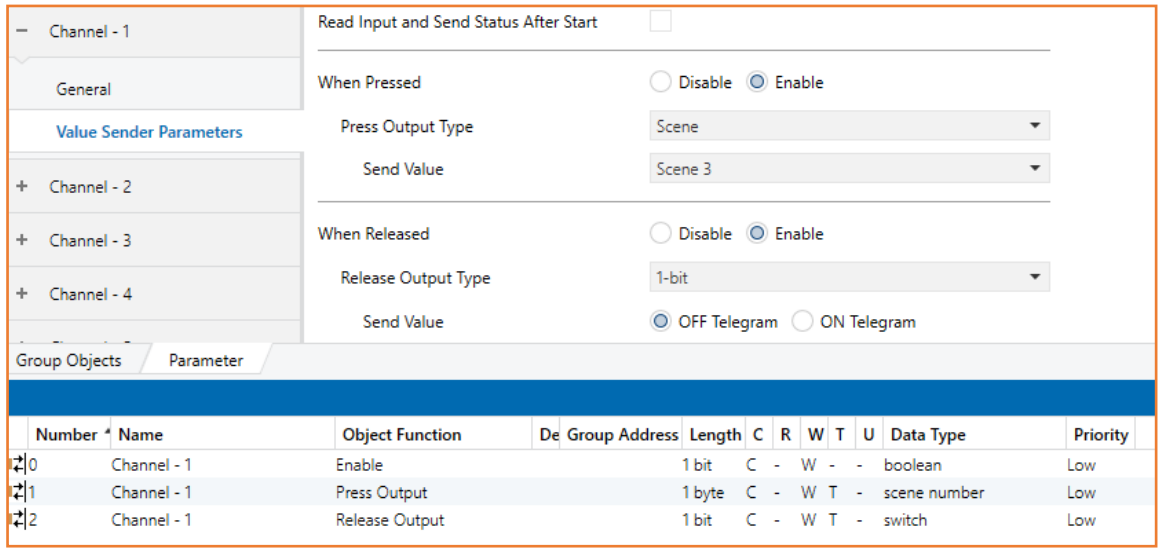
Number	Name	Object Function	De	Group Address	Length	C	R	W	T	U	Data Type	Priority
0	Channel - 1	Enable			1 bit	C	-	W	-	-	boolean	Low

Since Send Value parameters have not been determined yet, only the Enable object exists initially.

Programming and Commissioning


- Channel x / Value Sender / Switch Button Parameters





Different data types can be assigned to push and pull events.

1-bit:On/Off
1-byte U: 0-255
1-byte S: -128 +127
Scene: 1..64
HVAC: Comfort, Standby vs
2-byte U: 0-65535
2-byte-S:-32768 +32767
2-byte F: Temperature sending

Separate communication objects for push and pull

Programming and Commissioning


- Channel x / Value Sender / Push Button Parameters

-.-.- OPT-DI06-111 Binary Input / 6-Channel > Channel - 1 > Value Sender Parameters

- General
- Channel - 1
  - General
  - Value Sender Parameters
- Channel - 2
- Channel - 3
- Channel - 4

Button Type	Switch Button / Push Button
When Pushed	Disable / Enable
Push Output Type	HVAC
Send Value	Comfort
Long Press Detection	Disable / Enable
Press Output Type	2 Byte Float
Send Value	23

Group Objects | Parameter

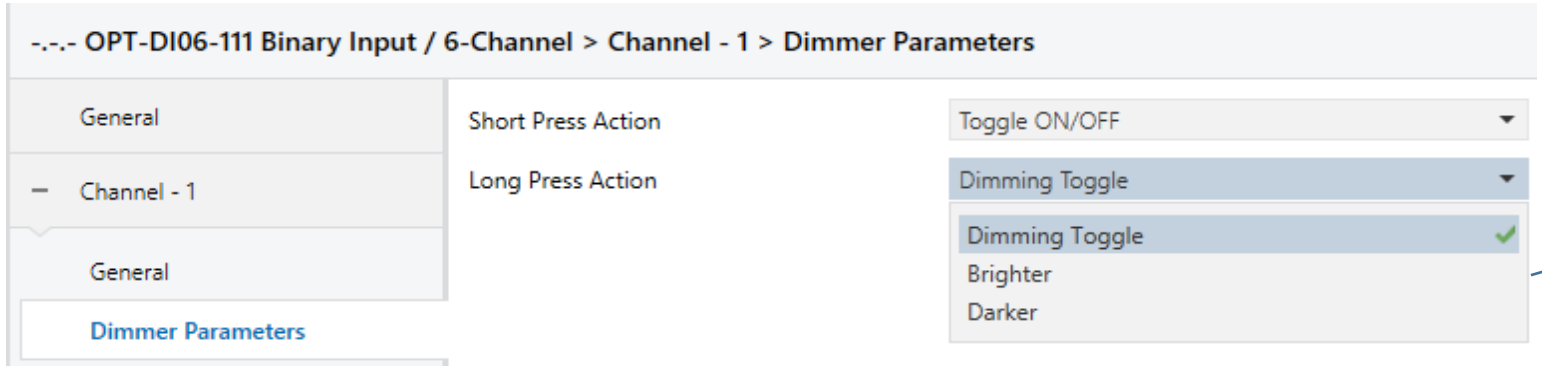
Number	Name	Object Function	De	Group Address	Length	C	R	W	T	U	Data Type	Priority
0	Channel - 1	Enable			1 bit	C	-	W	-	-	boolean	Low
1	Channel - 1	Output			1 byte	C	-	W	T	-	HVAC mode	Low
2	Channel - 1	Output (Long Press)			2 bytes	C	-	W	T	-	temperature (°C)	Low

Press and long press events can be assigned different data types.

Separate communication objects for push and pull

Programming and Commissioning

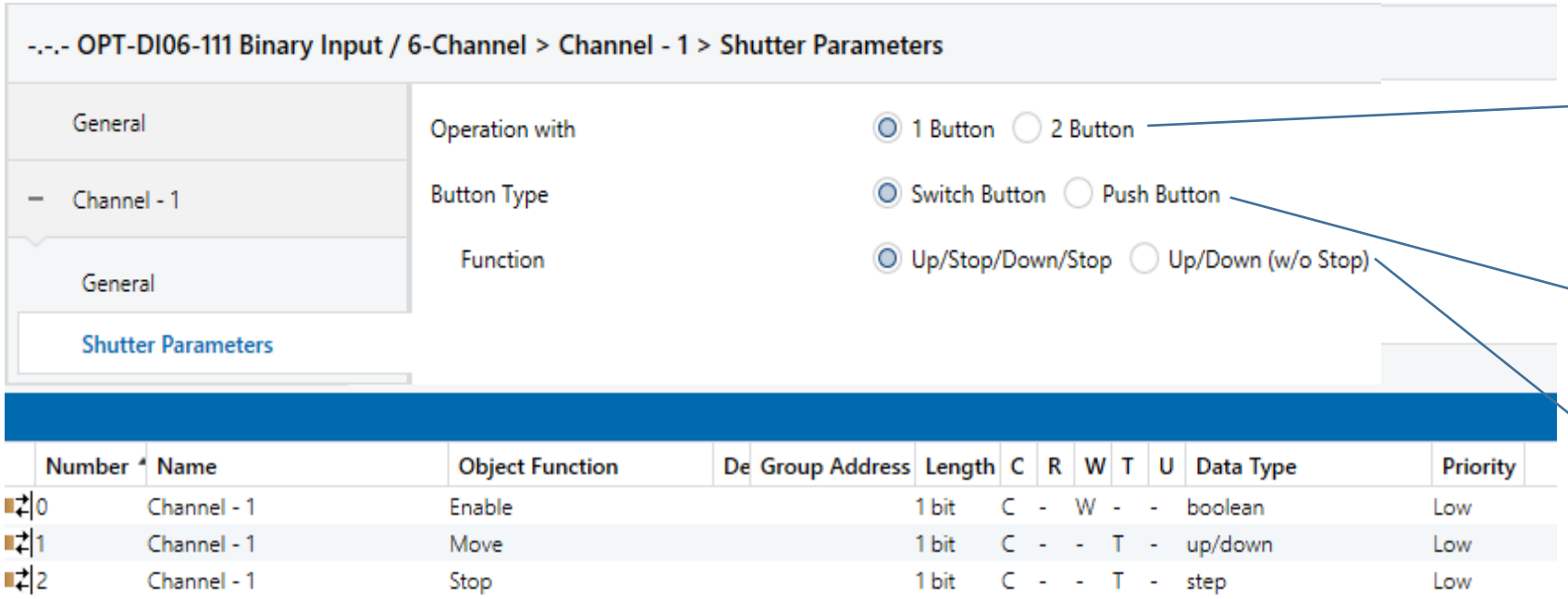

- Channel x / Dimmer Parameters



Short press functions:
May not be operated on short press
Send On
Send Off
Toggle OnOff (feedback from the line)

Long press
Toggle Dimming for one button dim
Brighter
Darker


- Channel x / Shutter Parameters 1-Button



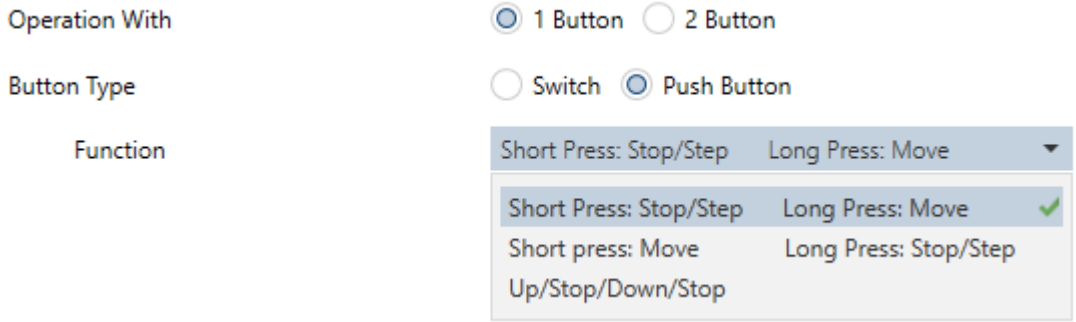
Number	Name	Object Function	De	Group Address	Length	C	R	W	T	U	Data Type	Priority
0	Channel - 1	Enable			1 bit	C	-	W	-	-	boolean	Low
1	Channel - 1	Move			1 bit	C	-	-	T	-	up/down	Low
2	Channel - 1	Stop			1 bit	C	-	-	T	-	step	Low

One-key or 2-key operation selection

Control with conventional or spring switches

Possible options

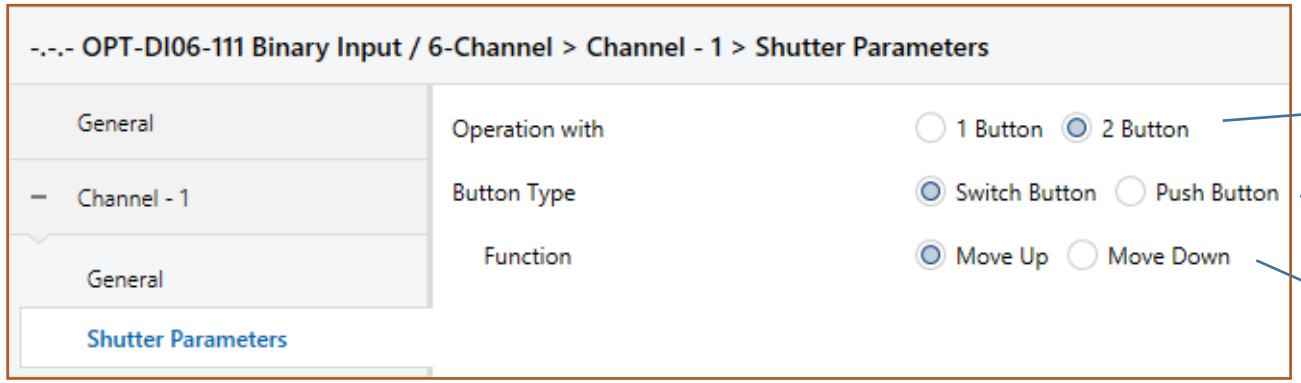
Standard Com Objects



One-key spring switch options

Programming and Commissioning

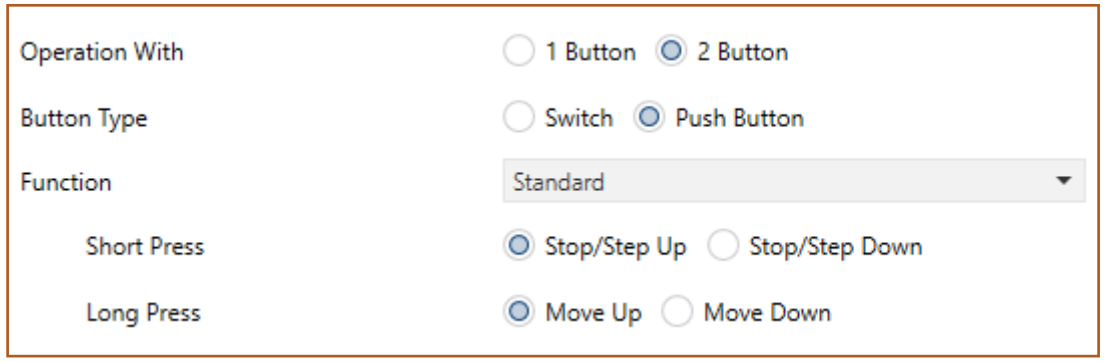

- Channel x / Shutter Parameters 2-Button



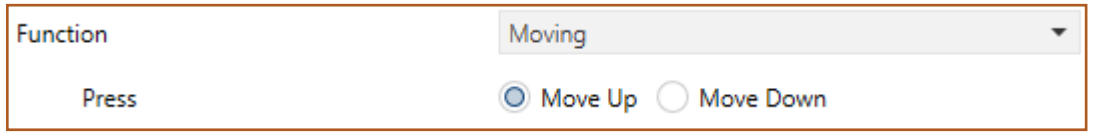
2-key operation selection

Control with classic or spring switches

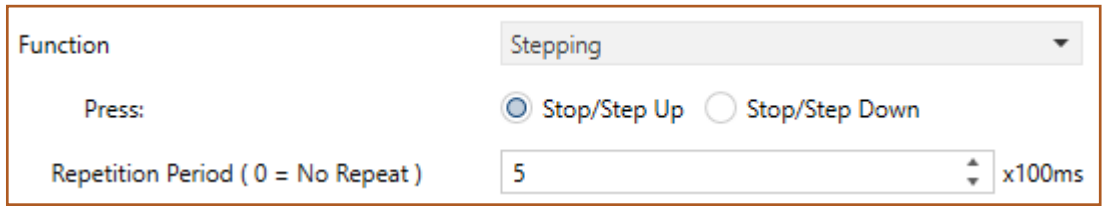
Possible options



Two key spring switch options:



Standard Short Press: Stop
Long Press :Move



Go in one direction when pressed

Wing adjustment


- Channel x / Counter

-.-.- OPT-DI06-111 Binary Input / 6-Channel > Channel - 1 > Counter Parameters

- General
- Channel - 1
  - General
  - Counter Parameters
- Channel - 2
- Channel - 3
- Channel - 4
- Channel - 5

Detection Type	(•) Rising ( ) Falling
Data Type	1 Byte Unsigned
Count Direction	(•) Increase ( ) Decrease
Starting From	0
Step Size	1
Send Last Value On Power-On	(•) Disable ( ) Enable
Reset With	OFF Telegram
Count Limit	(•) Disable ( ) Enable
Action When Final Value is Reached	Stop Counting

Number	Name	Object Function	De	Group Address	Length	C	R	W	T	U	Data Type	Priority
0	Channel - 1	Enable			1 bit	C	-	W	-	-	enable	Low
1	Channel - 1	Counter Value			1 byte	C	-	-	T	-	counter pulses (0..255)	Low
2	Channel - 1	Counter Reset			1 bit	C	-	W	-	-	reset	Low

Counting on falling or rising edge

Data type can be 1-byte U/S or 2-byte U

Counting direction, initial value and step value are determined

On startup, the last remaining value can be sent again.

Counter can be reset with Reset object

They can be given a limit to the counting or asked what to do when the counting ends.