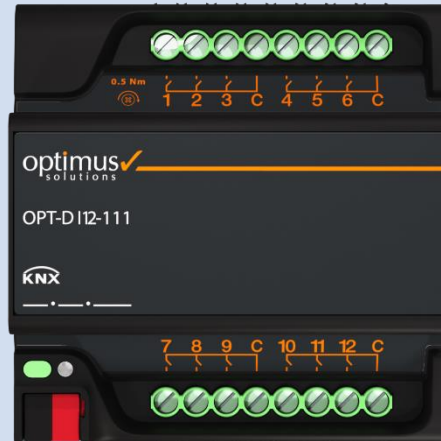


OPT-DI6-111



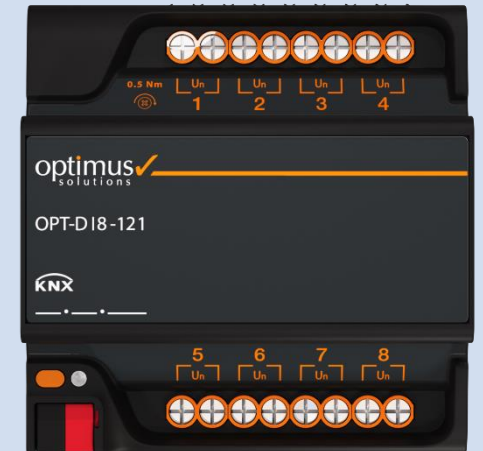
OPT-DI12-111



OPT-DI4-121



OPT-DI8-121



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



General Specifications

- OPT-D1x-111 and OPT-D1x-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



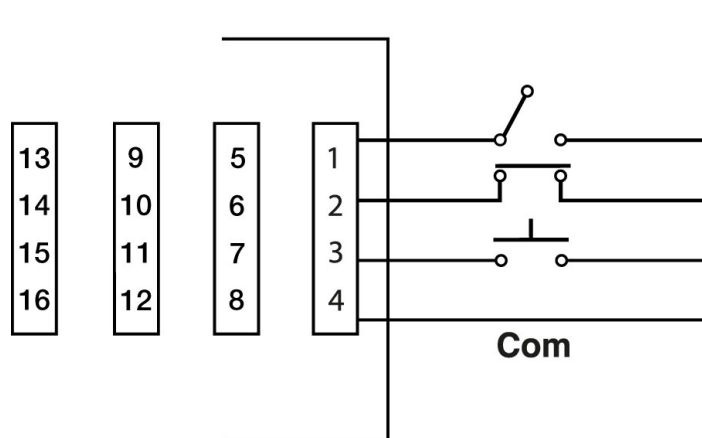
Supply Voltage	KNX 30 VDC
KNX Current Consumption	8 mA
KNX mode	S-Mode
Connection	KNX Connection
Protection Class	IP 20
Mounting	DIN Rail Mounting
Number of Input	4,8 ch for 230V AC/DC 6,12 ch for Dry Contact
Input Functions	Value Sender, Dimmer, Shutter, Counter
Cable Length	Maximum 100 m
Temperature 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)

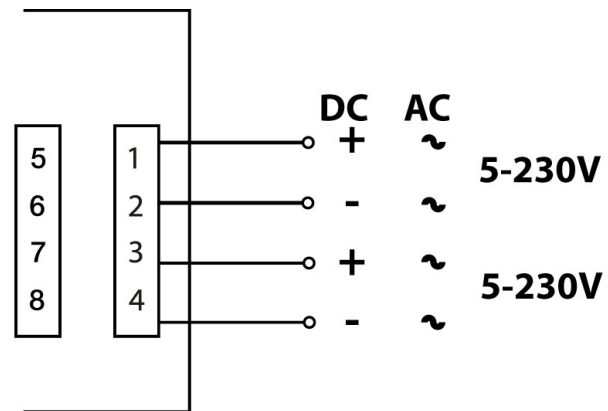




Connection Diagrams

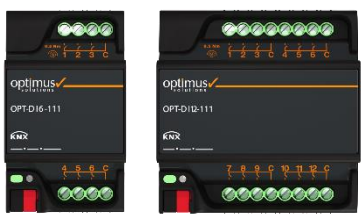


OPT-DI6-111
OPT-DI12-111



OPT-DI4-121
OPT-DI8-121





Programming and Commissioning



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

Cihazlar	Adres ^	Tanım	Uygulama Programı	Adr Prg Par Grp Cfg	Üretici	Sipariş Nur	Ürün
▶ Dinamik Klasörler	□ ---		Value Sender, Shutter, Dimmer, Counter, v1.0	- - - - -	Optimus	OPT-DI12-...	OPT-DI12-111 Binary Input / 12-Channel
▶ □ --- OPT-DI12-111 Binary Input / 12-Channel	□ ---		Value Sender, Shutter, Dimmer, Counter, v1.0	- - - - -	Optimus	OPT-DI06-...	OPT-DI06-111 Binary Input / 6-Channel
▶ □ --- OPT-DI06-111 Binary Input / 6-Channel							

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

Cihazlar	Adres ^	Tanım	Uygulama Programı	Adr Prg Par Grp Cfg	Üretici	Sipariş Nur	Ürün
▶ Dinamik Klasörler	□ ---		Value Sender, Shutter, Dimmer, Counter, v1.0	- - - - -	Optimus	OPT-DI08-...	OPT-DI08-121 Binary Input 230V / 8-Channel
▶ □ --- OPT-DI08-121 Binary Input 230V / 8-Channel	□ ---		Value Sender, Shutter, Dimmer, Counter, v1.0	- - - - -	Optimus	OPT-DI04-...	OPT-DI04-121 Binary Input 230V / 4-Channel
▶ □ --- OPT-DI04-121 Binary Input 230V / 4-Channel							

Prepared in English and Turkish.



Programming and Commissioning



- Landing page of parameters

--- OPT-DI06-111 Binary Input / 6-Channel > General

General	
+ Channel - 1	Debounce Time
+ Channel - 2	Time for Long Operation
	Start Up Delay

50 ms

0,50 sec

5 sec

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

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

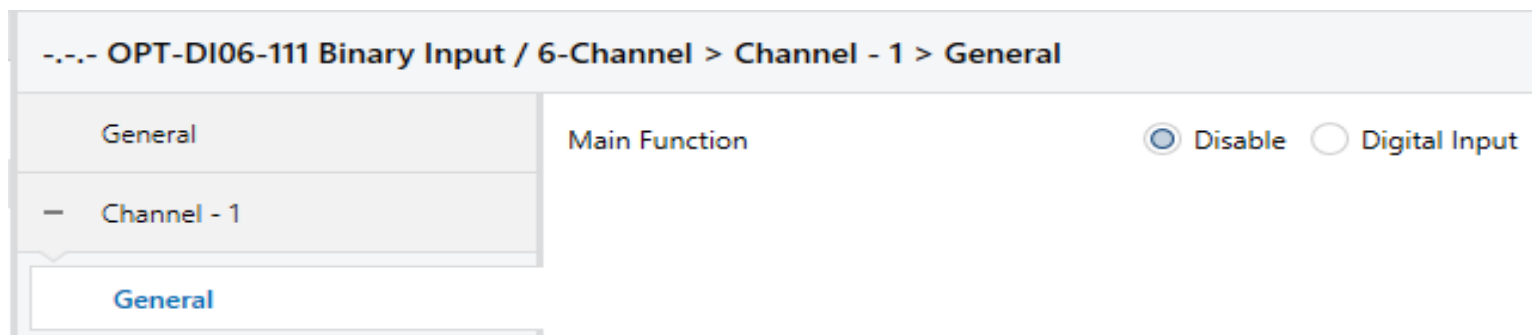
Device overall startup delay (list from 2-60s)



Programming and Commissioning

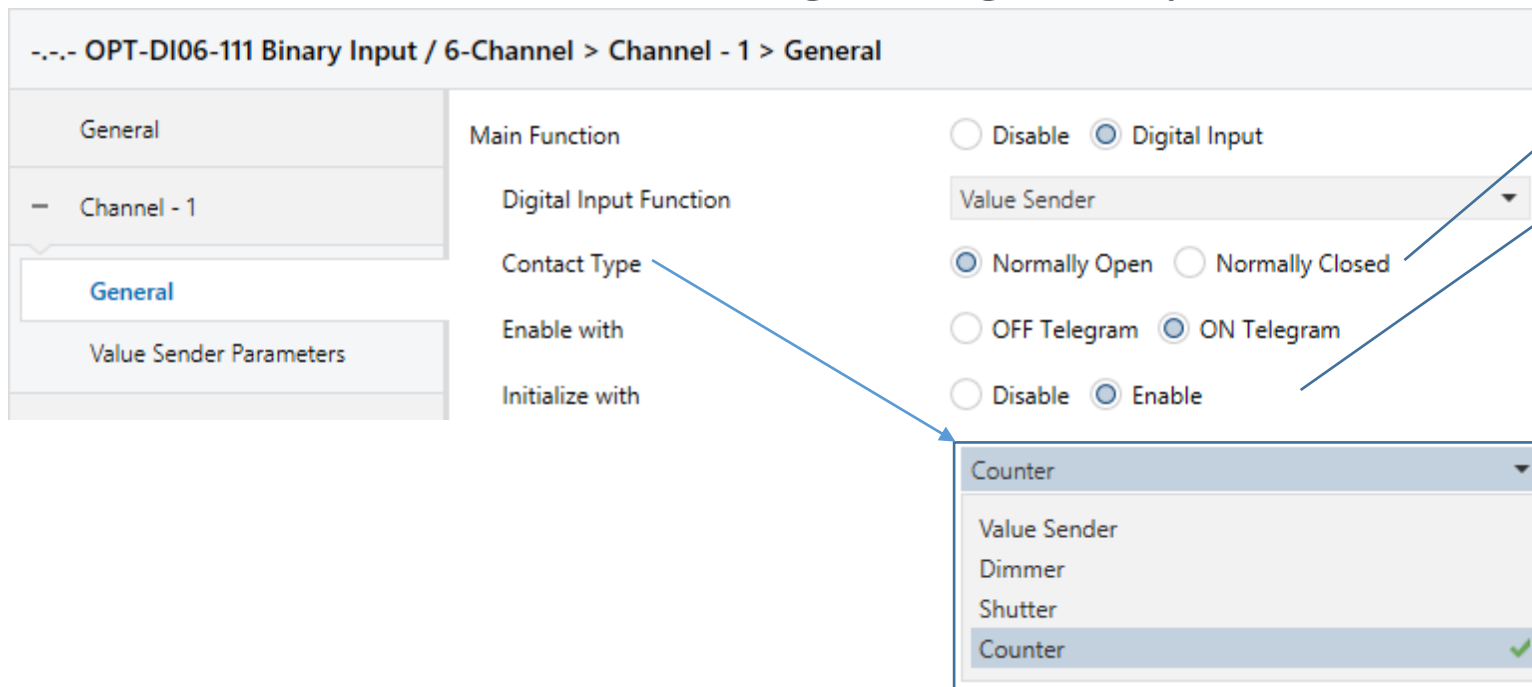


• Channel x / General Settings



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

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

General	Button Type	<input checked="" type="radio"/> Switch Button <input type="radio"/> Push Button
Channel - 1	Read Input And Send Status After Start	<input type="checkbox"/>
General	When Pressed	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Value Sender Parameters	When Released	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

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

The screenshot shows the configuration for Channel - 1. In the 'Value Sender Parameters' tab, the 'Press Output Type' is set to '1 Bit' and the 'Send Value' is '1 Bit'. The 'When Released' section is also visible.

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	Press Output			1 byte	C	-	W	T	-	scene number	Low
2	Channel - 1	Release Output			1 bit	C	-	W	T	-	switch	Low

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

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

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

General	Short Press Action	Toggle ON/OFF
Channel - 1	Long Press Action	No Reaction
General		ON Telegram
Dimmer Parameters		OFF Telegram
		Toggle ON/OFF ✓

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

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

General	Short Press Action	Toggle ON/OFF
Channel - 1	Long Press Action	Dimming Toggle
General		Dimming Toggle ✓
Dimmer Parameters		Brighter
		Darker

Long press
Toggle Dimming for one button dim
Brighter
Darker

Programming and Commissioning



• Channel x / Shutter Parameters 1-Button

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

General

Operation with 1 Button 2 Button

Channel - 1

Button Type Switch Button Push Button

Function Up/Stop/Down/Stop Up/Down (w/o Stop)

Shutter Parameters

One-key or 2-key operation selection

Control with conventional or spring switches

Possible options

Standard Com 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
1	Channel - 1	Move			1 bit	C	-	-	T	-	up/down	Low
2	Channel - 1	Stop			1 bit	C	-	-	T	-	step	Low

Operation With 1 Button 2 Button

Button Type Switch Push Button

Function

Short Press: Stop/Step Long Press: Move

Short Press: Stop/Step Long Press: Move ✓

Short press: Move Long Press: Stop/Step

Up/Stop/Down/Stop

One-key spring switch options



Programming and Commissioning



• Channel x / Shutter Parameters 2-Button

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

General

Channel - 1

General

Shutter Parameters

Operation with 1 Button 2 Button

Button Type Switch Button Push Button

Function Move Up Move Down

2-key operation selection

Control with classic or spring switches

Possible options

Operation With 1 Button 2 Button

Button Type Switch Push Button

Function Standard

Short Press Stop/Step Up Stop/Step Down

Long Press Move Up Move Down

Two key spring switch options:

Function Moving

Press Move Up Move Down

Standard Short Press: Stop
Long Press :Move

Function Stepping

Press: Stop/Step Up Stop/Step Down

Repetition Period (0 = No Repeat) 5 x100ms

Go in one direction when pressed

Wing adjustment



Programming and Commissioning



• Channel x / Counter

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

General	Detection Type	<input checked="" type="radio"/> Rising <input type="radio"/> Falling
- Channel - 1	Data Type	1 Byte Unsigned
General	Count Direction	<input checked="" type="radio"/> Increase <input type="radio"/> Decrease
Counter Parameters	Starting From	0
	Step Size	1
+ Channel - 2	Send Last Value On Power-On	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
+ Channel - 3	Reset With	OFF Telegram
+ Channel - 4	Count Limit	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
+ Channel - 5	Action When Final Value is Reached	Stop Counting

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.

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