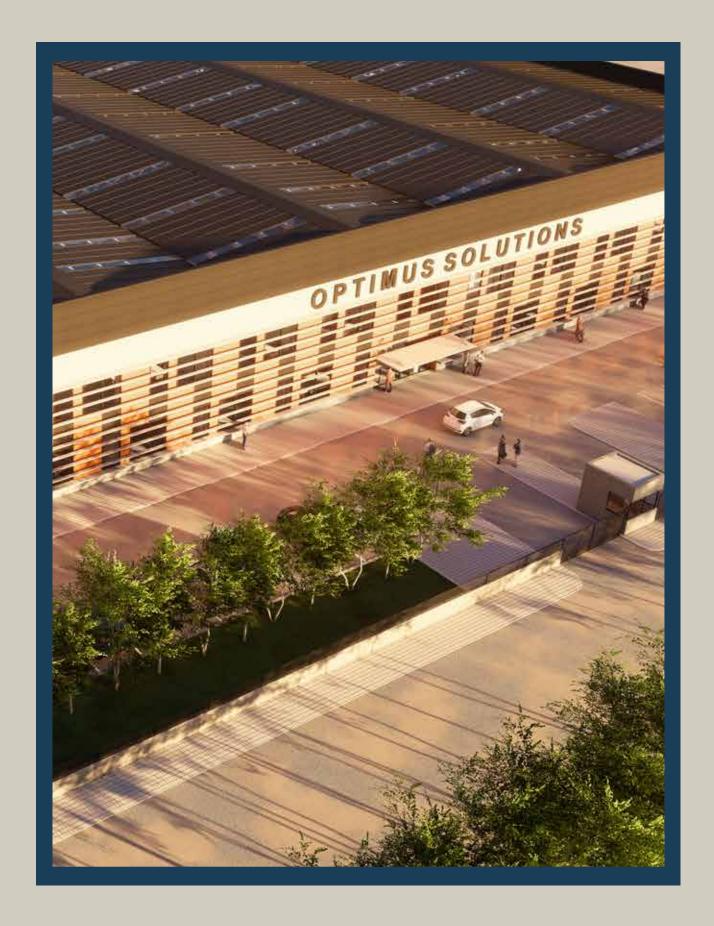
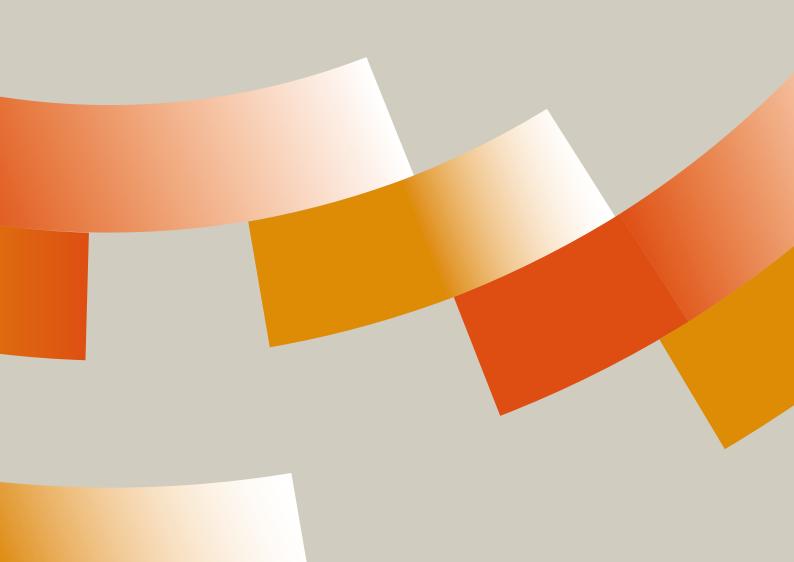
## optimus solutions



The products of Optimus Solutions will be implemented with fully automatic, robot-assisted production in our factory, designed as 50,000 square meters of closed area in a 70,000 square meter open area located in the Organized Industrial Zone in Ankara.

## GOOD HONEST BRAVE NOBLE



# KIND PLEASANT RIGHT USEFUL

OPTIMUS **SOLUTIONS** 



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# Future Is now





## Thinking Out Of The Box

With the experience gained from over 2000 projects in nearly 20 years, Optimus Solutions, aiming to create products that enable a sustainable green future, promises to redefine the relationship between end users and their living spaces by offering professionals a unique installation and commissioning experience supported by smart KNX-based solutions.

# Message From

### Our Founder

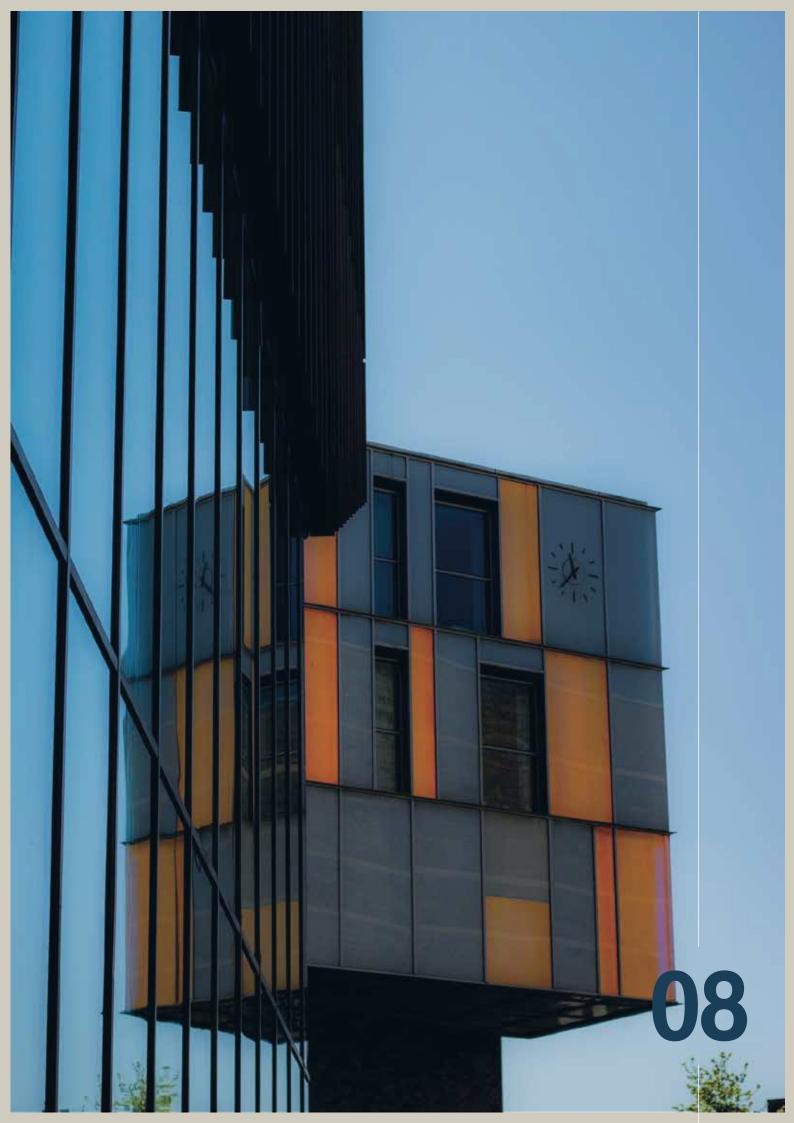


Mustafa Üstün Founder

69

The journey of Optimus Solutions establishment is more than just an ordinary beginning; it is full of passion, innovation, and the desire for continuous development. This journey started with a small idea and evolved into a vision aimed at creating solutions that will make life easier. At every step, we aimed to provide the highest quality service to our partners and the community. With our proactive solutions, we have come a long way. By keeping future needs in mind, we have developed groundbreaking products in areas such as smart building systems and energy management.

When you look at Optimus Solutions today, you will encounter a passion that constantly seeks new ways to remain creative while pushing the boundaries of technology. In the following pages, we hope to open a window into the world of "innovative solutions" with Optimus Summit, allowing you to discover how to make your projects more efficient and sustainable. We look forward to building a smarter and greener future with you.





# 09

#### **Enlight the future, start watching**

Optimus Solutions offers automation solutions - or technologies - to buildings, making them "smart" and providing them with three fundamental funtions: energy efficiency, security, and user comfort.



#### **Energy Efficiency**

According to 2023 data from the International Energy Agency, buildings account for 30% of global final energy consumption and 26% of global energy-related emissions. 8% of this consumption is direct emissions from buildings, and 18% is indirect emissions from the production of electricity and heat used in buildings.

Optimus Solutions develops energy-saving, sustainable smart systems, creating both environmentally friendly solutions and economic advantages for users through reduced costs.

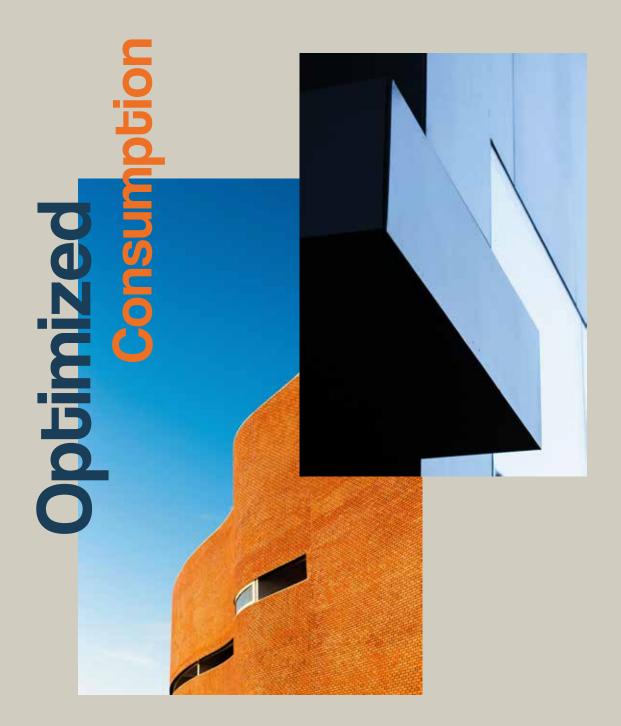








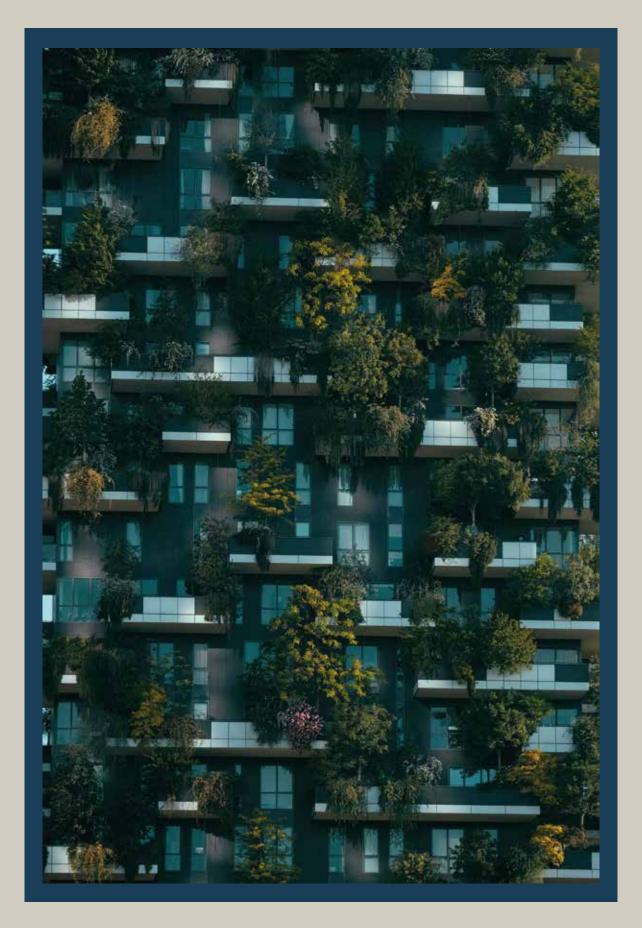
Build tomorrow's sustainability with conscious choices made today!



KNX-based building automation systems provide at least a 40% improvement in buildings' energy consumption with options like motion detection, daylight-responsive controls, and programmable scenario settings.

Regarding energy management, these systems offer smart solutions that optimize consumption, helping businesses achieve their sustainability goals.

Thanks to advanced monitoring systems and userfriendly interfaces, energy efficiency is continuously optimized, and carbon footprint is minimized. This not only contributes to building a sustainable green future but also provides cost advantages.





#### **Security**

It is possible to examine the security advantages provided by building automation systems under two headings: system security and user security. Real-time data about the health of critical systems such as Lighting, HVAC, and Security in the building can be obtained by automating the control of these systems, creating the opportunity for timely intervention before a component fails. This ensures that the issue is resolved before the system comes to a halt, and life in the building continues to flow smoothly.

With Optimus Solutions systems, the control of lighting and HVAC systems transitions from being a manual routine task to a standard procedure offered by the system. This reduces the need for manual intervention by maintenance teams and allows them to continue working more productively on more complex tasks.



One of the distinguishing features of Optimus KNX products is that they are created by KNX Mentors with over 20 years of field experience. As a result, tools have been developed to enable quick intervention by anticipating potential faults, and user-friendly interfaces have been developed by foreseeing possible scenarios that the field intervention team may encounter.

Ensuring a sense of security for the user is one of the important advantages of building automation systems. It is possible to significantly increase both the security perception and comfort of the end user through technologies that enable remote access and control, such as having real-time data flow thanks to presence sensors in living spaces; activating "out of home" scenarios with a single button; and controlling the entrance and exit of the house from the phone thanks to cameras and screens.





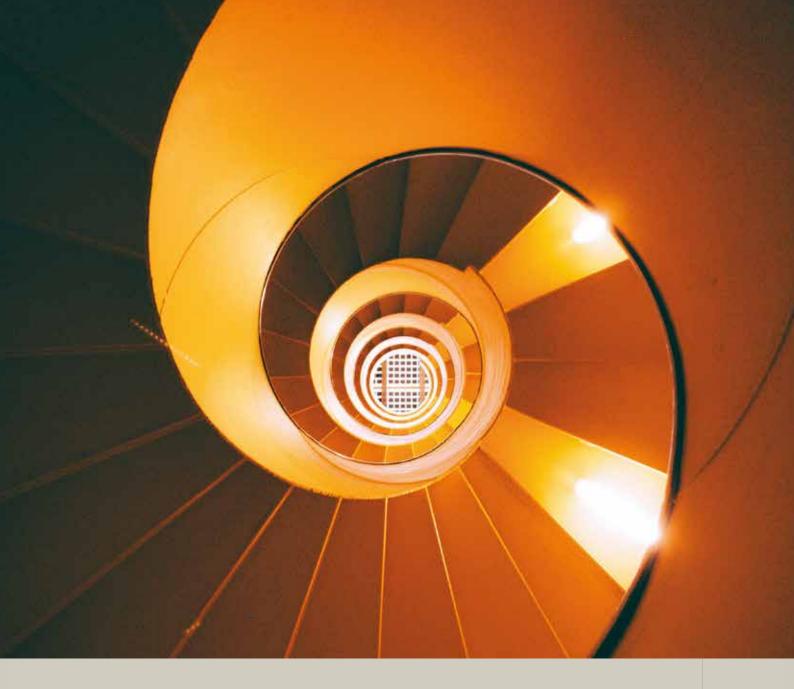
#### **User Comfort**

Optimus KNX systems are an innovative system that recognizes and meets users' needs without them realizing it. With Optimus KNX products, buildings become ideal for users in terms of comfort and functionality.

Lighting automation increases the comfort of your living spaces by automatically adjusting ideal light levels during the day. On the other hand, HVAC systems ensure that users experience this balance without noticing it by providing ideal temperature and humidity levels.

The comfort provided by Optimus KNX systems is not limited to these features alone. Thanks to its customizable and flexible structure, you can perform all the scenarios you want in your living spaces with a single touch. For example, with the "Good Morning" mode, the blinds open at the specified time, lights turn on if needed based on daylight, and the temperature of the house is adjusted. Or with the "Night" mode, you can darken the house with a single touch and leave only the exterior lights on.

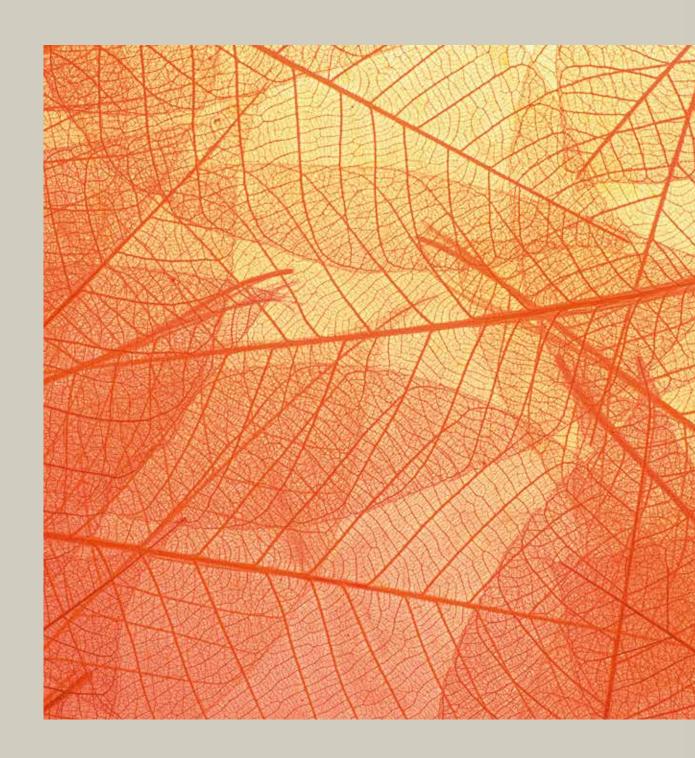
With Optimus KNX, the variations are endless; you can turn your dreams about your home into reality with just one touch. Operating on the principle of "Your wish is their command," KNX products easily bring to life scenarios created by users according to their own requests and organize the flow of your home according to your needs through their customizable nature.



One of the features that make **Optimus Solutions products** special is their use of the widely used KNX building automation protocol worldwide. Produced in accordance with international standards, these products undergo comprehensive testing in prestigious laboratories in Germany. As a member of the KNX Association, the company guarantees quality by submitting all its products for approval by independent laboratories.

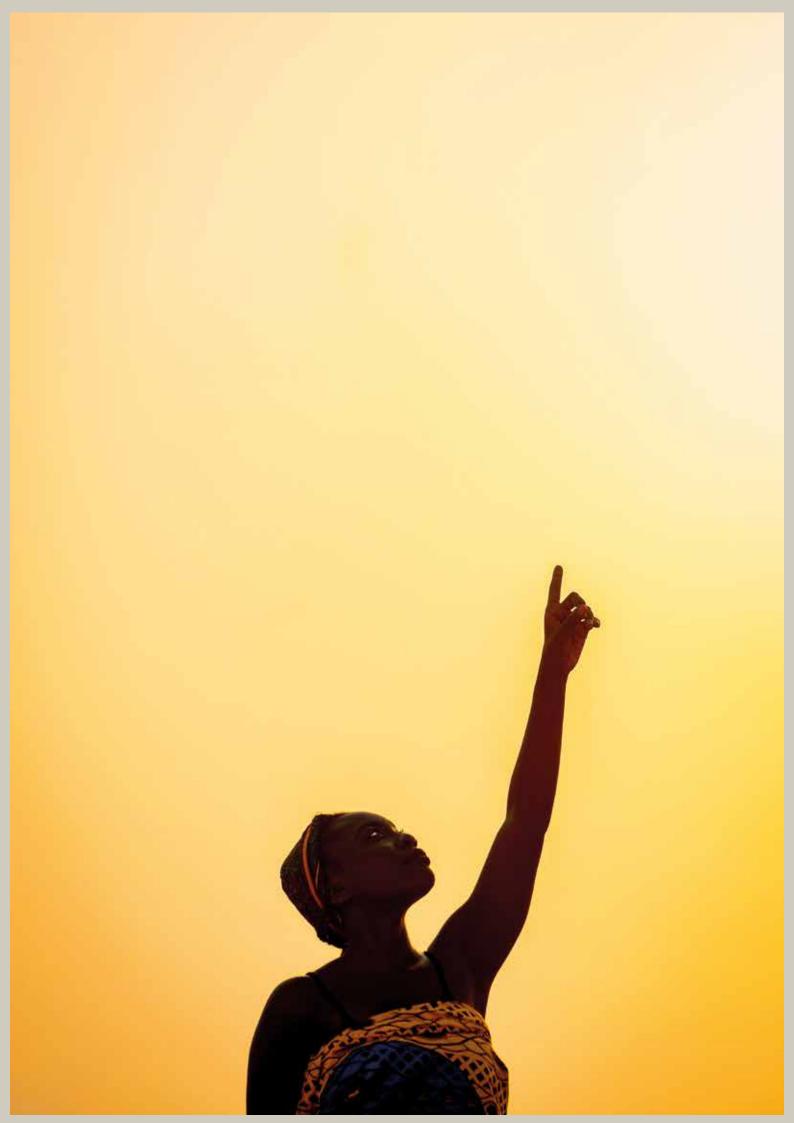
Moreover, this system, implemented by KNX-trained experts, allows for the integration of various devices and different automation systems, providing users with flexibility and customization options.

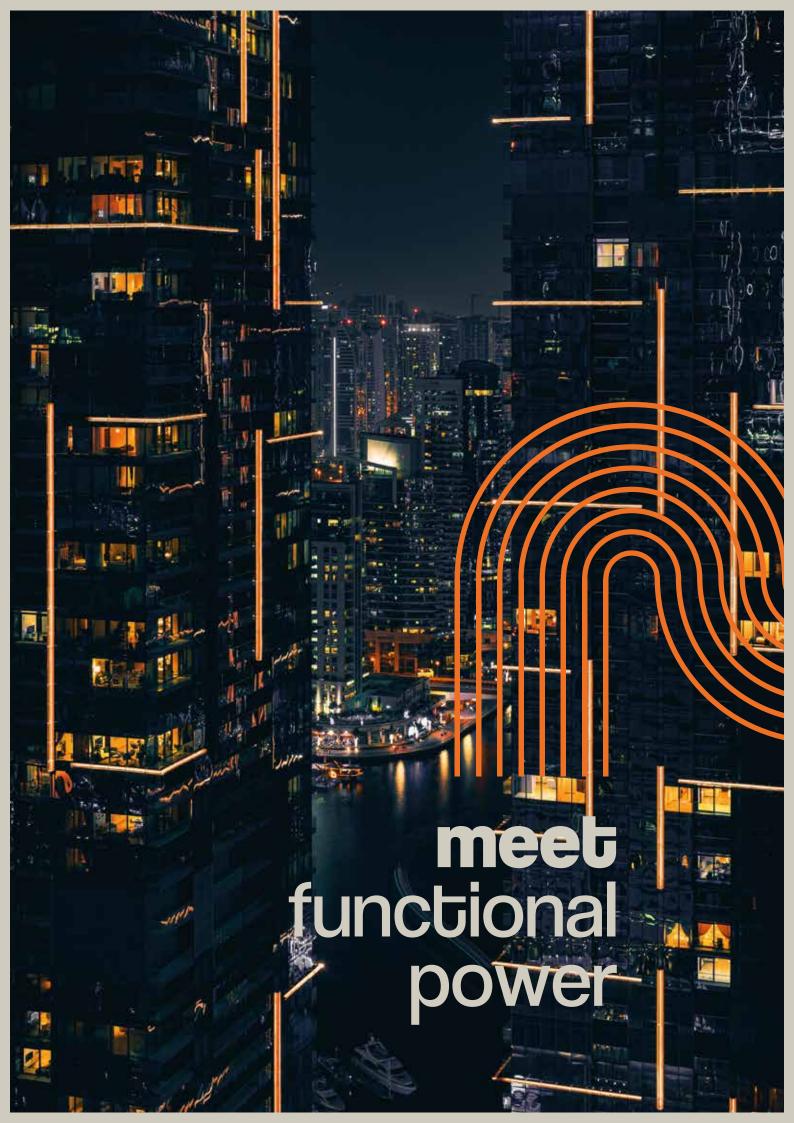
Optimus Solutions offers you products that have been "tested to perfection"; without limits, only with needs-oriented solutions.



#### **Enlighten, watch, manage! Protect the future with Optimus Solutions.**

Optimus Solutions takes a step forward by pioneering sustainable solutions and continues to offer environmentally friendly, sustainable, and cost-effective solutions on a global scale.









## combo actuator

The combo actuator, whose industrial design is shaped considering user and integrator needs, offers various usage purposes with the Optimus Stack infrastructure.

The Optimus Combo
Actuator Family, capable of performing Lighting,
Switch/Valve, Curtain/Blinds,
3-Point Motor, and Fan Coil control operations through a single device, consists of models with 4, 8, 12, 16, 20, and 24 contact outputs.





**High Capacity** 



**Multi-Function** 



Compact



# combo actuator technical specifications



**OPT-CA4-111** 

#### **4-Channel Combo Actuator**

The 4-channel combo actuator performs Lighting, Switch/Valve, Curtain/Blinds, 3-Point Motor, and Fan Coil control operations through a single device.



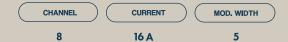




**OPT-CA8-111** 

#### 8-Channel Combo Actuator

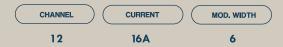
The 8-channel comboo actuator performs Lighting, Switch/Valve, Curtain/Blinds, 3-Point Motor, and Fan Coil control operations through a single device.





#### 12-Channel Combo Actuator

The 12-channel combo actuator performs Lighting, Switch/Valve, Curtain/Blinds, 3-Point Motor, and Fan Coil control operations through a single device.



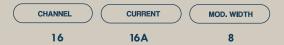
21

OPT-CA12-111

# combo actuator technical specifications

#### **16-Channel Combo Actuator**

The 16-channel combo actuator performs Lighting, Switch/Valve, Curtain/Blinds, 3-Point Motor, and Fan Coil control operations through a single device.





OPT-CA16-111



#### 20-Channel Combo Actuator

The 20-channel combo actuator performs Lighting, Switch/Valve, Curtain/Blinds, 3-Point Motor, and Fan Coil control operations through a single device.

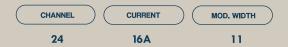


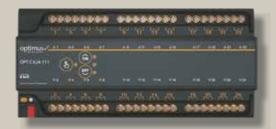


**OPT-CA20-111** 

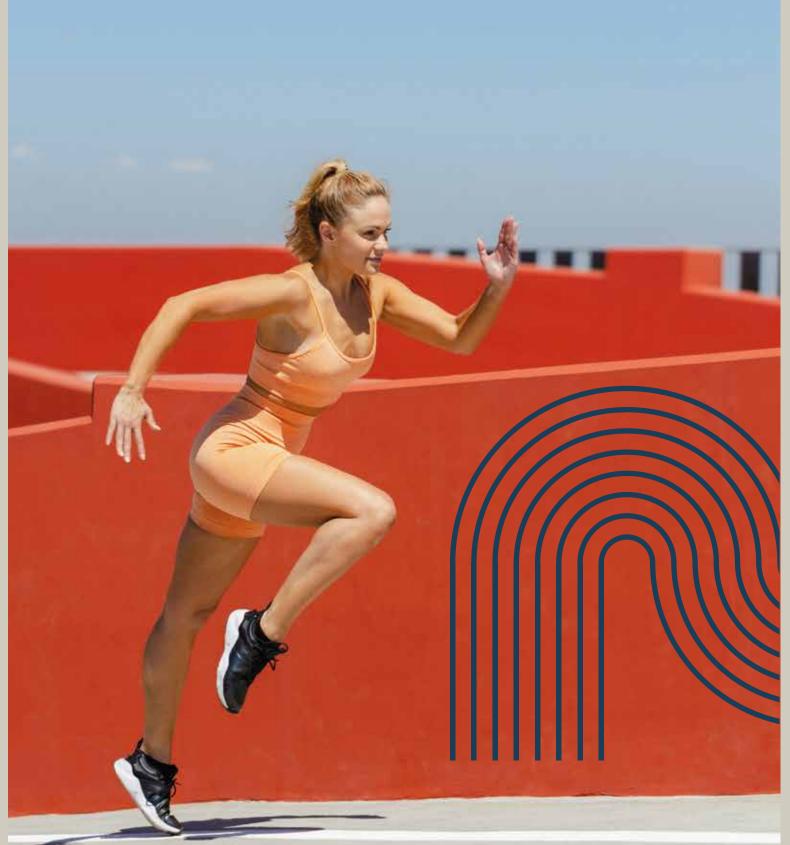
#### **24-Channel Combo Actuator**

The 24-channel combo actuator performs Lighting, Switch/Valve, Curtain/Blinds, 3-Point Motor, and Fan Coil control operations through a single device.





**OPT-CA24-111** 



real-time detection perfect speed





Compatible with Optimus KNX Stack, the multisensor is a presence and motion detector designed for indoor spaces. It is used to turn on/off lighting systems and/or heating-cooling (HVAC) systems depending on movement and/or presence and to adjust the lighting level.

It also offers constant light level control in lighting systems. It transmits measurement information to the KNX line via temperature and humidity sensors located on it. It is powered via the KNX line without the need for external power. It is suitable for both flushmounted and surfacemounted (with surfacemounted installation box) installations.









## multi-sensor technical specifications



OPT-MS-212-WH

#### **Multi-Sensor Wide Range**

The device is a presence and motion detector designed for indoor use with a developed detection area. It also includes temperature, humidity, and air quality sensors (in specific models). A digital input card or output card can be attached to the accessory input on the back of the sensor.







#### Multi-Sensor High-Bay

The device is a motion detector designed for indoor and high-ceiling use. It also includes temperature, humidity, and air quality sensors (in specific models). A digital input card or output card can be attached to the accessory input on the back of the sensor.

	COLOR	$\supset$ $\subset$	AREA	>	
White		30	30m Diameter		

## multi-sensor technical specifications



#### **Multi-Sensor Corridor**

The device is a motion detector designed for indoor use and in long areas such as hallways. It also includes temperature, humidity, and air quality sensors (in specific models). A digital input card or output card can be attached to the accessory input on the back of the sensor.

COLOR AREA

White 30m x 6m
Rectangle





**OPT-MS-111** 

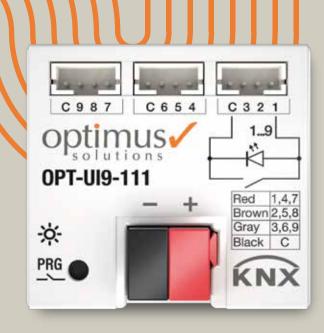
#### **Multi-Sensor**

The device is a presence and motion detector designed for indoor use with a developed detection area. It also includes temperature and humidity sensors.

COLOR AREA
White 10m Diameter







# universal interface

Designed for the KNX world with Optimus KNX Stack, this device is a universal input/output interface designed for indoor use. The Optimus Universal Interface series is available with 3, 6, and 9-channel options, and each channel is designed to be programmable as input or output according to the needs.

In input mode, the status of the contact is detected, and appropriate information in the suitable data type is transmitted to the KNX line. In output mode, the LEDs to be connected can be turned on or off according to the information coming from the KNX line. The Optimus Universal Interface is powered via the KNX line and therefore does not require an additional power source for contact scanning or LED driving.



Onedevice for different purposes



Using as Input/Output



Channel that meets market needs

# universal interface tecnical specifications



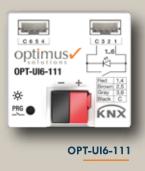
#### 3 Kanal Evrensel Arabirim

Universal input/output interface designed for indoor use.



3





#### **6-Channel Universal Interface**

Universal input/output interface designed for indoor use.





**OPT-UI9-111** 

#### 9-Channel Universal Interface

Universal input/output interface designed for indoor use.



9

# digital input device technical specifications



#### Digital Input Device, 230 V, 4-Channel

It is a panel-type 4-channel 230 VAC voltage-sensing digital input device. It can be used for switching, lighting, curtain control, and counter.

CHANNEL

4

OPT-DI4-121





#### Digital Input Device, 230 V, 8-Channel

It is a panel-type 8-channel 230 VAC voltage-sensing digital input device. It can be used for switching, lighting, curtain control, and counter.

CHANNEL

8

OPT-DI8-121

# digital input device technical specifications



#### **Digital Input Device, 12-Channel**

It is a panel-type 12-channel dry contact digital input device. It can be used for switching, lighting, curtain control, and counter.

CHANNEL

12



OPT-DI12-111



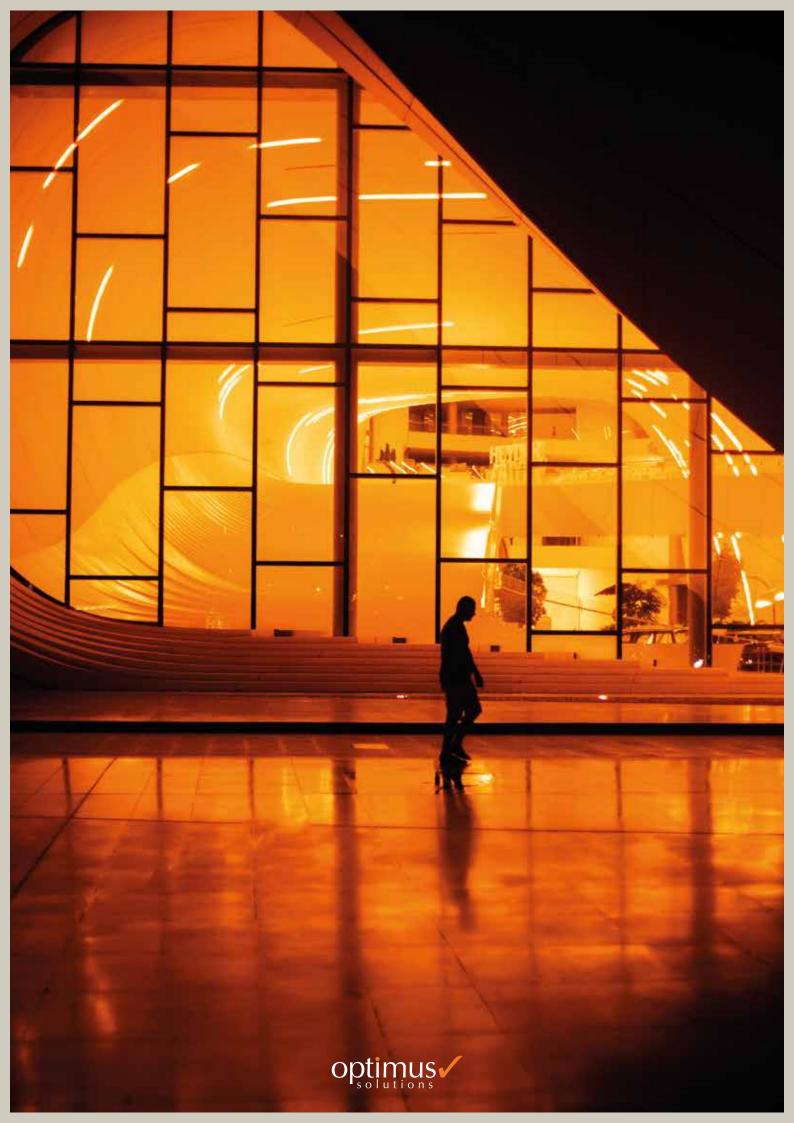
#### Digital Input Device, 6-channel

It is a panel-type 6-channel dry contact digital input device. It can be used for switching, lighting, curtain control, and counter.

CHANNEL

6

OPT-DI6-111









## power supply

KNX power supplies are essential components for KNX infrastructures. They provide constant voltage for powering of other components in the system and their communication with each other.

OPT- PS64-122 power supply is a KNX power supply thatcan output a nominal current of 30 VDC (SELV), 640 mA, and has two separate outputs.

The primary output is the one that is used to supply the KNX line and has an integrated choke circuit; the other is the auxiliary output which can be used to supply another line. With its indicator, the operating status, error status, and current draw information are monitored in real-time.



Real-time information



**Additional output** 



Constant
voltage / current /
measurement

## power supply technical specifications



OPT-PS32-111

#### 320 mA KNX Power Supply

320 mA KNX feed output KNX Power Supply. Overcurrent and short circuit protected; LED lights provide status indication.

CURRENT

320mA





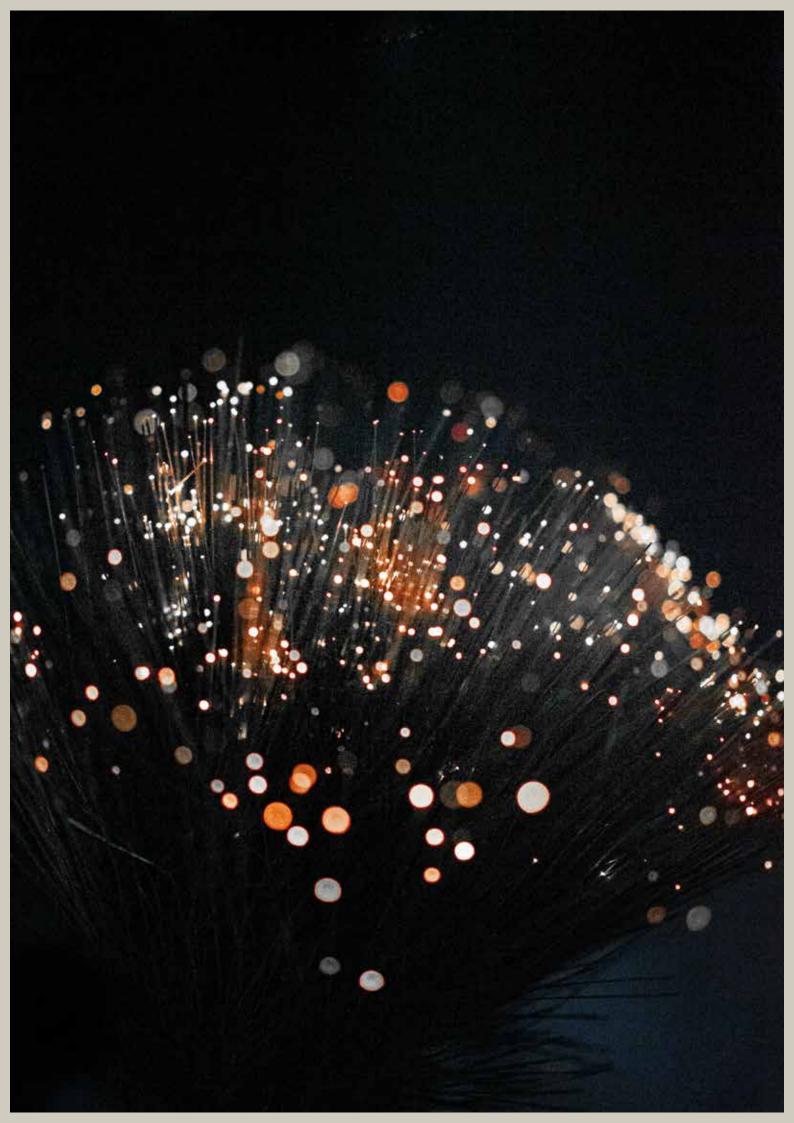
OPT-PS64-122

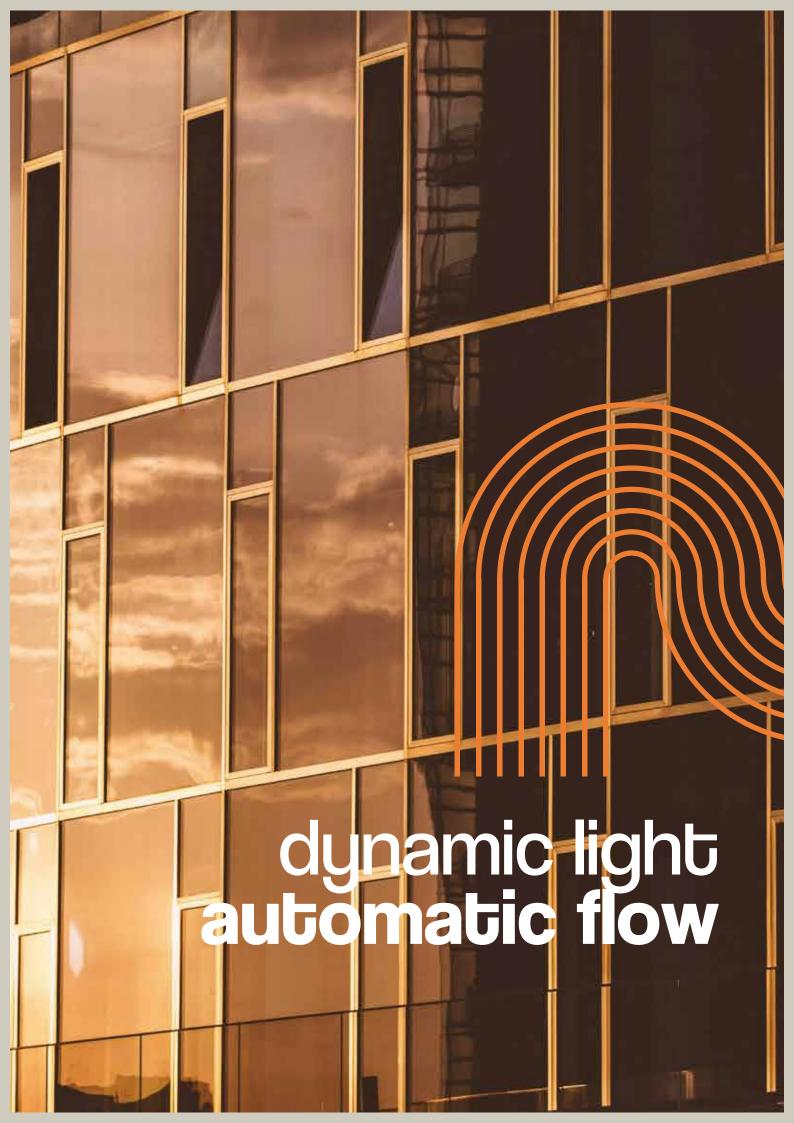
#### 640 mA KNX Power Supply

KNX Power Supply with 640 mA KNX and additional DC feed output. Additional contact output for status information, an LED bar showing output current, and information LEDs.

CURRENT

640mA









#### LED dimmer

An LED driver that can adjust the level of LED lighting with constant voltage. The supply voltage is determined according to the requirements of the load, between 12-24 VDC. LED lighting requiring the same voltage should be installed in each channel.

The maximum current that can be drawn per channel is 3 Amperes. Channels can be combined programmatically and physically to increase the total current to 6 A or 12 A. The device can also be used for LED drivers operating with PWM signals.



Level adjustment constant voltage



4 output

38

### LED dimmer technical specifications





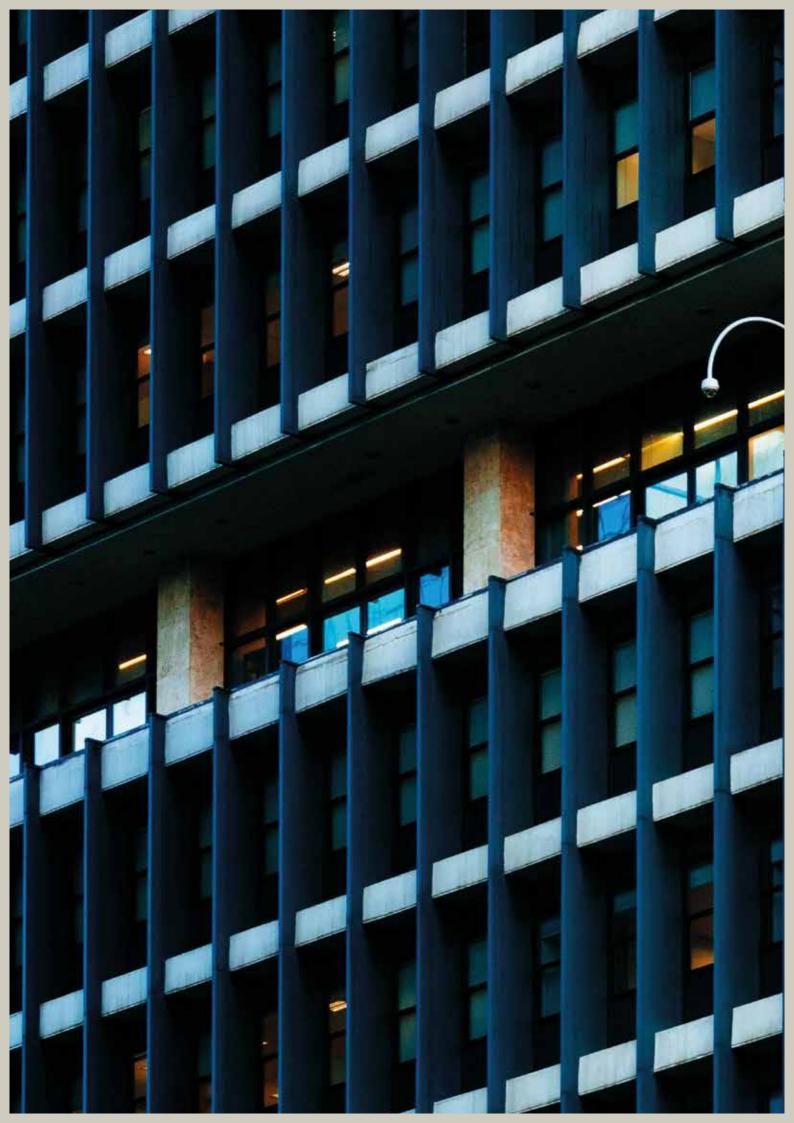
OPT-LD4-111

#### **4-Channel LED Dimmer**

It is an LED driver with constant voltage level adjustment.

CHANNEL

4



# comparison charts

#### combined actuator comparison chart

PRODUCT CODE	OPT-CA4-111	OPT-CA8-111	OPT-CA12-111	OPT-CA16-111	OPT-CA20-111	OPT-CA24-111
Supply Voltage	KNX 30 VDC					
KNX Current Consumption	Max. 10mA					
KNX Mod	S - Mod					
Connection	KNX Connection Terminal					
Protection Class	IP 20					
Installation	DIN Rail					
Output Count	4	8	12	16	20	24
Output Switching Current	16A 277 VAC					
Temperature ranges Operation Storage	-545 °C -2555 °C					
Dimensions (WxHxD)	54 x 92 x 64 mm	90 x 92 x 64 mm	108 x 92 x 64 mm	144 x 92 x 64 mm	198 x 92 x 64 mm	198 x 92 x 64 mm
Storage	ABS VO					
Connection Terminals	4 mm multi-core, 6 mm single-core					
Certification	CE, HOS,EAC					

#### multi-sensor comparison chart

PRODUCT CODE	OPT-MS-212-WH	OPT-MS-213-WH	OPT-MS-214-WH	OPT-MS-111
Supply Voltage	KNX 30 VDC	KNX 30 VDC	KNX 30 VDC	KNX 30 VDC
KNX Current Consumption	10mA	10mA	10mA	10mA
KNX Mod	S - Mod	S - Mod	S - Mod	S - Mod
Connection	KNX Connection Terminal	KNX Connection Terminal	KNX Connection Terminal	KNX Connection Terminal
Protection Class	IP 20	IP 20	IP 20	IP 20
Type of Sensor	PIR, Light level, temperature, humidity			
Mounting	Ceiling type surface mounted or flush-mounted			
Installation Height	2.5 - 4m	2.5 - 4m	2.5 - 4m	2.5 - 4m
Approach Distance	14 -18 m (dia.)	23 - 30 m (dia.)	22 - 35 m (dia.)	10 - 12 m (dia.)
Light Measurement	10-1000 lux	10-1000 lux	10-1000 lux	10-1000 lux
Temperature Ranges Operation Storage	-545 °C -2555 °C	-545 °C -2555 °C	-545 °C -2555 °C	-545 °C -2555 °C
Relative Humidity Measurement	<%80	<%80	<%80	<%80
KNX Current Consumption	10mA	10mA	10mA	10mA
Certification	CE, HOS,EAC	CE, HOS,EAC	CE, HOS,EAC	CE, HOS,EAC

### universal interface comparison chart

PRODUCT CODE	OPT-UI3-111	OPT-UI6-111	OPT-UI9-111
Supply Voltage	KNX 30 VDC	KNX 30 VDC	KNX 30 VDC
KNX Current Consumption	10mA	10mA	10mA
KNX Mod	S-Mod	S-Mod	S-Mod
Connection	KNX Connection Terminal	KNX Connection Terminal	KNX Connection Terminal
Protection Class	IP 20	IP 20	IP 20
Mounting	Indoor	Indoor	Indoor
Output Channels	3	6	9
Input Functions	Value sending, Dimmer, Curtain/Blinds, Counter	Value sending, Dimmer, Curtain/Blinds, Counter	Value sending, Dimmer, Curtain/Blinds, Counter
Output Functions	LED (3,3 VDC 2mA)	LED (3,3 VDC 2mA)	LED (3,3 VDC 2mA)
Cable Distance	Max. 100 m	Max. 100 m	Max. 100 m
Temperature ranges Operation Storage	-545 °C -2555 °C	-545 °C -2555 °C	-545 °C -2555 °C
Dimensions (WxHxD)	38 x 41 x 14 mm	38 x 41 x 14 mm	38 x 41 x 14 mm
Storage	45 gr	55 gr	65 gr
Certification	CE, HOS,EAC	CE, HOS,EAC	CE, HOS,EAC

### digital input device comparison chart

PRODUCT CODE	OPT-DI4-121	OPT-D[8-121	OPT-DI6-111	OPT-DI12-111
Supply Voltage	KNX 30 VDC	KNX 30 VDC	KNX 30 VDC	KNX 30 VDC
KNX Current Consumption	8 mA	8 mA	8 mA	8 mA
KNX Mod	S-Mod	S-Mod	S-Mod	S-Mod
Connection	KNX Connection Terminal	KNX Connection Terminal	KNX Connection Terminal	KNX Connection Terminal
Protection Class	IP 20	IP 20	IP 20	IP 20
Mounting	Pano tipi	Pano tipi	Pano tipi	Pano tipi
Input Type	4-Channel 4-230V AC/DC	8-Channel 4-230V AC/DC	6-Channel Kuru Kontak	12-Channel Kuru Kontak
Input Functions	Value sending, Dimmer, Shutter, Counter			
Cable Distance	Max. 100 m	Max. 100 m	Max. 100 m	Max. 100 m
Temperature ranges Operation Storage	-5+45 °C -25+55 °C	-5+45 °C -25+55 °C	-5+45 °C -25+55 °C	-5+45 °C -25+55 °C
Dimensions (WxHxD)	54 x 92 x 64 mm	90 x 92 x 64 mm	54 x 92 x 64 mm	90 x 92 x 64 mm
Weight	Net 105 g Gross 130 g	Net 153 g Gross 185 g	Net 107 g Gross 132 g	Net 155 g Gross 187 g
Storage	ABS VO	ABS VO	ABS VO	ABS VO
Certification	Certification	Certification	Certification	Certification

# power supply comparison chart

PRODUCT CODE	OPT-P\$64-122
Supply Voltage	190265 VAC 50 / 60 Hz
Power Consumption	14 W normal, 28 W max.
Output Voltage - 1	30 VDC (KNX)
Output Voltage – 2	30 VDC (İlave çıkış)
Output Current	640 mA
Protection Class	IP 20
Overload Point	0,9 A
Short-circuit Current	1,4 A
Fault Detection Time	200 ms
Temperature Range	-5+45 °C -25+55 °C
Relay Output	Network status information Open contact: Device is operational Closed contact: Device is non-operational
Connection Terminals	0.24.0 mm2 cable max. 0.5Nm
Dimensions (W x H x D)	90 x 92 x 64 mm (5 MW)
Weight	Net: 262 g Gross: 293 g
Installation	35 mm DIN rail
Certification	CE, HOS,EAC

# power supply comparison chart

PRODUCT CODE	OPT-P\$32-111
Supply Voltage	190265 VAC 50 / 60 Hz
Power Consumption	14 W normal, 28 W max
Output Voltage	30 VDC (KNX)
Output Current	320 mA
Protection Class	IP 20
Overload Point	0,5 A
Short-circuit Current	0,8 A
Fault Detection Time	200 ms
Temperature Range	-5+45 °C -25+55 °C
Connection Terminals	0.24.0 mm2 cable max. 0.5N m
Dimensions (W x H x D)	90 x 92 x 64 mm (5 MW)
Weight	Net: 245 g Gross: 277 g
Installation	35 mm DIN rail
Certification	CE, HOS,EAC

# LED dimmer comparison chart

PRODUCT CODE	OPT-LD4-111
Supply Voltage	KNX 30 VDC
KNX Current Consumption	Max. 10mA
KNX Mod	S-Mod
Connection	KNX Connection Terminal
Protection Class	IP 20
Mounting	DIN Rail
Output Count	4
Output Switching Currents	3A per channel, Total of 12A28 VDC (max.))
Temperature Range	-5+45 °C -25+55 °C
Dimensions	54 x 92 x 64 mm (3 MW*)
Weight	Net: 112 g Gross: 140 g
Storage	ABS VO
Connection Terminals	4mm2 multi-core, 6mm2 single-core
Certification	CE, HOS,EAC





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