

# Building Automation

For KNX, RS485 and Modbus Bus Systems  
and for Conventional Applications

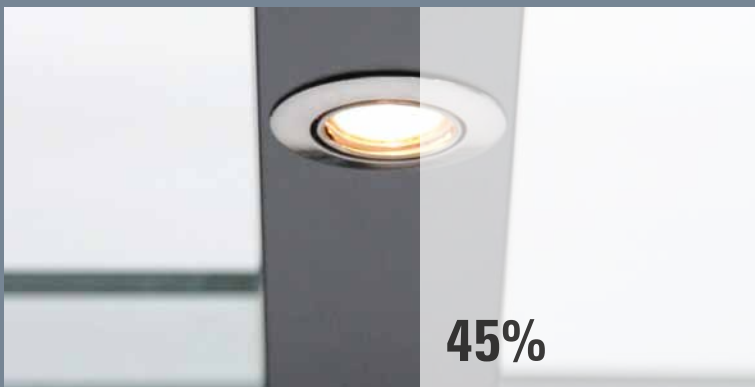
**elsner**<sup>®</sup>  
elektronik



**Automatic ventilation system:**  
Potential energy savings 19%\* and more



**Individual room temperature control:**  
Potential energy savings 28%\* and more



**Automatic lighting:**  
Potential energy savings 45%\* and more



**Automatic solar protection:**  
Potential energy savings 25%\* and more



## Gain Comfort and Security, save Energy

**Building automation creates ideal room climate, protects equipment and the building structure, ensures systems work safely – and, as a bonus, saves energy and costs. The *Smart Home* as a vision of the future? No, the intelligent house is already reality today!**

In **public and commercial buildings**, which are used by many people, automatic room climate control is already an everyday occurrence. Ventilation, heating and shading matched to requirements ensure ideal conditions 24 hours a day. Coordinating individual systems allows energy efficiency, which is not to be achieved by manual control.

Building systems offer the same benefits for **residential property**. Here, comfort, security and efficiency aspects are likewise closely interlinked. Building automation is also financially rewarding, as it reduces energy consumption. Investments are almost completely amortised after a timeframe of only a few years. This period is considerably longer for other energy saving measures around the home.

Building automation can be applied to different systems, e.g. safety systems, media systems, domestic appliances or energy management. However, it is the room climate that is fundamental for well-being in the building. Here, compact control solutions can already achieve great effects: **Intelligent shading** will keep

the building cool in summer, and solar heat is used in the cold season as a free heating source. The slat angle of blinds can be aligned according to the position of the sun. This helps to avoid direct solar irradiation while simultaneously enabling natural daylight illumination of the room to the largest possible extent. **Controlled ventilation** improves air quality in the room and prevents overheating or condensation forming, particularly in airtight insulated building shells. **Networking with heating and cooling systems** avoids energy losses.

**Everyone profits from perfectly controlled building systems: Users, owners and managers of real estate ... and the environment.**

**Lighting control** according to brightness, presence and time in large offices and presentation rooms is not only a simplification but holds real savings

potential. **Security and alarm functions** protect buildings and systems and simplify monitoring of apartments, houses or entire complexes. When blinds are automatically protected against wind, windows open and close automatically or the light switches itself off, as soon as the last person left the room, then the *Smart Home* is reality.



## Contents

■ Building Automation with KNX .....	5
■ Control Systems .....	27
for Buildings and Conservatories	
■ Conservatory Ventilation .....	43
■ Building Automation .....	47
Conventional, RS485, Modbus	



**As** the international ISO/IEC 14543-3 standard, KNX is today's worldwide leading open standard for home and building system technology. Solar protection, heating, alarm system, ventilation, lighting or support electronic devices are only examples for the multitude of areas in a building that can be monitored and controlled using KNX. Ideal energy management is possible by networking.

Because all sensors (e.g. brightness sensors) and actuators (e.g. lights, awnings) are networked via the databus, the system is very amenable to conversion and expansion. How sensors and actuators react with each other (e.g. what inside temperature and what bright-

ness are relevant for an awning) is configured by software and can be changed at any time. Extensions and additions are possible without any problems.

The enormous breadth of applications offers unique benefits, not only for the user and home owner, but earlier for planning and installation. The common standard generates new networking opportunities; all KNX-certified products are mutually compatible.

Detailed information about KNX, both for investors and for planners and architects is for instance available on [www.knx.org](http://www.knx.org).





# Building Automation with KNX

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<b>KNX Weather Sensors</b> .....	<b>6</b>
<b>KNX Outdoor Sensors</b> .....	<b>9</b>
<b>KNX Indoor Sensors</b> .....	<b>12</b>
<b>Sensors for Special Operating Areas</b> .....	<b>16</b>
Tank Sensor, Ground Sensor	
<b>KNX Actuators</b> .....	<b>17</b>
<b>System Corlo</b> .....	<b>19</b>
<b>Control and Operating Consoles for KNX</b> .....	<b>21</b>
<b>KNX Interfaces</b> .....	<b>23</b>
Interfaces to other Systems, Push Button Interface	
<b>KNX Power Supply Units</b> .....	<b>24</b>



## KNX Weather Sensors

The weather stations and sensors provide the current meteorological data for KNX networks. The compact devices feature a combined fixture for wall/pole mounting and are configured by means of the ETS.

The **brightness sensor** not only recognizes sunlight, but also twilight. For this, filters simulate the spectral sensitivity of the human eye. The electronic **wind sensor** works noiselessly and reliably, even during hail, snow and sub-zero temperatures. Turbulent air and anabatic winds in the vicinity of the weather station are recorded, too.

The measuring surface of the **precipitation sensor** is heated, so that humidity dries immediately. On the one hand, this prevents false reports caused by fog or dew. On the other hand, the sensor recognizes quickly when it has stopped to rain or snow.

The **temperature sensor** transfers the outdoor temperature exactly and reliably to the KNX system. Devices with **GPS receiver** calculate the position of the sun, output the local time and are able to switch time functions (daily/week time switch). The output of the integrated **logic gates** can be set to 1 bit or 2 x 8 bits according to your needs.



## Weather Stations **suntracer® KNX sl**

- Temperature sensor (-30...+50°C)
- Brightness sensor (0...150 000 lx)
- Wind speed sensor
- Precipitation sensor with 1.2 watt heating
- Switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- 4 comparators/ difference modules (2 inputs 1 byte/2 byte each, each output 1 bit or 2x1 byte)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 62 x 71 x 145 (W x H x D, mm)
- Operating voltage: 12-40 V DC (12-28 V AC)

### **Suntracer KNX sl:**

- Air pressure sensor 300-1100 hPa
- GPS receiver
- Calculation of the position of the sun, e. g. for tracking of shading elements and photovoltaic modules

- Calendar time switch (3 annual terms with 2 daily periods), week time switch (4 daily periods)
- Shading control for 8 fronts with tracking of the slats and shadow edge and with frost protection

### **Suntracer KNX sl light:**

- GPS receiver
- Calculation of the position of the sun
- Shading control for 5 fronts without tracking of the slats and shadow edge
- Calendar time switch (3 annual terms with 2 daily periods), week time switch (4 daily periods)

### **Suntracer KNX sl basic:**

- Without GPS receiver and time functions
- No automatic shading control

## Wind Sensor KNX W sl

- Wind speed sensor
- 3 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 62 x 71 x 145 (W x H x D, mm)
- Operating voltage: 12-40 V DC (12-28 V AC)

## Rain Sensor KNX R sl

- Precipitation sensor with 1.2 watt heating
- 1 switching output
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 62 x 71 x 145 (W x H x D, mm)
- Operating voltage: 12-40 V DC (12-28 V AC)

## Rain/Wind Sensor KNX RW sl

- Wind speed sensor
- Precipitation sensor with 1.2 watt heating
- 4 switching outputs, 3 adjustable limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 62 x 71 x 145 (W x H x D, mm)
- Operating voltage: 12-40 V DC (12-28 V AC)

## Brightness/Wind Sensor KNX LW sl

- Brightness sensor (0...150 000 lx)
- Wind speed sensor
- 9 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 62 x 71 x 145 (W x H x D, mm)
- Operating voltage: 12-40 V DC (12-28 V AC)

## Weather Stations **suntracer**® KNX

- Temperature sensor (-30...+50°C)
- 1 brightness sensor (0...150 000 lx)
- Wind speed sensor
- Precipitation sensor with 1.2 watt heating
- Calendar time switch (3 annual terms with 2 daily periods), week time switch (4 daily periods)
- Switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: 12-40 V DC (12-28 V AC)

### Suntracer KNX-GPS:

- GPS receiver
- Calculation of the position of the sun e. g. for tracking of shading elements and photovoltaic modules
- Shading control for 6 fronts with tracking of the slats and shadow edge

### Suntracer KNX-GPS light:

- GPS receiver
- Calculation of the position of the sun
- Shading control for 5 fronts without tracking of the slats and shadow edge
- Operating voltage: 12-40 V DC (12-28 V AC)

### Suntracer KNX:

- DCF77 receiver (manual entry of position)
- Calculation of the position of the sun
- Shading control for 5 fronts without tracking of the slats and shadow edge
- Operating voltage: 230 V AC

### Suntracer KNX basic:

- No GPS receiver, no time function
- No automatic shading control
- Operating voltage: available for 230 V AC or for 24 V DC (20 V AC)



KNX W sl  
N° 70158

NEW!



KNX R sl  
N° 70159



KNX RW sl  
N° 70162



KNX LW sl  
N° 70164



Suntracer KNX-GPS  
N° 3093

Suntracer KNX-GPS light  
N° 3094

Suntracer KNX basic  
24 V DC/20 V AC  
N° 3096



Suntracer KNX: 230 V AC  
N° 3090

Suntracer KNX basic 230 V AC  
N° 3095







N° 70122 (230 V AC)



N° 70123 (24 V DC/20 V AC)

## Wind Sensor KNX W

- Wind speed sensor
- 3 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: available for 230 V AC or for 24 V DC (20 V AC)

N° 70124 (230 V AC)  
N° 70125 (24 V DC/20 V AC)

## Rain Sensor KNX R

- Precipitation sensor with 1.2 watt heating
- 1 switching output
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: available for 230 V AC or for 24 V DC (20 V AC)



N° 70126 (230 V AC)



N° 70127 (24 V DC/20 V AC)

## Rain/Wind Sensor KNX RW

- Wind speed sensor
- Precipitation sensor with 1.2 watt heating
- 4 switching outputs, 3 adjustable limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: available for 230 V AC or for 24 V DC (20 V AC)



N° 70128 (230 V AC)



N° 70129 (24 V DC/20 V AC)

## Brightness/Wind Sensor KNX LW

- 1 brightness sensor (0...150 000 lx)
- Wind speed sensor
- 9 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: available for 230 V AC or for 24 V DC (20 V AC)



N° 70119

## Brightness Sensor KNX L

- 1 brightness sensor (0...150 000 lx)
- 3 switching outputs for day, 3 switching outputs for twilight/night, with adjustable limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: bus voltage



N° 70157

## Global Irradiance Sensor KNX PY

- Global irradiance sensor (Pyranometer)
- Output of radiation intensity in watts per squaremetre (0...2500 W/m<sup>2</sup>) or kilowatt hours per squaremetre (0...2196 kWh/m<sup>2</sup>)
- 4 switching outputs with limit values
- 2 AND and 2 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: bus voltage



## KNX Outdoor Sensors

The outdoor sensors are suitable for outdoor use because of their sturdy housing and protection category. But they can also be used indoors, like in storage buildings or production facilities. Some models can process **mixed values** (e. g. room average). For this purpose values of other sensors are received via the bus and mixed with the own measured values

(percentage can be adjusted). **Comparators** output minimum, maximum or average values of any 1 or 2 byte input values (output 1 bit or 2 x 1 byte). The output of the integrated **logic gates** can also be set to 1 bit or 2 x 8 bit, according to your needs. The automatic functions and controllers are configured by means of the ETS.

### Brightness Sensor Vari KNX 3L

- 3 brightness sensors
- For indoor and outdoor application
- Mixed value brightness 1/2/3
- 16 switching outputs with limit values
- 4 comparators/difference modules (2 inputs each)

- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44
- Approx. 65 x 80 x 30 (W x H x D, mm)
- Operating voltage: bus voltage

### Temperature Sensor Vari KNX T

- Temperature sensor
- For indoor and outdoor application
- Calculation of mixed values
- PI controller for heating/cooling
- 4 switching outputs with limit values

- 4 comparators/difference modules (2 inputs each)
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44
- Approx. 65 x 80 x 30 (W x H x D, mm)
- Operating voltage: bus voltage



Vari KNX 3L  
N° 70382

NEW!



Vari KNX T  
N° 70385



**NEW!**

Vari KNX TH  
N° 70386

### Combined Sensor Vari KNX TH

- Temperature sensor
- Humidity sensor
- For indoor and outdoor application
- Calculation of mixed values
- PI controller for heating, cooling, humidification and de-humidification
- 8 switching outputs with limit values
- 4 comparators/difference modules (2 inputs each)
- Actuating variable comparator
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44
- Approx. 65 x 80 x 30 (W x H x D, mm)
- Operating voltage: bus voltage



Vari KNX TH-D  
N° 70388

### Combined Sensor Vari KNX TH-D

- Temperature sensor
- Humidity sensor
- Air pressure sensor
- For indoor and outdoor application
- Calculation of mixed values
- PI controller for heating/cooling (temperature)
- PI controller for ventilation (humidity)
- 12 switching outputs with limit values
- 4 comparators/difference modules (2 inputs each)
- Actuating variable comparator
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44
- Approx. 65 x 80 x 30 (W x H x D, mm)
- Operating voltage: bus voltage



Vari KNX 3L-T  
N° 70383

### Combined Sensor Vari KNX 3L-T

- 3 brightness sensors
- Temperature sensor
- For indoor and outdoor application
- Calculation of mixed values, also internal brightness 1/2/3
- PI controller for heating/cooling
- 20 switching outputs with limit values
- 4 comparators/difference modules (2 inputs each)
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44
- Approx. 65 x 80 x 30 (W x H x D, mm)
- Operating voltage: bus voltage



Vari KNX 3L-TH  
N° 70384

### Combined Sensor Vari KNX 3L-TH

- 3 brightness sensors
- Temperature sensor
- Humidity sensor
- For indoor and outdoor application
- Calculation of mixed values, also internal brightness 1/2/3
- PI controller for heating/cooling (temperature)
- PI controller for ventilation (humidity)
- 24 switching outputs with limit values
- 4 comparators/difference modules (2 inputs each)
- Actuating variable comparator
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44
- Approx. 65 x 80 x 30 (W x H x D, mm)
- Operating voltage: bus voltage



Vari KNX 3L-TH-D  
N° 70389

### Combined Sensor Vari KNX 3L-TH-D

- 3 brightness sensors
- Temperature sensor
- Humidity sensor
- Air pressure sensor
- For indoor and outdoor application
- Calculation of mixed values, also internal brightness 1/2/3
- PI controller for heating/cooling (temperature)
- PI controller for ventilation (humidity)
- 4 comparators/difference modules (2 inputs each)
- Actuating variable comparator
- 28 switching outputs with limit values
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 44
- Approx. 65 x 80 x 30 (W x H x D, mm)
- Operating voltage: bus voltage



## GPS receiver Vari KNX GPS

- Output of UTC, local time and mounting position
- For outdoor use
- Housing for surface mounting, IP 44
- Approx. 65 x 80 x 30 (W x H x D, mm)
- Operating voltage: bus voltage

Vari KNX GPS  
N° 70387

GPS

## Temperature sensor KNX T-AP

- Temperature sensor (-30...+80°C)
- For indoor and outdoor application
- Calculation of mixed values
- PI controller for heating/cooling
- 4 switching outputs with limit values
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 65, grey
- Approx. 65 x 93 x 38 (W x H x D, mm)



N° 70121

## Temperature/Humidity Sensor KNX TH65-AP

- Temperature sensor (-30...+85°C)
- Humidity sensor (0...100%rF)
- For indoor and outdoor application
- Calculation of mixed values
- Monitoring of the comfort field (DIN 1946)
- PI controller for heating/cooling (temperature)
- PI controller for ventilation (humidity)
- 7 switching outputs with limit values
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, IP 65, grey
- Approx. 65 x 93 x 38 (W x H x D, mm)
- Operating voltage: bus voltage



N° 70184

## Temperature Sensor KNX T-UN

- Temperature sensor
- Extremely small sensor tip for use as a contact or feed probe for in- and outdoor applications, separate evaluation unit
- Calculation of mixed values
- PI controller for heating/cooling
- 4 AND and 4 OR logic gates (4 inputs each)
- Dimensions evaluation unit approx. 38 x 47 x 24 (W x H x D, mm). Cable length approx. 300 cm
- Operating voltage: bus voltage

### KNX T-UN 130:

- Set of evaluation unit and sensor T-130
- 4 switching outputs with limit values
- Measurement range -30°C to +130°C
- Measuring sensor protection class: IP 68
- Length of sensor shell approx. 20 mm, Ø approx. 6 mm

### KNX T-UN 100:

- Set of evaluation unit and sensor T-100
- 4 switching outputs with limit values
- Measurement range -35°C to +100°C
- Measuring sensor protection class: IP 43
- Length of sensor shell approx. 32 mm, Ø approx. 6 mm

### KNX T6-UN-B4:

- Evaluation unit for up to 10 temperature sensors
- 6 temperature inputs for sensors T-100 or T-130 (sensors to be ordered separately)
- 4 analog/digital inputs (also for sensors T-NTC)
- Overall 6 threshold values and 6 temperature controllers.

### T-130 Sensor for KNX T6-UN-B4:

- Measurement range -30°C to +130°C
- Measuring sensor protection class: IP 68
- Length of sensor shell approx. 20 mm, Ø approx. 6 mm

### T-100 Sensor for KNX T6-UN-B4:

- Measurement range -35°C to +100°C
- Measuring sensor protection class: IP 43
- Length of sensor shell approx. 32 mm, Ø approx. 6 mm

### T-NTC:

- For indoor and outdoor applications
- Measurement range -30°C to +100°C
- e.g. for Corlo Touch Display
- length of sensor sleeve approx. 32 mm, Ø approx. 6 mm, cable length approx. 300 cm



Evaluation Unit  
KNX T-UN 100/130



Evaluation Unit  
KNX T6-UN-B4



T-NTC N° 30516

KNX T-UN 130 (Set) N° 70220  
KNX T-UN 100 (Set) N° 70221  
KNX T6-UN-B4 N° 70222  
T-130 N° 30517  
T-100 N° 30518



## KNX Indoor Sensors

The indoor sensors monitor the ambient climate. The sensors can process **mixed values** (e. g. room average). For this purpose values of other sensors are received via the bus and mixed with the own measured values (percentage can be adjusted).

The output of the integrated **logic gates** can also be set to 1 bit or 2 x 8 bit, according to your needs. All devices have integrated PI controllers for one- or two-stage control and are configured by means of the ETS.

The **temperature sensor** measures temperature. The **humidity sensor** outputs the relative or absolute air humidity. The thermohygrometers additionally calculate the **dew point** and recognize, whether the measured values conform to the comfort field (DIN 1946). The **CO<sub>2</sub> sensor** detects the concentration of carbon dioxide in the air and the mixed gas sensor detects the concentration of volatile organic compounds.



N° 70358 (white)



N° 70359 (alu)  
N° 70360 (anthracite)  
N° 70361 (stainless steel)

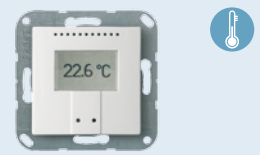
Discontinued item (software 2.0):  
N° 70210 (white), N° 70211 (alu),  
N° 70212 (anth.), N° 70213 (st. steel)

### Temperature Sensor KNX T-B-UP

- Temperature sensor (0...+50°C)
- For indoor use
- Display for measured values, bus data (e. g. date, time), mode, bargraph for target value change
- Push buttons for use as bus buttons or for changing the target temperature and mode
- Calculation of mixed values
- PI controller for heating/cooling
- 3 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage

## Temperature Sensor KNX T-UP

- Temperature sensor (0...+50°C)
- For indoor use
- Display for measured values, bus data (e. g. date, time), mode
- Calculation of mixed values
- PI controller for heating/cooling
- 3 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage



N° 70354 (white)

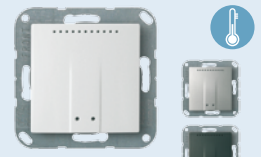


N° 70355 (alu)  
N° 70356 (anthracite)  
N° 70357 (stainless steel)

Discontinued item (software 2.0):  
N° 70166 (white), N° 70168 (alu),  
N° 70170 (anth.), N° 70180 (st. steel)

## Temperature Sensor KNX T-UP basic

- Temperature sensor (-25...+80°C)
- For indoor use
- Calculation of mixed values
- PI controller for heating/cooling
- 3 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage

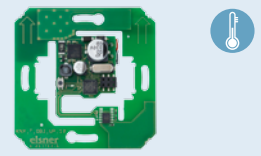


N° 70350 (white)  
N° 70351 (alu)  
N° 70352 (anthracite)  
N° 70353 (stainless steel)

Discontinued item (software 2.0):  
N° 70172 (white), N° 70174 (alu)  
N° 70176 (anth.), N° 70182 (st. steel)

## Temperature Sensor KNX T-Objekt-UP

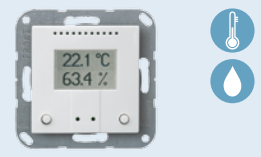
- Temperature sensor (-20...+70°C)
- For indoor use
- Calculation of mixed values
- PI controller for heating/cooling
- 4 switching outputs with limit values
- 4 AND and 4 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Completion with frame/cover of the switching series used in the building (not included in scope of delivery)
- Dimensions mounting plate/sensor board approx. 70 x 70 (B x H, mm)
- Operating voltage: bus voltage



N° 70178

## Temperature/Humidity Sensor KNX TH-B-UP

- Temperature sensor (0...+50°C)
- Humidity sensor (0...100%rF)
- For indoor use
- Display for measured values, bus data (e. g. date, time), mode, bargraph for target value change
- Push buttons for use as bus buttons or for changing the target temperature and mode
- Calculation of mixed values
- Monitoring of the comfort field (DIN 1946)
- PI controller for heating/cooling (temperature)
- PI controller for ventilation (humidity)
- 6 switching outputs with limit values
- Actuating variable comparator
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage



N° 70370 (white)



N° 70374 (alu)  
N° 70375 (anthracite)  
N° 70376 (stainless steel)

Discontinued item (software 2.0):  
N° 70215 (white), N° 70216 (alu)  
N° 70217 (anth.), N° 70218 (st. steel)





N° 70366 (white)

N° 70367 (alu)  
N° 70368 (anthracite)  
N° 70369 (stainless steel)

Discontinued item (software 2.0):  
N° 70167 (white), N° 70169 (alu)  
N° 70171 (anth.), N° 70181 (st. steel)

## Temperature/Humidity Sensor KNX TH-UP

- Temperature sensor (0...+50°C)
- Humidity sensor (0...100%rF)
- For indoor use
- Display for measured values, bus data (e. g. date, time), mode
- Calculation of mixed values
- Monitoring of the comfort field (DIN 1946)
- PI controller for heating/cooling (temp.)
- PI controller for ventilation (humidity)
- 6 switching outputs with limit values
- Actuating variable comparator
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage



N° 70362 (white)

N° 70363 (alu)  
N° 70364 (anthracite)  
N° 70365 (stainless steel)

Discontinued item (software 2.0):  
N° 70173 (white), N° 70175 (alu),  
N° 70177 (anth.), N° 70183 (st. steel)

## Temperature/Humidity Sensor KNX TH-UP basic

- Temperature sensor (-25...+80°C)
- Humidity sensor (0...100%rF)
- For indoor use
- Calculation of mixed values
- Monitoring of the comfort field (DIN 1946)
- PI controller for heating/cooling (temp.)
- PI controller for ventilation (humidity)
- 6 switching outputs with limit values
- Actuating variable comparator
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage



N° 70120

## Temperature/Humidity Sensor KNX TH-AP

- Temperature sensor (-20...+70°C)
- Humidity sensor (0...100%rF)
- For indoor use
- Calculation of mixed values
- Monitoring of the comfort field (DIN 1946)
- PI controller for heating/cooling (temp.)
- PI controller for ventilation (humidity)
- 7 switching outputs with limit values
- Actuating variable comparator
- 4 AND and 4 OR logic gates (4 inputs each)
- Housing for surface mounting, white
- Approx. 85 x 51 x 35 (W x H x D, mm)
- Operating voltage: bus voltage



N° 70244 (white)

N° 70245 (alu)  
N° 70246 (anthracite)  
N° 70247 (stainless steel)

## Mixed Gas Sensor KNX VOC-UP basic

- Mixed gas sensor detects volatile organic compounds (0...2000 ppm)
- For indoor use
- Calculation of mixed values
- PI controller for ventilation
- 2 actuating variable comparators
- 4 threshold-dependent switching outputs
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Auxiliary voltage: 12...24 V DC

## Air Quality Sensor KNX AQS-B-UP

- CO<sub>2</sub> sensor (0...2000 ppm)
- For indoor use
- Display for measured values, bus data (e. g. date, time), mode, bargraph for target value change
- Push buttons (bus buttons) at the device
- Calculation of mixed values
- PI controller for ventilation
- 4 switching outputs with limit values
- 2 AND and 2 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage



N° 70229 (white)



N° 70230 (alu)  
N° 70231 (anthracite)  
N° 70232 (stainless steel)

## Air Quality Sensor KNX AQS-UP basic

- CO<sub>2</sub> sensor (0...2000 ppm)
- For indoor use
- Calculation of mixed values
- PI controller for ventilation
- 4 switching outputs with limit values
- 2 AND and 2 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage



N° 70224 (white)



N° 70225 (alu)  
N° 70226 (anthracite)  
N° 70227 (stainless steel)

## Combined Sensor KNX AQS/TH

- CO<sub>2</sub> sensor (0...2000 ppm)
- Temperature sensor (-10...+50°C)
- Humidity sensor (0...100%rF)
- For indoor use
- Calculation of mixed values
- Monitoring of the comfort field (DIN 1946)
- PI controller for heating/cooling (temp.)
- PI controller for ventilation (CO<sub>2</sub>, humidity)
- 2 actuating variable comparators
- 11 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a junction box
- Housing plastic white (matt)
- Dimensions cover approx. 94 x 94 (W x H, mm), mounting depth 8 mm
- Operating voltage: bus voltage



N° 70161

## Combined Sensor KNX AQS/TH-B-UP

- CO<sub>2</sub> sensor (0...2000 ppm)
- Temperature sensor (0...+50°C)
- Humidity sensor (0...100%rF)
- For indoor use
- Display for measured values, bus data (e. g. date, time), mode, bargraph for target value change
- Push buttons for use as bus buttons or for changing the target temperature and mode
- Calculation of mixed values
- Monitoring of the comfort field (DIN 1946)
- PI controller for heating/cooling (temp.)
- PI controller for ventilation (CO<sub>2</sub>, humidity)
- 2 actuating variable comparators
- 11 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage



N° 70239 (white)



N° 70240 (alu)  
N° 70241 (anthracite)  
N° 70242 (stainless steel)



N° 70234 (white)



N° 70235 (alu)  
N° 70236 (anthracite)  
N° 70237 (stainless steel)

## Combined Sensor KNX AQS/TH-UP basic

- CO<sub>2</sub> sensor (0...2000 ppm)
- Temperature sensor (0...+50°C)
- Humidity sensor (0...100%rF)
- For indoor use
- Calculation of mixed values
- Monitoring of the comfort field (DIN 1946)
- PI controller for heating/cooling (temp.)
- PI controller for ventilation (CO<sub>2</sub>, humidity)
- 2 actuating variable comparators
- 11 switching outputs with limit values
- 8 AND and 8 OR logic gates (4 inputs each)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm
- Operating voltage: bus voltage

## Sensors for Special Operating Areas

### Tank Sensor KNX SO250

- For recording the liquid level in tanks or for distance measurement
- Ultrasound probe (measurement range 12 to 250 cm)
- Setting via ETS (e.g. tank geometry, level)
- 5 threshold-dependent switching outputs (data output via KNX bus terminal)
- Ultrasound measuring probe, black, Ø approx. 60 mm, height approx. 45 mm, 1½" thread
- Suitable for water and heating oil
- 10 m lead

#### KNX SO250:

- Evaluation unit with display (e.g. for displaying level/distance) and keypad
- 2 additional output relays (setting via keypad)
- Evaluation unit for series installation, 7U, white, approx. 123 x 89 x 61 (W x H x D, mm)
- Operating voltage: 230 V AC

#### KNX SO250 basic:

- Evaluation unit for series installation, 3U, white, approx. 53 x 88 x 60 (W x H x D, mm)
- Operating voltage: bus voltage



KNX SO250 N° 70151

KNX SO250 basic  
N° 70153

Ultrasound probe



N° 70312

N° 70310



### Ground Sensors with KNX I4-ERD Evaluation Unit

- For monitoring ground temperature and moisture content
- Evaluation unit for up to 4 ground sensors
- 2 threshold-dependent switching outputs for moisture and temperature per sensor

#### KNX I4-ERD Evaluation Unit:

- 6U series installation housing, white, approx. 107 x 88 x 60 (W x H x D, mm)
- Operating voltage: 230 V AC

#### TH-ERD Ground Sensor:

- Temperature measurement (-55...125°C)
- Moisture measurement (possible measurement in a temperature range of -10 to 70°C)
- Only for KNX I4-ERD
- Approx. 32 x 220 x 10 (W x H x D, mm), cable length approx. 10 m, may be extended to 100 m



## KNX Actuators

Actuators control blinds, awnings, roller shutters or windows in the KNX system. The automatic may be set externally or internally. The internal automatic of the actuators of the KNX S series offers numerous options for blocking, locking (e.g. master– slave) and

priority settings (e.g. manual – automatic). Movement positions and sequences may be stored and recalled via the bus. The slats of blinds can be tracked according to the position of the sun.

### Actuators for Shadings/Windows KNX S-UP

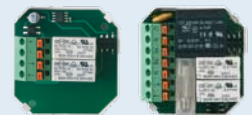
- Automatic functions for shading, window
- 8 channel scene control
- Binary inputs (direct operation/bus key):  
**KNX S-B4T-UP** with 4 binary inputs and 1 temperature sensor input,  
**KNX S-B2-UP** with 2 binary inputs,  
**KNX S-UP** without inputs
- Flush mounting in a socket
- Approx. 50 x 51 x 41 (W x H x D, mm)

#### 230 V version:

- For a 230 V AC drive (fused with T6.3A)
- Operating voltage: 230 V AC

#### 24 V version:

- For a 24 V DC polarity changer motor
- Operating voltage: 24 V DC



KNX S-UP  
N° 70134 (24 V DC)  
N° 70135 (230 V AC)

KNX S-B2 UP  
N° 70132 (24 V DC)  
N° 70133 (230 V AC)

KNX S-B4T-UP  
N° 70130 (24 V DC)  
N° 70131 (230 V AC)

### Actuators KNX S1R-UP

- Low-wearing relays that switch in zero crossing of electric tension
- Motor run time variable by ETS parameters or active current metering
- 16 channel scene control
- Analogue/digital inputs (e. g. for temperature sensor T-NTC or button Corlo M-T):  
**KNX S1R-B4-UP** with 4 inputs,  
**KNX S1R-B2-UP** with 2 inputs,  
**KNX S1R-UP** without inputs
- Flush mounting in a socket
- Approx. 50 x 50 x 54 (W x H x D, mm)

#### 230 V version:

- For one drive (1x up/down) or two switched devices (2x on/off ), max. 230 V AC, fused with T4.0 A
- Operating voltage: bus voltage
- Automatic functions for shading, window

#### 24 V version:

- For a 24 V DC polarity changer motor
- Operating voltage: bus voltage
- Automatic functions for shading, window



KNX S1R-UP  
N° 70201 (230 V)

KNX S1R-B2-UP  
N° 70202 (230 V)

KNX S1R-B4-UP  
N° 70203 (230 V)  
N° 70206 (24 V)

NEW!

### Actuators KNX S1E-UP

- Non-wearing, noiseless electronical output
- Motor run time variable by ETS parameters or active current metering
- Automatic functions for shading, window
- 16 channel scene control
- Analogue/digital inputs (e. g. for temperature sensor T-NTC or button Corlo M-T):  
**KNX S1E-B4-UP** with 4 inputs,  
**KNX S1E-B2-UP** with 2 inputs,  
**KNX S1E-UP** without inputs
- Flush mounting in a socket
- Approx. 50 x 50 x 54 (W x H x D, mm)

#### 230 V version:

- For a drive (1x up/down), max. 230 V AC, fused with T4.0 A
- Operating voltage: bus voltage

#### PS version (24 V):

- For a 24 V DC polarity changer motor, integrated power supply (230 V AC to 24 V DC 0,5 A)
- Operating voltage: bus voltage



KNX S1E-UP  
N° 70207 (230 V)

KNX S1E-B2-UP  
N° 70208 (230 V)

KNX S1E-B4-UP  
N° 70209 (230 V)

KNX S1E-B4-UP PS  
N° 70205

NEW!

KNX S4-B10  
N° 70137**NEW!**KNX S1-B2  
N° 70380KNX S2-B6  
N° 70381

## KNX S4-B10, KNX S2-B6, KNX S1-B2 Multifunctional 230 V Actuators

- Outputs 230 V AC, each for one drive (1x up/down) or two switchable devices (2x on/off)
- Motor run time variable by ETS parameters or active current metering
- Automatic functions for shading, window, light
- 16 channel scene control
- For installation on DIN rail, with push button pairs and control LEDs
- Operating voltage: 230 V AC

- 10 binary inputs (direct operation/bus key)
- 6 units, approx. 107 x 88 x 60 (W x H x D, mm)

### KNX S2-B6 230 V:

- 2 multifunctional outputs 230 V AC
- 6 binary inputs (direct operation/bus key)
- 6 units, approx. 107 x 88 x 60 (W x H x D, mm)

### KNX S1-B2 230 V:

- 1 multifunctional output 230 V AC
- 2 binary inputs (direct operation/bus key)
- 3 units, approx. 53 x 88 x 60 (W x H x D, mm)

### KNX S4-B10 230 V:

- 4 multifunctional outputs 230 V AC



N° 70138

## Actuator KNX S4-B12 24 V

- 4 outputs (up/down) for polarity changer motors (24 V DC with internal auxiliary voltage 24 V or 12 V DC with external auxiliary voltage)
- Motor run time variable by ETS parameters or active current metering
- Automatic functions for shading, window

- 16 channel scene control
- 12 binary inputs (direct operation/bus key)
- 4 key pairs and control LEDs
- Series installation, 6 units, approx. 107 x 88 x 60 (W x H x D, mm)
- Operating voltage: 24 V DC

KNX K8  
N° 70321

KNX K4 N° 70320

## Heating actuators KNX K4 and KNX K8

- Outputs for heating/cooling control (on/off or pulse width modulation) 230 V AC, 10 W per output
- Starting current max. 1 A per channel
- Internal temperature control (PI controller, one- or two-stage)
- For installation on DIN rail, with push button pairs and LEDs

### KNX K4:

- 4 outputs
- Operating voltage: bus voltage
- 3 units, approx. 53 x 88 x 60 (W x H x D, mm)

### KNX K8:

- 8 outputs
- Auxiliary voltage: 230 V AC
- 6 units, approx. 107 x 88 x 60 (W x H x D, mm)

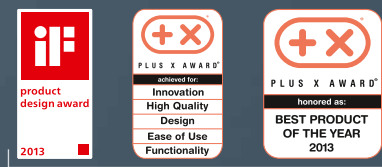


N° 70139

## Control Module for Door Drives KNX A2-B2

- 2 outputs for control of a door
- 2 binary inputs (for status query or as a bus push button)

- Approx. 38 x 47 x 29 (W x H x D, mm)
- Operating voltage: bus voltage



Corlo Touch KNX



System Corlo

## System Corlo

Real glass surfaces and chrome plated metal frames make the touch displays, push buttons and power outlets of System Corlo a highlight of high class interiors.

The System Corlo frames are available with a matt or glossy finish, custom colours for an in-

dividual interior design are also possible. Your colour concept can be further customised with the Corlo Touch's variable ambient lighting. For display, push button and power outlet, you have a choice of white or black glass surfaces.

## Corlo Touch KNX Touch Switch and Display for KNX

- The **Corlo Touch KNX** display can be used as a touch switch, for automatic settings and as an info screen
- 10 display pages can be configured individually, with areas for operation and display (e.g. switch, rocker, rotary control and value display)
- Includes large set of icons. You can load your own icons from Micro-SD Card
- The brilliant 3.5" screen is also ideally suited for displaying photos
- Touch-sensitive glass interface
- Matt or glossy chromed edge (custom colours on request), white or black glass
- Ambient lighting with individually variable colours (RGB)
- Proximity sensor allows switching on approach and fast activation of the display from standby mode
- Brightness sensor for automatic adaption of the display lighting
- KNX connection for data transfer
- 4 inputs (as binary inputs or for temperature sensor)
- Micro SD card slot, e. g. as storage for image data. USB Interface
- Internal automatic functions for ventilation, shading (solar/visual protection), room climate control (heating, cooling) and light
- Internal scene control, timer and wake-up function
- 4 AND and 4 OR logic gates (each with 4 inputs, output in each case 1 bit/2x8 bits)
- Mounting with Frame *Corlo* in socket
- Approx. 80 x 71 x 49 (W x H x D, mm), mounting depth approx. 12.5 mm
- Operating voltage: 12...24 V DC
- **Corlo Touch KNX WL model:** W-LAN-WLAN interface allows e.g. smartphone control, display of web pages and IP camera images

**Accessory:** (not included)

- T-NTC temperature sensor (p. 48)

*Corlo Touch KNX*  
White, glossy edge  
Black, glossy edge  
White, matt edge  
Black, matt edge

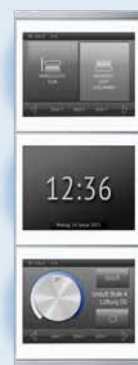
N° 70258  
N° 70259  
N° 70260  
N° 70261

*Corlo Touch KNX WL*  
White, glossy edge  
Black, glossy edge  
White, matt edge  
Black, matt edge

N° 70252  
N° 70253  
N° 70254  
N° 70255



*Corlo Touch black, in 1-gang glossy chromed frame*



*Corlo Touch white, in 3-gang matt chromed frame*

15:11

Dienstag 28. November 2012



## Corlo Push Buttons M-T

- Matt or glossy chromed edge (custom colours on request), white or black glass
- Available as single push button Corlo M1-T and as double push button Corlo M2-T
- Integrated temperature sensor T-NTC
- Mounting with Frame *Corlo* in socket
- Approx. 80 x 71 x 12,5 (W x H x D, mm)

**Corlo Push Buttons M1-T**  
 White, glossy edge N° 70282  
 Black, glossy edge N° 70283  
 White, matt edge N° 70284  
 Black, matt edge N° 70285

**Corlo Push Buttons M2-T**  
 White, glossy edge N° 70286  
 Black, glossy edge N° 70287  
 White, matt edge N° 70288  
 Black, matt edge N° 70289

*Solar-Wireless-Push Buttons page 31*



*Corlo Push Buttons M-T,  
in glossy chromed frame*

## Corlo Power Outlet

- Matt or glossy chromed edge (custom colours on request), white or black glass
- Integrated increased contact protection
- Mounting with Frame *Corlo* in socket
- Approx. 80 x 71 x 12,5 (W x H x D, mm)

**Corlo Power Outlet**  
 White, glossy edge N° 70318  
 Black, glossy edge N° 70319  
 White, matt edge N° 70330  
 Black, matt edge N° 70331



*Corlo Power Outlet  
in glossy chromed frame*

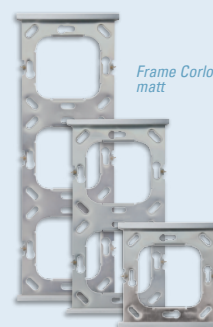
## Frame Corlo

- 1-gang approx. 80 x 81, 2-gang approx. 80 x 153, 3-gang approx. 80 x 224 (W x H, mm), mounting depth approx. 12,5 mm
- Matt or glossy chromed zinc-diecast (custom colours on request)

**Frame Corlo gloss**  
 1-fach N° 70264  
 2-fach N° 70265  
 3-fach N° 70266

**Frame Corlo matt**  
 1-fach N° 70267  
 2-fach N° 70268  
 3-fach N° 70269

**Frame Corlo** for Corlo Touch KNX, Corlo Touch KNX WL, Corlo Power Outlet and Corlo Push Button M-T



*Frame Corlo  
matt*

## Control and Operating Consoles for KNX

Control centres form the interface between building technology and user. Contact sensitive screens and intuitively comprehensible menu guidance help to set the integrated controller

functions and operate the house systems “with a fingertip”. Basic function assignments are set by the installer in the ETS.

## Touch Panel Touch One® Style for Room Automation

- Free configurable display and operation elements
- Graphic weather data display
- Internal automatic functions for shading (sun protection/screen), control of room conditions (heating, cooling, ventilation) and illumination
- Bus functions for time and scene control
- Integrated indoor sensor (temperature, humidity)
- 4 Binary inputs (e. g. for push buttons)
- KNX plug connector for data transfer
- Glass front in white/grey or dark grey/black reflective finish, with 5.7” colour touch display
- Flush or cavity wall mounting
- Dimensions approx. 181 x 131 (W x H, mm), mounting depth approx. 8 mm, concealed box approx. 172 x 122 x 81 (W x H x D, mm)
- Operating voltage: 12...28 V AC (12...40 V DC)
- Accessory:** (not included)
- Remote Control Remo 8 (p. 31)



*N° 70197 (white)  
N° 70198 (black)*





N° 70195 (white)  
N° 70196 (alu)

## Touch Panel Touch One® for Room Automation

- Free configurable display and operation elements
  - Graphic weather data display
  - Internal automatic functions for shading (sun protection/screen), control of room conditions (heating, cooling, ventilation) and illumination
  - Bus functions for time and scene control
  - Integrated temperature/humidity sensor
  - 4 binary inputs (e. g. for push buttons)
  - KNX plug connector for data transfer
  - Colour touch display 5.7 inches
  - Housing plastic white/grey or alu/graphite (partly painted)
  - Housing for surface mounting, feeding of cables via a socket
  - Approx. 164 x 121 x 29 (W x H x D, mm)
  - Operating voltage: 12...28 V AC (12...40 V DC)
- Accessory:** (not included)
- Remote Control Remo 8 (p. 31)



N° 70193 (white)  
N° 70194 (black)

## Control System KNX WS1000 Style

- Graphic weather data display
  - Internal automatic functions for shading (awning, blind, roller shutter)
  - Internal automatic functions for ventilation (windows, fans)
  - Internal light control
  - Time switch
  - KNX plug connector for data transfer
  - 32 Radios channels for special wireless relays and motor control units, ventilation units, sensors and for remote control
  - Supply of weather data via KNX or by direct connection of a weather station (see accessories)
  - Display of pictures/slideshow (via SD card)
  - Colour touch display 8.4 inches
  - Glass front in white/grey or dark grey/black reflective
  - For wall or cavity wall mounting
  - Approx. 270 x 185 (W x H, mm), mounting depth approx. 9 mm, concealed box approx. 254 x 171 x 85 (W x H x D, mm)
  - Operating voltage: 230 V AC
- Accessories:** (not included)
- Weather station P03i-GPS / P04i-GPS
  - Interface for 2 video cameras (p. 33)
  - Radio Relays RF Relay and Motor Control Units (p. 32)
  - Radio Ventilation Units WFL, WL400, WL800 (p. 44)
  - Radio Temperature Sensor WGT and Thermo/Hygrometer WGTH-UP (p. 30)
  - Remote Control Remo 8 (p. 31)

## Control System KNX WS1000 Color

- Graphic weather data display
- Internal automatic functions for shading (awning, blind, roller blind)
- Internal automatic functions for ventilation (windows, fans)
- Internal light control
- Time switch
- KNX plug connector for data transfer
- 32 Radios channels for special wireless relays and motor control units, ventilation units, sensors and for remote control
- Supply of weather data via KNX or by direct connection of a weather station (see accessories)
- 8.4" colour touch display
- Housing plastic white/grey or alu/graphite (partly painted)
- For wall or cavity wall mounting
- Approx. 250 x 182 x 43, concealed box approx. 235 x 169 x 62 (W x H x D, mm)
- Operating voltage: 230 V AC

### Accessories: (not included)

- Weather station P03i-GPS / P04i-GPS
- Interface for 2 video cameras (p. 33)
- Radio Relays RF Relay and Motor Control Units (p. 32)
- Radio Ventilation Units WFL, WL400, WL800 (p. 44)
- Radio Temperature Sensor WGT and Thermo/Hygrometer WGTH-UP (p. 30)
- Remote Control Remo 8 (p. 31)



N° 70191 (white)  
N° 70192 (alu)

## Weather Stations P03i-GPS and P04i-GPS for KNX WS1000

- For direct connection to KNX WS1000 Color / KNX WS1000 Style control system
- Temperature sensor
- 1 brightness sensor
- Wind speed sensor
- Precipitation sensor with 1.2 watt heating
- GPS receiver
- Housing for surface mounting, IP 44, white/translucent
- P03i: approx. 96 x 77 x 118 (W x H x D, mm)
- P04i: approx. 62 x 71 x 145 (W x H x D, mm)
- Operating voltage: 24 V DC



P03i-GPS  
N° 30114



P04i-GPS  
N° 30136



## KNX FS6 Facade Control

- Shading control for up to 6 facades
- Tracking of the slats and shadow edge
- Logic gates (AND/OR)
- Installation on DIN rail (3 units), white, approx. 53 x 88 x 60 (W x H x D, mm)
- Operating voltage: bus voltage

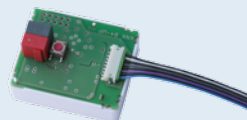


N° 70136

## KNX Interfaces

### Push Button Interface KNX B4-UP

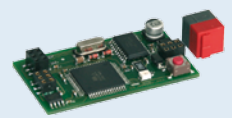
- 4 binary inputs for conventional push buttons or auxiliary contacts
- Approx. 38 x 47 x 29 (W x H x D, mm)
- Connection lead 300 mm, can be extended up to 10 m
- Operating voltage: bus voltage



N° 70250

### KNX Interface for WS1000 Color/Style

- Use of Control System data in the KNX system (e. g. weather data)
- Automatic functions of the WS1000 can control drives in the KNX system and request sensor data from the bus
- Interface and KNX connector are plugged onto the board of the control system
- Board approx. 53 x 7 x 30 (W x H x D, mm)
- For WS1000 Color and WS1000 Style as of version 1.45



N° 70190

## KNX Power Supply Units

The power supply units deliver a 29 V bus voltage (reduced) and 24 V DC supply voltage for 24 V devices (not reduced). Special operating conditions such as short circuit, electrical surge, overcharge or excess temperature are

recorded and may be read off on the display. The present power discharge is displayed as well. It is possible to reset the bus devices by means of the key pad.



N° 70140

### Power Supply Unit KNX PS640

- 1 output for KNX bus voltage, output current of max. 640 mA, short-circuit proof
- 1 output for 24 V DC, output current of max. 150 mA

- Installation on DIN rail (7 units), white, approx. 123 x 89 x 61 (W x H x D, mm)
- Operating voltage: 230 V AC



N° 70141

### Power Supply Unit KNX PS640+

- 1 output for KNX bus voltage, output current of max. 640 mA, short-circuit proof
- 1 output for 24 V DC, output current of max. 150 mA
- Bus connector for data transfer to line/main line/area

- Bus functions: transfer of malfunction messages and operating data, time/period reset, storage of malfunction messages
- Installation on DIN rail (7 units), white, approx. 123 x 89 x 61 (W x H x D, mm)
- Operating voltage: 230 V AC



N° 70143

### Power Supply Unit KNX PS640 USB

- 1 output for KNX bus voltage, output current of max. 640 mA, short-circuit proof
- 1 output for 24 V DC, output current of max. 150 mA

- USB connection for programming (ETS)
- Installation on DIN rail (7 units), white, approx. 123 x 89 x 61 (W x H x D, mm)
- Operating voltage: 230 V AC



N° 70144

### Power Supply Unit KNX PS640+USB

- 1 output for KNX bus voltage, output current of max. 640 mA, short-circuit proof
- 1 output for 24 V DC, output current of max. 150 mA
- USB connection for programming (ETS)
- Bus connector for data transfer to line/main line/area

- Bus functions: transfer of malfunction messages and operating data, time/period reset, storage of malfunction messages
- Installation on DIN rail (7 units), white, approx. 123 x 89 x 61 (W x H x D, mm)
- Operating voltage: 230 V AC



N° 70142

### Router with Power Supply Unit KNX PS640-IP

- 1 output for KNX bus voltage, output current of max. 640 mA, short-circuit proof
- 1 output for 24 V DC, output current of max. 150 mA
- Ethernet connection by RJ45 connector
- Routing (Ethernet as fast backbone for KNX data)

- Application as KNX line coupler
- Tunneling (bus access via IP, remote maintenance via LAN)
- Installation on DIN rail (7 units), white, approx. 123 x 89 x 61 (W x H x D, mm)
- Operating voltage: 230 V AC



## Router with Power Supply Unit KNX PS640+IP

- 1 output for KNX bus voltage, output current of max. 640 mA, short-circuit proof
- 1 output for 24 V DC, output current of max. 150 mA
- Bus connector for data transfer to line/main line/area
- Bus functions: transfer of malfunction messages and operating data, time/period reset, storage of malfunction messages
- Ethernet connection by RJ45 connector
- Routing (Ethernet as fast backbone for KNX data)
- Application as KNX line coupler
- Tunneling (bus access via IP, remote maintenance via LAN)
- Installation on DIN rail (7 units), white, approx. 123 x 89 x 61 (W x H x D, mm)
- Operating voltage: 230 V AC



**NEW!**

N° 70145



**Building control systems** by Elsner Elektronik are complete packages with control unit, sensor systems and power electronics. This is why the devices are simple to install and set up, as well as convenient in operation. The central automatic control for example, takes over ideal shading and ventilation or facilitates manual movements of drives, such as awnings and rooflights.

Some control systems can be expanded by using wireless interfaces. The system is complemented as required with special wireless-based motor control devices, relays, key interfaces, etc. This is what makes the systems flexible to respond to any change in the use of the buildings or the demands of its occupants. Wireless communication is also particularly suitable for renovation and redevelopment.





# Control Systems

**elsner**<sup>®</sup>  
elektronik

<b>Control Systems for Buildings and Conservatories</b> .....	<b>28</b>
Shading, ventilation, climate control and light	
<b>Accessories for WS1 and WS1000</b> .....	<b>30</b>
Wireless modules and other interfaces to extend the system	
<b>Shading and Window Controls</b> .....	<b>34</b>
<b>Radiocommunication System XS</b> .....	<b>36</b>
Shading and windows	
<b>Operation of Sun Screen and Illumination</b> .....	<b>38</b>
<b>Ventilation Control</b> .....	<b>40</b>
<b>Evaluation Unit</b> .....	<b>41</b>
For weather data	





## Control Systems for Buildings and Conservatories

WS1000 and WS1 are control and operating units for building systems in conservatories, residential and smaller office properties. The automatic control ensures ideal room climate and offers **security and comfort functions**. In addition, the building's **energy budget** is optimized by the perfect interplay of the building technology systems.

The central element of the control is the touchsensitive colour display. The connected devices are operated and settings changed here. The operator interface guides the user easily through the setting steps.

As soon as operations cease, the screen shows the current weather data, the sun's course or rain- and snowfall. To save energy, the display can darken automatically or switch off completely under low ambient light conditions. Drives and devices are connected directly to the controls. Wireless channels are also available for communication. Additional drives and devices can be controlled via wireless modules.

The most important automatic functions are **solar protection** and ventilation. Awnings, blinds and roller shutters are controlled by brightness and secondarily by sun direction and height. The blind slat angle can be tra-

cked according to the position of the sun. This prevents direct sun light, but maximises the natural daylight in the room. Also, the shades only move down when the desired room temperature is reached. This is how solar heat is utilised. Irrespective of this, the controls protect the connected shading against damage by wind or rain. An integrated timer allows the user to perform comfort functions, such as closing the blinds as visual protection.

The automatic **ventilation** is consistent with temperature and humidity. For example, windows are opened by night for cooling in summer, until the desired room temperature is reached. A rain alarm function protects furniture and equipment against moisture damage. Heating systems, ventilation equipment and climate control systems are also regulated by the controls, so that the desired room climate is maintained.

Safety in the building is enhanced by connecting smoke alarms and motion detectors. Control displays can show video camera images, e.g. for monitoring the entrance area. Even individual wishes, such as timing a pond pump or idyllic lighting of garden and house are turned into reality with the WS1000 and WS1 building control units.



## Building Control System WS1000® Style

**Scope of delivery:** central unit, indoor sensor WGTH-UP (p. 30), weather station P03i-GPS (p. 30)

### Central Unit WS1000 Style:

- 4, 6, 8 oder 10 drive outputs, 230 V AC or potential-free (version PF). For shadings, windows or sliding doors
- 4 multifunctional outputs for heating, cooling, supply air, alarm system, light, dimmer or gutter heating
- 4 multifunctional inputs for motion and smoke detectors, door contact, signal of a heating/cooling, of a camera or for reset
- Connection for 10 external push buttons, e. g. Corlo Push Buttons M-T (p. 31)
- 32 wireless channels for special wireless relays, motor control equipment, ventilation equipment, sensors and for key interface and remote control
- Integration in KNX bus system via optional interface
- Colour touch display 8.4 inches
- Display of pictures/slideshow (via SD card)
- Settings can be saved on SD card
- White/grey glass front (white indoor sensor) or dark grey/black reflective (aluminium indoor sensor)
- For wall or cavity wall mounting
- Approx. 270 x 185 (W x H, mm), mounting depth approx. 9 mm, concealed box approx. 254 x 171 x 85 (W x H x D, mm)
- Operating voltage: 230 V AC



**Colour white/grey:**  
 WS1000 Style-4 N° 60201  
 WS1000 Style-6 N° 60202  
 WS1000 Style-8 N° 60203  
 WS1000 Style-10 N° 60204  
 WS1000 Style-4 PF N° 60211  
 WS1000 Style-6 PF N° 60212  
 WS1000 Style-8 PF N° 60213  
 WS1000 Style-10 PF N° 60214

**Colour dark grey/black:**  
 WS1000 Style-4 N° 60206  
 WS1000 Style-6 N° 60207  
 WS1000 Style-8 N° 60208  
 WS1000 Style-10 N° 60209  
 WS1000 Style-4 PF N° 60216  
 WS1000 Style-6 PF N° 60217  
 WS1000 Style-8 PF N° 60218  
 WS1000 Style-10 PF N° 60219

## Building Control System WS1® Style

**Scope of delivery:** central unit with integrated indoor sensor, weather station P03i-GPS (p. 30)

### Central Unit WS1 Style:

- 1, 2, 3, 4 or no drive outputs, 230 V AC or potential-free (version PF). For shadings, windows or sliding doors.
- 2 multifunctional outputs for heating, cooling, supply air, alarm systems, light, dimmer or gutter heating
- 2 multifunctional inputs for motion and smoke detectors, closed contact (sliding door), signal of a heating/cooling, of a camera or for reset
- Connection for 4 external push buttons, e. g. Corlo Push Buttons M-T (p. 31)
- 32 wireless channels for special wireless relays, motor control equipment, sensors (e.g. WGTH-UP) and for key interface and remote control
- Colour touch display 5.7 inches
- Display of pictures/slideshow (via SD card)
- Settings can be saved on SD card
- Integrated temperature/air humidity sensor
- White/grey glass front or dark grey/black reflective
- For wall or cavity wall mounting
- Approx. 181 x 131 (W x H mm), mounting depth approx. 8 mm, concealed box approx. 172 x 122 x 81 (W x H x D, mm)
- Operating voltage: 230 V AC



**Colour white/grey:**  
 WS1 Style-0 N° 60180  
 WS1 Style-1 N° 60181  
 WS1 Style-2 N° 60182  
 WS1 Style-3 N° 60183  
 WS1 Style-4 N° 60184  
 WS1 Style-1 PF N° 60191  
 WS1 Style-2 PF N° 60192  
 WS1 Style-3 PF N° 60193  
 WS1 Style-4 PF N° 60194

**Colour dark grey/black:**  
 WS1 Style-0 N° 60185  
 WS1 Style-1 N° 60186  
 WS1 Style-2 N° 60187  
 WS1 Style-3 N° 60188  
 WS1 Style-4 N° 60189  
 WS1 Style-1 PF N° 60196  
 WS1 Style-2 PF N° 60197  
 WS1 Style-3 PF N° 60198  
 WS1 Style-4 PF N° 60199

## Building Control System WS1000® Color

**Scope of delivery:** central unit, indoor sensor WGTH-UP (p. 30), weather station P03i-GPS (p. 30)

### Central Unit WS1000 Color:

- 4, 6, 8 or 10 drive outputs, 230 V AC or potential-free (version PF). For shadings, windows or sliding doors
- 4 multifunctional outputs for heating, cooling, supply air, alarm systems, light, dimmer or gutter heating
- 4 multifunctional inputs for motion and smoke detectors, door contact, signal of a heating/cooling, of a camera or for reset
- Connection for 10 external push buttons, e. g. Corlo Push Buttons M-T (p. 31)
- 32 wireless channels for special wireless relays, motor control units, ventilation, sensors, for key interface and for remote control
- Integration in KNX bus system via optional interface
- Colour touch display 8.4 inches
- Display of pictures/slideshow (via SD card)
- Settings can be saved on SD card
- Housing plastic, partly painted
- Colours: white/grey (indoor sensor white) or alu/graphite (indoor sensor alu)
- For wall or cavity wall mounting
- Approx. 250 x 182 x 43, concealed box approx. 235 x 169 x 62 (W x H x D, mm)
- Operating voltage: 230 V AC



**Colour white/grey:**  
 WS1000 Color-4 N° 60121  
 WS1000 Color-6 N° 60122  
 WS1000 Color-8 N° 60123  
 WS1000 Color-10 N° 60124  
 WS1000 Color-4 Pf N° 60161  
 WS1000 Color-6 Pf N° 60162  
 WS1000 Color-8 Pf N° 60163  
 WS1000 Color-10 Pf N° 60164

**Colour alu/graphite:**  
 WS1000 Color-4 N° 60125  
 WS1000 Color-6 N° 60126  
 WS1000 Color-8 N° 60127  
 WS1000 Color-10 N° 60128  
 WS1000 Color-4 Pf N° 60165  
 WS1000 Color-6 Pf N° 60166  
 WS1000 Color-8 Pf N° 60167  
 WS1000 Color-10 Pf N° 60168

**Colour white/grey:**

WS 1 Color-0	N° 60145
WS 1 Color-1	N° 60135
WS 1 Color-2	N° 60136
WS 1 Color-3	N° 60137
WS 1 Color-4	N° 60138
WS 1 Color-1 Pf	N° 60171
WS 1 Color-2 Pf	N° 60172
WS 1 Color-3 Pf	N° 60173
WS 1 Color-4 Pf	N° 60174

**Colour alu/graphite:**

WS 1 Color-0	N° 60146
WS 1 Color-1	N° 60139
WS 1 Color-2	N° 60140
WS 1 Color-3	N° 60141
WS 1 Color-4	N° 60142
WS 1 Color-1 Pf	N° 60175
WS 1 Color-2 Pf	N° 60176
WS 1 Color-3 Pf	N° 60177
WS 1 Color-4 Pf	N° 60178

## Control System WS1® Color

**Scope of delivery:** central unit with integrated indoor sensor, weather station P03i-GPS (see below)

### Central Unit WS1 Color:

- 1, 2, 3, 4 or no drive outputs, 230 V AC or potential-free (version PF).  
For shadings, windows or sliding doors
- 2 multifunctional outputs for heating, cooling, supply air, alarm systems, light, dimmer or gutter heating
- 2 multifunctional inputs for motion and smoke detectors, door contact, signal of a heating/cooling, of a camera or for reset

- Connection for 4 external push buttons, e. g. Corlo Push Buttons M-T (p. 31)
- 32 wireless channels for special wireless relays, motor control equipment, sensors (e.g. WGTH-UP) and for key interface and remote control
- Integrated indoor sensor for temperature, and air humidity
- Colour touch display 5.7 inches
- Housing plastic white/grey or alu/graphite (partly painted)
- For wall or cavity wall mounting
- Approx. 164 x 121 x 29, concealed box approx. 152 x 92 x 62 (W x H x D, mm)
- Operating voltage: 230 V AC

## Accessories for WS1® and WS1000®

For hard-wired motor control equipment, power supply units and relays, see p. 50 et seq.



N° 30114

### Weather Station P03i-GPS WS1/WS1000 included in delivery

- Temperature, precipitation, wind speed and brightness recording
- Sun position calculation by the controller
- GPS receiver (time, position)
- Combined fixture for wall/pole mounting
- Housing for surface mounting, IP 44, white/ translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: 24 V DC

WGTH-UP  
N° 20550 (white)  
N° 20551 (alu)WG AQS/TH-UP  
N° 20553 (white)  
N° 20554 (alu)

### Indoor Sensors WGTH-UP and WG AQS/TH-UP

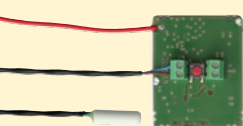
- Wireless communication with central unit
- Housing plastic white (glossy) or alu (painted, matt)
- For wall mounting in a socket
- Including frame (housing compatible with all 55 mm production frames)
- Operating voltage: 7...30 V DC
- Radio frequency 868.2 MHz

#### WGTH-UP:

- WS1000 includes in delivery
- Measurement of temperature and air humidity

#### WG AQS/TH-UP:

- Measurement of CO<sub>2</sub> content, temperature and air humidity



N° 20552

### Temperature sensor WGT

- Temperature sensor (-30...+130°C) with separate evaluation unit
- Extremely small sensor tip for use as a contact or feed probe
- Protection category of the measuring sensor: IP 68
- Length of sensor sleeve approx. 20 mm, Ø approx. 6 mm, cable length approx. 300 cm. Dimensions evaluation electronics approx. 38 x 47 x 24 (W x H x D, mm)
- Operating voltage: 7...30 V DC
- For controls as of version 1.51
- Radio frequency 868.2 MHz

## Corlo Push Buttons

- Matt or glossy chromed edge, white or black glass
- Approx. 80 × 71 × 12.5 (W × H × D, mm)

### Corlo Push Button M-T:

- Mechanical push button
- Mounting with Frame *Corlo* in socket (see below)
- Integrated temperature sensor T-NTC
- Available as single push button Corlo M1-T and as double push button Corlo M2-T

### Corlo Solar Wireless Push Button P RF:

- Wireless Push Button for drives/devices on controls WS1, WS1000
- For direct operation of ventilation units, relays, motor control units

- Energy supply through integrated solar panels. Additional emergency power supply through 3 V batterie (Typ CR2032)
- Mounting with Frame *Corlo* in socket or Frame *Corlo Plane* without socket (see below)
- Available as single push button Corlo P1 RF and as double push button Corlo P2 RF

#### Corlo Push Buttons M1-T

White, glossy edge N° 70282  
Black, glossy edge N° 70283  
White, matt edge N° 70284  
Black, matt edge N° 70285

#### Corlo Push Buttons M2-T

White, glossy edge N° 70286  
Black, glossy edge N° 70287  
White, matt edge N° 70288  
Black, matt edge N° 70289

#### Corlo Push Buttons P1 RF

White, glossy edge N° 70290  
Black, glossy edge N° 70291  
White, matt edge N° 70292  
Black, matt edge N° 70293

#### Corlo Push Buttons P2 RF

White, glossy edge N° 70294  
Black, glossy edge N° 70295  
White, matt edge N° 70296  
Black, matt edge N° 70297



Corlo Push Buttons M-T



Corlo Push Buttons P RF

## Corlo Power Outlet

- Matt or glossy chromed edge, white or black glass
- Integrated increased contact protection
- Mounting with Frame *Corlo* in socket

- Approx. 80 × 71 × 12,5 (W × H × D, mm)

#### Corlo Power Outlet

White, glossy edge N° 70318  
Black, glossy edge N° 70319  
White, matt edge N° 70330  
Black, matt edge N° 70331



Corlo Power Outlet in glossy chromed frame

## Frame Corlo

- Frame for System Corlo
- 1-gang approx. 80 × 81, 2-gang approx. 80 × 153, 3-gang approx. 80 × 224 (W × H, mm), mounting depth approx. 12.5 mm
- Matt or glossy chromed zinc die-cast (custom colours on request)

**Rahmen Corlo** for Corlo Touch KNX, Corlo Touch KNX WL, Corlo Power Outlet and Corlo Push Button M-T

**System Corlo for KNX see page 19.**

### Frame Corlo Plane for Corlo Solar Wireless Push Button P RF

#### Frame Corlo Plane gloss

1-gang N° 70300  
2-gang N° 70301  
3-gang N° 70302

#### Frame Corlo Plane matt

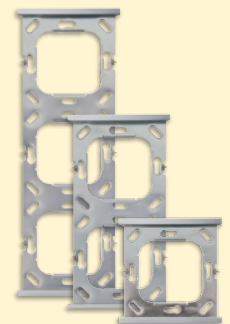
1-gang N° 70303  
2-gang N° 70304  
3-gang N° 70305

#### Frame Corlo gloss

1-gang N° 70264  
2-gang N° 70265  
3-gang N° 70266

#### Frame Corlo matt

1-gang N° 70267  
2-gang N° 70268  
3-gang N° 70269



Frame Corlo matt

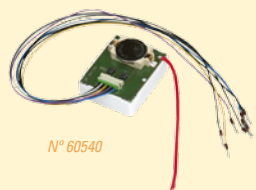
## Remote Control Remo<sup>®</sup> 8

- Radio hand-held transmitter with 8 channels
- Button functions: up/down/stop, on/off, dimming (depending on controlled device)
- For operating drives and equipment on WS1, WS1000, Solexa and Arexa controls
- For direct operation of fans, relays and motor control devices

- With magnetic wall-mounting
- Radio frequency 868.2 MHz
- Housing plastic white/grey or alu/graphite (partly painted)
- Dimensions hand-held transmitter approx. 41 × 140 × 21, mounting approx. 54 × 150 × 11 (W × H × D, mm)
- Power supply: 3 V battery type CR2032



N° 60511 (white)  
N° 60512 (alu)



N° 60540

### Radio Push Button Interface RF-B2-UP

- Radio Interface for 2 normal double switches
- For operating drives and equipment on WS1, WS1000, Solexa and Arexa controls
- For direct operation of fans, relays and motor control devices
- Power supply: 3 V battery type CR2032
- Approx. 38 x 47 x 29 (W x H x D, mm)
- Connection lead 300 mm, can be extended up to 10 m
- For controls as of version 1.597
- Radio frequency 868.2 MHz

**An overview of the devices which can be operated with Remo 8, RF-B2-UP push button interface and Corlo Push Buttons is on page 53.**


RF-Relay-UP  
N° 60534

RF-Relay-ST  
N° 60536

### Radio Relay RF-Relay

- For 1 consumer load
- Direct manual control with Remote Control Remo 8, Push Buttons Corlo P RF or with RF-B2-UP possible (see above)
- Operating voltage: 230 V AC
- Radio frequency 868.2 MHz

#### RF-Relay-UP:

- Potential-free NO contact
- max. 2 A/230 V

- Integrated device for installation in junction box
- Approx. 38 x 47 x 29 (W x H x D, mm)
- For controls as of version 1.03

#### RF-Relay-ST:

- 230 V output
- max. 16 A/230 V
- Housing with STAS3 plug/STAK3 coupling
- Approx. 149 x 36 x 25 (W x H x D, mm)
- For controls as of version 1.20


RF-L UN-ST  
N° 60544

RF-L LED-ST  
N° 60545

### Wireless Dimmer RF-L

- For 1 lamp
- Universal Dimmer with automatic load detection (trailing edge, leading edge), max. load 20-300 W
- Direct manual control with Remote Control Remo 8, Push Buttons Corlo P RF or with RF-B2-UP possible (see above)
- For controls as of version 1.8
- Housing with STAS3 plug/STAK3 coupling
- Approx. 149 x 36 x 25 (W x H x D, mm)

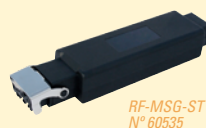
- Operating voltage: 230 V AC
- Radio frequency 868,2 MHz

#### RF-L UN-ST:

- For high/low voltage halogen lamps in conjunction with dimmable power supply units and dimmable lamp

#### RF-L LED-ST:

- For dimmable LEDs in conjunction with dimmable power supply units


RF-MSG-ST  
N° 60535

RF-MSG-PF  
N° 60533


RF-MSG N° 60532

### Radio Motor Control Unit RF-MSG

- For 1 drive (230 V AC / 4 A max.)
- Direct manual control with Remote Control Remo 8, Push Buttons Corlo P RF or with RF-B2-UP possible (see above)
- For controls as of version 1.20
- Operating voltage: 230 V AC, 50 Hz
- Radio frequency 868.2 MHz

- Approx. 38 x 47 x 29 (W x H x D, mm)

#### RF-MSG-PF:

- Potential-free drive output
- Integrated device for installation in junction box with up/down clamps
- Approx. 38 x 47 x 29 (W x H x D, mm)

#### RF-MSG-ST:

- 230 V drive output
- Housing with STAS3 plug/STAK3 coupling
- Approx. 149 x 36 x 25 (W x H x D, mm)



## Radio Ventilation Module RF-VM

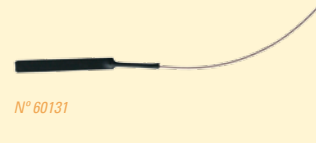
- For an air supply/exhaust device or a fresh air/heating combination (products of other manufacturers)
- 8 speed levels
- Direct manual control with Remote Control Remo 8 or with RF-B2-UP possible (see above)
- Operating voltage: 230 VAC, 50 Hz
- For flush mounting
- Cover approx. 220 x 140 (W x H, mm), mounting depth approx. 3 mm. concealed box approx. 200x120x64 (W x H x D, mm)
- For controls as of version 1.597
- Radio frequency 868,2 MHz



N° 60537

## Additional Antenna

- Improves reception/transmission intensity
- Connection at the display board
- Total length of antenna with cable approx. 565 mm



N° 60131

## RF-Router (Wireless Router)

- Increases the range of the wireless signal for 16 wireless subscribers
- Integrated device for installation in junction box
- Approx. 38 x 47 x 29 (W x H x D, mm)
- Operating voltage: 230 V AC
- For WS1 and WS1000 Color/Style as of version 1.708



N° 60531

## Camera Interfaces for WS1000 and for WS1

- Display of the images on screen
- Interface is screwed on the board of the control system
- For Control Systems (KNX) WS1000 and WS1 (as of version 1.492)
- Approx. 70 x 23 x 27 (W x H x D, mm)

For (KNX) WS1000 Color  
N° 60132For WS1 Style  
N° 60148For WS1 Color and  
(KNX) WS1000 Style  
N° 60133

### (KNX) WS1000 Color

- 2 Camera connections (Cinch, CCIR/PAL)

### WS1 Color and WS1000 Style

- 2 camera connections (Cinch, CCIR/PAL)
- Approx. 42 x 16 x 40 (W x H x D, mm)

### WS1 Style

- 1 camera connection (BNC)
- Approx. 56 x 23 x 31 (W x H x D, mm)

## KNX Interface for WS1000 Color and WS1000 Style

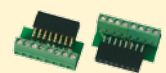
- Use of data from the controller (e.g. weather data) in the KNX system
- The automatic functions of the WS1000 can control drives in the KNX system and request sensor data from the bus
- KNX plug connector for data transfer
- Interface and KNX plug connector are plugged onto the board of the control system
- Dimensions of board approx. 53 x 7 x 30 (W x H x D, mm)
- For WS1000 Color/Style as of version 1.45



N° 70190

## Adapter Plug for Display of WS1000 Color

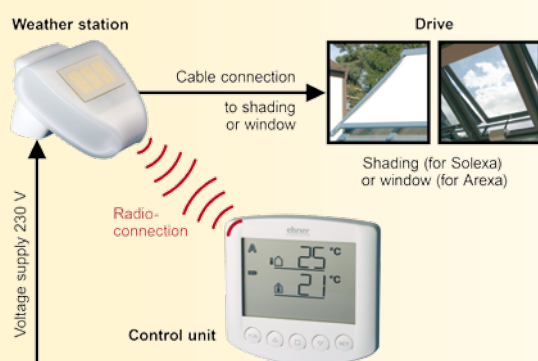
- For Control Systems (KNX) WS1000 Color
- Allow for the separate mounting of display and power electronics
- Connection with 8-wire/12-wire cable (12-wire when using the KNX interface), e. g. J-Y(St) 6x2x0.8, max. length 10 m



N° 60130



## Controls for Shading and Window



Shading Control Solexa and Window Control Arexa consist of control unit and weather station. The drive mechanism of the sun screen/window is connected directly to the weather station. Several drives can be controlled simultaneously as a group at one single control by using an additional group control relay (e. g. for a number of roof windows at one Arexa).

The control unit has a display which shows the current weather information, mode and alarm messages. An indoor temperature sensor is integrated, too. The drives are operated manually and the automatic functions are set with the keys.

Control unit and weather station communicate wirelessly so that the control unit can be placed freely in the room. As there is no cabling required inside the building, the control systems are an ideal option for retrofitting.



N° 10110 (white)



N° 10130 (aluminium)

N° 10131 (pearl dark grey)



Weather station

### Shading Control Solexa® 230 V

- For an awning or a blind. Connection of 230 V motor at weather station, multiple drives with group control relay
- Complete system: control unit (with indoor temperature sensor) and weather station
- Automatic shading functions depending on brightness and indoor temperature
- Rain, wind and frost protection (may be switched off)
- Storage of a shading position for automatic mode, for blinds also opening angle of slats

#### Control Unit:

- Housing plastic white, aluminium coloured brush finished or pearl dark grey brush finished (partly painted)
- For wall mounting
- Approx. 103 x 98 x 28 (W x H x D, mm)

- Operating voltage: 2 x 1.5 V (batteries AA) or 1.2 V (storage batteries AA)

#### Weather Station:

- Temperature, precipitation, wind speed and brightness (1 solar sensor) recording
- Combined fixture for wall/pole mounting
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: 230 V AC, 50 Hz

#### Accessories: (not included)

- Remote Control Remo 8 (p. 31)
- Group control relays, motor control devices (starting on p. 50)
- Radiocommunication System XS (p. 36)
- Mounting arms for weather station (p. 54)
- Connecting cable set (p. 54)

## Window Control Arexa® 230 V

- For a window. Connection of 230 V motor at weather station, multiple drives with group control relay
- Complete system: control unit (with indoor temperature sensor) and weather station
- Automatic ventilation functions depending on indoor and outdoor temperature
- Rain and wind protection (may be switched off)
- Storage of an opening position for automatic mode

### Control Unit:

- Housing plastic white, aluminium coloured brush finished or pearl dark grey brush finished (partly painted)
- For wall mounting
- Approx. 103 x 98 x 28 (W x H x D, mm)

- Operating voltage: 2 x 1.5 V (batteries AA) or 1.2 V (storage batteries AA)

### Weather Station:

- Temperature, precipitation, wind speed and brightness (1 solar sensor) recording
- Combined fixture for wall/pole mounting
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: 230 V AC, 50 Hz

### Accessories: (not included)

- Remote Control Remo 8 (p. 31)
- Group control relays, motor control devices (starting on p. 50)
- Radiocommunication System XS (p. 36)
- Mounting arms for weather station (p. 54)
- Connecting cable set (p. 54)



N° 10115  
(white)



N° 10133  
(aluminium)

N° 10134  
(pearl dark grey)



Weather Station

## Window Control Arexa® 24 V

- Central control for windows at motor control units, central output at the weather station
- Complete system: control unit (with indoor temperature sensor) and weather station
- Automatic ventilation functions depending on indoor and outdoor temperature
- Rain and wind protection (may be switched off)
- Storage of an opening position for automatic mode

### Control Unit:

- Housing plastic white
- For wall mounting
- Approx. 103 x 98 x 28 (W x H x D, mm)
- Operating voltage: 2 x 1.5 V (batteries AA) or 1.2 V (storage batteries AA)

### Weather Station:

- Temperature, precipitation, wind speed and brightness (1 solar sensor) recording
- Combined fixture for wall/pole mounting
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: 13...30 V DC, 12...24 V AC

### Accessories: (not included)

- Remote Control Remo 8 (p. 31)
- Group control relays, motor control devices (starting on p. 50)
- Radiocommunication System XS (p. 36)
- Mounting arms for weather station (p. 54)



Central Unit  
N°10135 (white)



Weather Station

## Radiocommunication System XS

The Radiocommunication System XS automatically controls shadings and windows with regard to sun, temperature, intensity of wind and precipitation. Therefore a **Shading Control Solexa** or a **Window Control Arexa** is used as a basis. The control system is completed with one or more motor control units and the individually appropriate control units of the System XS. The flexible possibilities of combination of the devices of the System XS allow for the realisation of the most different requirements, ranging from the simple central control to the independent control of different drives.

The use of the motor control unit with the Control Unit XS 2B or the Remote Control Remo 8 is also a good choice: this allows for comfor-

table manual movement of the drives without weather automatic systems (no control Solexa or Arexa is used in this case).

The System XS can be installed easily and with little dirt and time needed: no cables are laid in the building, since the control units work with batteries. Shadings and windows are moved by means of wired motors which are directly connected to the XS motor control units.

### The System XS consists of:

- Controls Solexa and Arexa (as of version 3.0)
- Motor Control Unit XS MSG2-AP
- Double Control Unit XS 2B
- Control Unit XS 1B-D
- Remote Control Remo 8 (p. 31)



N° 10120

### Motor Control Unit XS MSG2-AP

- For 2 wired drives (shadings or windows), multiple drives with group control relay
- Manual operation with double radio control units (up to 2 per motor control unit) or with Radio Remote Control Remo 8 (p. 31)
- Evaluation of weather and automation data of a Solexa/Arexa (radio reception)
- Individual set-up of the automatic functions and operation via radio control unit with display (up to 2 motor control units)
- Several XS MSG2-AP motor control units can be taught-in to a Solexa/Arexa weather station
- Housing for wall mounting, grey
- Approx. 160 x 80 x 57 (W x H x D, mm)
- Operating voltage: 230 V AC, 50 Hz



N° 10117 (white)  
N° 10136 (alu)  
N° 10137 (pearl dark grey)

### Control Unit with display XS 1B-D

- For setting of the individual automatic control and for manual operation of drives at a Motor Control Unit XS MSG2-AP
- Individual control: Setting of the automatic functions with two separate Control Units XS 1B-D
- Parallel control: Setting of the automatic functions with one common XS1B-D
- For wall mounting
- Display shows the current weather information, alarm status and mode
- Housing plastic white, aluminium coloured brush finished or pearl dark grey brush finished (partly painted)
- Approx. 103 x 98 x 28 (W x H x D, mm)
- Operating voltage: 2 x 1.5 V (batteries AA) or 1.2 V (storage batteries AA)



N° 10118 (white)  
N° 10139 (alu)  
N° 10140 (pearl dark grey)

### Control Unit XS 2B

- For separate operation of drives at a Motor Control Unit XS MSG2-AP
- Use as single control unit (central control or manual operation only)
- Use in addition to control units with display (facilitates the handling from another position in the room)
- Housing plastic white, aluminium coloured brush finished or pearl dark grey brush finished (partly painted)
- For wall mounting
- Approx. 103 x 48 x 33 (W x H x D, mm)
- Operating voltage: 2 x 1.5 V (batteries AA) or 1.2 V (storage batteries AA)



The XS system allows for easy combination of different control options in one building. The illustration shows the examples from the text below:

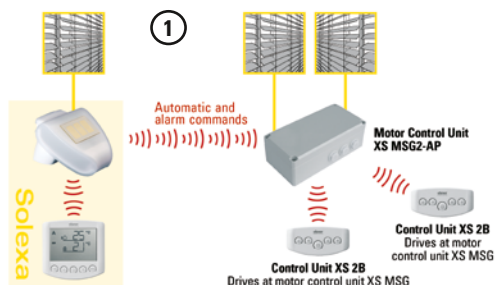
At the south-east side a motor control unit with two blinds just runs with one blind at the Solexa weather station (1) (central control).

At the south-west side a window group at the Arexa weather station (2) as well as an awning and a blind at a motor control unit respectively run with different, own automatic parameters. At another motor control unit there are two roller shutters for roof windows running parallel, following one automatic system. The weather data for this are also obtained from the Arexa weather station (2).



### System XS: Central automatic control

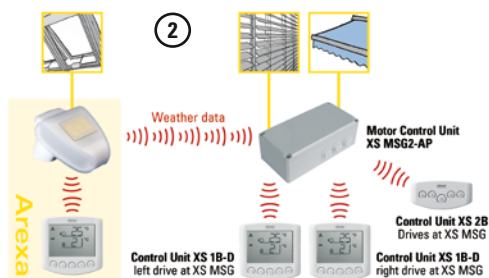
In order to automate drives, a Control Solexa or Arexa is extended by XS MSG2-AP Motor Control Units. In the case of the central automatic control, the drives at the motor control unit follow the settings of the Solexa/Arexa. This central kind of control will for instance be appropriate if more blinds are to execute the same commands (shading at the same level of brightness etc.). However, it is still possible to operate the drives separately by hand in the System XS: up to two XS 2B Double Control Units can be taught in per motor control unit for this purpose. Furthermore, from the control unit of the Solexa/Arexa all drives can be driven centrally at the same time.



### System XS: Individual automatic control

In the case of automation of different drives (e.g. blinds and windows) the control system will be set up independently. In this case, the drives are also integrated into the System XS via the XS MSG2-AP Motor Control Units. The Solexa or Arexa provides for the current

weather data. The automatic system of every single drive is set via an own XS 1B-D Control Unit. Here the room temperature can also be considered thanks to an integrated thermometer. Additional XS 2B Double Control Units facilitate the manual operation from another position in the room.



In the case of two drives at one motor control unit running parallel (e.g. two roller shutters), the XS MSG2-AP can also work as a group control relay and can be set and operated with one XS 1B-D Control Unit only.





## Easy operation of sunscreen and lighting for the terrace, patio etc.

On a hot summer day you don't want to miss some sort of sunscreen on your terrace, such as an awning or a sunblind. This applies to the open as well as the roofed terrace or patio. The wireless module RF-MSG-ST turns any electric sunscreen drive into a radio controlled motor. The remote control Remo 8 extends or retracts your awning with the push of a button.

### Cosy lighting in the evening

If you like to spend the evening hours outdoors you may wish for soft lighting on your terrace. The wireless module RF-L together with the remote control allows you to dim the lighting gradually. The dimmer is available for LED and halogen or energy saving lamps.

### Comfortable warmth for long nights

A glass roof helps to avoid quick cooling of the

terrace, so you can use it in the evenings and on cooler days. Additional warmth is supplied by a patio heater. Via the wireless module RF Relay-ST, the heater can be controlled with the remote control. Other devices, such as a pond pump are also compatible with the handheld transmitter Remo 8.

### How it works

Plug-in, teach-in, ready! The remote control Remo 8 communicates with up to 8 wireless devices. You can comfortably control your awning, lighting, heater and even more devices. Elsner Elektronik's wireless modules are easy and quick to install. An electrician simply plugs in the module between feeder and consumer load, teaches in the remote control and your motor or device is ready for wireless control.



Remo 8  
in white/grey



RF-MSG-ST  
RF-L-ST  
RF-Relay-ST

## Terrace Sets Components

### Remote Control Remo 8

Radio hand-held transmitter with 8 channels for direct operation of shading, lighting ... (p. 31)

### Radio Motor Control Unit RF-MSG-ST

Turns the drive of a shading or window into a radio controlled motor!  
Max. 4 A/230 V AC. (p. 32)

### Wireless Dimmer RF-L-ST

Create atmosphere with the right lighting!

RF-L UN-ST for halogen lamps with dimmable power supply units

RF-L LED-ST for dimmable LED with dimmable power supply units (p. 32)

### Radio Relay RF-Relais-ST

Operate your patio heater, pond pump, lighting wirelessly...

The RF-Relais-ST switches up to 16 A/230 V via a potential-free NO contact. (p. 32)

## Terrace Set „Shading“

N° 60570

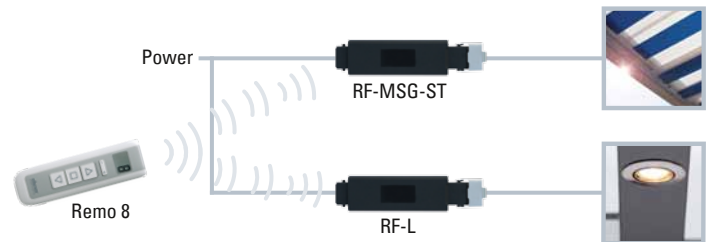
- For one awning or sunblind
- 1x remote control Remo 8 in white
- 1x wireless motor control unit RF-MSG-ST



## Terrace Set „Shading & Lighting“

N° 60571 (Universal) | N° 60572 (LED)

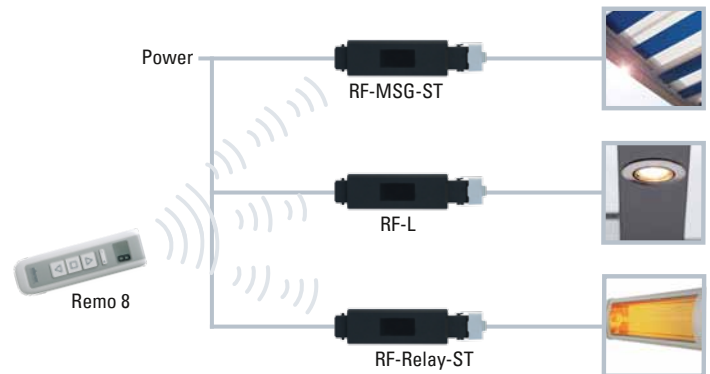
- For one awning or sunblind and one light
- 1x remote control Remo 8 in white
- 1x wireless motor control unit RF-MSG-ST
- 1x wireless dimmer RF-L UN-ST or RF-L LED-ST



## Terrace Set „Shading, Lighting & Heating“

N° 60573 (Universal) | N° 60574 (LED)

- For one awning or sunblind and one light and one further consumer load
- 1x remote control Remo 8 in white
- 1x wireless motor control unit RF-MSG-ST
- 1x wireless dimmer RF-L UN-ST or RF-L LED-ST
- 1x wireless relay RF-Relay-ST



## Patio Roof Control Lixa

- For an awning and a light
- Remote control and power unit in package
- Radio frequency 868.2 MHz

### Power unit Lixa:

- 1 connection for awning (230 V motor), several drives as a group via group control relay
- 1 connection for light (25-300 W) with integrated dimmer, automatic load recognition
- Housing for surface mounting, grey
- Approx. 160 x 80 x 57 (W x H x D, mm)
- Operating voltage: 230 V AC, 50 Hz

### Remote control 8:

- Radio hand-held transmitter
- Button functions: up/down/stop, on/off, dimming

- 8 channels, thus expandable (awning and light of Lixa reserve 2 channels)
- With magnetic wall-mounting
- Housing plastic white/grey or alu/graphite (partly painted)
- Dimensions hand-held transmitter approx. 41 x 140 x 21, mounting approx. 54 x 150 x 11 (W x H x D, mm)
- Power supply: 3 V battery type CR2032

### Additional possibilities:

- Operation of further devices with the hand-held transmitter Remo 8 (p. 53)
- Automatic control of the awning through combination of Lixa and Solexa (sun automatic, wind and rain protection)



Power unit

N° 60150 (package, Remo 8 white)  
N° 60151 (package, Remo 8 alu)  
N° 60152 (only power unit)



Remote control  
Remo 8





## Ventilation Control

The Ventilation Controls combine sensor technology and control engineering in a compact 55 mm housing. The setting of the nominal value is carried out on the device itself via its integrated buttons and display. The connected window or ventilation unit can be controlled

directly through the buttons on the device. Analog outputs (0... 10 V) pass on measurements to other systems if needed. Inputs enable the automatic to be interrupted by external switch signals (from push buttons, timer, motion detector, rain alarm).

**NEW!**



**TH PF-U**  
N° 40100 (white)  
N° 40101 (alu)  
N° 40102 (anthracite)  
N° 40103 (stainless steel)

**TH PF**  
N° 40110 (white)  
N° 40111 (alu)  
N° 40112 (anthracite)  
N° 40113 (stainless steel)

**NEW!**



**AQS/TH PF-U**  
N° 40105 (white)  
N° 40106 (alu)  
N° 40107 (anthracite)  
N° 40108 (stainless steel)

**AQS/TH PF**  
N° 40115 (white)  
N° 40116 (alu)  
N° 40117 (anthracite)  
N° 40118 (stainless steel)

## Indoor Sensor with Ventilation Control TH PF-U and AQS/TH PF-U

- For 1 window or ventilation unit (outputs potential free, 48 V/100 mA)
- Automatic function for ventilation (1- or 2-step control)
- Adjustable automatic reset time after manual operation (5...120 min.)
- For indoor use
- Display showing measurements and setting menus
- Push buttons for manual operation (open/close) and for automatic settings
- 2 inputs for central command (on permanent voltage priority over local operation and automatic, e. g. for rain alarm from rain sensors R24 V or RW-PF)
- For wall mounting in a socket
- Housing plastic white (glossy), aluminium, anthracite or stainless steel (painted, matt)
- Completion with frame of the switching series used in the building (not included in scope of delivery)
- Dimensions of housing approx. 55 x 55 (W x H, mm), mounting depth 15 mm

- Operating voltage: 24 V DC

### TH PF-U:

- Temperature sensor (-10...+50°C)
- Humidity sensor (0...95%rF)
- Voltage outputs (0...10 V) for temperature value and humidity value

### TH PF:

- Temperature sensor (-10...+50°C)
- Humidity sensor (0...95%rF)

### AQS/TH PF-U:

- Temperature sensor (-10...+50°C)
- Humidity sensor (0...95%rF)
- CO<sub>2</sub> sensor (0...2000 ppm)
- Voltage outputs (0...10 V) for temperature value, humidity value, CO<sub>2</sub> value

### AQS/TH PF:

- Temperature sensor (-10...+50°C)
- Humidity sensor (0...95%rF)
- CO<sub>2</sub> sensor (0...2000 ppm)



## Power Supply for Ventilation Controls NG AQS/TH PF

- For easy connection of 230 V window motors and ventilation units to ventilation controls AQS/TH PF(-U) und TH PF(-U)
- Drive output 230 V / 4 A
- 24 V DC power output for supply of the sensor
- Flush mounting in a socket
- Approx. 50 x 50 x 54 (W x H x D, mm)
- Operating voltage: 230 V AC



NG AQS/TH PF  
N° 40120

NEW!

## Wireless Ventilation Module RF-WL

- Wireless control for ventilation units WL400 and WL800
- Flush mounting in a socket
- A signal at the motion detector input starts ventilation (extraction with 40%)
- Additional ventilation levels can be triggered via inputs (60%, 80%, 100% ventilation performance)
- Approx. 50 x 50 x 54 (W x H x D, mm)
- Operating voltage: 230 V AC



RF-WL  
N° 60538

NEW!

## Evaluation Unit

The PS8A evaluation unit is a comprehensive system for weather data recording, processing and forwarding. The necessary sensor system with the P03/3 weather station and an indoor temperature sensor are included in the delivery. The PS8A is fitted with display and keypad. This means that no additional equipment is needed for viewing or programming. The PS8A evaluation unit has eight individually variable relay outputs. Threshold values are entered as required for sun from the east, south and west, for inside and outside temperatures and for wind speed. Rain alarm

and twilight detection can also be set as parameters. Time switching is possible through a week timer; the P03/3 weather station, which has a GPS receiver, delivers the exact time for this. If the evaluation unit gets incorrect data, it outputs an alarm message. All parameters can be linked by AND or OR.

The PS8A evaluation unit takes over, for example, automation of building ventilation and shading in which PLC, computer or relay controllers are used. The system is also suited as an intelligent sensor and operating unit for most bus systems on the market.

## Evaluation Unit PS8A

- 8 relay outputs
- Comprehensive system comprising central unit, weather station and interior sensor

### PS8A evaluation unit:

- Integrated keypad and display
- Installation on DIN rail (6 units), grey, approx. 105 x 90 x 60 (W x H x D, mm)
- Operating voltage: 230 V AC, 50 Hz

### Weather Station P03/3-GPS:

- Temperature sensor
- 3 brightness sensors (east, south, west)
- Wind speed sensor

- Precipitation sensor with 1.2 watt heating
- GPS receiver
- Integrated Combi mount for wall or pole mounting; mounting arms available as an option
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: 24 V DC

### Inside temperature sensor T-KTY82:

- Length of sensor shell approx. 45 mm, Ø approx. 6 mm, cable length approx. 187 mm



PS8A evaluation unit with P03/3 weather station and T-KTY82 temperature sensor  
N° 701



**In addition** to shading, correct and adequate ventilation is imperative, so that the conservatory does not become a greenhouse. At its simplest, ventilation takes place via windows and roof vents. But this “natural ventilation” is not always possible. Particularly if the building height is low, the air circulation is insufficient. Open windows also encourage intruders. In these cases, motorised fans provide a pleasant climate in the conservatory. Mounted in the roof area, air is extracted (exhaust) or recirculated (recirculating air). Vents in the floor let fresh air flow in again.

#### **Ventilation in summer**

Good ventilation is important in summer in order to bring fresh, cool air into the conservatory. An air feed in the floor area provides cooling. Windows or air supply units are installed in the skirting. Because air in the conservatory warms up and rises, heat can easily accumulate in the ridge area. This can escape through the open rooflight or is exhausted in a controlled manner by ventilation units.

#### **Ventilation in winter**

In winter, the automatic control is predominantly in charge of using the sun's energy

to heat the conservatory. It will only extend the awning or blind once the desired indoor temperature is reached. When temperatures are low outside, windows and vents remain closed to avoid energy losses caused by a cold air supply. Ventilation units with a recirculation function can also be used for heat recovery. The warm air which collects in the roof area is distributed throughout the conservatory by the recirculation.

#### **Ventilation and humidity**

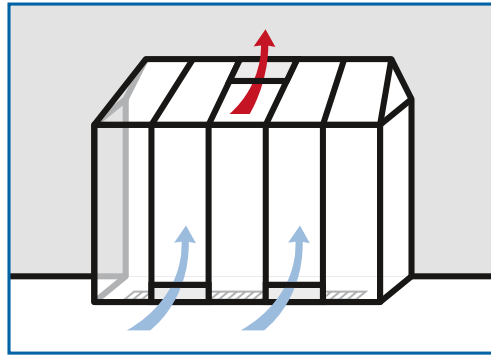
The air humidity in living rooms is a crucial factor in whether the climate is perceived as comfortable. Correct ventilation brings the air into motion and routes moisture to the outside. An obvious accompaniment to high humidity in a room is condensation on the window panes. This is particularly common if there are large temperature differences between inside and outside. Air movement helps to disperse this, as it occurs through ventilation, heating or recirculation. Elsner Elektronik ventilation units can counter condensation forming even before it has settled as moisture. A special calculation process in Elsner controls starts the recirculation function even before the window panes are affected.



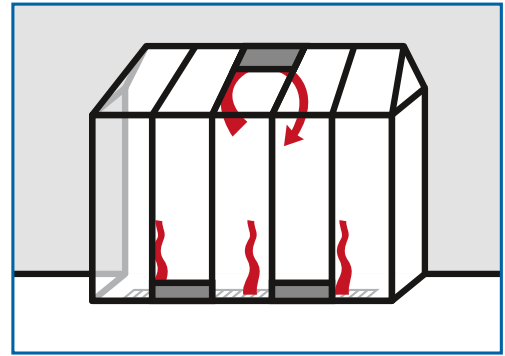
# Conservatory Ventilation

**elsner**<sup>®</sup>  
elektronik

<b>Air Supply Unit .....</b>	<b>44</b>
<b>Ventilation Unit .....</b>	<b>45</b>



Ventilation in summer: Open vents in the skirting admit fresh, cool air. Heated air is exhausted in the ridge area.



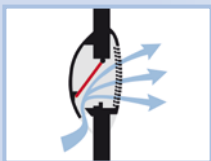
Ventilation in winter: Vents remain closed and the heating is on. In recirculation mode, the ventilation units distribute the warm air from the ridge area.

## Air Supply Unit

The WFL air supply unit is installed in the skirting and provides fresh air in the conservatory. As soon as air escapes through a roof light or is exhausted through an extraction device, cool air from outside flows in independently through the opened vent without any help of a fan.

**The fresh air supply** is regulated by the inside temperature and the air humidity. If the values are higher than desired, the air supply is opened. The outside temperature is also recorded at the WFL air supply unit to optimize ventilation in summer and in winter. If summer mode is activated, the vent closes as soon as the temperature of the air flowing in is higher than the room temperature. Winter mode keeps the vent closed on cold days to prevent the conservatory cooling down and plants that are sensitive to cold being damaged.

The powerful vent drive comprises a spur gear and a worm drive and is thus self-limiting. This is how the WFL is closed safely and tightly. The slim housing of the air supply unit is made of integral skin foam which is highly heat insulating. The installation panel, powder-coated on both sides, is extremely resistant to pressure; it is mounted like a pane of glass. Because the WFL is processed free from any silicone, it can be installed together with self-cleaning panes. The WFL ventilation device is controlled **via radio**. During installation, merely the mains supply has to be connected. As soon as the wireless connection has been set, the WFL works wireless and without any additional device together with the WS1 and WS1000 Color/Style controls. The air supply unit can also be operated directly with the Remo 8 wireless remote control (without any further control device, see p. 53).



The air vent closes the air supply unit (top). Only if the vent is open fresh air can flow in (bottom).



Exterior view, RAL 9007



Inside view

## WFL Air Supply Unit

- Air feed on a reflow basis, volume of air dependent on pressure difference
- Air flow cross-section approx. 6120 mm<sup>2</sup>
- Integrated temperature sensor for summer and winter mode
- U-value approx. 1.8 W/m<sup>2</sup>K (calculated)
- Panel compression strength approx. 350 kPa
- Radio frequency 868,2 MHz
- Standard colours: similar to RAL 9016 traffic white, RAL 9006 aluminium white, RAL 9007 aluminium grey
- Custom colours as per RAL (extra charges)
- Fan approx. 634 x 170 (W x D, mm), installation height approx. outside 43 mm, inside 20 mm

- Standard panel approx. 1050 x 30 x 250 mm (W x H x D), can be trimmed on 3 sides
- Pre-cut panel available (extra charges)
- Operating voltage: 230 V, 50 Hz

### Standard panel WFL

N° 60441 WFL, RAL 9016  
 N° 60442 WFL, RAL 9006  
 N° 60443 WFL, RAL 9007  
 N° 60445 WFL, custom, 1-colour  
 N° 60446 WFL, custom, 2-colour  
 (N° 60451-N° 60456 WFL610 pre-cut)





reddot award 2014  
winner

## Ventilation Units for Air Extraction and Recirculation

Motorised ventilation equipment ensures a comfortable climate in the conservatory if airing through windows is inadequate due to the building's layout, or is unwanted due to security risks. The ventilation units extract (exhaust) or recirculate (recirculation) air. The fans are particularly quiet when running.

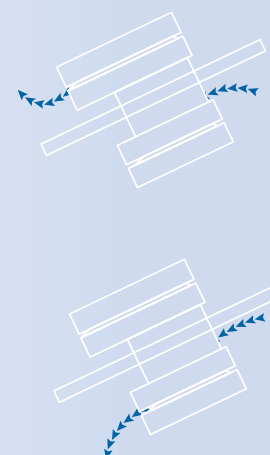
The ventilation units communicate via radio with the WS1 and WS1000 Color/Style controls. Alternatively, the equipment can be connected directly with the Remo 8 wireless remote control or the solar radio button Corlo P RF (p. 53).

The ventilation unit can be automatically activated with a motion sensor via the RF-WL module (p.41). Recirculation mode is used for

better heat recovery in your room and thus saves heat energy. Well timed air recirculation can also reduce condensation effectively. The controls detect critical temperature and dew point conditions using a special calculation method. This starts recirculation mode even before moisture settles.

Due to their low installation height, the fans fit under an exterior sun screen, such as an awning. Owing to their completely silicone-free processing, the installation alongside self-cleaning panes is possible.

When the fan is shut off, the closure flap is closed with high contact pressure. Together with the self-limiting flap motor, this guarantees a tight closure of the ventilation aperture.



Ventilation unit function in exhaust mode (top) and in recirculation mode (bottom)

## Ventilation Units WL

- Exhaust and recirculation modes (heat recovery, condensation reduction)
- Integrated temperature sensor (for recirculation)
- Panel compression strength approx. 350 kPa
- U-value approx. 0.9 W/m<sup>2</sup>K
- Available for roof sloping from 0° to 90°
- Radio frequency 868.2 MHz
- Standard colours: similar to RAL 9016 traffic white, RAL 9006 aluminium white, RAL 9007 aluminium grey
- Custom colours available as per RAL (extra charges apply), coating with custom colour powder possible
- Standard panel approx. 1050 x 30 x 580 (W x H x D), can be trimmed
- Custom panel dimensions and heights available, extra charges apply
- Fan dimensions: Depth approx. outside 304 mm, inside 254 mm

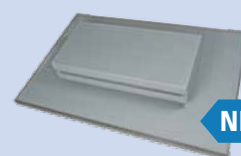
- Installation height approx. outside 150 mm, inside 165mm (when panel is 30 mm high, other heights result in a corresponding change of inner installation height)
- Operating voltage: 230 V, 50 Hz

### Ventilation Unit WL400

- Air volume extraction max. approx. 277 m<sup>3</sup>/h (net)
- Infinite variation, power consumption approx. 4 W (minimum speed) up to 62 W
- Fan width: approx. 379 mm

### Ventilation Unit WL800

- Air volume extraction max. approx. 555 m<sup>3</sup>/h (net)
- Infinite variation, power consumption approx. 8 W (minimum speed) up to 124 W
- Fan width: approx. 651 mm



Exterior view WL800, grey RAL 9007, fine structure



Inside view WL400, white RAL 9016, silk gloss

### Standard panel WL

N° 60461 WL800, RAL 9016  
N° 60462 WL800, RAL 9006  
N° 60463 WL800, RAL 9007  
N° 60465 WL800, custom, 1-colour  
N° 60466 WL800, custom, 2-colour  
(N° 60471-N° 60476 WL800 pre-cut)

N° 60481 WL400, RAL 9016  
N° 60482 WL400, RAL 9006  
N° 60483 WL400, RAL 9007  
N° 60485 WL400, custom, 1-colour  
N° 60486 WL400, custom, 2-colour  
(N° 60491-N° 60496 WL400 pre-cut)



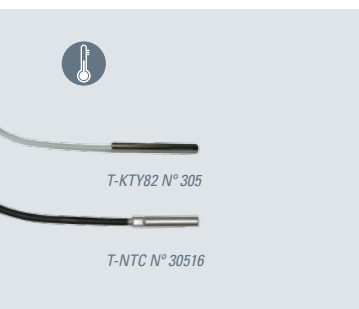


# Building Automation

**elsner**<sup>®</sup>  
elektronik

<b>Conventional Sensors</b> .....	<b>48</b>
For temperature and weather data	
<b>RS485 Weather Sensoren and Modbus Weather Sensoren</b> .....	<b>49</b>
<b>Monitoring of Tanks and Distance Measurement (Modbus)</b> .....	<b>50</b>
<b>Motor Control Units</b> .....	<b>50</b>
<b>Power Supply Units</b> .....	<b>51</b>
<b>Relays</b> .....	<b>52</b>
<b>Additional Accessories for Building Automation</b> .....	<b>53</b>
Converter, Mountings, Remote Control	

## Conventional Sensors



### Temperature Sensors T-KTY82 and T-NTC

#### T-KTY82:

- For indoor and outdoor applications
- Application example: Actuators KNX S-B4T-UP
- Length of sensor sleeve approx. 45 mm, Ø approx. 6 mm, cable length approx. 187 mm

#### T-NTC:

- For indoor and outdoor applications
- Measurement range -30°C to 100°C
- e.g. for Corlo Touch
- Length of sensor sleeve approx. 32 mm, Ø approx. 6 mm, cable length approx. 300 cm



### Rain/Wind Sensor RW-PF

- Wind speed sensor
- Precipitation sensor with 1.2 watt heating
- Potential-free outputs for wind and rain alarm
- Setting of the wind threshold value via DIP switches inside the device

- LEDs show wind/rain alarm
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Housing for surface mounting, IP 44, white/translucent
- Operating voltage: 12...40 V DC (12...28 V AC)



### Rain Sensor R 24 V

- Precipitation sensor with 1.2 watt heating
- 24 V DC output for rain alarm
- Hold time 10-300 seconds, potentiometer-variable

- Approx. 96 x 77 x 118 (W x H x D, mm)
- Housing for surface mounting, IP 44, white/translucent
- Operating voltage: 24 V DC



### P04i-GPS Weather Station

- For WS1 and (KNX) WS1000 Color/Style
- Temperature, precipitation, wind speed and brightness recording
- Sun position calculation by the control system
- GPS receiver (time, position)

- Combi mount for wall/pole mounting
- Housing for surface mounting, IP 44, white/translucent
- Approx. 62 x 71 x 145 (W x H x D, mm)
- Operating voltage: 24 V DC



### P04i-W Wind Sensor

- Wind Sensor for WS1 and WS1000 Color/Style in conjunction with P03i/P04i Data Collector

- Housing for surface mounting, IP 44, white/translucent
- Approx. 62 x 71 x 145 (W x H x D, mm)
- Operating voltage: 24 V DC



### P03i-GPS Weather Station

- For WS1 and (KNX) WS1000 Color/Style
- Temperature, precipitation, wind speed and brightness recording
- Sun position calculation by the control system
- GPS receiver (time, position)

- Combi mount for wall/pole mounting
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Operating voltage: 24 V DC



## P03i-W Wind Sensor

- Wind sensor for WS1 and WS1000 in conjunction with P03i/P04i Data Collector
- Approx. 96 x 77 x 118 (W x H x D, mm)
- Housing for surface mounting, IP 44, white/translucent
- Operating voltage: 24 V DC

## P03i/P04i Distributor

- Weather data distributor with 1 data input (for P03i/P04i-GPS) and 4 data outputs (for WS1 and WS1000)
- Modular device 6 width units, white, approx. 107 x 88 x 60 (W x H x D, mm)
- Operating voltage: 230 V AC

## P03i/P04i Data Collector

- Weather data collector with 5 data inputs
- (1 for P03i/P04i-GPS, 4 for P03i/ P04i-W) and 1 data output (for WS1 and WS1000)
- Modular device 6 width units, white, approx. 107 x 88 x 60 (W x H x D, mm)
- Operating voltage: 230 V AC

## RS485 Weather Sensors and Modbus Weather Sensors

The weather stations provide the current meteorological data as RS485 or as Modbus protocol. The sensors, the evaluation electronics and the bus coupler are mounted in a compact housing with an integrated combined fixture for wall/pole mounting. In addition there are mounting arms available for flexible mounting.

The **brightness sensor** not only recognizes sunlight, but also twilight. For this, filters simulate the spectral sensitivity of the human eye. The electronic **wind sensor** works noiselessly and reliably, even during hail, snow

and sub-zero temperatures. Even turbulent air and anabatic winds in the vicinity of the weather station are recorded.

The measuring surface of the **precipitation sensor** is heated, so that humidity dries immediately. On the one hand, this prevents false reports caused by fog or dew. On the other hand, the sensor recognizes quickly when it has stopped to rain or snow.

The **temperature sensor** transfers the outdoor temperature exactly and reliably.

The **GPS receiver** delivers the international time signal (UTC) and the position.

## Weather Stations P03/3-RS485-GPS and P03/3-RS485-CET

- RS485 data output
  - Temperature sensor (-30...+50°C)
  - 3 brightness sensors (east, south, west, 0...150 000 lx)
  - Wind speed sensor
  - Precipitation sensor with 1.2 watt heating
  - GPS receiver
  - Calculation of the position of the sun (azimuth/elevation)
  - Housing for surface mounting, IP 44, white/translucent
  - Approx. 96 x 77 x 118 (W x H x D, mm)
  - Operating voltage: 24 V DC
- P03/3-RS485-GPS:**
- Output of the international time signal UTC
- P03/3-RS485-CET:**
- Output of the central european time CET, automatic summer/winter time switchover according to the specifications for central europe





P03/3-Modbus  
N° 30146

P03/3-Modbus-GPS  
N° 30147

## Weather Stations P03/3-Modbus

- Modbus data output (Modbus RTU)
- Temperature sensor (-30...+50°C)
- 3 brightness sensors (east, south, west, 0...150 000 lx)
- Wind speed sensor
- Precipitation sensor with 1.2 watt heating
- Housing for surface mounting, IP 44, white/translucent
- Approx. 96 x 77 x 118 (W x H x D, mm)

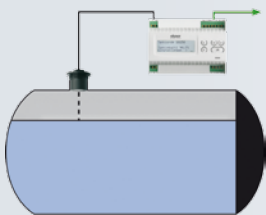
- Operating voltage: 12...40 V DC (12...28 V AC)

### P03/3-Modbus:

- No time signal

### P03/3-Modbus-GPS:

- GPS receiver
- Calculation of the position of the sun
- (azimuth/elevation)



## Monitoring of Tanks and Distance Measurement (Modbus)

An ultrasonic probe is used for measuring the capacity of tanks and for distances. The fill level/distance can be directly read from the display. Settings like the measurement

cycle or the tank geometry are accomplished by means of the key pad. Different interfaces/ outputs allow for the transfer of the data of the tank sensor to other devices.



N° 70152

## Tank Sensor SO250-UI

- Measurement of filling height or distance (12...250 cm)
- Modbus interface for data output
- 2 additional output relays
- Voltage interface 0...10 V
- Current interface 0...20 mA
- Evaluation unit with display and keypad

- Modular device 7 width units, white, Approx. 123 x 89 x 61 (W x H x D, mm)
- Ultrasonic measuring sensor, black, Ø approx. 60 mm, height approx. 45 mm, thread 1½ inches
- Suitable for water and heavy oil
- 10 m connection cable
- Operating voltage: 230 V AC

## Motor Control Units

Motor control units take over numerous tasks in the field of building automation: They transmit commands of control systems to motors

and allow for the creation of groups. Devices with inputs for push buttons facilitate local manual operation.



IMMSG-UC-2H N° 70455  
IMMSG-UC-4H N° 70456

## Motor Control Units IMMSG-UC

- With keypad (manual operation) and status LEDs
- Central and extension inputs with variable voltage (6...80 V DC, 6...240 V AC)
- Setting the central control to "Deadman" or "Autohold"
- Local manual operation with unlocked buttons (setting to Standard or Comfort mode)
- Storing one movement position per drive
- Connect through clamps
- Potential-free relays

- Auxiliary voltage: 230 V AC

### IMMSG-UC-2H:

- For 2 drives (230 V)
- Connection for 2 up/down push buttons
- Modular device 3 width units, white, approx. 53 x 88 x 60 (W x H x D, mm)

### IMMSG-UC-4H:

- For 4 drives (230 V)
- Connection for 4 up/down push buttons
- Modular device 6 width units, white, approx. 107 x 88 x 60 (W x H x D, mm)

## Motor Control Unit MSG1-UP

- For 1 drive (230 V AC / 4 A, up/down)
- For central and manual control of shading or window
- Low wear zero voltage switch
- Direction change pause 1 second
- Central input 8 to 8...28 V, *deadman* or *autohold* modes
- Manual input for non-locked keys (8 to 28V), integrated automatic key timer (step mode/autohold)
- Integrated device for installation in junction box
- Approx. 38 x 47 x 29 (W x H x D, mm)
- Operating voltage: 230 V AC, 50 Hz



N° 70451

## Intelligent Motor Control Unit IMMSG 230

- For 1 drive, 230 V AC/4 A, up/down clamps
- For central and manual control of shading or window
- Central input 230 V AC
- Local manual operation with unlocked buttons (230 V AC)
- Storing of a movement position
- Integrated automated time system for buttons: inching function (for exact positioning) and longer keypress (automatic movement to the end position)
- Integrated device for installation in junction box
- Approx. 38 x 47 x 29 (W x H x D, mm)
- Operating voltage: 230 V AC, 50 Hz



N° 70446

## Power Supply Units

### Power Supply Units WGDC

- Control input „up/down“: 230 V AC, 50 Hz, short-circuit proof, stabilised
- Housing for surface mounting, IP 54, grey
- Approx. 160 x 80 x 57 (W x H x D, mm)
- Operating voltage: 230 V AC, 50 Hz
- “Sort Start” function for control of the slat angle of blinds. Switchover from 12 V to 24 V after approx. 1s
- Integrated changeover relay stops the drive faster

#### WGDC-2S:

- 2 outputs, a total of max. 2 A
- Can be jumpered to 12 V DC, 24 V DC or “Sort Start”

#### WGDC-2P5:

- 1 output 24 V DC, 2 A
- For motors with a five-pole connection (e. g. window drive mechanisms that are integrated in the front)


WGDC-2S N° 2014  
WGDC-2P5 N° 2015

### 24 V DC Power Supply Units PS180, PS400, PS1000 and PS5000

- For devices with 24 V AC supply voltage
- Input voltage: 230 V AC, 50 Hz
- Output voltage: 24 V DC
- Modular device

#### PS180:

- Output max. 180 mA / 4.5 W
- Approx. 53 x 90 x 50 (W x H x D, mm), 3 width units

#### PS400:

- Output max. 400 mA / 10 W
- Approx. 53 x 90 x 50 (W x H x D, mm), 3 width units

#### PS1000:

- Output max. 1000 mA / 24 W
- Approx. 53 x 90 x 50 (W x H x D, mm), 3 width units

#### PS5000:

- Input voltage 230 V AC or 275-350 V DC
- Output adjustable 24-28 V DC, max. 5 A / 120 W
- Approx. 108 x 95 x 69 (W x H x D, mm), 6 width units


PS180  
N° 20200  
PS400  
N° 20201  
PS1000  
N° 20202

PS5000  
N° 20203

NEW!

## Relays



N° 2016

### AC/DC Relays RACDC-H

- For two 24 V DC motors
- Control input (up/down): 230 V AC, 50 Hz
- Operating voltage: 24 V DC
- Additional 24 V DC voltage output
- Modular device 3 width units,
- Approx. 53 x 90 x 50 (W x H x D, mm)



WGGS-2 N° 2032

WGGS-2-AP N° 2035  
WGGS-2-APK N° 2036WGGS-4  
N° 203WGGS-4-H  
N° 2034

### Group Control Relays WGGS

- Decoupling relays for operation of drives without integrated group control relay in a group
- Max. 500 W per output
- Control input (up/down): 230 V AC, 50 Hz
- Operating voltage: 230 V AC, 50 Hz

#### WGGS-2:

- 2 outputs 230 V AC (up/down clamps)
- Built-in type for assembly in junction box
- Approx. 38 x 47 x 29 (W x H x D, mm)

#### WGGS-2-AP:

- 2 outputs 230 V AC (up/down clamps)
- Housing for surface mounting, IP 55, grey
- Approx. 89 x 53 x 89 (B x H x T, mm, without fastener)

#### WGGS-2-APK:

- Control input with STAS3 plug
- 2 outputs 230 V AC (STAK3 connector)
- Housing for surface mounting, IP 55, grey
- Approx. 89 x 53 x 89 (B x H x T, without fastener)

#### WGGS-4:

- 4 outputs 230 V AC (up/down clamps)
- Housing for surface mounting, IP 54, grey
- Approx. 160 x 80 x 57 (W x H x D, mm)

#### WGGS-4-H:

- 4 outputs 230 V AC (up/down clamps)
- Modular device 5 width units, dimensions approx. 88 x 90 x 50 (W x H x D, mm)



N° 202

### Decoupling Relay WG-N-GS 4

- Decoupling relay for operation of drives without integrated group control relay in a group
- 4 x drive 230 V AC (Up/Down/N/PE)
- Total load max. 1.5 kW, load of one output max. 600 W

- Control input (up/down): 230 V AC, 50 Hz
- Operating voltage: 230 V AC, 50 Hz
- Housing for surface mounting, IP 54, grey
- Approx. 160 x 80 x 57 (W x H x D, mm)

RP-H 230 V  
N° 2017WG-PF  
N° 2019RP-H 24 V  
N° 2021RP-H PW  
N° 2022

### Potential-free relays WG-PF and RP-H

- Transfers control commands to other systems, e.g. heat and smoke extraction system or 24 V drive system (with power disconnection by the control device)

- Control input (up/down): 230 V AC, 50 Hz
- Operating voltage: 230 V AC, 50 Hz
- Output potential-free, max. 230 V, 8 A

#### WG-PF:

- NO-contact for „Up/Down“
- Built-in type for assembly in junction box
- Approx. 38 x 47 x 29 (W x H x D, mm)
- Control input (up/down): 230 V AC, 50 Hz
- Operating voltage: 230 V AC, 50 Hz
- Output potential-free, max. 230 V, 8 A

#### RP-H 24 V:

- Outputs for „Up“ and for „Down“
- Modular device 3 width units, approx. 53 x 90 x 50 (W x H x D, mm)
- Control input (up/down/com): 24 V DC
- Outputs potential-free, max. 230 V, 1 A each

#### RP-H PW:

- Output for a 24 V polarity changer motor
- Modular device 3 width units, approx. 53 x 90 x 50 (W x H x D, mm)
- Control input (up/down): 230 V AC, 50 Hz
- Outputs potential-free, max. 230 V, 1 A each

#### RP-H 230 V:

- Changeover contact for „Up“ and „Down“
- Modular device 3 width units, approx. 53 x 90 x 50 (W x H x D, mm)

NEW!



## Additional Accessories

### Corlo Push Buttons

- Matt or glossy chromed edge, white or black glass
- Approx. 80 × 71 × 12,5 (B × H × T, mm)

#### Corlo Push Button M-T:

- Mechanical push button
- Mounting with Frame *Corlo* in socket (see below)
- Integrated temperature sensor T-NTC
- Available as single push button Corlo M1-T and as double push button Corlo M2-T

#### Corlo Solar Wireless Push Button P RF:

- Wireless Push Button for drives/devices on controls WS1, WS1000
- For direct operation of ventilation units, relays, motor control units

- Energy supply through integrated solar panels. Additional emergency power supply through 3 V batterie (Typ CR2032)
- Mounting with Frame *Corlo* in socket or Frame *Corlo Plane* without socket (see below)
- Available as single push button Corlo P1 RF and as double push button Corlo P2 RF

#### Corlo Push Buttons M1-T

White, glossy edge N° 70282  
Black, glossy edge N° 70283  
White, matt edge N° 70284  
Black, matt edge N° 70285

#### Corlo Push Buttons M2-T

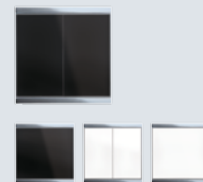
White, glossy edge N° 70286  
Black, glossy edge N° 70287  
White, matt edge N° 70288  
Black, matt edge N° 70289

#### Corlo Push Buttons P1 RF

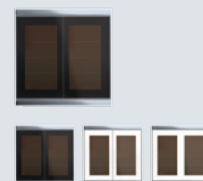
White, glossy edge N° 70290  
Black, glossy edge N° 70291  
White, matt edge N° 70292  
Black, matt edge N° 70293

#### Corlo Push Buttons P2 RF

White, glossy edge N° 70294  
Black, glossy edge N° 70295  
White, matt edge N° 70296  
Black, matt edge N° 70297



Corlo Push Buttons M-T



Corlo Push Buttons P RF

### Remote Control Remo® 8 *The hand-held transmitter for building automation*

- Radio hand-held transmitter with 8 channels
- Button functions: up/down/stop, on/off, dimming (depending on the device to control)
- For control of the drives and devices installed at building control systems
- For direct manual control of ventilation units, relays and motor control units
- With magnetic wall-mounting
- Radio frequency 868.2 MHz
- Housing plastic white/grey or alu/graphite (partly painted)
- Hand-held transmitter approx. 41 x 140 x 21, mounting approx. 54 x 150 x 11 (W x H x D, mm)
- Power supply: 3 V battery type CR2032

**Remote Control Remo 8, Radio Push Button Interface RF-B2-UP and Corlo Push Buttons are suitable for the following devices:**



#### Radio Relay

RF-Relay as of version 2.0  
RF-MSG and RF-Dimmer  
XS-MSG2-AP as of version 2.0



#### Patio Roof Control Lixa



#### Shading Control Solexa

as of version 3.6



#### Window Control Arexa

as of version 3.7



#### Touch One Style

Touch One



#### (KNX) WS1000 Color

WS1 Color

as of version 1.1



#### (KNX) WS1000 Style

WS1 Style



#### Air Supply Unit WFL

as of version 2.0



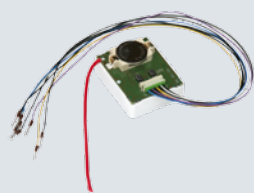
#### Ventilation Unit WL305/610, WL400/800

as of version 4.0

Fans on RF-VM modules



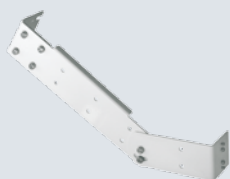
N° 60511 (white)  
N° 60512 (alu)



N° 60540

## Radio Push Button Interface RF-B2-UP

- Radio Interface for 2 normal double switches
- For control of the drives and devices installed at building control systems and for direct manual control of ventilation units, relays and motor control units (see Remo 8, p. 53)
- Radio frequency 868.2 MHz
- Power supply: 3 V battery type CR2032
- Approx. 38 x 47 x 29 (W x H x D, mm)
- Connection lead 300 mm, can be extended up to 10 m



Hinge Arm large  
N° 30109 (white)  
N° 30111 (alu blank)

## Mounting Arms for Weather Stations

- For flexible mounting of weather stations and sensors ("P03" models)

### Mounting Arms with ball joints:

- For wall mounting
- RAL 9003 powder-coated
- High quality, fixable ball joints
- Flex S: 1 ball joint, total length approx. 64 mm
- Flex S+: 2 ball joints, total length approx. 116 mm
- Flex L: 1 ball joint, total length approx. 215 mm

- Flex L+: 2 ball joints, total length approx. 267 mm

### Mounting Arm L:

- For wall mounting
- RAL 9003 powder-coated
- Total length approx. 163 mm (no joints)

### Hinge Arm large:

- For wall, pole or beam mounting
- Available powder-coated RAL 9016 Traffic White or aluminium blank
- 1 hinge, total length approx. 420 mm



Mounting Arm Flex S  
N° 30119



Mounting Arm Flex S+  
N° 30120



Mounting Arm L  
N° 30112



Mounting Arm Flex L  
N° 30115



Mounting Arm Flex L+  
N° 30116



N° 10113 (loose)  
N° 10114 (mounted)

## Connection cable set for 230 V Solexa or Arexa

- Simplified control connections via a mains socket
- Mains lead, length approx. 6 m
- Motor connection cable with STAK3-Coupling, length approx. 6 m
- Available loose or mounted



GPS-DCF-Converter  
N° 30149

GPS-DCF-Converter UTC±  
N° 30150

## GPS-DCF Converter

- Receives the international time signal UTC via GPS and converts the information to a DCF77 protocol (DCF output +24 V / - / out)
- Connection to a DCF77 signal input (as an alternative to a DCF77 antenna)
- Summer/winter time switchover has to be carried out externally
- Housing for surface mounting, IP 54, grey
- Approx. 80 x 80 x 55 (W x H x D, mm)
- Auxiliary voltage: 12-24 VDC

### GPS-DCF Converter:

- Output of UTC time
- Conversion of UTC time to local time has to be carried out externally

### GPS-DCF Converter UTC±:

- Output for local time
- UTC offset is set with DIP switches in the device (output of local time)

## Building and Conservatory Automation

Elsner Elektronik has been standing for intelligent solutions in the sector of **automatic conservatory control systems and building automation** since 1990.

All products of Elsner are developed and manufactured at the company headquarters in Gechingen. Highly qualified staff and advanced technology guarantee for a continuously high quality standard.

Elsner Elektronik offers complete systems for the control of the ambient climate in buildings as well as individual components for different data interfaces (KNX, RS485, Modbus). Central operating devices, weather and indoor sensors, actuators or system devices – All products combine flexible technical solutions, comfortable operation and a forward-looking design.

## KNX Test Laboratory

Elsner Elektronik is also an accredited KNX test laboratory (certified according to DIN EN ISO/IEC 17025) and thus authorized to carry out KNX interworking and functional tests.

The test laboratory works independently from the producer; so any producer of KNX devices can have their products tested here.





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elektronik

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