

Corlo Touch KNX and Corlo Touch KNX WL Display and Touch Switch

Technical specifications and installation instructions

Item numbers Corlo Touch KNX WL
70252 (white / chrome glossy), 70253 (black / chrome glossy),
70254 (white / chrome matt), 70255 (black / chrome matt),
70334 (white / white matt), 70335 (black / black matt).
Corlo Touch KNX
70258 (white / chrome glossy), 70259 (black / chrome glossy),
70260 (white / chrome matt), 70261 (black / chrome matt),
70336 (white / white matt), 70337 (black / black matt).



1. Description

The **Display Corlo Touch KNX** for the KNX system offers a variety of options for its use: Its touch-sensitive glass interface means that it can be used as a normal switch. The high resolution display is ideal for displaying text, images or graphics. In addition to current readings and messages, the KNX bus system can also display photographs, for example. Concurrently, you can set up the **Corlo Touch KNX** as a control center for automatic shading, ventilation and air conditioning regulation.

With the **Corlo Touch KNX WL** model, you can also show network content on the display using the WLAN connection, e.g. web pages, IP camera images or visualizations. The Corlo Touch KNX WL display screen can, for example, be shown on a Smartphone, if a VPN connection is provided externally.

Functions:

- 3.5" touch-sensitive interface
- **10 display pages**, which can be configured with different areas for control or display purposes, for example switches, buttons, rocker switch, rotary knob, readings
- With the **Corlo Touch KNX WL** model, you can display predefined web pages using the WLAN connection. You enter URL addresses in the ETS
- Icons for display can be exchanged (symbol library in the device, own pictures from by micro SD card)
- **Ambient lighting** with individually variable colors (RGB)
- Integrated **proximity sensor**. Enables proximity switching and fast activation of the display from standby mode
- Integrated **brightness sensor** for automatic adjustment of the display lighting
- Integrated scene **control**(16 scenes), **timer**, **alarm clock**
- **5 automatic channels**, integrated **automation for ventilation** (windows, ventilation equipment), for **shading** (shutter, blinds, awning) for **air conditioning regulation** (heating, cooling) and for **light**
- **4 AND and 4 OR logic gates** each with 4 inputs. 16 logic inputs (in the form of communication objects) are available as inputs for the logic gates. The output of each gate can be optionally configured as 1-bit or 2 x 8-bit
- **4 inputs** for binary contact or temperature sensor
- **Micro SD card socket** e.g. as storage for image data
- **USB interface**
- **Corlo Touch KNX WL model: WLAN interface** for wireless data transfer from or into local networks. Due to limited system resources, intensive use can lead to delays when loading the content.

Configuration is made using the KNX software ETS. The **product file** can be downloaded from the Elsner Elektronik website on www.elsner-elektronik.de in the "Service" menu.

1.1. Deliverables

- Display unit
- Connection line

You will *also* require (not included in deliverables):

- Corlo frame (available as a single, dual, or triple frame)

Optional accessories:

(not included in the deliverables):

- T-NTC temperature sensor (No. 30516)
- Micro SD card for image data (off the shelf)

1.2. Technical data

Housing	Glass: real glass, tempered Edge: zinc pressure die casting Housing: plastic
Display	Visible diagonal: 3,5 inches Resolution: 320 x 240 pixel Viewing Angle: 6 o'clock viewing direction Opening angle x: -75° to +75° typ. Opening angle y: -55° to +75° typ.
Colors	<ul style="list-style-type: none"> • White glass, chromed glossy edge • White glass, chromed matt edge • Black glass, chromed glossy edge • Black glass, chromed matt edge • White glass, white matt edge • Black glass, black matt edge • Custom colours on request (see "Colors for edge and frame" auf Seite 1)
Assembly	Flush mounting (Wall installation in junction box Ø 60 mm)
Dimensions	Housing overall approx. 80 x 71 x 49 (W x H x D, mm), Mounting depth approx. 12.5 mm
Weight display unit Corlo Touch KNX	approx. 140 g
Weight display unit Corlo Touch KNX WL	approx. 160 g
Weight frame	frame 1-gang approx. 75 g, frame 2-gang approx. 95 g, frame 3-gang approx. 115 g
Ambient temperature	Operation 0...+50°C, storage -10...+50°C
Ambient humidity	max. 95% RH, avoid condensation
Operating voltage	24 V DC ±10%
Power consumption Corlo Touch KNX	<ul style="list-style-type: none"> • approx. 1.3 W maximum (when ambient and logo lighting 100% white, display brightness 100%) • approx. 0.9 W in normal operation (when ambient and logo lighting off, display brightness 50%) • approx. 0.6 W in standby operation (when ambient and logo lighting off, display off) (was measured with 24 V auxiliary voltage)
Power consumption Corlo Touch KNX WL	<ul style="list-style-type: none"> • approx. 3.5 W maximum (when ambient and logo lighting 100% white, display brightness 100%) • approx. 1.9 W in normal operation (when ambient and logo lighting off, display brightness 50%) • approx. 1.7 W in standby operation (when ambient and logo lighting off, display off) (was measured with 24 V auxiliary voltage)
Data output/ bus communication	KNX +/- Bus connector terminal
BCU type	unit's own micro controller
PEI type	0
Group addresses	max. 1024
Assignments	max. 1024
Communication objects	1022
Other data interfaces	Micro SD, USB
Inputs	4x Analogue/Digital, max. cable length 10 m
Setting range of temperature sensor T-NTC at input of Corlo Touch	-40°C...+80°C
Supported WLAN Standards Corlo Touch KNX WL	IEEE802.11b/g/n, 2,4 GHz
Supported WLAN Security Corlo Touch KNX WL	64/128-bit WEP, WPA-PSK, WPA2-PSK

The product conforms with the provisions of EU guidelines.

1.3. Customizing options

1.3.1. Colors for edge and frame

The standard colors for the display edge and matching frame are chrome matt and chrome glossy, white matt and black matt. Special paints are possible, e. g. to RAL or automobile paint color codes. Please ask for your desired color.

The glass pane is only available with white or black painting, special colours are not possible.

2. Installation and start-up

2.1. Installation notes



Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.



CAUTION! Live voltage!

- There are unprotected live components inside the device.
- National legal regulations are to be followed.
 - Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
 - Do not use the device if it is damaged.
 - Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for its intended purpose. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

2.2. Installation

2.2.1. Assembly site and assembly preparations



The device must only be installed and operated in dry, indoor spaces. Avoid condensation.



ATTENTION!
The WLAN range for the Corlo Touch KNX WL model can be reduced as a result of the position where it is installed. Consider this when planning the location.

Avoid direct light (sunlight, lights) when choosing the assembly site. The proximity sensor's function can be impaired by strong light sources.

Choose the assembly height based on the application in each case: When used as a switch, the **Corlo Touch KNX** should be mounted 110 cm above ground level and when used as an indicating and control display, at a conveniently legible height, say 150 cm.

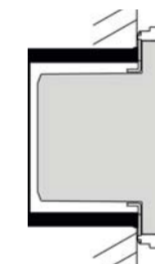


Fig. 1: Sectional drawing.
The **Display Corlo Touch KNX** fits in a standard junction box (Ø 60 mm, depth 42 mm).

If the analog/digital inputs are used, a deep socket (60 mm) or an electronics socket should be used. In this way, cables can be connected and stowed more conveniently.

When using a dual or triple frame, two or three sockets with a separation of 71 mm must be placed accordingly. The frames must be installed vertically.

Overall dimensions with frame:

Single, approx. 80 mm x 81 mm (W x H),
Dual, approx. 80 mm x 153 mm (W x H),
Triple, approx. 80 mm x 224 mm (W x H),
Mounting depth approx. 12.5 mm

2.2.2. Assembling the frame and the display unit

The instructions show installation of display unit with a single frame. Dual and triple frames are installed accordingly.



Fig. 2
A socket with 4 screw domes facilitates installation.

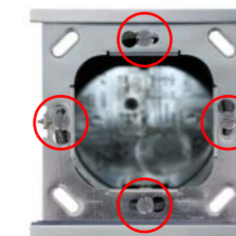


Fig. 3
Bolt the frame on to the socket. Two screws (right/left or top/bottom) are enough.

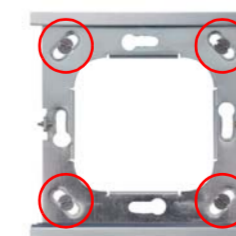


Fig. 4
If the screw domes of the box used are not covered with the frame's longitudinal holes, the frame can alternatively be bolted via the four outside holes (e.g. for boxes from Swiss systems or other installation systems).

Connect KNX bus, auxiliary voltage and where required the connection line inputs to the display unit.



Fig. 5
The display unit can now be put in place.
The wider part of the display edge must be at the bottom.
The display unit engages on the right and left sides and is also held by magnets.

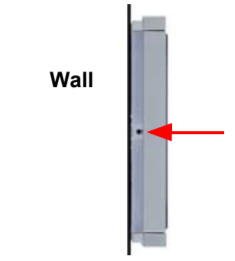


Fig. 6
To remove the display unit from the frame, press one of the snaplock connections on the side of the device with a pointed instrument. You can now pull the device to the front at the unlocked side and remove it.

2.2.3. Connection overview

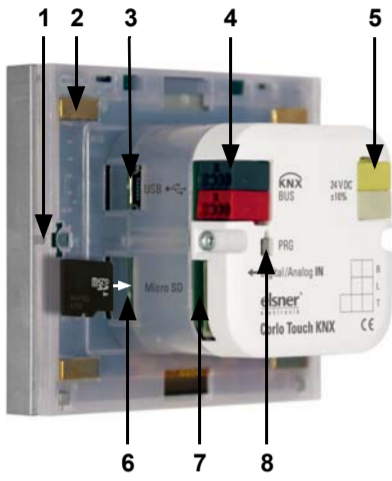


Fig. 7
1 Snaplock connector seating
2 Magnets (additional fixing)
3 USB socket
4 KNX terminal bus +/-
5 Terminal auxiliary supply 24 V DC $\pm 10\%$, terminal configuration independent from polarity
6 Micro SD socket (card contacts must show in the direction of the display when inserting it)
7 Analog/digital inputs socket
8 Programming button for addressing the device at the bus (recessed)

Connect the bus voltage (no. 4, red/black terminals) and auxiliary voltage (no. 5, yellow/white terminals). Use the attached breakout cable for connecting the digital/analog inputs (no. 7). The cables for the inputs can be extended to up to 10 m. All GND connections of the inputs are bridged internally (black cable).



Fig. 8
Breakout cable for analog/digital inputs:
Input 1: black/white
Input 2: black/yellow
Input 3: black/lilac
Input 4: black/blue

2.3. Instructions for assembly and operational start-up

Never expose the sensor to water (e.g. rain) or dust. This can damage the electronics. You must not exceed a relative air humidity of 95%. Avoid condensation.

After the operating voltage has been applied, the device will enter an initialisation phase lasting a few seconds. During this phase no information can be received or sent via the bus.

3. Addressing the device

The programming mode for addressing at the bus is activated via the programming button at the back of the housing or via the display.

Settings > System > Service > KNX



KNX programming LED ON:
Programming mode active.

KNX programming LED OFF:
Programming mode off.

The current address is displayed (Address 15.15.250 when delivered).

4. Setting up the WLAN connection

Only for the **Corlo Touch KNX WL** model with an interface for wireless network connection!

4.1. WLAN settings in the ETS

The WLAN connection must be set up in the ETS. Consult the WLAN setting section in the manual

ETS: System Settings > WLAN
 2.13.1 WLAN

You set the network name and the encryption for compatibility with the WLAN network access point. The IP address allocation can be made either automatically by DHCP or manually.

4.2. Displaying WLAN status on the display

You can call up information on the current status of the connection on the **Corlo Touch KNX** display. Network name, signal strength, IP address, DNS address and GW address are displayed.

Settings > System > Service > WLAN Status
 3.11.7. WLAN Status

5. Maintenance and care

Fingerprints on the glass area and frame are best removed with a cloth moistened with water or a microfiber cloth. Do not use an abrasive cleaning agent or aggressive cleansing agents.

For cleaning of the screen, the „cleaning mode“ can be used, that is activated via the display.

Settings > Cleaning Mode

During a period set in the ETS, the touch function is disabled then and the screen can be cleaned.

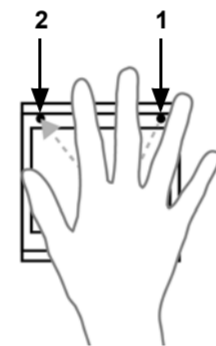


6. Use of the proximity sensor

With the integrated proximity sensor, the screen saver can be deactivated already when a hand approaches (fast activation from stand-by) or functions can be triggered via the bus (switching on approach).

To use the proximity sensor for sending communication objects, for example for switching, set the proximity sensor parameters in the ETS accordingly. See manual chapter

2.7. Proximity sensor



The proximity sensor reacts only when a larger object moves from the front into the detection area. It is best to move the flat hand towards the display so that the sensor reacts quickly.

Fig. 9 Proximity sensor
1 Proximity sensor Sender
2 Proximity sensor Receiver (and light sensor for adaption of the screen brightness)

7. Load individual images

7.1. Images for screensaver

The setting of the screen saver is described in the manual chapters

2.4. Display (ETS) and 3.4.4. Screen saver (Display)

Images that are shown as the screensaver must be stored on a micro SD card. In order that the system can recognize the SD card, carry out a reset in the menu after inserting it

Settings> System > Reset

This is not *necessary* if the card was inserted before booting the system. The card must remain in the device.

Store images in the given size in a corresponding folder on the top level of the SD card:

Image type	Resolution	File format	Folder name
Images for slide show	320 x 240 pixels	.jpg (RGB mode)	slideshow
Images for individual image display	320 x 240 pixels	.jpg (RGB mode)	diafix

Images for individual image display ("diafix" folder) must have a 4-digit numerical sequence so that they can be called up in the ETS and in the menu (0001...9999).

7.2. Images for image display

Images can be called up as a stationary display (e. g. welcome screen). In contrast to the screensaver, the touch function is disabled while a stationary image is displayed.

Images that are to be called up via the "Stationary Image" communication object must be stored on a micro SD card. In order that the system can recognize the SD card, carry out a reset in the menu after inserting it

Settings> System > Reset

This is not *necessary* if the card was inserted before booting the system. The card must remain in the device.

Store images in the given size in a corresponding folder on the top level of the SD card:

Image type	Resolution	File format	Folder name
Stationary images	320 x 240 pixels	.jpg (RGB mode)	festbilder

Stationary images must have a 4-digit numerical sequence so that they can be called up in the ETS and in the menu (0001...9999).

7.3. Exchanging images and graphics

For the **Corlo Touch KNX** display pages, a large number of icons from the area of security, multimedia, sensors, operation, house, light and air conditioning and drive control are available and these are stored in the device. However, you can also use proprietary symbol graphics and rotary control graphics.

Images that are shown as icons must be stored on a micro SD card. In order that the system can recognize the SD card, carry out a reset in the menu after inserting it

Settings> System > Reset

This is not *necessary* if the card was inserted before booting the system. The card must remain in the device.

Store images in the given size in a corresponding folder on the top level of the SD card:

Image type	Resolution	File format	Folder name
Symbol/small icon	48 x 48 pixels	.png	icons
Icons for rotary control	158 x 158 pixels	.png	icons

Icons must have a 4-digit numerical sequence so that they can be called up in the ETS and in the menu (0001...9999).