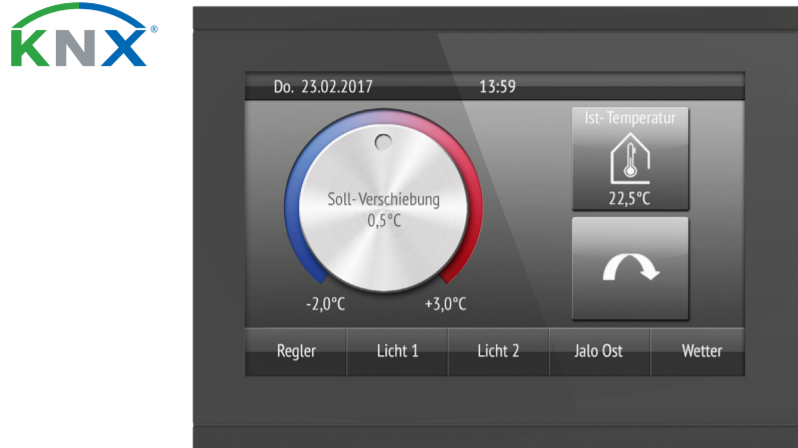


Corlo Touch KNX 5in (WL) Display and Touch Switch

Technical specifications and installation instructions

Item numbers 70475 (Corlo Touch KNX 5in WL), 70481 (Corlo Touch KNX 5in)



1. Description

The **Display Corlo Touch KNX 5in** 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 5in** as a control center for automatic shading, ventilation and air conditioning regulation.

With the **Corlo Touch KNX 5in 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 5in WL** display screen can, for example, be shown on a Smartphone, if a VPN connection is provided externally.

Functions:

- 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 5in 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
- **Corlo Touch KNX 5in 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 with mounting unit and fixing screw
- Connection line

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 Housing: plastic
Display	Visible diagonal: 5 inches Resolution: 800 x 480 pixel Viewing Angle: 12 o'clock viewing direction Opening angle x: -70° to +70° typ. Opening angle y: -60° to +60° typ.
Colours	<ul style="list-style-type: none"> • Black glass, edge glossy black • Custom colours on request (see "Colours for display edge and housing" auf Seite 1)
Assembly	on device socket according to DIN 49073

Degree of protection	IP20
Dimensions	Housing overall approx. 133 x 97 x 35 (W x H x D, mm), Mounting depth approx. 20 mm
Weight display unit Corlo Touch KNX 5in	approx. 200 g
Weight display unit Corlo Touch KNX 5in WL	approx. 210 g
Ambient temperature	Operation 0...+50°C, storage -10...+50°C
Ambient humidity	5...95% RH, avoid condensation
Operating voltage	21,6...26,4 V DC. A suitable power pack can be purchased from Elsner Elektronik.
Bus current	approx. 10 mA
Power consumption Corlo Touch KNX 5in	<ul style="list-style-type: none"> • approx. 2.7 W maximum (when ambient lighting 100% white, display brightness 100%) • approx. 2.0 W in normal operation (when ambient lighting off, display brightness 50%) • approx. 1.4 W in standby operation (when ambient lighting off, display off) (was measured with 24 V auxiliary voltage)
Power consumption Corlo Touch KNX 5in WL	<ul style="list-style-type: none"> • approx. 3.5 W maximum (when ambient lighting 100% white, display brightness 100%) • approx. 2.4 W in normal operation (when ambient lighting off, display brightness 50%) • approx. 1.9 W in standby operation (when ambient lighting off, display off) • During startup briefly approx. 4.8 W (200 mA) (was measured with 24 V auxiliary voltage)
Data output/ bus communication	KNX +/- Bus connector terminal
Group addresses	max. 1024
Assignments	max. 1024
Communication objects	1022
Other data interfaces	Micro SD
Browser	QT Webkit
Inputs	4x Analog/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 5in WL	IEEE802.11b/g/n, 2.4 GHz or 5 GHz
Supported WLAN Security Corlo Touch KNX 5in 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. Colours for display edge and housing

The standard colour for the display edge and housing is glossy black. Special paints are possible, e.g. to RAL or automobile paint colour codes. Please ask for your desired colour.

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

2. Installation and start-up

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

CAUTION! Live voltage!

There are unprotected live components inside the device.


- Inspect the device for damage before installation. Only put undamaged devices into operation.
- Comply with the locally applicable directives, regulations and provisions for electrical installation.
- Immediately take the device or system out of service and secure it against unintentional switch-on if risk-free operation is no longer guaranteed.

Use the device exclusively for building automation and observe the operating instructions. Improper use, modifications to the device or failure to observe the operating instructions will invalidate any warranty or guarantee claims. Operate the device only as a fixed-site installation, i.e. only in assembled condition 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.

2.1. Installation

2.1.1. 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 5in 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 5in** 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.

The **Display Corlo Touch KNX 5in** is installed in a junction box (R 60 mm, depth 42 mm).

2.1.2. Wall mounting



Fig. 1
A socket with 4 screw domes facilitates installation.



Fig. 2
Bolt the mounting unit on to the socket. The arrow („TOP“) must point upwards. Two screws (right/left or top/bottom) are enough.



Fig. 3
If the screw domes of the box used are not covered with the mounting unit's longitudinal holes, the mounting unit can alternatively be bolted via the other holes (e.g. for other installation systems).



Fig. 4
Example: Boxes from Swiss 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 arrow placed on the back („TOP“) must point upwards. Fit the display unit **at the top first** and then engage it **at the bottom**.



Fig. 6
Fix the display unit from below with the supplied screw (A).



Fig. 7
To remove the display unit from the mounting unit, loosen the screw (A). Press against the lower notches (B) to release the connection. The display unit can be removed.

2.1.3. Connection overview

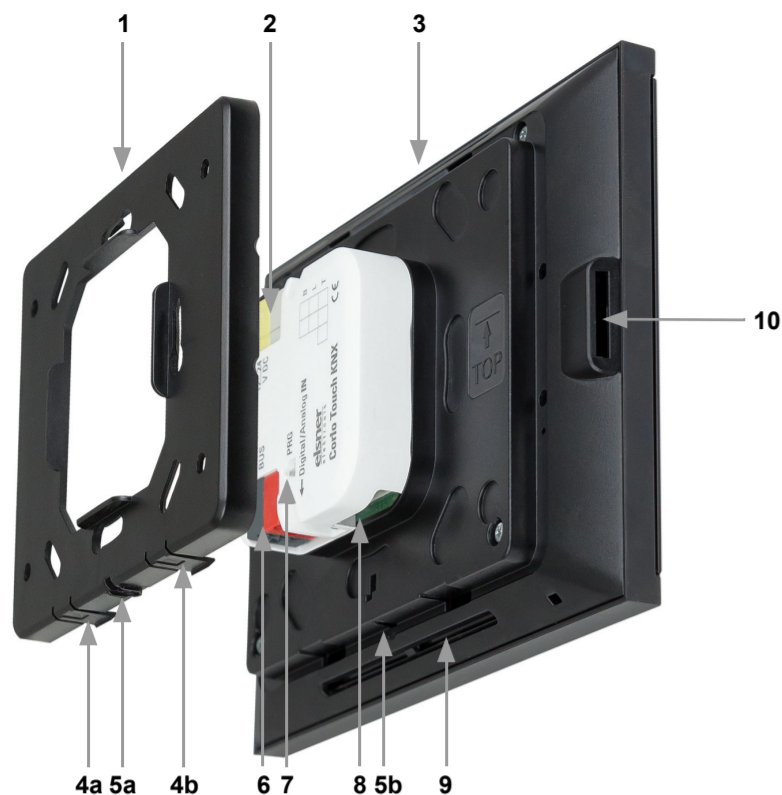


Fig. 8
 1 Mounting unit
 2 Terminal auxiliary supply 24 V DC $\pm 10\%$, terminal configuration independent from polarity
 3 Display unit
 4 Notches for snaplock
 5 Aperture für Screw (fixing)
 6 KNX terminal bus +/-
 7 Programming button for addressing the device at the bus (recessed)
 8 Analog/digital inputs socket
 9 Ventilation slots
 10 Micro SD socket (card contacts must show in the direction of the display when inserting it)

Connect the bus voltage (no. 6, red/black terminals) and auxiliary voltage (no. 2, yellow/white terminals).

Use the attached breakout cable for connecting the digital/analog inputs (no. 8). The cables for the inputs can be extended to up to 10 m. All GND connections of the inputs are bridged internally (black cable).

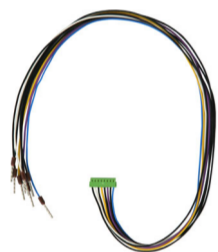


Fig. 9
 Breakout cable for analog/digital inputs:
 Input 1: black/white
 Input 2: black/yellow
 Input 3: black/lilac
 Input 4: black/blue

2.2. Instructions for assembly and operational start-up

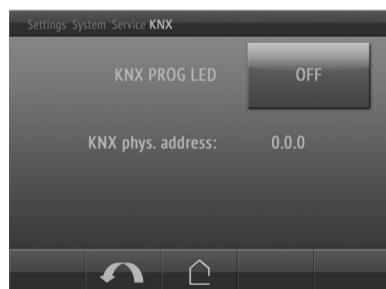
Never expose the sensor to water (e.g. rain) or dust. This can damage the electronics. You must not exceed a relative air humidity of 95%. Avoid condensation.

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 5in 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.

Please note: If an automatic change depending on the quality of the connection between 2.4/5 Ghz should be possible, you have to set up in the wireless router the

same Wi-Fi name with the same Wi-Fi password for both frequencies. Otherwise, only the frequency defined with the access can be used. (From version OPSys 0.1.4 or higher)

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 5in WL** display. Network name, signal strength, IP address, DNS address and GW address are displayed.

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

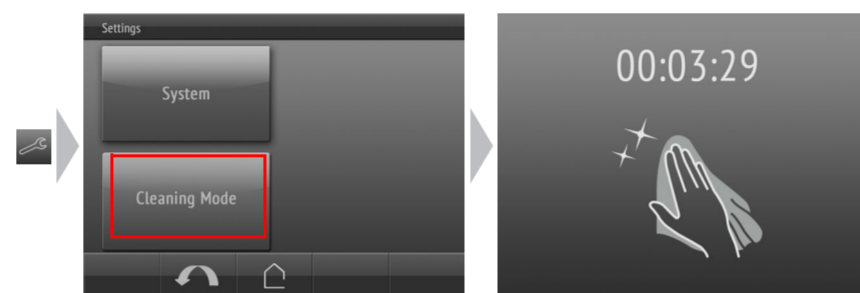
5. Maintenance and care

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. Disposal

After use, the device must be disposed of or recycled in accordance with the legal regulations. Do not dispose of it with the household waste!

7. 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.

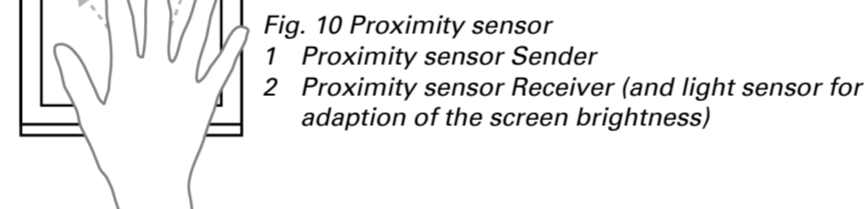


Fig. 10 Proximity sensor
 1 Proximity sensor Sender
 2 Proximity sensor Receiver (and light sensor for adaption of the screen brightness)

8. Load individual images

8.1. 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	800 x 480 pixels	.jpg (RGB mode)	slideshow
Images for individual image display	800 x 480 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).

8.2. 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	800 x 480 pixels	.jpg (RGB mode)	fixed image

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).

8.3. Exchanging images and graphics

For the **Corlo Touch KNX 5in** 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	96 x 96 pixels	.png	icons
Icons for rotary control	316 x 320 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).