CLMMI00N31 - Touchscreen MMI

Features

- **Operation of all CentraLine plant controllers:** The CLMMI00N31 operates controllers belonging to the CentraLine family (PANTHER, TIGER, LION), the Excel Web family (XL1000), and Excel 50/100.

- **Controller self-detection:** The CLMMI00N31 automatically recognizes the connected controller (Excel Web family or CentraLine family) and automatically starts the correct form of communication.

- **Local languages:** The CLMMI00N31 comes with operation menus in the following languages: English, German, French, Spanish, Swedish, Japanese, and Dutch. Other local language menus can be provided, upon request, and can be loaded via the USB interface.

- **Uniform operation screens:** Regardless of the type of controller family, the screens all have a similar look and feel.

- **Password protection:** The CLMMI00N31 uses the existing password mechanisms of the controllers it is connected to: Three (3) password levels for CentraLine family controllers; Six (6) password levels of Excel Web family controllers.

- **Upgrade of installed systems:** The CLMMI00N31 can be used to easily upgrade existing controllers to touch-screen operation, because it can simply replace existing CLMMI00N21/22 operator interfaces.

- **Bus-wide operation:** Once connected to a controller, the CLMMI00N31 allows bus-wide access to other controllers on the same bus.

- **Maintenance free:** The CLMMI00N31 is a solid-state product, without moving components like fan or hard-drive.

- **24 Vac and 24 Vdc operating voltage:** Unlike most other industrial touch-panels, the CLMMI00N31 can be operated with 24 Vac directly, thus avoiding the need for additional DC power supply units.

- **Network security:** Due to its embedded Windows CE operating system – which is loaded upon every powering-up – the CLMMI00N31 is not prone to typical network security issues like viruses, Trojans, etc.

GENERAL

The CLMMI00N31 Touchscreen MMI is an easy-to-use and robust operator unit for the entire range of plant controllers. The touch-panel operation screens allow for easy and self-explanatory operation by finger-tip or by touch-pen (supplied). User-configurable fast-access lists can contain selected data-points, time programs, and parameters, thus permitting plant-oriented and customer-oriented operation.
Specifications
Communication Protocols
The CLMMI00N31 provides an auto-detection mechanism which recognizes the type of controller (CentraLine family controller or Excel Web family controller) to which it is connected. Based on the type of controller detected, it will automatically start the corresponding communication protocol.

HTTP
HTTP is used for communication with Excel Web controllers. (XL1000).

FTP
FTP is used for download of trend data onto memory stick (CentraLine family controllers).

XCNAP
Honeywell proprietary protocol, used for communication with CentraLine family controllers.

Hardware Interfaces
Ethernet (used for Excel Web operation)
- 10/100 MBit/s, RJ45 female

RS232C (used for CentraLine family operation)
- 9-Pin sub-D, male, 115 KBit/s

USB (for memory stick)
- two ports, USB Host 2.0, full-speed (max. 12 MBit/s)

![Fig. 1. CLMMI00N31 hardware interfaces](image)

Electrical Data
This is a Class-II device.
The device can be operated with a.c. or d.c., as desired.
The device's power plug connector is a 3-pole Phoenix MINI-COMBICON MC 1,5/3-GF-3,5 THT plug connector (included in shipment).
The device requires a dedicated power supply.

Operating Voltage
- 24 Vac ± 10% (SELV as per DIN EN 61131), 50/60 Hz
- 24 Vdc ± 20% (SELV as per DIN EN 61131), max. 10% ripple

Current and Power Consumption
- 0.4 A (typical), 0.6 A (max.) at 24 Vac
- 0.4 A (typical), 0.6 A (max.) at 24 Vdc
- connected power value: 9.6 W

Mechanical Data
Housing Dimensions
- Panel cut-out: 160 mm (6.299") horizontal x 118 mm (4.646") vertical
- Display frame: 168 mm (6.614") horizontal x 126 mm (4.961") vertical x 5 mm (0.197") thickness
- Construction depth: 40 mm (1.575")

Housing Material
- Display frame made of anodized aluminum
- Housing made of sheet metal, zinc-coated

Weight
- 0.9 kg (2 lbs.) (excl. unit packaging)

Mounting
- Panel door mounting

Calculated Lifetime of Weakest Components
- MTBF ≥ 5 years (battery)

Display
- Color TFT graphic display, 64,000 colors
- 5.7", 86.4 mm x 115.2 mm display area
- 320 x 240 pixels
- analog resistive touch-panel, 4-wire
- backlight, > 45,000 hrs lifetime (i.e. after 45,000 hrs of active backlight use, intensity will have dropped to 50%)
- Configurable auto-switch-off for the backlight

CPU
Processor
ARM 9, 200 MHz

Operating System
Windows CE 5.0 Professional

Memory
- 128 MB SDRAM
- 512 kB S-RAM
- 64 MB Flash Memory, > 100,000 write cycles

Real-Time Clock
- Accuracy: ± 120 ppm
- 5 years buffered by lithium battery

Environmental
Temperature
- Storage: -25 … +70°C (-13 … +158°F)
- Operation: 0 … +50 °C (+32 … +122 °F)

Ambient Humidity (operation and storage)
- 10 to 95% relative humidity, non-condensing

Protection Class
- IP65 (front), IP20 (back)
Certifications
• CE
• RoHS-compliant

Warranty
Please refer to Honeywell terms and conditions.

Local Language Support
Operation Menus
• The CLMMI00N31 comes with operation menus in the following languages: English, German, French, Spanish, Swedish, Japanese, and Dutch. Other local language menus can be provided, upon request.

Application Specific Information
• WIN CE 5.0 supports the languages listed below. Thus, application-specific information (data-point and descriptor names, alarm texts, time program, names, etc.) are supported in the following language character sets:
  • Bulgarian
  • Croatian
  • Czech
  • Danish
  • Dutch
  • English (U.S.)
  • Finnish
  • French
  • German
  • Hungarian
  • Italian
  • Japanese
  • Norwegian
  • Polish
  • Portuguese (Brazil)
  • Portuguese (Portugal)
  • Romanian
  • Russian
  • Serbian (Cyrillic)
  • Serbian (Latin)
  • Slovak
  • Slovenian
  • Spanish
  • Swedish

Password Protection
• The CLMMI00N31 uses the existing password mechanisms of the controllers it is connected to:
  • Three (3) password levels for the CentraLine family of controllers
  • Six (6) password levels of the Excel Web family of controllers.

MODELS / ORDER NUMBERS
The following parts are included in the delivery of the CLMMI00N31:
• the CLMMI00N31 Touchscreen MMI
• Operating pen
• Pen holder
• Panel door mounting kit (4 clamps with fastening bolts)
• Mounting Instructions (MU1Z-0929GE51)
• 3 m Ethernet Cross-Over cable (allows direct connection to XL1000)

Spare Parts (can be ordered separately)
• Operating pen with pen holder, power wiring terminal, panel door mounting kit, Ethernet cross-over cable, Installation Instructions (CentraLine order no.: CLMMI00N31-ACC)
Fig. 3. CLMMI00N31 Touchscreen MMI, dimensions (in mm)