KEBA
Automation by innovation.

Kemro K2

OP 340, OP 341 - Operator panel

The modular, open-ended operator panel

The OP 34x is designed as an operator panel for medium-to-complex operations in conjunction with the controls of the Kemro K2 product range.

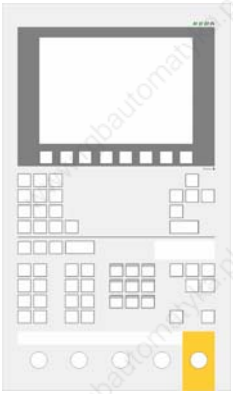
- TFT-display 10.4”, resolution SVGA (800 x 600 pixel)
- OP 340: Operation enabled by touch screen (analogous resistive) and membrane keys
  OP 341: Operation by membrane keys
- Can be located at a distance of up to 30 meters
- 16 switch inputs directly over the panel
- Additional customer-specific touch-sensitive key pad is optional (up to 64 keys, up to 31 light-emitting diodes (LEDs))
- Functionality can be regulated for any operating situation with the help of upgrade modules.

The operator panel OP 34x is directly controlled by the superimposed control system of the Kemro K2 product range.

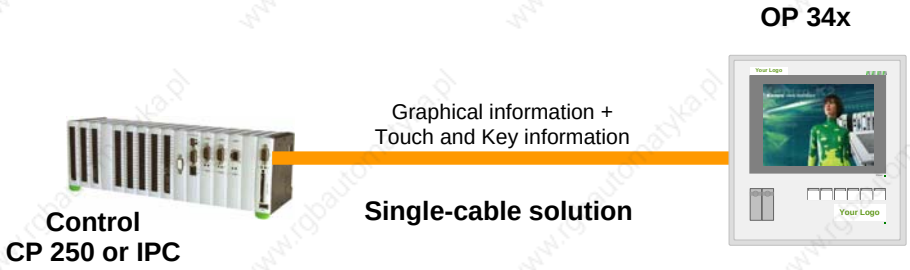
Standard variants

Designation	Illustration	Description
OP 340 (-LD)/A-0000		• 12 function keys with LEDs and plug-in strip
OP 340 (-LD)/A-0013		• 8 function keys with LEDs and plug-in strip • Assembly option for the USB module • Assembly option for the RFID module
OP 340 (-LD)/A-0103		• 8 function keys with LEDs and plug-in strip • Assembly option for USB module • Reserve slots for emergency switch and toggle switches

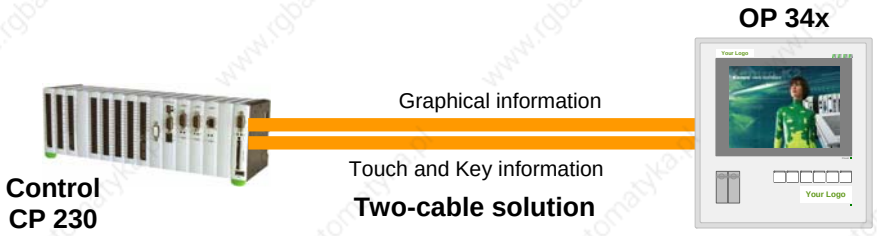
Branch-specific

Designation	Illustration	Description
OP 341/C-1100		• 63 keys with LEDs and plug-in strips • Assembly option for USB module • Assembly option for RFID module • Reserve slots for emergency switch and toggle switches

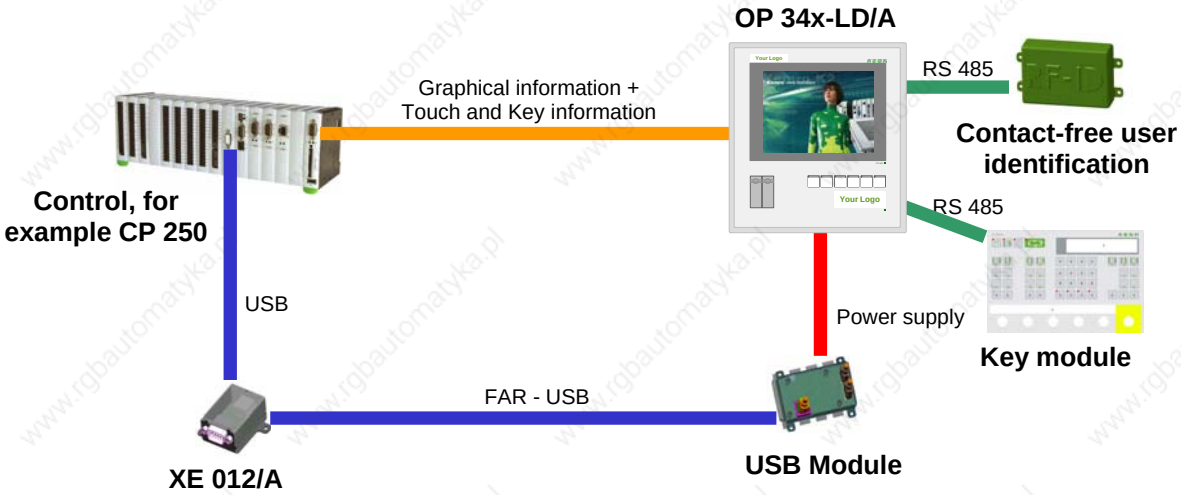
System topology



A single-cable solution is an option that can also be utilized along with the small control system CP 250 or the IPC control line. Both, the graphical information as well as backward channel data (touch and key information), are supplied through this cable.



Another option for verifying the compatibility to the already tried-and-tested controls is the two-cable solution. In this situation, graphical data and backward channel data (touch and key information) are transferred through two separate cables.



Additional modules can be fixed directly on the panel if preferred, or they can also be positioned independent of the panel within a specified radial distance from the panel. The modules obtain power supply from the operator panel. The key module and the contact-free, user identification module are linked to the panel or the control via a serial interface.

Your benefit

Modern touch screen technology

OP 340 uses a robust touch screen. The plant and machine users are thus able to carry out operations directly via the touch screen. The recommended visualization software, Kemro.view.standard, is designed particularly to fulfill the requirements of a touch operation.

Digital inputs

There are 16 input points which connect toggle switches, keys or other command devices directly to the panel. This way, an expensive cabling for the control system is avoided and commissioning time is reduced.

Additional advantages of USB

A suitable USB module can be mounted very easily on the present system. The USB module provides significant additional benefits to the end user. However, adding the USB module to a standard system without USB does not increase its cost significantly.

Simple cabling

A single cable connects the operator panel to the control. All the necessary graphical and backward channel information is transmitted by this cable. This facility minimizes cabling costs.

Suitable modularity for the plant

The productivity of the visualization system can be adjusted very easily to the respective function with the help of optional add-on modules. The serial interface complements the operator panel via a key module or a contact-free, user identification module.

Installation at variable ranges

Since the distance of the panel from the control implies a significant cost factor, two graded solutions were developed on the basis of the distance between the devices. Thus, for your desired application, you get a panel with optimal price/output ratio.

Different from competitors

For customer-specific solutions, the design, number, and configuration of keys can be installed individually to meet the respective operation requirements. Likewise, customer-specific key modules can also be installed for the operation.

Technical data

Data of devices

Display	10.4” TFT, color (65535 colors)
Resolution	800 x 600 pixel (SVGA)
Interfaces	LVDS or DVI (Graphical) and RS485-A (Touch)
Operation	Touch analog resistive (only OP 340)
Function keys with plug-in strips:	OP 340(-LD)/A-0000: 12 OP 340(-LD)/A-0013: 8 OP 340(-LD)/A-0103: 8 OP 341(-LD)/C-1100: 63
Projection	Kemro.view.standard (OP 340) / Kemro.view.basic (OP 341)
Digital inputs	16
Remote installation	10 meters for LVDS 30 meters for DVI

Options

USB module
RFID module
Outlets for emergency switch and toggle switch
Key module

Power supply

Nominal supply voltage:	24 V DC
Range of supply voltage:	19.2 V to 30 V, in accordance with EN 61131-2

Environment conditions

Operation temperature:	+5 °C to +55 °C
Storage temperature:	-25 °C to +70 °C
Relative humidity:	5 % to 95 % (uncondensed)
Resistance to vibrations:	In compliance with EN 61131
Shock-absorption capacity:	In compliance with EN 61131

Casing, measurements and weight

Front plate mass (B x H):	OP 340(-LD)/A – 0000: 320 mm x 260 mm OP 340(-LD)/A – 0013: 320 mm x 320 mm OP 340(-LD)/A – 0103: 320 mm x 340 mm OP 341/C-1100: 320 mm x 535 mm
Installation depth:	52 mm
Material:	Sheet metal casing
Type of assembly:	Assembly on mounting plate in the switch cabinet using fastening bolts (M6 x 12 mm)
Protection class:	IP65 front side, IP20 rear side
Weight:	approx. 3 kg

Standards

The device corresponds to the following standards:

EMC:

EN 50081-2	EMC Noise emission, Industrial area
EN 50082-2	EMC Resistance to jamming, Industrial area

Product standard for programmable controls:

IEC 61131-1	General
IEC 61131-2	Hardware

Accessories

XW 040-040	Cable set 4 meters (consisting of graphical cable and USB cable)
XW 040-050	Cable set 5 meters (consisting of graphical cable and USB cable)
XW 040-100	Cable set 10 meters (consisting of graphical cable and USB cable)
XW 040-150	Cable set 15 meters (consisting of graphical cable and USB cable)
XW 040-200	Cable set 20 meters (consisting of graphical cable and USB cable)
XW 040-300	Cable set 30 meters (consisting of graphical cable and USB cable)
XW 041-040	Connecting cable CP <-> OP 4 meters
XW 041-050	Connecting cable CP <-> OP 5 meters
XW 041-100	Connecting cable CP <-> OP 10 meters
XW 041-150	Connecting cable CP <-> OP 15 meters
XW 041-200	Connecting cable CP <-> OP 20 meters
XW 041-300	Connecting cable CP <-> OP 30 meters
XT 020/B	Plug set for OP 300 line