

The Intelligent Controller for 36 x 24 SmartDisplay Devices

The IS-C3201 Intelligent Controller is the springboard to use with SmartDisplay switches, a standard logic board and accessories. It is a gateway to enhance HMI and to simplify the user's control.

DISTINCTIVE CHARACTERISTICS

- Govern as many as 32 SmartDisplay LCD 36 x 24 switches or displays in two banks of 16 switches
- Flexible design conducive to programming for specific applications as defined by user
- Data and setup are stored in non-volatile memory and specify system's behavior; memory capacities 16,000 images, backlights, attributes
- Firmware can be customized based on user's requirements
- Communication for controller is compatible with USB, RS232 or RS422
- Downloadable images and backlight colors specified by user
- Look up tables for fonts 5 x 7 and 7 x 10
- Eight LED brightness settings
- Stand-alone operation or real time control by host
- Ten pin auxiliary port with seven MC pins for control or to sense other devices
- Switch activity report from controller to host: on switch press/release status change, the new statuses are sent over the last communication interface
- Flexibility of mounting switches in any location or configuration to accommodate user and application



IS-C3201 Intelligent Controller

BENEFITS

This controller is designed to be used in many various applications, with complete flexibility for the user. The SmartDisplay configuration is ideal for promoting real time operation features. Graphic image data can be downloaded to a switch, and any selected image from flash memory can displayed on the switch, delivering versatility to the user. Font strings in 6 x 8 or 9 x 12 arrangements can be created for a specified row on a stated switch. The ability to change the backlight color as well as the brightness of a color on any switch further expands the preferred options.

NKK has standard compatible logic boards available, or new logic boards can be designed, based on each customer's individual requirements. The logic boards may employ one through 16 SmartDisplay switches and can be daisy chained.

To help simplify development, NKK offers Engineering Kits with schematics and source code for all of the SmartDisplays. Engineering Kits Communicator, a free Windows based software, is available to test and download images for communication to various controllers. All pertinent documentation to get started is on NKK's website: <https://www.nkkswitches.com/SmartDisplay-resources/>

NKK Switches provides a full suite of design solutions for upgrading and enhancing user interface. A team of experts can provide system design, ongoing application support, value added services and product assembly.

For different functionality or questions, contact engineering@nkkswitches.

GENERAL SPECIFICATIONS



ESD handling procedure must be followed.

Power Requirement:	6.5V to 12V. Maximum Current is 170mA without Switches and 900mA with 32 Switches
Board Dimensions:	3.6" x 3.0" (91.44mm x 76.2mm)
Mounting Hole Dimension:	0.125" (3.175mm)
Operating Temperature Range:	-15°C ~ +50°C (+5°F ~ +122°F)

APPLICATIONS

The Intelligent Controller can be used wherever a human machine interface is required. Just a few examples follow, but function and utilization is not limited to the list, and possibilities are virtually endless.

- Test and measurement equipment
- Commercial building access control
- Industrial application monitoring and control
- Factory automation control
- Broadcasting
- Computer keypad
- Simulation
- Robotics