SZ7 series Teach Panel

Kinco

Installation Instruction

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1. Installation Note

1.1 Environmental Requirement

Operating temperature: SZ7 Series HMI can work stably in most industrial environments that the temperature between 32°F to122°F (0~50°C).
NEMA rating: This Series HMI is NEMA 1 rated in front panel.

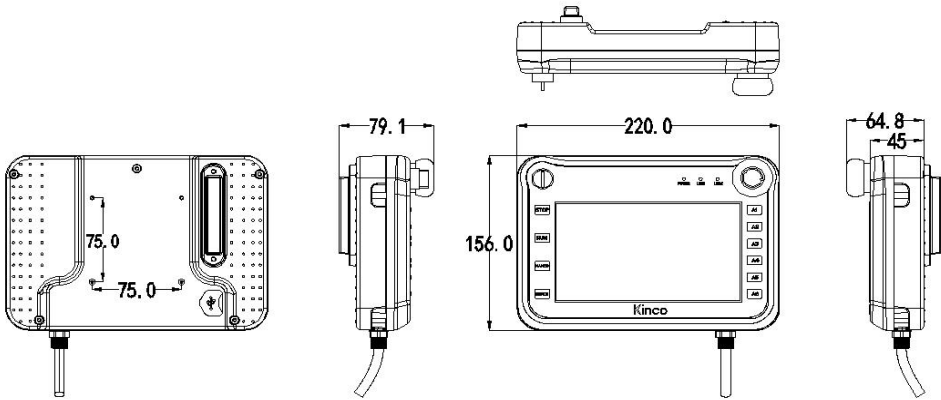| Please do not use in the following places:	Please take shielding measures in the following places:
➢ Places direct in sunlight ➢ Surrounding temperature and humidity beyond the specifications ➢ Places of temperature changes sharply and easily cause condensation ➢ Places that exist corrosive gas and combustible gas ➢ Places of much dust, dirt, salt and iron powder ➢ Places that will be splashed water, oil and drugs ➢ Places that bring direct vibration and shock to host	➢ Places that exist electrostatic or other kinds of noise ➢ Places of strong electromagnetic ➢ Places that may be exposed to rays ➢ Places near the power

1.2 Power Requirement

➢ Input voltage:DC16V～DC32V.
➢ Particularly note that there must be enough distance between this product and converters or switch power supply. Make sure that the input and output cables of that kind equipment are shield cable and the shielding network is connected with the ground.
➢ Make sure that the DC power and AC power is isolated.
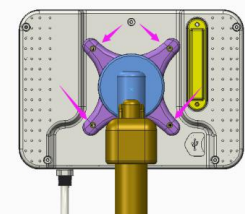➢ Do not use same power supply with the input circuit of inductance load or the controller.

2. Installation Description

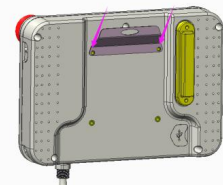### 2.1 Dimensional Drawing

2.2 Installation Instructions

2.2.1 Rack Mounting

On the back of the product, 4 M4 75*75mm thread holes are reserved, and the hole position of the bracket (refer to the left) is aligned with the thread hole, and the screw is screwed into the M4 specification.
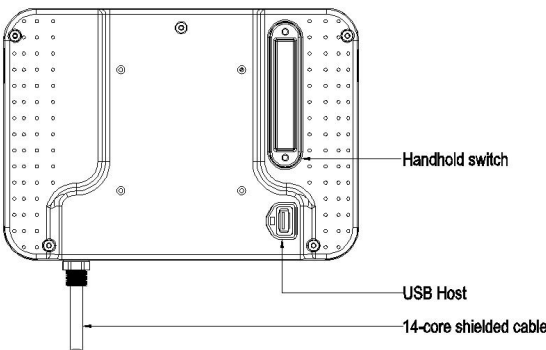
2.2.2 Hanging Mounting

Through sketch left hanging structure, specifications of the screws fixed in the shell reserved above two holes, can suspended in a desired position control.

NOTE：There are only M4 installation screws in the packaging carton. The rack and the sheet metal pendant are just schematic diagrams, needed to customize by customers.

3. Communication connections

Function	SZ7	SZ7S	SZ7E	SZ7ES
RS485	√	√		
RS232	√	√	√	√
Ethernet			√	√
USB HOST	√	√	√	√

Note：1.RS485、RS232、Ethernet are integrated in the 14-core shielded cable.
2. The Suffix of S indicates that products with hand holding switch, E is for Ethernet port.

3.1RS232 port

RS232 port is used to program and debug.

Connection	Green/brown/pink *in the 14-core shielded cable*(see below)
Port Function	The port is used to upload/ download user configuration program to the HMI to set HMI system parameters and to communication.

3.2 USB HOST

Connection	Connect with USB interface devices or U disks
Port Function	This interface can be connected with USB keyboard, mouse and printers, and the U disk can be used for user's configuration uploading/ downloading as well as data storage.

3.3RS485 port (SZ7 and SZ7S Support)

Connection	Grey/red *in the 14-core shielded cable*(see below)
Port Function	This port is used to connect the controller with RS-485port.

Note：When you create a project in Kinco HMIware SZ7 and SZ7S share a component icon.

3.4 Ethernet (SZ7E and SZ7ES Support)

Ethernet interface can adaptive 10 M/ 100 M.

Connection	Grey/red/black/yellow *in the 14-core shielded cable* (see below)
Port Function	The port can be used for uploading/downloading HMI program, setting system parameters and online simulation. It can connect multiple HMIs via the Ethernet; it can communicate HMI and PLC via the Ethernet, as well as communicate with a PC via the Ethernet port.

Note：When you create a project in Kinco HMIware,SZ7E and SZ7ES share a same icon

4. Operation Mode

4.1 Instructions for entering Operation Mode selection window

Hold pressing on the touch panel when you power on HMI, then HMI will enter operation mode selection window, select the operation mode according to your application. If there is not any operation in 20 seconds after entering operation mode selection window, HMI will enter application (normal working) mode automatically.

4.2 Descriptions of functions in Operation Mode selection window

After entering operation mode selection window, it will pop up a menu. Follows are the descriptions of the functions in the menu:

System Setup：Press this button to enter system setup window. This window is used to set initial window, screen saver time, buzzer and brightness adjustment. After setting, press Restart button to restart HMI.

Firmware Update：Press this button to enter firmware update mode. This window is used to update firmware. Normally this mode is not advised to use without guiding by manufacturer.

Touch Calibration ：Press this button to enter touch calibration window. It will restart HMI automatically after calibration successful. There is a timer in this button, it will enter application window if there is no operation within 20s.

Stop timer: Press this button to stop the 20s timer.

Note: There is a multi-languages button; it is used to switch English and Chinese.

5. Detailed description of the14-*core shielded cable*

5.1 Detailed description of the14-*core shielded cable*

SZ7 series HMI adopt 14-core shielded twisted cable to improve product stability.
The standard length of cable is 5 meters.

Cable colour	supply power	PLC(COM0) RS485	Ethernet	PC/PLC(COM2) RS232	Handhold Switch	Emergency switch	3-position selection switch
blue	24V						
orange	0V						
green				RS232 Rx			
brown				RS232 Tx			
grey		RS485B	RX_N				
red		RS485A	RX_P				
black			TX_N				
yellow			TX_P				
pink				Signal Ground			
purple					Common Ground		
white					Handhold signal		
blue-red						Emergency signal	
orange-white							AUTO-signal
green-white							Remote signal

Note：1.Handhold signal（NO）、AUTO-Signal、Remote-Signal are connected with common ground when they are selected.

2.When emergency switch（NC）is pressed down，it is disconnect with Common Ground.

3. Rated voltage is DC24V,rated current is 0.35A,included emergency switch、handhold switch and 3-position selection switch.

5.2 UTP Cable Socket Module Instruction

SZ7E and SZ7ES have Ethernet interface，the wire connection is in accordance with the T568B standard，as follows：

1--yellow
2--black
3--red
6--grey

Pin 1, 2, 3, 6 are *the pin number on the* UTP Cable Socket Module, the color above is the wire color in 14-core shielded cable.

6. After-sales Service

For < Service Terms and Conditions for HMI >, please check :http://www.kinco.cn