HMI BOX

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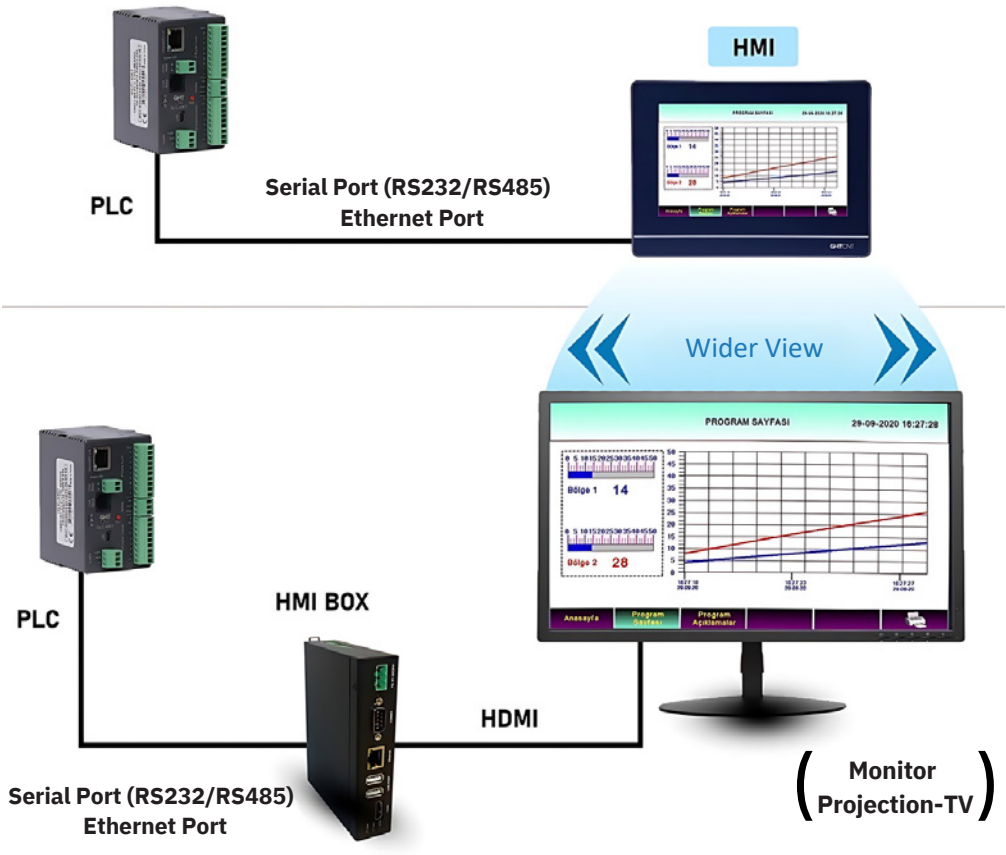


General Features

- Cortex-A9 Processor 512MB DDR3 + 4 GB eMMC Memory
- HDMI V1.4 FHD (1920*1080 @ 60Hz) Output
- 2 Channel USB Host Port
- 1 Channel 10/100M Ethernet Port
- 3 Channel Serial Communication Port

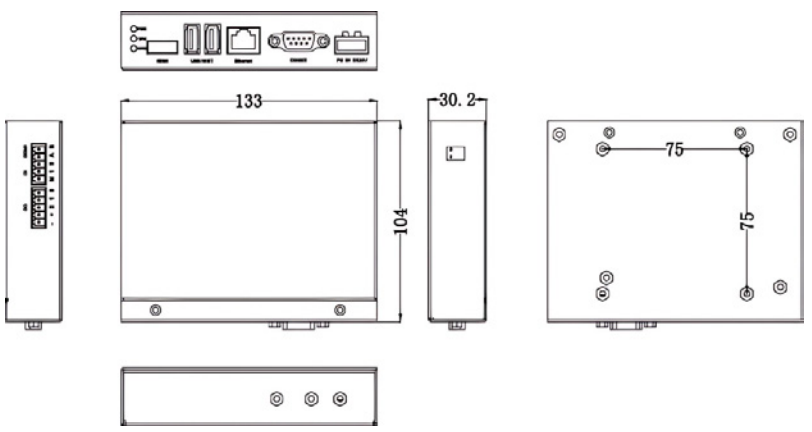
COM0: PLC RS232 / RS422 / RS485

COM1: PLC RS485

COM2: PC/PLC RS232

•2 Channel Digital Input, 3 Channel Digital Output

Installation (Device Dimensions)



Model Information

Order Code	WSGBOX-01

Performance Specifications

Processor	32bit RISC Cortex-A9 1GHz
Storage	512 MB DDR3 + 4 GB eMMC

Structural Features

Case Colour	Black
Case Material	Metal
Case Size	133 mm * 104 mm * 30.2 mm
Assembly	DIN rail installation (35mm), VESA,bracket installation (75*75mm)
Weight	0.47kg

Connection Ports

Screen Output	1* HDMI V1.4 FHD (1920*1080@60HZ)
Expandable Memory	2* USB Host
Ethernet	1*10/100M Network Port
Serial Communication Ports	COM0 : PLC RS232/RS422/RS485 COM1 : PLC RS485 COM2 : PC/PLC RS232
IO Port	2Digital Input (Programmable, Standard 24V Source Type) 3Digital Output (Programmable, Standard 24V Source Type)

Environmental Characteristics

Operating Temperature	0 ~ 50 °C
Operating Humidity	10 ~ 90 % Relative Humidity (Non-condensing)
Storage Ambient Temperature	-30 ~ 80 °C
Storage Ambient Humidity	10 ~ 90 % Relative Humidity (Non-condensing)
Sinusoidal Vibration Test	10 ~ 25 Hz (2G / 30 minutes in Y and Z Directions)
Cooling Mode	Natural Air Cooling

Electricity Specifications

Rated Power	2,4 W
Rated Voltage	24VDC
Input Range	10V ~ 28VDC
Allowable Power Loss	<3 ms
Insulation Resistance	>50MΩ (500VDC)
Withstand Tension Test	500VAC 1 Minute

Product Certificate

Protection Level	IP20

*GMTCNT **WSGBOX-01** HMI*

Installation Instruction

1. Installation Note

1.2 Environmental Requirement

Operating temperature: WSGBOX-01 HMI can work stably in most industrial environments that the temperature between32°F to122°F (0~50°C).

Please do not use 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

Please take shielding measures in the following places:

- Places that exist electrostatic or other kinds of noise
- Places of strong electromagnetic
- Places that may be exposed to rays
- Places near the power

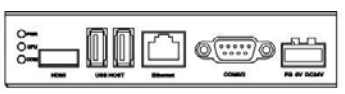
1.3 Power Requirement

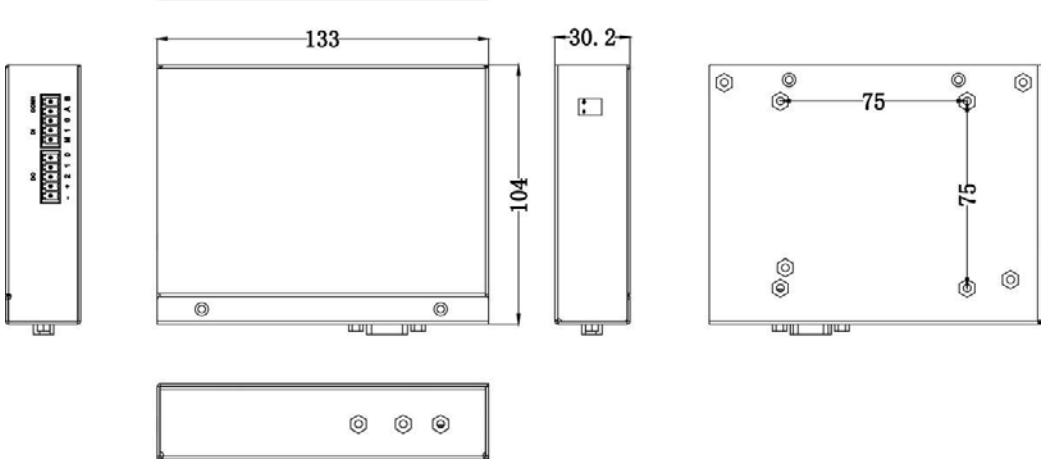
- Input voltage:DC21 V～DC28V.
- Particularly note that there must be enough distance between this product and converters or switch mode power supply. Make sure that the input and output cables of that kind equipment are shield cable and the shielding network is connected with the ground.
- Make sure that the DC power and AC power is isolated.
- Do not use common power with perceptual load or input circuit of the controller.

Note: An Internal fuse will prevent damage for over voltage condition, however it isn't guaranteed the internal electronic components are not damaged.

2. Installation Description

2.1 Dimensional Drawing

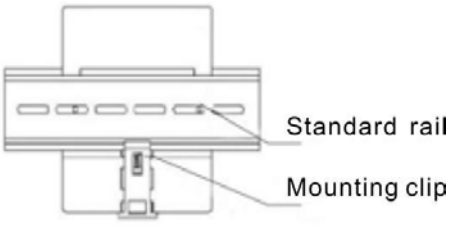




2.2 Installation Instructions

Two methods of installation for xF-SiHMI01: supported by DIN rail or bracket.

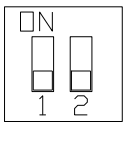
3. DIN rail(35mm)



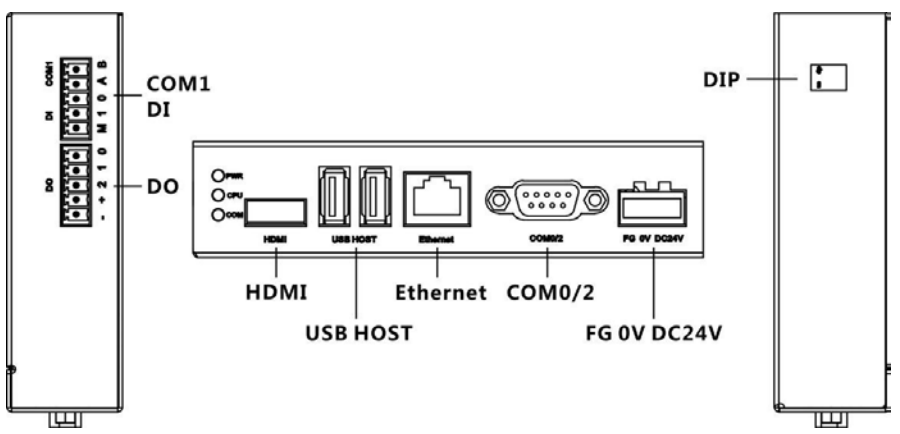
4. VESA bracket(75*75mm)

3.External Interface

3.1 DIP



SW1	SW2	Working pattern
ON	ON	System Setup
OFF	ON	Reserved
ON	OFF	Hardware update
OFF	OFF	Operating Mode



3.2 HDMI

Connection	HDMI V1.4 port
Port Function	This port can be used for connect with display device which supports 1920*1080 resolution. Note: When using HDMI with VGA converter, the converter needs to be powered independently.

3.3 USB HOST 1/USB HOST 2

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.

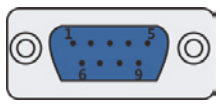
3.4 Ethernet

10M/100M adaptive Ethernet RJ45 port.

Connection	With CAT5 UTP cable connected to the Ethernet device.
Port Function	The port can be used for upload/download of HMI configuration, setting of system parameters and online simulations of configurations. It can connect multiple HMIs via the Ethernet to form an HMI network. Furthermore, it can implement communications between HMI and PLC via the Ethernet, as well as communications with a PC via the Ethernet port.

The default values of the factory settings; WSGBOX-01 are IP: 192.168.0.253 Mask: 255.255.255.0 Gateway: 192.168.0.1

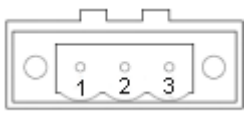
3.4 COM0/COM2



Pin assignment of the 9-pin male, D-SUB, COM0/COM2. **Note:** RS232/485/422 communication functions are supported by COM0.COM2 supports RS232 communication function.

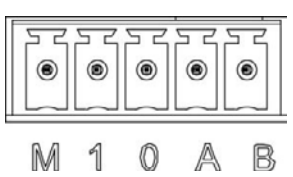
Pin	Signal	PLC （COM0） [RS-422]	PLC（COM0） [RS-485]	PLC （COM0） [RS-232]	PC/PLC （COM2） [RS-232]
1	Rx-(B)	RS422 R-	RS485 B		
2	RxD_PLC			RS232 RxD	
3	TxD_PLC			RS232 TxD	
4	Tx-	RS422 T-			
5	GND	Signal ground			
6	Rx+(A)	RS422 R+	RS485 A		
7	RxD_PC				RS232 RxD
8	TxD_PC				RS232 TxD
9	Tx+	RS422 T+			

3.6 POWER

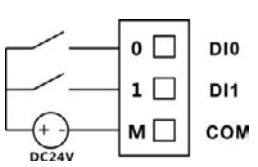


Pin#	Signal
1	FG
2	0V
3	DC24V

3.7 DI& COM1

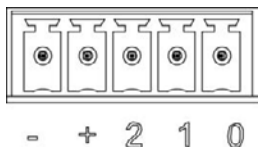


Wiring diagram:

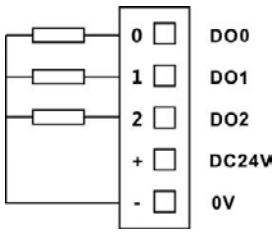


Pin#	Signal	Description
B	COM1_485-	RS485 communication functions are supported by COM1
A	COM1_485+	
0	Input DI0	Sourcing input, 11V-68V DI0~DI1: LB9430~LB9431
1	Input DI1	
M	Input Common port	

3.8 DO



Wiring diagram:



Pin#	Signal	Description
0	Output DO0	Sourcing output(Output level should be consistent with supply voltage），no more than 200mA. DO0~DO2: LB9450~LB9452
1	Output DO1	
2	Output DO2	
+	Output 24VDC	Provide 24VDC output（be consistent with power input voltage）, no more than 500mA.
-	Output 0V	