DSP1000
HMI Display Unit

ebmpapst

WE!NTEK

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⚠️ **Important** ⚠️

To ensure proper usage, we ask you to read these operating instructions carefully before installation and commissioning of the control device.

⚠️ **NOTE:** The table below identifies the features compatible with your display unit firmware issue number. This is shown in the configuration app when connected and on the label at the back of the printed circuit board.

Firmware Issue	Notes
1.0.0	As per this OMI release

1.0 General notes

Before installation and start-up of the Display Unit, please read this OMI carefully to ensure correct use. This OMI applies only to the Display Unit and not for the complete system it is connected to. It is recommended to keep a copy of these operating instructions together with the device. It must be ensured that all persons that are to work on the device can refer to the operating instructions at any time.

1.1 Exclusion of liability

To allow for future developments, in fan technology and controller refinements, any technical data given here is subject to alteration. We do not accept any liability for possible errors or omissions in the information contained in the data, illustrations or drawings provided. We accept no liability for damage caused by misuse, incorrect use, improper use or as a consequence of unauthorised repairs or modifications.

1.2 Introduction

The HMI Display Unit is a device that is designed to be used with Modbus Monitor & Control Unit (MMCU). The 'Ethernet LAN1' port is used to connect to the ethernet port of the MMCU. The HMI Display Unit provides an interface to the web server configuration page of the MMCU.

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2.0 Safety notice

> ⚠ **CAUTION – Power**
>
> Use power output that meets SELV (Safety Extra-Low Voltage) requirements. The unit can be powered by DC power only, voltage range: 24 ± 20%, compatible with most controller DC systems. The power conditioning circuitry inside the unit is accomplished by a switching power supply. The peak starting current can be as high as 2A.
>
> ⚠ **CAUTION – Fusing Requirements**
>
> If the display does not come on within 5 seconds of power up, remove power. A resettable fuse will protect against overcurrent faults in DC circuit and the resetting will take place after a period of time. Check wiring for proper connections and try to power up again.
>
> ⚠ **CAUTION – High Voltage**
>
> A resettable fuse will prevent damage for overcurrent condition however it isn't guaranteed. DC voltage sources should provide proper isolation from main AC power and similar hazards

3.0 Overview

HMI Display Unit is a product manufactured by Weintek Ltd., and the program is set up by ebm-papst UK to work as a display and interfacing unit for the MMCU. It works as a dedicated unit for accessing the web server hosted by the MMCU devices.

3.1 Specification

Display	Display	7" TFT
	Resolution	800 x 400
	Brightness (cd/m²)	400
	Contrast Ratio	800:1
	Backlight Type	LED
	Backlight Lifetime	>30,000 Hrs.
	Colours	16.7M
	LCD Viewing Angle (T/B/R/L)	80/60/80/80
	Pixel Pitch (mm)	0.1926(H) x 0.179(V)
Power	Input Power	24±20% VDC
	Power Isolation	Built-in
	Power Consumption	800mA@24VDC
	Voltage Resistance	500VAC (1 min.)
	Isolation Resistance	Exceed 50MΩ at 500VDC
Touch Panel	Type	4-wire Resistive Type
	Accuracy	Active Area Length(X)±2%, Width(Y)±2%
I/O Port	Ethernet	LAN 1: 10/100 Base-T x 1 LAN 2: 10/100 Base-T x 1
Specification	PCB Coating	Yes
	Enclosure	Plastic
	Dimensions WxHxD	200.3 x 146.3 x 35.0 mm
	Panel Cutout	192 x 138 mm
	Weight	Approx. 0.6 kg
	Mount	Panel mount
Environment	Protection Structure	UL Type 4X / NEMA4/ IP66
	Storage Temperature	-20° ~ 60° **C**
	Operating Temperature	-0° ~ 55° **C**
	Relative Humidity	10% ~ 90% (non-condensing)
	Vibration Endurance	10 to 25 Hz
Certificate	CE	CE marked
	UL	cULus Listed
Software	EasyBuilder Pro	Custom Software

Table 1 - Specification information

3.2 Installation

Avoid exposure to vibration, high temperatures. The unit shall be installed according to relevant safety guidelines and requirements. Attention should be paid to local regulations and guidance.

Installation works as plug and play. No configuration is required.

1. Wire 24V DC to the terminal block (+, -, GND) of HMI (Included in the box).
2. Connect an Ethernet cable from LAN port 1 of the HMI to CN1127 and switch ON both the devices (Figure 1).

3. HMI starts with the following message:
    "Waiting for MMCU Startup" (Figure 2) and followed by the CN1127 web server page.
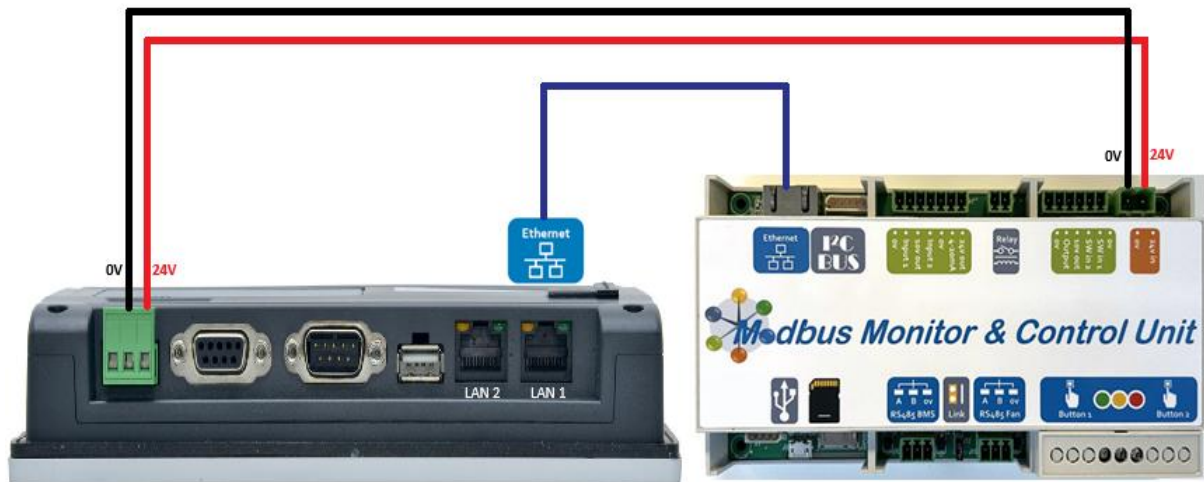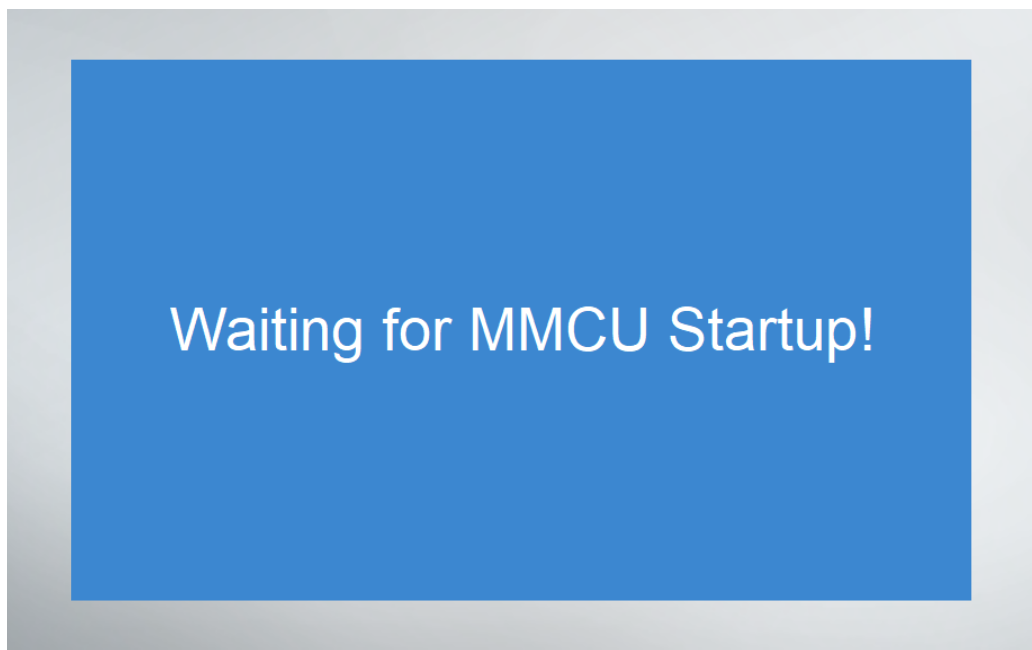

Figure 1 – HMI connection with MMCU

Figure 2 – HMI Startup page

Note: Only LAN1 port of the HMI Display unit supports communication with MMCU devices.

4.0 Functionality

4.1 Overview

The HMI Display Unit is designed to access the web server page hosted by the MMCU for configuration and control. Refer to MMCU OMIs for more information on MMCU web server interfacing.

The HMI Display Unit changes to the screensaver page after 10 minutes of no interaction (Figure 3). This feature is set to avoid image persistence and to save energy. Tap once on the display panel to revert to the web server page.
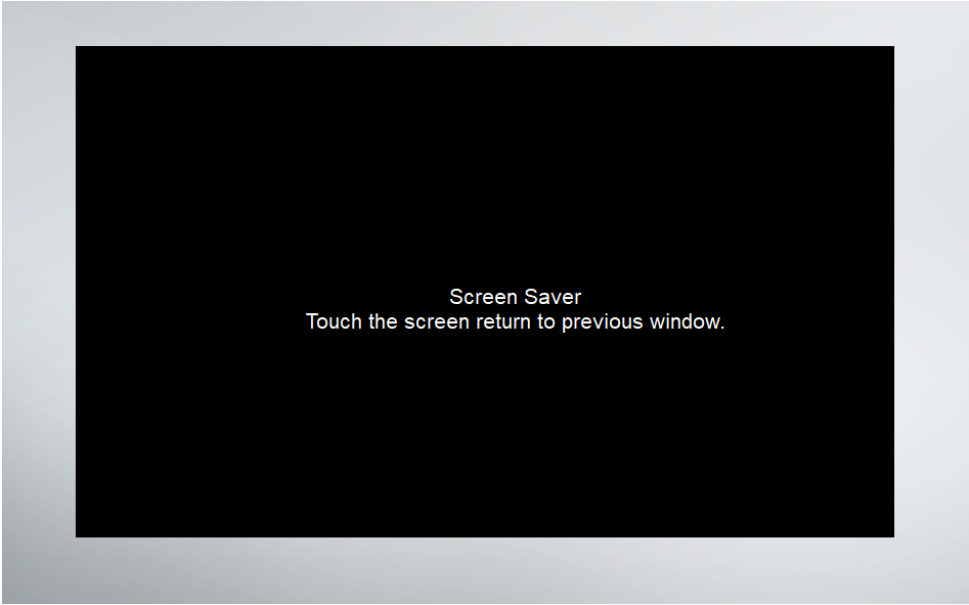

Figure 3 – Screen Saver page

The HMI Display Unit also includes a "Refresh Page" button on the top-right corner to refresh the web page.
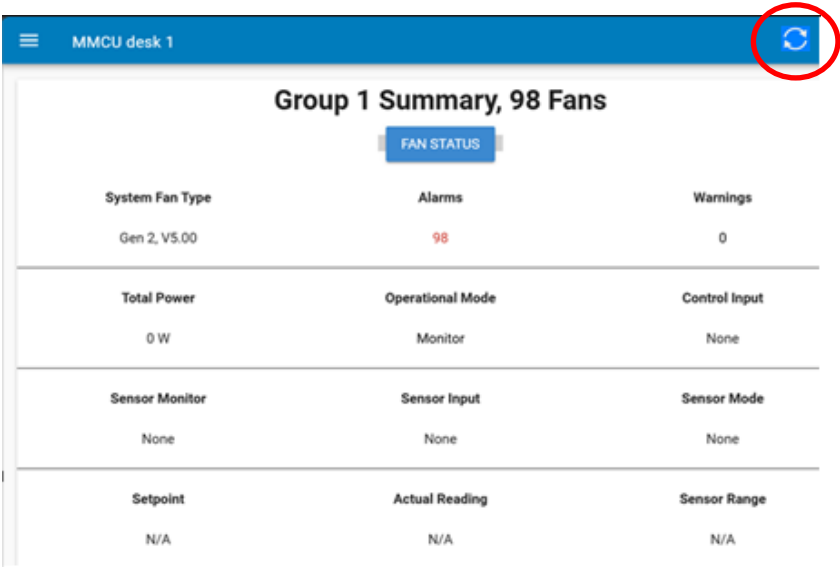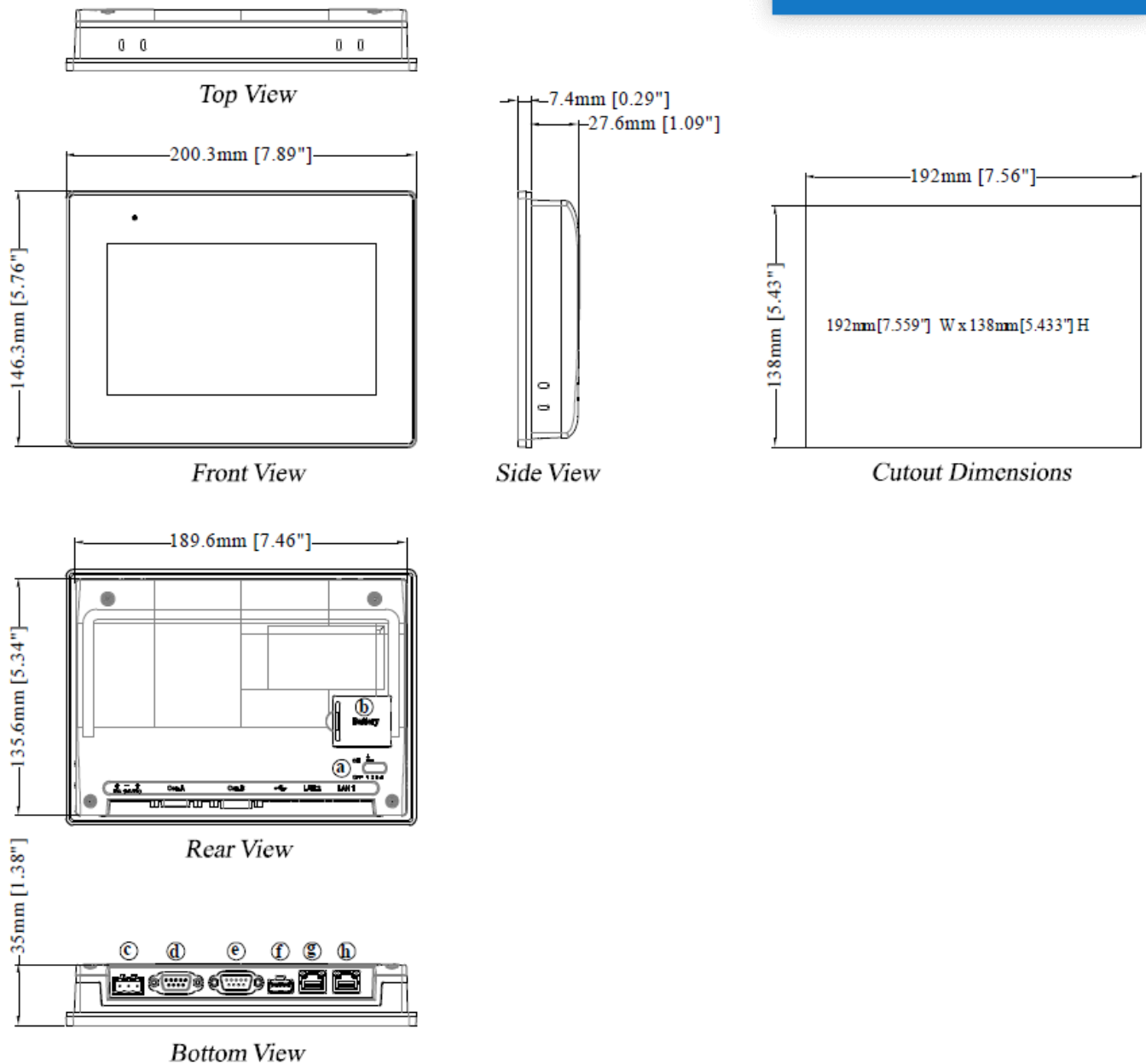

Figure 4 – Refresh page

5.0 Dimensions

Top View

Front View

Side View

Cutout Dimensions

192mm[7.559"] W x 138mm[5.433"] H

Rear View

Bottom View

6.0 WEEE (Waste Electrical and Electronic Equipment)

ebm-papst UK Ltd complies with the Waste Electrical and Electronic Equipment (WEEE) Regulations through membership of a producer compliance scheme (PCS) as a B2B producer. EEE Producer registration number: WEE/CA0209WR.

7.0 End of life

This product has been designed to consider end-of-life disposal. If the product has come to the end of its life, the unit can be easily disassembled for the components to be recycled. The product has been designed to meet the requirements of the REACH directives.

8.0 Take back policy

As part of our commitment to minimise the disposal of Waste Electrical and Electronic Equipment (WEEE) customers can return the display unit at the end of its life. Please contact us on 01245 468555 for details and issue of an end-of-life RMA number.

9.0   Transport & Storage

PCBs not housed in enclosure should be transported in anti-static build-up bag or static dissipative bags.

- Store in a dry environment.
- Storage temperature: -20°C to +60°C.

10.0 Maintenance and servicing

There are no user serviceable parts.

11.0 CE Certificates

The product has been CE marked by the manufacturer (Weintek Ltd). The certificates are available upon request.

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