

HT200

Touch screen operator unit



Summary

HT200 is a terminal with 7" touch screen for monitoring and control of multiple PLC controllers with Merbon runtime, or controllers with SoftPLC runtime. It has one Ethernet interface.

Application

- Control panel for free-programmable control units for HVAC systems or other technologies
- Terminal for receptions and rough environments – overview and control of remote technologies

Function

Terminal HT200 displays a HT101 (SoftPLC) menu or textual or graphical definition from Merbon IDE in a Merbon Visual application. All devices connected to HT200 must communicate with the same protocol (Merbon SSCP or SoftPLC), it is not possible to mix Merbon and SoftPLC controllers in a single menu structure.

Controllers with SoftPLC runtime can be controlled only by textual definition. Graphical definition is available only for controllers with Merbon runtime.

The controller hosts an embedded Linux operating system which boots up the Merbon Visual application. The PLCs communicate over the Ethernet interface.

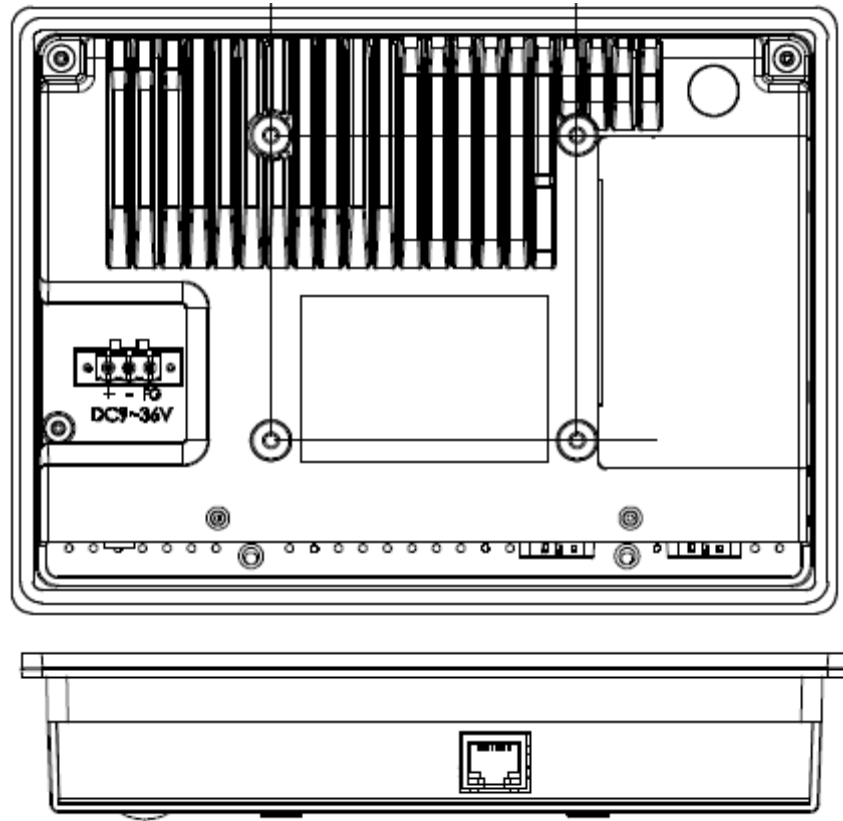
The menu definition is created in Merbon IDE (for the controllers with Merbon runtime), or RcWare HMI Editor (controllers with SoftPLC runtime). Objects such as Value setting, Alarm, and Time schedule have predefined functionality, and thus it is only necessary to set addresses, assign data points, and complete user texts for the configuration. The application displays 9 rows at a time. The display text length on row is variable according to used symbols. As it is mentioned before, controllers with Merbon runtime can be controlled by textual menu, graphical menu or combination of both of them.

The device is installed using four metal clamps into an aperture in panel door or any suitable box. The aperture dimensions are 192 × 138 mm.

Technical data

Power	24 V ± 10 % DC; 30 W (Ratings: DC 9...36 V, 4.5...1.5 A)
Recommended power supply	MEAN WELL EDR-75-24 (not included)
Communication	1× Ethernet 10/100 BaseT RJ45, 2× LED (link, data) integrated in the connector
LCD display	touch screen LCD display 7", 800×480 px., LED backlight capacitive
Number of connections	max 10 connections to controllers
HW	ARM Cortex A8 600 MHz, 256 MB FLASH, 256 MB DD3 DRAM
SW	Merbon IDE RcWare HMI editor (version 0.9.15.512 and later)
Front panel dimensions	202×149×39 mm; see schema below
Aperture dimensions	192×138 mm; see schema below
Protection degree	IP65 (EN 60529)
Recommended wire diameter	0.35...1.5 mm ²
Ambient temperature	0...50 °C; 10...90 % relative humidity; non-condensing gases and chemically non-aggressive conditions
Storage conditions	-20...60 °C; 10...90 % relative humidity; non-condensing gases and chemically non-aggressive conditions
Vibration	1G (5...500 Hz); peak acceleration 19G (duration 11 ms)
Standards conformity	EMC EN 61000-6-2 ed.3:2005, EN 55022 ed.3:2010 EN 60950-1 ed.2:2006 + A11:2009 + A12:2011 + A1:2010 + A2:2014 EN 50581:2012

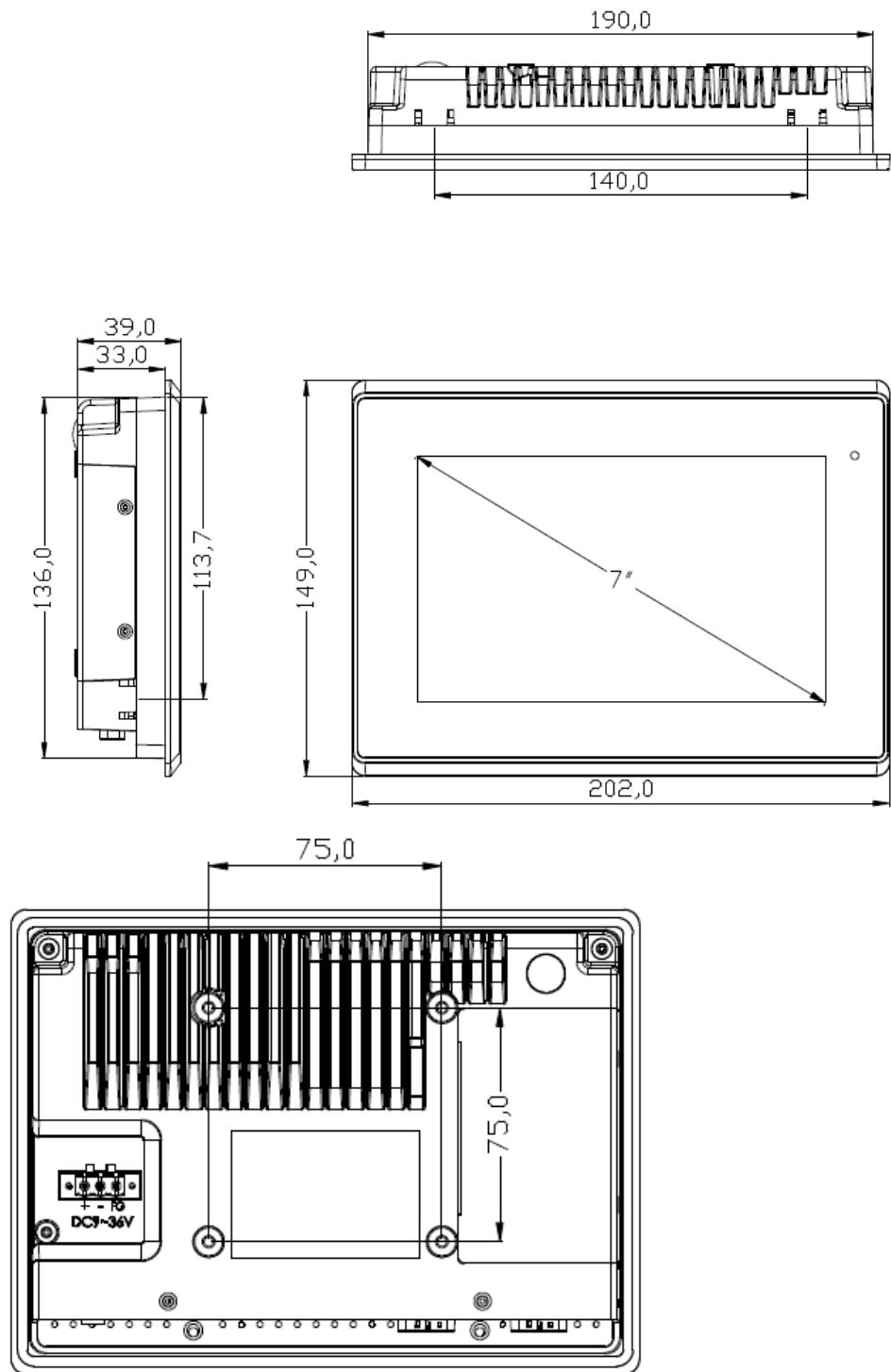
Terminals



Terminals and connectors

+	power
-	power
FG	optional connection for shielding
Ethernet	network interface

Dimensions



Installation aperture



Dimensions are in *mm*.

Configuration

The Merbon Visual definition is uploaded in terminal through Merbon IDE / RcWare HMI Editor or through web interface. Other settings could be configure through service web. The access to the service menu is possible from display or remotely over a web browser.

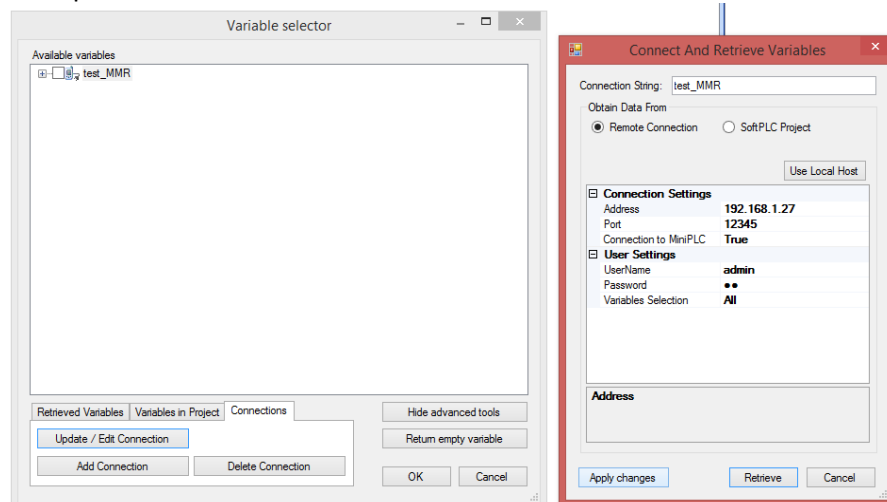
RcWare HMI Editor

Create the HT101 menu definition. The principles of creation menu are described in the LCD menu manual: <http://domat-int.com/en/downloads/technical-documentation> , RcWare SoftPLC Touch Screen Editor.

Note:

The connection parameters to a particular PLC must be correctly set. The terminal needs to know from which PLC the variables should be read. The connection settings is defined in File -> Variables Manager -> select a connection and Show advanced tools -> Connections -> Update / Edit Connection. After uploading the list of variables in the HMI project, the connection must be set as Remote Connection and correct communication parameters must be entered. The changes must be confirmed by the Apply changes button.

Example:



The whole definition can be finally uploaded through File -> Upload menu definition to HT100/101. The editor creates a .txt definition file and uploads it to the device using FTP protocol. The correct IP address, user and password for FTP must be set (see below). As an alternative, it is possible to File -> Export menu definition for HT100/101 and create .txt definition file which can be uploaded through the HT200 web pages. After uploading menu definition the device must be restarted for the changes to apply.

Merbon IDE

The process of creation a menu and uploading menu definition are described in Merbon IDE help in chapter HMI.

Service web

The HT200 service web can be accessed over a web browser on the device IP address (the browser PC must be in the same network). Service menu is accessible directly through the display. For access from display, swipe from right side of the monitor and after login select the settings icon. The menu is browsed by swiping up and down. Only the user with administrator rights can access this menu. Default username/password combination is admin/rw.

To access the service web, enter the password (see below). The password can be changed in Device management. In Settings there is network and language configuration. It is possible to upload/download the menu definition and upload new version of HT200 application from web browser only.

Display calibration

It is possible to calibrate the display directly in the service web (either from the device or remotely from web). Do not use the calibration if not necessary. During calibration do not switch off the device and touch the five crosses which display sequentially.

Communication

The default network settings are:

IP address:	192.168.1.99
subnet mask:	255.255.255.0
default gateway:	192.168.1.1

Password for service web: rw

Graphic and Text template:

Default user for service menu: Admin

Default password for service menu: admin

User for FTP: root

Password for FTP: root99

User for SSCP: admin

Password for SSCP: rw

Notice: Do not forget to note the new network settings after change!

WEEE notice

The device contains a non-rechargeable battery which backups the real-time clock and part of the memory. After the device is not operable, please return it to the manufacturer or dispose of it in compliance with local regulations.

Safety note

The device is designed for monitoring and control of heating, ventilation, and air conditioning systems. It must not be used for protection of persons against health risks or death, as a safety element, or in applications where its failure could lead to physical or property damage or environmental damage. All risks related to device operation must be considered together with design, installation, and operation of the entire control system which the device is part of.

**Changes in
versions**

- 06/2016 – First datasheet version.
- 10/2016 – Change of power supply technical parameters.
- 11/2017 – Added safety note.
- 12/2017 – Information about new application Merbon Visual
Information about new username/password combinations
Added information about graphical menu definition
- 02/2018 – Added password for graphic template.
- 10/2019 – Information on the unification of the graphic and text templates and access
to the service website, added recommended power supply wattage.
- 01/2020 – Photo changed.
- 07/2020 – Change of power supply technical parameter.
- 11/2020 – Added recommended power supply.
- 07/2021 – Stylistic adjustments. Logo change