

migra IPC

Large Format, Graphics Compatible Display with Integrated Industrial PC

User's Manual

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1 General

The large format, graphics compatible display can be used universally for displaying production data, or as an information board.

The modular design allows for cost-effective models of various sizes.

1.1 General Display Functions

- Data transmission: Ethernet TCP/IP
- Representation of a screen section of the IPC (industrial PC)

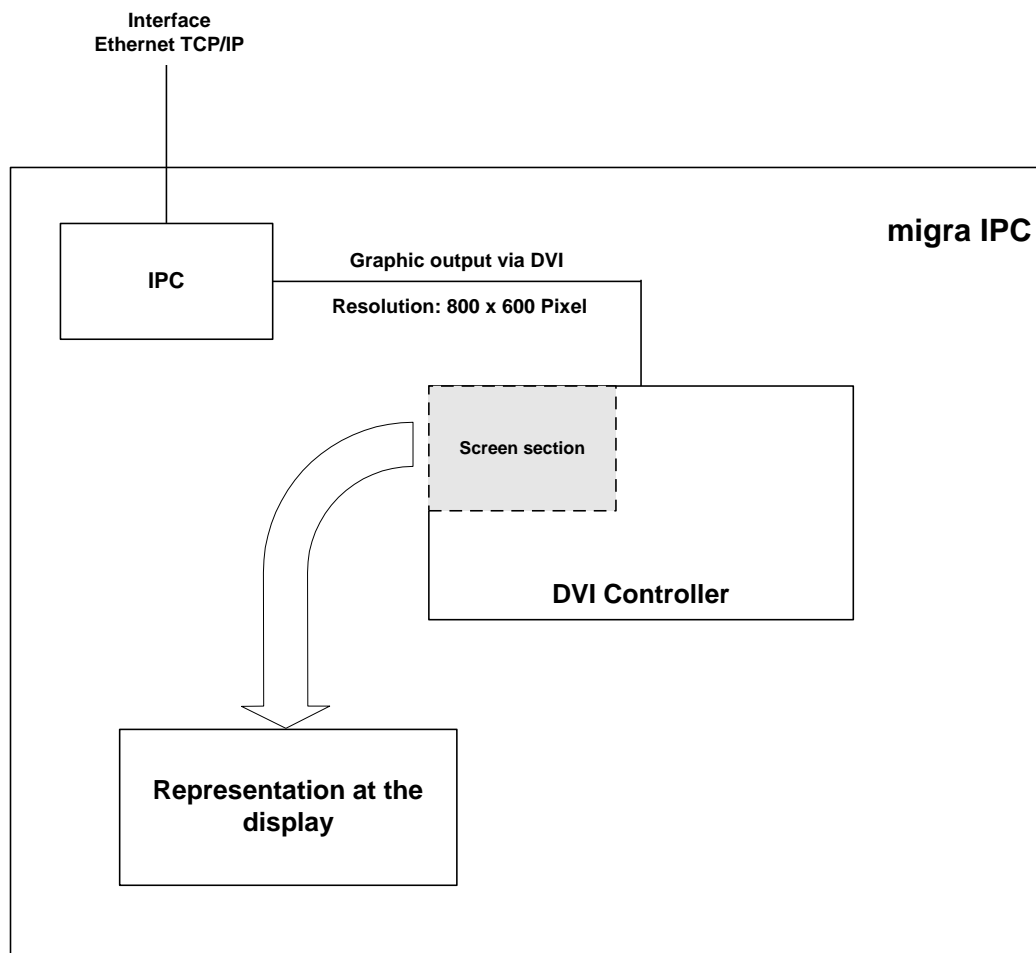
1.2 Configuration Options

- Operating system: at customer's option
- Industrial PC with/without fan
- Data storage: Hard disk / Compact Flash

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2 System Overview



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3 Technical Data

General Specifications

Display type:	LED dot matrix display
Display colour:	single or multicolour
Operating voltage:	230 V / 50 Hz
Power consumption:	see type label
View:	single or double sided
Representation:	Monitor display
Data input:	Ethernet TCP/IP
Housing:	Industrial version, powder coated aluminium
Housing dimension:	depending on the resolution
Housing colour:	RAL 7016 (anthracite)
Mounting:	articulated arm, hanging with chain or brackets
Protection:	IP54 or IP65
Operating temp.:	0 to + 50 °C (optionally - 25 to +50 °C)
Storage temp.:	-25 to +70 °C

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3.1 Operation / Functionality

Attention:

The display must only be operated in vertical position (hanging, upright)!

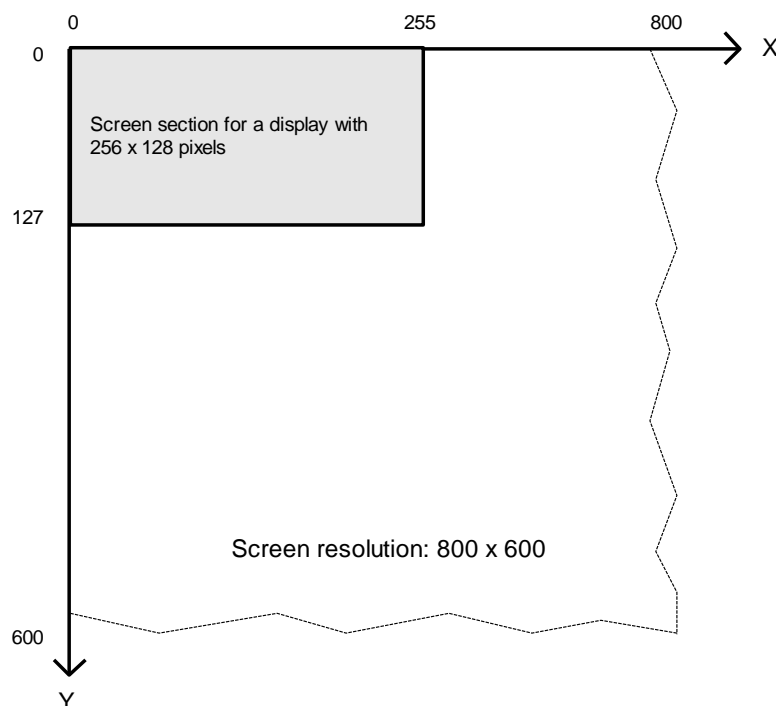
The large format display always represents an adjusted screen section of the integrated IPC (resolution is 800 x 600 pixels).

The upper left corner of the screen has the coordinates (0 / 0) by default.

Please attend to a suitable colouring at the visualisation (red, green, yellow, black) to avoid unrequested display effects. The most significant bit defines the display colour.

Example:

migra single sided, 256 x 128 pixels:

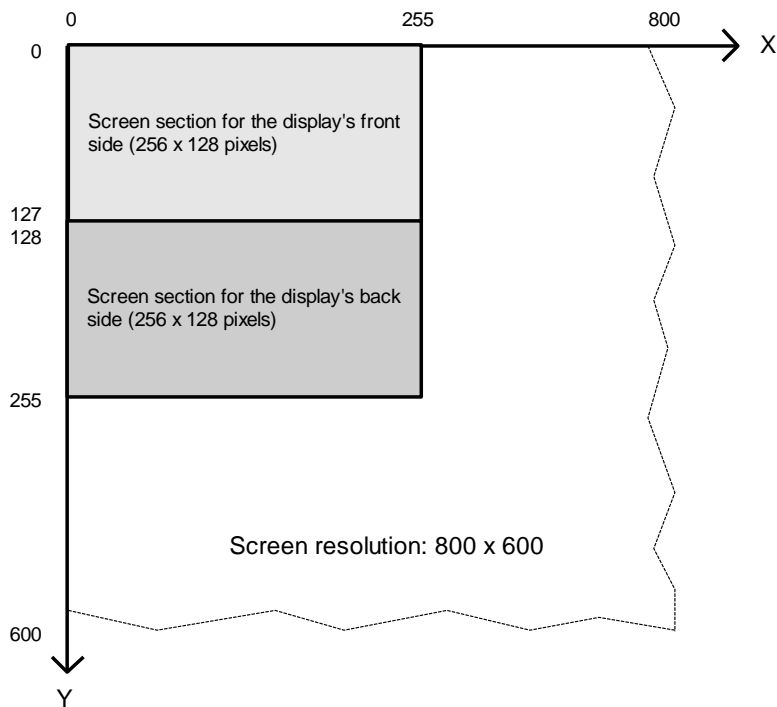


As shown in the drawing above, the display area is the screen section between the coordinates (0 / 0) to (255 / 127).

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Example:
migra double sided, 256 x 128 pixels:



As shown in the drawing above, the display area of the front side is the screen section between the coordinates (0 / 0) to (255 / 127).

The back side of the display shows the screen data of the coordinates (0 / 128) to (255 / 255).

3.2 Temperature Control

The large format display is equipped with a temperature control. If a temperature of 55 °C inside the housing is exceeded, the brightness of the display is reduced automatically. This does not interfere the functionality but serves for protection of the device against excess temperature.

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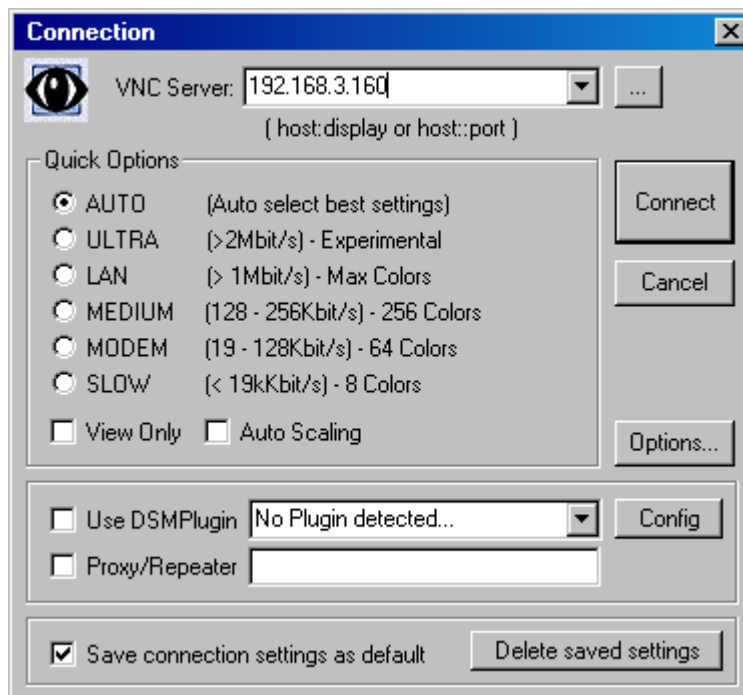
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3.3 Software / Installation (example with Windows)

The PC configuration with the Ethernet interface (RJ45) happens either via the network or with a direct connection to a PC (crosslink cable). The IP address can be taken from the label at the housing. The remote control software UltraVNC is already installed in order to configure the internal PC. It's an open source product, which you can use for free. You can download UltraVNC at www.sourceforge.net/projects/ultravnc.

In addition, you must install this software at the configuration PC for the communication with the display.

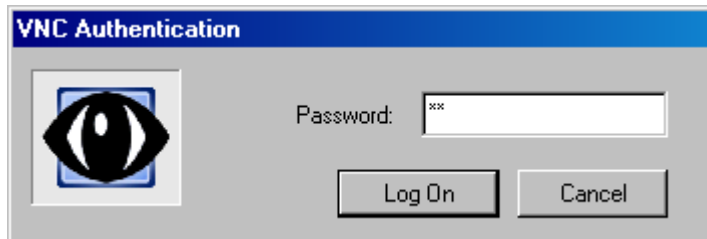
- Connect the display with your network or directly with a PC.
- Install the software UltraVNC at the configuration PC by following the instructions at the screen.
- Start the software UltraVNC Viewer after the installation. The following dialog appears:



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- Input the IP address of the display, which you are connected to (see the label at the housing).
- After this, press the button „Connect“. You must enter a password:



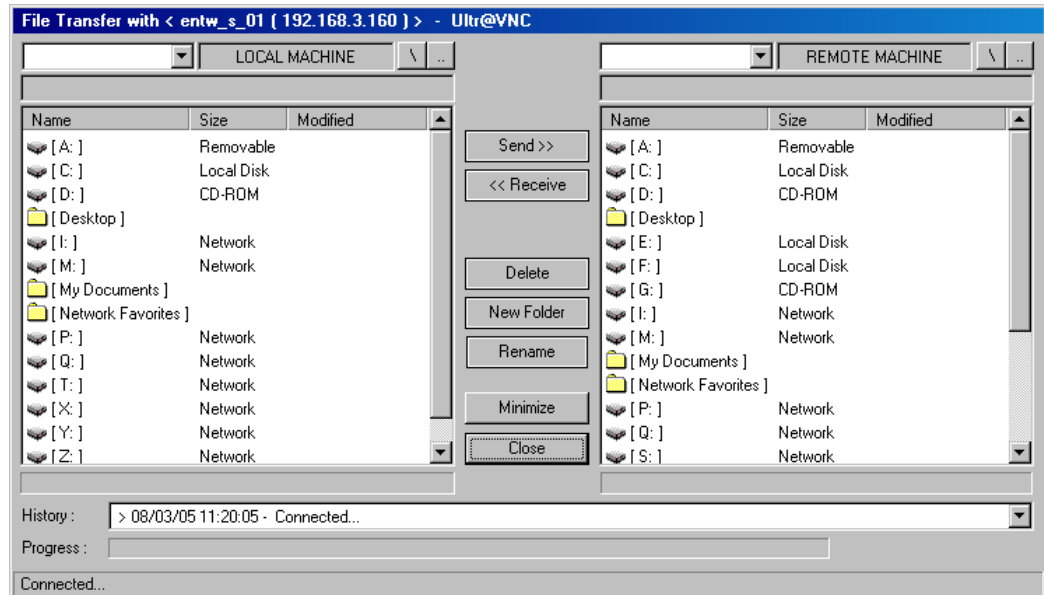
- Input the password „migra“ and confirm this with the button “Log On“.
- The connection to the display is established and the current screen content of the IPC is displayed.
- The data exchange between the configuration PC and the IPC happens with the button “Open File Transfer“ (toolbar):



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- The following dialog is opened:



The left section (LOCAL MACHINE) shows the content of the configuration PC, the right section (REMOTE MACHINE) displays the content of the IPC.

- Mark the file, which shall be transmitted, in the left section
- Mark the destination folder in the right section.
- Use the button “Send >>” to copy the selected file of the configuration PC to the destination folder of the IPC.

Note:

It's not allowed to change the system configuration (screen resolution, drivers etc.) of the integrated PC.

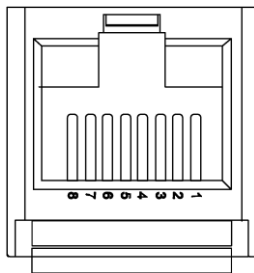
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4 Connector Pin Assignments

Ethernet Socket

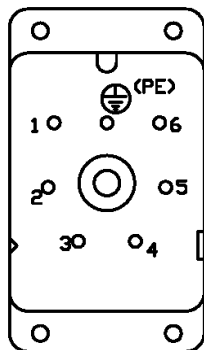
This socket serves for the connection of the display to the Ethernet (for configuration or control).



Pin	Assignment
1	Tx +
2	Tx -
3	Rx +
4	n.c.
5	n.c.
6	Rx -
7	n.c.
8	n.c.

Mains Plug (230 VAC)

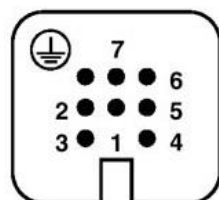
This plug serves for the power connection of the display (230 VAC / 50 Hz.)



Pin	Assignment
1	L1
2	N
	PE

Mains Plug, optional (230 VAC)

This plug serves for the power connection of the display (230 VAC / 50 Hz.)



Pin	Belegung
1	L1
2	N
	PE

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5 Appendix

5.1 Maintenance and Care

Observe the following instructions in order to assure best possible performance of the display:

- Make sure that the housing can be opened for adjustment and maintenance even after the display has been installed. Allow for adequate clearance at the back, front and top of the display unit in order to allow for sufficient ventilation (if vent slots are included).
- Display quality is impaired by direct illumination with bright light sources and/or direct sunlight.
- The display must be switched off before cleaning.
- Protect the display from excessive humidity, extreme vibration, direct sunlight and extreme temperatures. Non-observance may lead to malfunctioning or destruction of the device. Under certain circumstances electrical shock, fire and explosion may occur as well. Information concerning allowable ambient conditions, including recommended temperature ranges, can be found in the chapter entitled "Technical Data".
- The display may not be placed into service if the device and/or the power cable are known to be damaged.
- Do not attempt to repair the device yourself. The guarantee is rendered null and void if unauthorised persons tamper with the device.
- Observe all notes and instructions included in this user's manual.

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5.2 Declaration of Conformity

EU-Konformitätserklärung

EU Declaration of Conformity

Produktbezeichnung: migra
Product name:

Typenreihe: migra IPC
Type code:

Hersteller: microSYST Systemelectronic GmbH
Manufacturer: Am Gewerbepark 11
 92670 Windischeschenbach

Das bezeichnete Produkt stimmt mit der folgenden Europäischen Richtlinie überein: <i>We herewith confirm that the above mentioned product meets the requirements of the following standard:</i>		Die Übereinstimmung des bezeichneten Produktes mit den Vorschriften der angewandten Richtlinie(n) wird nachgewiesen durch die Einhaltung folgender Normen / Vorschriften: <i>The conformity of the product described above with the provisions of the applied Directive(s) is demonstrated by compliance with the following standards / regulations:</i>	
Richtlinien / Directives		Europäische Norm / Standard	
EMV Richtlinie <i>EMC Directive</i>	2014/30/EU	EN61000-6-2:2005	
		EN61000-6-4:2007 +A1:2011	
Niederspannungs-Richtlinie <i>Low Voltage Directive</i>	2014/35/EU	EN60950-1:2006 +A11:2009 +A1:2010 +A12:2011 +A2:2013	
RoHS Richtlinie <i>RoHS Directive</i>	2011/65/EU	EN50581:2012	

Windischeschenbach, 16.11.2017



Manuel Raß

Geschäftsführer / General Manager

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5.3 Warranty / Liability

For the product, liability is assumed for defects, which existed at the delivery date according to our General Terms and Conditions.

Technically changes as well as errors are excepted. A claim for delivery of a new product does not exist. The buyer has to check the received product immediately and indicate evident defects at the latest 24 hours after detection. Non-observance of notification requirements is equated with acceptance of the defect. Not immediately visible defects have to be indicated immediately after their perception too.

Generally, defects and their symptoms must be described as accurately as possible in order to allow for reproducibility and elimination. The buyer must provide for access to the relevant device and all required and/or useful information at no charge and must make all of the required data and machine time available free of charge.

The guarantee does not cover defects, which result from non-observance of the prescribed conditions of use, or from improper handling.

If the device has been placed at the disposal of the buyer for test purposes and has been purchased subsequent to such testing, both parties agree that the product is to be considered "used" and that it has been purchased "as is". No guarantee claims may be made in such cases.

The General Terms and Conditions of microSYST Systemelectronic GmbH in current version apply as well.

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5.4 Versions Overview

Version	Date	Remark, Description
1.00	11/7/05	Document created
1.10	3/1/11	Revision
1.20	3/25/13	Company address, declaration of conformity, warranty
1.30	10/18/13	Logo
1.40	4/29/16	Declaration of conformity
1.50	11/16/17	Change of address

Certified per **DIN EN ISO 9001**.