



## QUICK INSTALLATION GUIDE

Alphanumeric RGB LED display  
especially suitable for indoor applications

### DISPLAY CONFIGURATION

Indicator initializes automatically when connecting it to power supply. Once this process is finished it shows last visualized program (execution mode) or display off (STOP mode) depending on how it is configured. The instrument has a default demo program in memory which is performed the first time.

The available application that allows device configuration and/or to edit information that appears on display is:  
**Dynamic 3** (Visualization programs editor).

This software application, **USB** drivers and **Dynamic 3**, **DMG-TCP/ASCII**, **DMG-MODBUS** and **DTPM** user manuals can be free downloaded from our website and directly installed on the PC. (Minimum software requirements for running **Dynamic 3**: Windows XP or higher).

**Dynamic 3** specific application software allows user to modify/create the program sequences that will be displayed. It is possible to choose character types, the mode how the messages will appear, provide effects, graphics (depending on the model), temporary variables (hour, date, countdown) and numeric (or alphanumeric) variables in real time. It is also possible to create or import graphics and new character types. Programms can be directly displayed or easily transferred to the device memory in file format to be recovered afterwards and then offline visualized.

Indicator configuration from a PC using **Dynamic 3** can be done through **RS232**, **RS485**, **Ethernet** or **WiFi** (options) besides of **USB** (by default).

It is also possible to configure a numeric inputs module (option) to work with 4/8 inputs as a programms execution mode or as an alarms control mode. In programms execution mode it is possible to work with three input types, independent inputs where each input corresponds to a programm to visualize, 4/8-bit binary inputs (up to 16/256 programms) and 3/7-bit binary inputs (+1 strobe bit used to enable inputs). On the other hand, as an alarms control mode, the inputs work independently and programms are sequentially displayed within a configurable time interval.

Default IP address is 192.168.1.100. The communication and rest of internal parameters can be configured through **Dynamic 3**.

Network communications with control of display through an external device as a PLC or PC are available through RS232, RS485, Ethernet or WiFi. The available protocols are **DTPM** (native protocol), **MODBUS RTU**, **TCP-ASCII** and **MODBUS TCP/IP**.



### DIMENSIONS



According to 2002/96/CE Directive, You cannot dispose of it at the end of its lifetime as unsorted municipal waste. You can give it back, without any cost, to the place where it was acquired to proceed to its controlled treatment and recycling.

# TECHNICAL SPECIFICATIONS

## SPECIAL FUNCTIONS

Automatic brightness intensity control or by software (0-100%).  
 Font types and custom graphics editor.  
 Up to 26 internal variables for real-time monitoring.

## POWER SUPPLY AND FUSES

**DMAI616C:** ..... 88-264V AC 47/63Hz or 125-373V DC  
 Maximum power rating:  
 7 x 96 (pixels) ..... 25W / (F5A)

## VISUALIZATION

Character height 53mm ..... Approx. max. reading dist. ≤ 25m  
 Character height 63mm ..... Approx. max. reading dist. ≤ 30m  
 LED type ..... SMD  
 Available colours ..... RGB (7 colours)  
 LED diameter ..... Ø3mm (pitch 10mm)  
 Angle vision ..... 120°  
 Maximum number of static characters ..... 16  
 Numerous character types.

## ENVIRONMENTAL CONDITIONS

Working temperature ..... -20°C ÷ 60°C  
 Relative humidity (non-condensing) ..... <90% @ 40°C  
 Protection degree ..... IP41 or IP54

## MATERIALS

Frontal display ..... Smoked-grey methacrylate  
 Case ..... Black aluminium  
 Weight ..... 2.7kg

## COMMUNICATION

Ports ..... Mini USB (default), RS232/RS485 or Ethernet (option)  
 Protocols ..... DTPM, MODBUS-RTU, TCP-ASCII or MODBUS TCP/IP  
 Transmission rate ..... 2400 to 19200 Baud (configurable)

## TEMPERATURE SENSOR (OPTION)

Accuracy (-15°C ÷ 60°C) ..... ≤ ±1.5°C

# CONNECTIONS

**OPTION /X:**  
(RS232 / RS485)



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RS 485	
PIN 1	B
PIN 2	NC
PIN 3	A

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RS 232	
PIN 1	GND
PIN 2,3	N.C.
PIN 4	TxD
PIN 5	RxD
PIN 6	5V DC OUT

**OPTION /NE:**  
(ETHERNET)



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ETHERNET CONNECTION

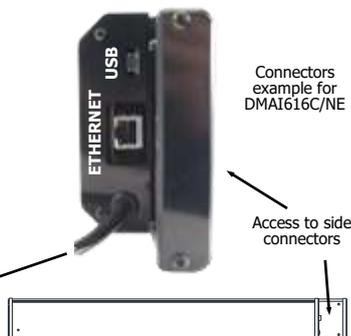
**OPTION /NW:**  
(ETHERNET WIFI)



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ANT. WiFi CONNECTION

Connectors example for DMAI616C/NE



Access to side connectors

Power supply cable implemented

Connection terminals can be directly reached through left side of the device as shown in figure above.

The instrument provides 2 or 3 side connectors depending on the option. See figures. Connectors type are: RJ45 (Ethernet), Mini-B (USB), RJ12 (RS232), Mini combicon (RS485), SMA (WiFi antenna). Power supply cable already implemented.

Terminals for **RS485** connector admit cables with section from 0.14mm<sup>2</sup> up to 1.5mm<sup>2</sup> (AWG 28÷16).

To perform RS485 wiring connections, strip the cable leaving 7mm exposed to air, insert it in the proper terminal and fix it to the terminal. Once all wirings are done, plug connector to the instrument.

Recommended fuse (5A)



**POWER SUPPLY**  
88-264V AC  
125-373V DC  
25W

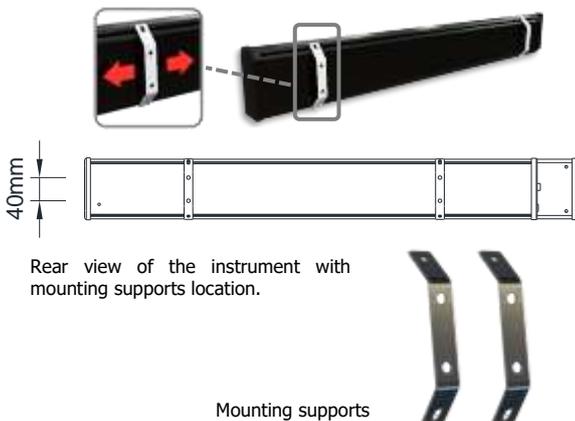
**IMPORTANT!**  
To guarantee electrical safety according to EN 61010-1 a protective external fuse against overcurrents must be installed.

**WARNING**  
**Isolation:**  
3000Vrms for 1 minute to input/output terminals and power terminals.



# MOUNTING

Fixing elements and mounting supports are provided together with the indicators to easily hang them on the wall.



## CE Conformity.

Directives	EMC 2014/30/EU	LVD 2014/35/EU
Standards	EN 61326-1	EN 61010-1



**WARNING: If this instrument is not installed and used in accordance with this instructions, the protection provided by it against hazards may be impaired.**

To meet the requirements of EN 61010-1 standard, where the unit is permanently connected to main supply, it is obligatory to install a circuit breaking device easy reachable to the operator and clearly marked as the disconnecting device.

To guarantee electromagnetic compatibility, the following guidelines should be kept in mind:

- Power supply wires should be separately routed from signal wires and **never runned** in the same conduit.
- Use shielded cable for signal wiring.