DMAI610CF

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 remains with display off (STOP mode) awaiting for any comand. The instrument has a default demo program in memory.

The available aplication that allows device configuration and/or to edit information that appears on display is:
Dynamic 3 (Visualization of 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 7 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 idependently 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**, **MODBUS TCP/IP, TCP-ASCII** and **SNTP.**

It is also possible (as an option) to control the indicator through an infra-red (IR) remote control, by means of which user can have access to some functions such as the activation of a programm already stored in memory.

Example for the IR remote control:
To activate a pre-saved program, press **MENU** key and then with arrow keys △ and ▽, select submenu **PROGRAMMES** and then press **OK** to see the list of programs stored in the internal memory. Select desired program and press again **OK** button, the selected program activates immediately. To change active programm repeat same steps. **CLOCK** menu is used to set internal clock **.** Press **EXIT** to quit menu at any time.

DIMENSIONS

According to 2012/19/UE 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 adquired 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

DMAI610CF: ..... 88-264V AC 47/63Hz or 125-373V DC

Maximum consumption according graphic resolution:

7 x 64 (pixels) ..... 34VA / T 5A

VISUALIZATION

Character height 63mm . Approx. max. reading dist. ≤30m

Character heiight 53mm . Approx. max. reading dist. ≤25m

LED type ..... SMD

LED diameter ..... ∅3mm (pitch 10mm)

LED colour available ..... RGB (7 colours)

Angle vision 120º

Maximum number of static characters 10

Character height (acc. to character type) ..... 53 or 63mm

ENVIRONMENTAL CONDITIONS

Working temperature ..... -10ºC ÷ 60ºC

Relative humidity (non-condensing) ..... <90% @ 40ºC

Protection degree IP54

MATERIALS

Frontal display ..... Smoked-grey methacrylate

Case..... Black aluminium

Weight 3kg

COMUNICATION

Ports ..... Mini USB (default)
RS232/RS485, Ethernet or WiFi (option)

.....WiFi (availability depending on radio regulation of the country)

Protocols ..... DTPM, MODBUS-RTU,
TCP-ASCII, MODBUS TCP/IP,SNTP

Transmission rate ..... 1200 to 115200 Baud (configurable)

TEMPERATURE SENSOR (OPTION)

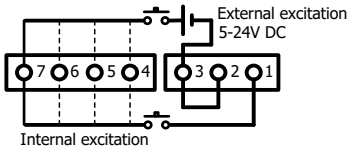
Accuracy (-15ºC ÷ 60Cº) ..... ≤ ±1.5ºC

CONNECTIONS

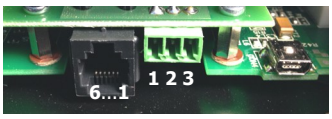
OPTION /K4:
(4 DIGITAL INPUTS)

DIGITAL INPUTS	
PIN 1	24V DC
PIN 2	GND
PIN 3	INPUTS COMMON
PIN 4	INP 4 / STROBE
PIN 5	INP 3
PIN 6	INP 2
PIN 7	INP 1

USB CONNECTION



OPTION /X:
(RS232 / RS485)



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

RS 485	
PIN 1	B
PIN 2	NC
PIN 3	A

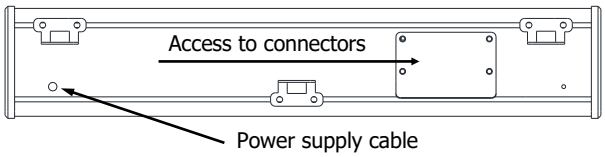
USB CONNECTION

POWER SUPPLY
88-264V AC
125-373V DC
34VA

Recommended fuse: **5A**

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



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

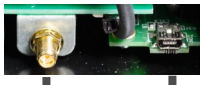
The instrument provides 2 or 3 rear connectors depending on the option that it is mounted. See figures. Connectors type are: RJ45 (Ethernet), Mini-B (USB), RJ12 (RS232), Mini combicon (RS485/ Digital inputs), SMA (WiFi anthena). **Power supply cable already implemented.**

Terminals for **RS485 and Digital inputs** connector admit cables with section from 0.14mm^2 up to 1.5mm^2 (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.

OPTION /NE:
(ETHERNET)

ETHERNET CONNECTION | USB CONNECTION

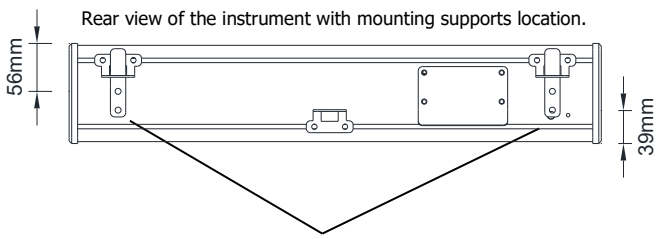
OPTION /NW:
(ETHERNET WiFi)



ANT. WiFi CONNECTION | USB CONNECTION

MOUNTING

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



Horizontal rails with mounting supports and fixing elements

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, its 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 separatedly routed from signal wires and **never runned** in the same conduit.
- Use shielded cable for signal wiring.

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