DMAE1216RF

QUICK INSTALLATION GUIDE

Alphanumeric single color LED display
especially suitable for outdoor 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).

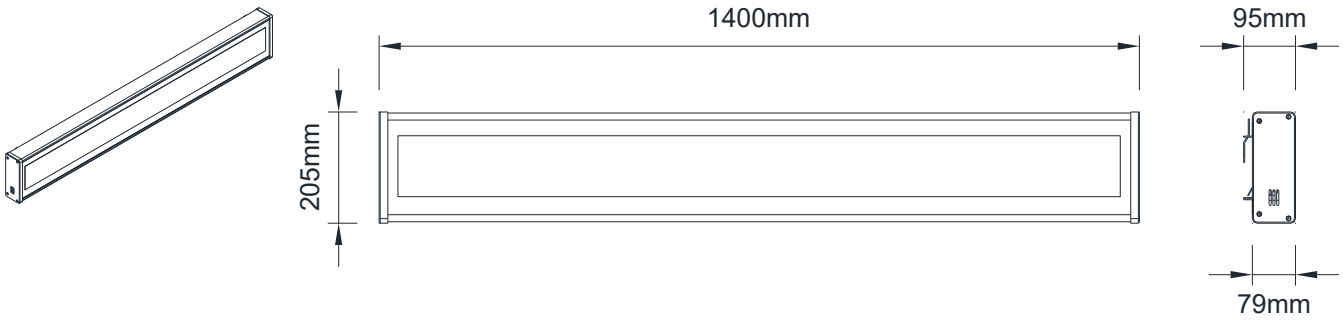
It is also possible to configure a numeric inputs module (option) to work with 4/8 inputs as a programms execution mode or as an alarms control mode. In programms execution mode it is possible to work with three input types, independent inputs where each input corresponds to a programm to visualize, 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.

The displays equipped with the analog input module (option) have 2 measuring channels of ±10V or ±20mA. The input type (V or mA), the input signal range as well as the display range (within a maximum range of ±32000 points) is fully configurable by software for each channel.

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**, **MODBUS TCP/IP** and **SNTP** (time synchronization).

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

DMAE1216RF: ..... 176-264V AC 47/63Hz or 248-373V DC
88-132V AC 47/63Hz (special configuration)
Maximum consumption according to graphic resolution:
9 x 96 (pixels) ..... 195 VA / (F5A)

VISUALIZATION

Character height 117mm ... Approx. max. reading dist. ≤ 55m
LED type ..... Oval
LED colour available ..... Red
LED Diameter ..... Ø5mm (pitch 14mm)
Angle vision ..... 70º horizontal, 35º vertical
Maximum number of static characters 16

ENVIRONMENTAL CONDITIONS

Working temperature ..... -10ºC ÷ 60ºC
Relative humidity (non-condensing) ..... <90% @ 40ºC
Protection degree IP65

MATERIALS

Frontal display ..... red methacrylate
Case ..... Black aluminium
Weight 9kg

COMUNICATION

Ports ..... Mini USB (default)
RS232/RS485, Ethernet (10/100) or WiFi (option)
Protocols ..... DTPM, MODBUS-RTU,
TCP-ASCII or MODBUS TCP/IP, SNTP
Transmission rate ..... 1200 to 115200 Baud (configurable

TEMPERATURE SENSOR (OPTION)

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

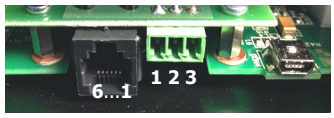
CONNECTIONS

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 CONNEC-

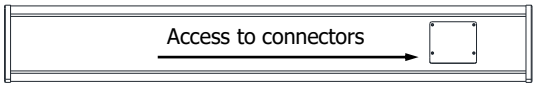
OPTION /X:
(RS232 / RS485)



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 CONNEC-

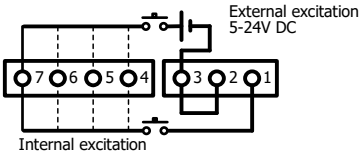


Connection terminals can be directly reached through rear right side of the device as shown in figure above.

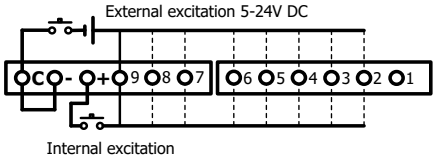
The instrument provides 2 or 3 rear connectors depending on the option that it is mounted. See figures. Connectors type are: RJ45 (Ethernet), Mini-B (USB), RJ12 (RS232), Mini combicon (RS485/ Digital inputs), C14 (Power supply) SMA (WiFi anthena).

Terminals for **RS485 and Digital inputs** connector admit cables with section from 0.14mm² up to 1.5mm² (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 /K8:
(8 DIGITAL INPUTS)



DIGITAL INPUTS	
PIN 7	INP 3
PIN 8	INP 2
PIN 9	INP 1
PIN +	24V DC
PIN -	GND
PIN C	INPUTS COMMON

DIGITAL INPUTS	
PIN 1	N.C.
PIN 2	INP 8 / STROBE
PIN 3	INP 7
PIN 4	INP 6
PIN 5	INP 5
PIN 6	INP 4

OPTION /NE:
(ETHERNET)

ETHERNET CONNECTION

USB CONNEC-

OPTION /NW:
(ETHERNET WiFi)

ANT. WiFi CONNECTION

USB CONNEC-

POWER SUPPLY
176-264V AC
248-373V DC
195VA

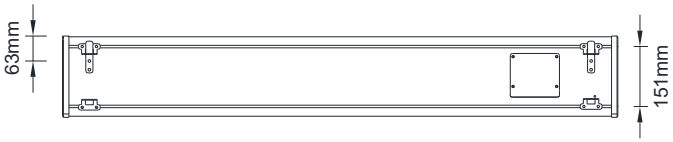
IMPORTANT!
To guarantee electrical safety according to EN 61010-1 a protective external fuse against overcurrents must be installed.

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

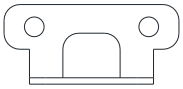
Recommended fuse: **5A**

MONTAGE

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



Mounting support

Wall support

CE conformity.

Directives	EMC 2014/30/UE	EMC 2014/35/UE
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.

DITEL
DISEÑOS Y TECNOLOGÍA, S.A.
Xarol, 6B P.I. Les Guixeres
08915 Badalona (Barcelona) - Espagne
Tel. +34 933 394 758
Fax +34 934 903 145
Email: dtl@ditel.es ; web: www.ditel.es

12.03.20 30726531