

# D I G I T A L M U L T I M E T E R



REVENUE GRADE METER  
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MEASUREMENT CANADA

 **Lovato**  
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ENERGY AND AUTOMATION

## Flush mount LCD multimeters, expandable



DMG 800RGCA

Order code	Description	Qty per pkg	Wt
		n°	[kg]
<b>DMG 800RGCA</b>	Graphic 128x80 pixel LCD, harmonic analysis, auxiliary supply 100...440VAC/110...250VDC Multilanguage: English, French, Spanish, Italian and Portuguese. Equipped with EXP10 02 (2 digital inputs and 2 static outputs, opto-isolated)	1	0.568

## Expansion modules



EXP10...

Order code	Description
Inputs and outputs.	
<b>EXP10 00</b>	4 opto-isolated digital inputs
<b>EXP10 01</b>	4 opto-isolated static outputs
<b>EXP10 02</b>	2 digital inputs and 2 static outputs, opto-isolated
<b>EXP10 03</b>	2 relay outputs rated 5A 250VAC
<b>EXP10 04</b>	2 opto-isolated analog inputs 0/4-20mA or PT100 or 0-10V or 0...±5V
<b>EXP10 05</b>	2 opto-isolated analog outputs 0/4-20mA or 0-10V or 0...±5V
<b>EXP10 08</b>	2 opto-isolated digital inputs and 2 relay outputs rated 5A 250VAC
Communication ports.	
<b>EXP10 10</b>	Opto-isolated USB interface
<b>EXP10 11</b>	Opto-isolated RS232 interface
<b>EXP10 12</b>	Opto-isolated RS485 interface
<b>EXP10 13</b>	Opto-isolated Ethernet interface with web server function
<b>EXP10 30</b>	Data storage, clock-calendar (RTC) with backup reserve energy for data logging

One EXP10 02 is already installed on DMG800RGCA.

### General characteristics

- DMG 800RGCA digital multimeters is capable of viewing the measurements with high accuracy on the wide graphic LCD, which allow to control energy distribution networks.
- It is available with a flush-mount housing, (96x96mm/3.78"x3.78") and expansion slots to fit 4 plug-in expansion modules, suitable for numerous applications.
- It is equipped with one EXP10 02 (2 digital inputs and 2 static outputs, opto-isolated).
- The main features include an extended power supply voltage range, high measurement accuracy, expandability and graphic interactive interface for simple use.
- Main measurements:**
- Voltage: phase, line and system values
  - Current: phase values (neutral current calculated)
  - Power: apparent, active and reactive phase and total values
  - P.F.: Power Factor per phase and total
  - Frequency of measured voltage value
  - HIGH-LOW-AVERAGE value functions for all measurements
  - Maximum demand of power and current values
  - Voltage and current asymmetry
  - Total harmonic distortion (THD): voltage and current
  - Harmonic analysis of voltage and current up to the 31<sup>st</sup> order
  - Energy meters for active, reactive, apparent partial and total values
  - Programmable tariff functions
  - Hour counter for programmable total and partial hours
  - Pulse counter for general use: consumption pulse counting for water, gas, etc., with expansion module.

### Operational characteristics

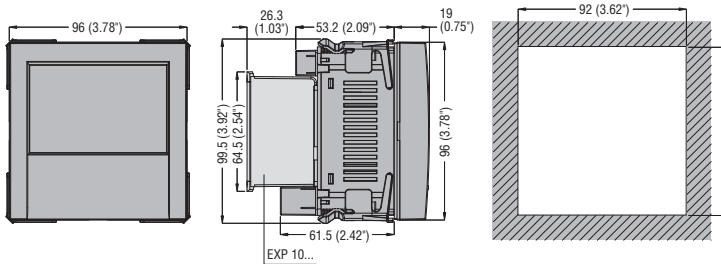
- Auxiliary supply voltage range: 90...484VAC/93,5...300VDC
- Voltage measurement range: 20...830VAC L-L
- Usage in medium and high voltage systems with voltage transformers
- Rated input current: external CT 5A or 1A
- Frequency measurement range 45...66Hz
- True RMS measurements: for voltage and current
- Measurement accuracy:
  - Voltage: ±0,2% (120...347VAC L-N)
  - Current: ±0,2% (0,05...5A)
  - Power: ±0,5% f.s.
  - Power factor: ±0,5%
  - Frequency: ±0,05%
  - Active energy: Class 0,5s (IEC/EN 62053-22)
  - Reactive energy: Class 2 (IEC/EN 62053-23)
- Non-volatile memory for data storage
- Communication protocol Modbus-RTU, ASCII and TCP
- Compatible with **Synergy** and **Xpress** software
- Flush-mount housing 96x96mm/3.78"x3.78"
- Degree of protection: IP65 on front.

### Certifications and compliance

Certifications obtained: UL listed for USA and Canada (cULus - File E93601), as Auxiliary Devices - Multimeters. LMB-EG-07 (Measurement Canada approval), notice of approval AE-2290.

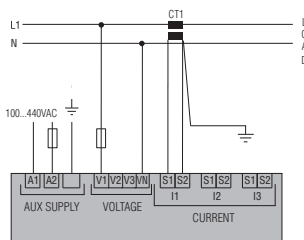
Compliant with standards: IEC/EN 61010-1, IEC/EN 61000-6-2, IEC/EN 61000-6-4, UL508, CSA C22-2 n°14.

### Dimensions [mm(in)]



### Wiring diagram

#### Single phase



#### Three phase with or without neutral

