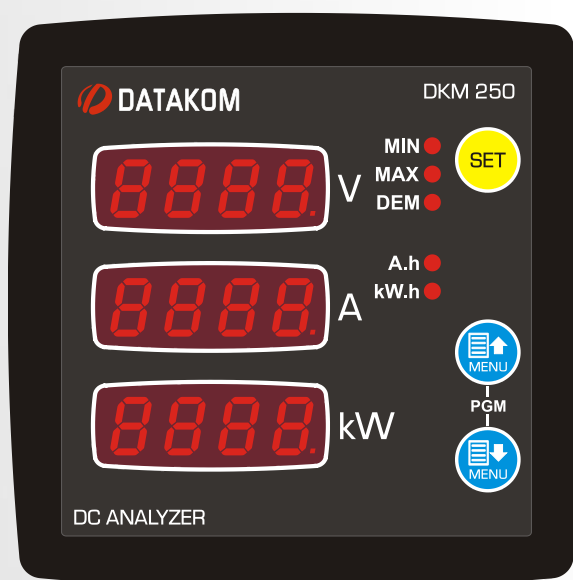


DKM-250

DC ENERGY ANALYZER



DESCRIPTION

The DKM-250 is a precision instrument designed for measuring, displaying and remote monitoring various DC parameters in a DC distribution box.

The unit features a 32-bit ARM core microcontroller.

The unit has 2 separate voltage inputs, 0-60V and 0-400V. Thus the same unit may be used at various DC voltages.

The current input of the unit is isolated from the rest of the circuit and has different circuit options:

- External current shunt (standard)
- Internal current shunt
- Hall Effect sensor input
- 4-20mA analog input

The supply input of the unit is independent of measurement inputs. It has 2 supply options, 19-150VDC and 85-450VDC.

Thanks to its isolated RS-485 Modbus RTU com port, the device is free from ground potential difference issues and data are safely transferred to automation and monitoring systems. Program parameters may be uploaded to the unit through the RS-485 port.

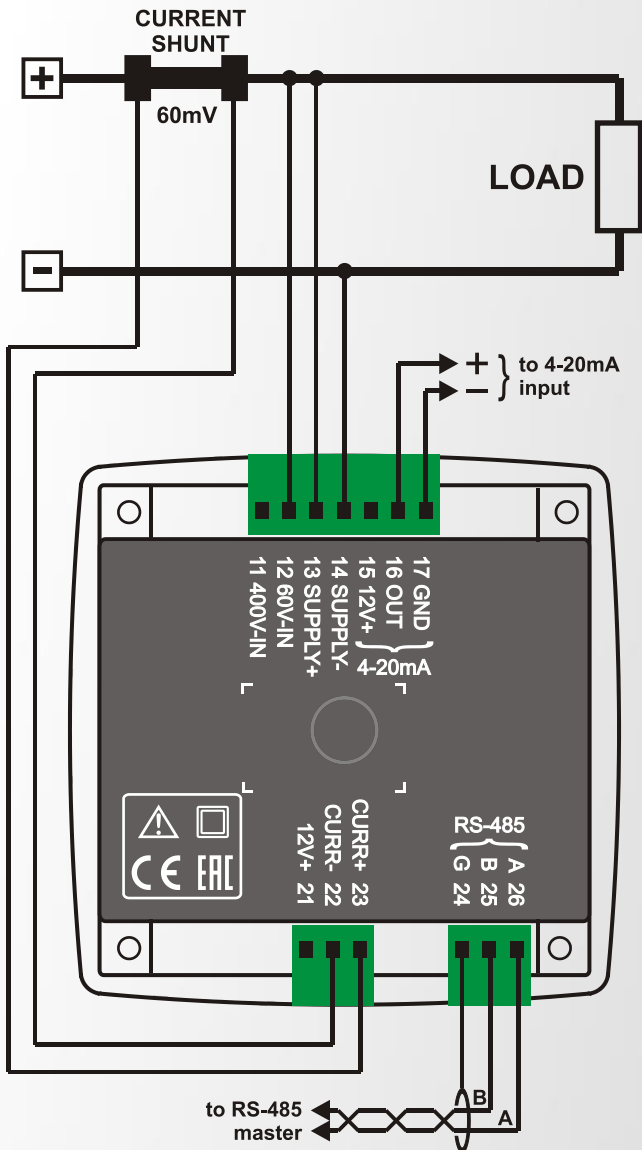
The unit may output any measured value as analog signal through its 4-20mA port. This output allows easy connection to PLC systems.

FEATURES

- **Dual voltage measurement inputs**
- **Various current input options**
- **4-20mA programmable analog output**
- **Demand, Min & Max records**
- **Fully isolated RS-485 serial port**
- **MODBUS-RTU communications**
- **Bidirectional current & power measurement**
- **Bidirectional kW-h energy counter**
- **Bidirectional A-h counter**
- **Hours run counter**
- **Front panel programming**
- **Wide operating temperature range**
- **Sealed front panel (IP65 with gasket)**
- **Two part connection system**



CONNECTION DIAGRAM



TECHNICAL SPECIFICATIONS

Supply Input:

Standard version: 19-150VDC

High voltage version: 88-450VDC

Power Consumption: < 4W

Voltage Measurements Inputs:

0-60V Input Sensitivity: 0.01V

0-400V Input Sensitivity: 0.40V

Current Measurement Input:

Measurement range: 0-100mV.

Accuracy: % 0.2

Internal Current Shunt Option:

Measurement range: 0-15A

Analog Output: 0-20mA

Analog Output Precision: 16 bit

Serial Port:

Signal type: RS-485

Protocol: Modbus RTU

Data Rate: 2400-38400baud

Isolation: 1000V AC, 1 minute

Operating Temp. Range: -20°C...+70 °C

(-4°F...158°F)

Max. Relative Humidity: %95 non-condensing

Protection Degree: IP 65 (Front panel, w. gasket)

IP 30 (Back panel)

Enclosure: Flame retardant, ROHS compliant high temperature ABS/PC (UL94-V0)

Installation: Flush mounting with rear brackets

Dimensions: 102x102x53mm (WxHxD)

Panel Cutout: 92x92mm

Weight: 200 gr

EU Directives:

2014/35/EC (LVD)

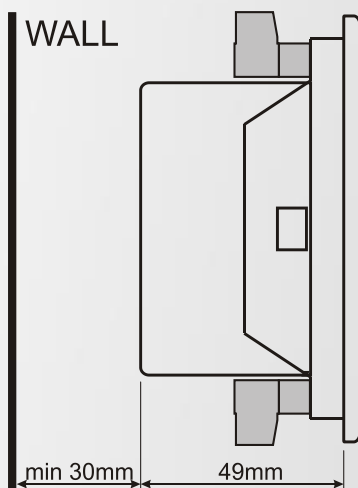
2014/30/EC (EMC)

Reference Standards:

EN 61010 (safety)

EN 61326 (EMC)

INSTALLATION



PANEL CUTOUT

