

# DMMS425

## Low Cost Multifunction Power Monitor

*Outperforms All in its Pricing Class*

**DM**  
SERIES

- Economical Design
- High Performance
- Bright LED Display
- Measures over 80 Electrical Parameters
- Modbus, Modbus Plus or DNP 3.0
- KYZ Pulse Outputs
- Revenue Accurate for Sub-Metering
- Standard ANSI Cutout
- Small Footprint

### Description

The DMMS 425 measures more than 80 electrical power parameters providing a low-cost, multifunction monitoring solution for utility, industrial and power generation applications. The DMMS 425 is great for utility metering, submetering, tenant metering, substation automation, generator monitoring and more.

### Superior Price to Performance Ratio

Using advanced 16-bit DSP technology, the DMMS 425 provides exceptional performance at a low price. Despite its pricing class, the unit provides advanced performance and functionality required in today's demanding applications.



Perfect for  
Substation Panels

 **Electro Industries/GaugeTech**  
The Leader in Web Accessed Power Monitoring



## Advanced Measurement & Accuracy

The DMMS 425 measures and calculates over 80 parameters, including maximum and minimum values for every reading. This is a full four-quadrant meter with separate positive and negative Watt/hour counters. The unit complies with ANSI C-12 revenue metering accuracy requirements.

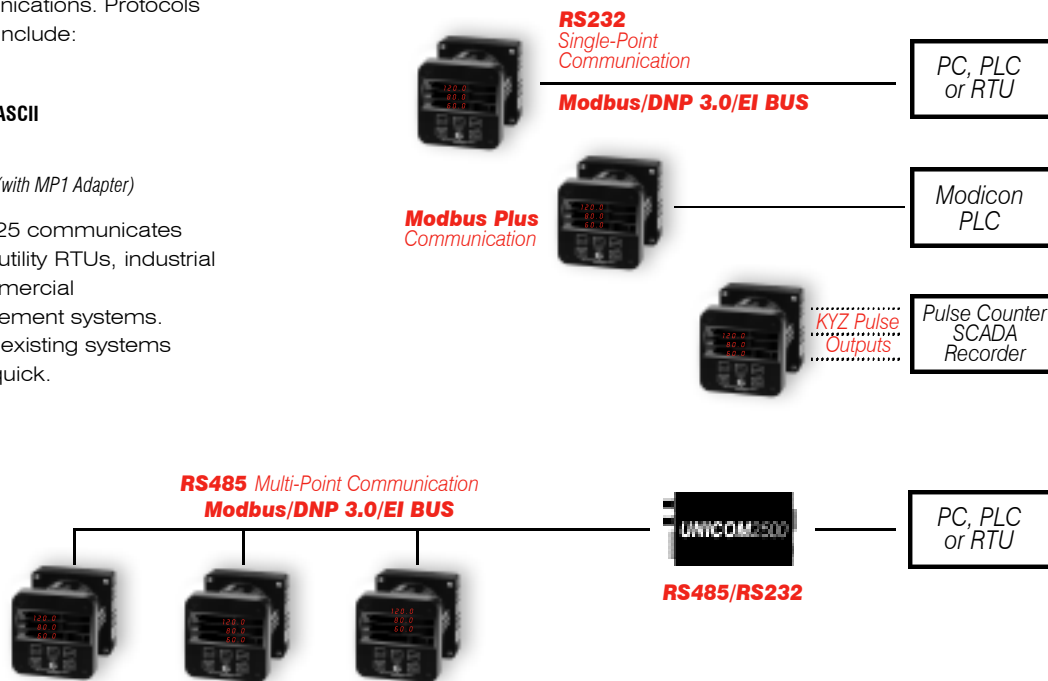
MEASUREMENTS	ACCURACY	RESOLUTION	RANGE
Volts (All Channels)	0.3%	0.1%	0-2000
Volt Max/Min Demand	0.3%	0.1%	0-100%
Amperes	0.3%	0.1%	0-2000
Amp Max/Min Demand	0.3%	0.1%	0-100%
KW	0.5 %	0.1%	0-2000
kVA	0.5 %	0.1%	0-2000
KVAR	0.5 %	0.1%	0-2000
PF	0.5 %	1.0%	0-2000
KW Max/Min Demand	0.5 %	0.1%	1.0-.5%
KW-Hour	0.5 %	1 KW Hour	0-100%
KVA-Hour	0.5 %	1 KVA Hour	0-999,999
Frequency	0.02Hz	0.01Hz	45-75Hz

## Multiple Communication Options

The DMMS 425 offers RS232 or RS485 communications. Protocols and interfaces include:

- **EI Bus**
- **Modbus RTU/ASCII**
- **DNP 3.0**
- **Modbus Plus (with MP1 Adapter)**

The DMMS 425 communicates with almost all utility RTUs, industrial PLCs and commercial energy-management systems. Integration into existing systems is simple and quick.



## KYZ Pulse Outputs

This is the most versatile unit available. The unit offers 3 separate KYZ pulses that can be configured for positive or negative watt-hour and VA/Hr.

## Standard ANSI C39.1 Cutout

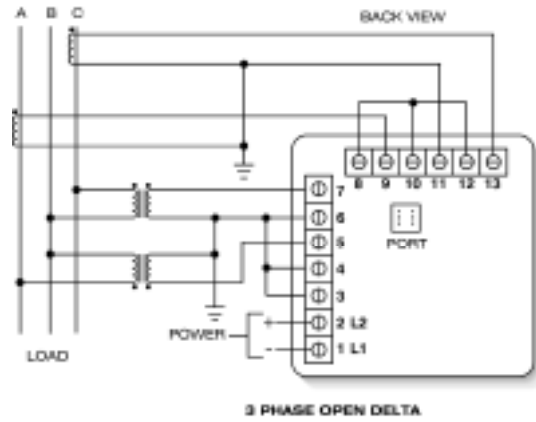
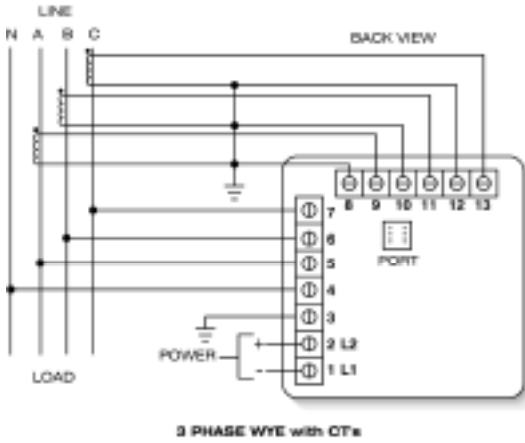
This unit easily retrofits into existing panels. It offers the standard ANSI 39.1 switchboard meter cutout. Also, the small footprint ensures that the unit will easily mount into any switchboard enclosure.

## Rugged Utility Grade Construction

The DMMS 425 is housed in a rugged metal enclosure protected from EMI and RFI emission. Internal protection circuits protect the power supply from damaging spikes and transients.

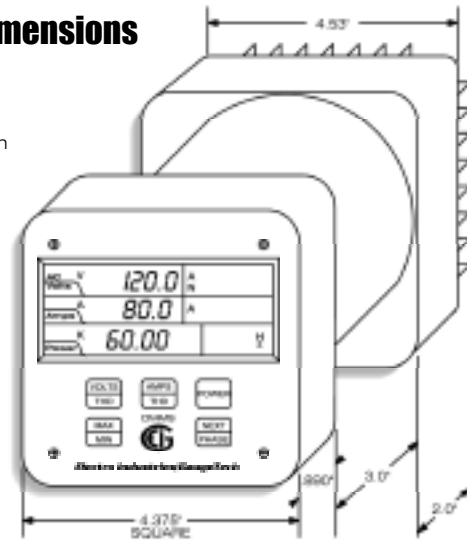
## Typical Wiring Information

**Note:** Download DMMS 425 Manual from [www.electroind.com](http://www.electroind.com) to get additional wiring configurations.



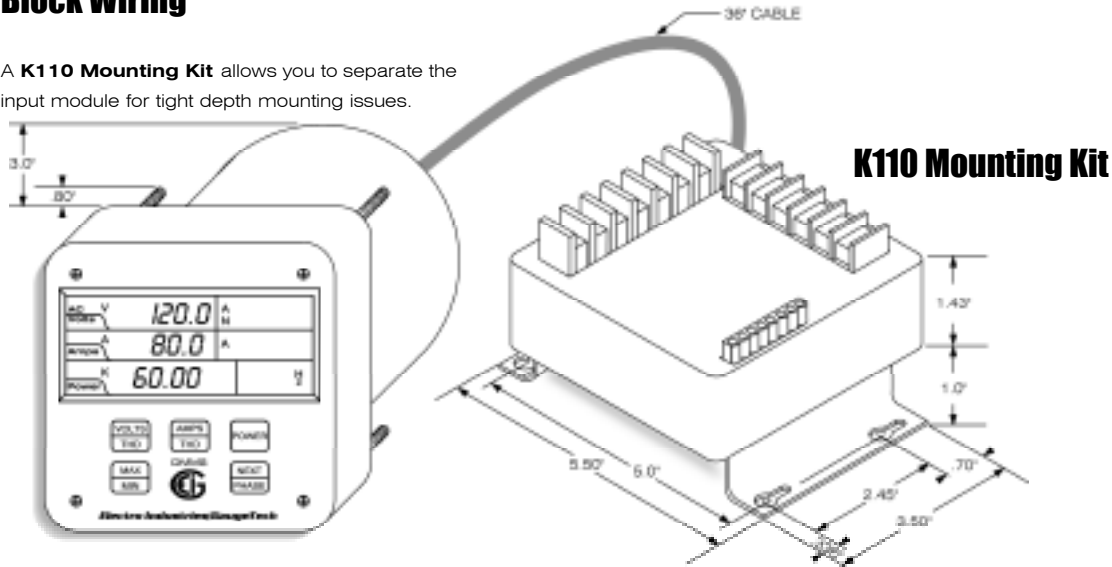
## Dimensions

Recommended for installation where depth behind the panel is 5.5 inches or deeper.



## Remote Terminal Block Wiring

A **K110 Mounting Kit** allows you to separate the input module for tight depth mounting issues.



# Specifications

## INPUT VOLTAGE RANGE

- 150V phase to neutral, 300V phase to phase\*
- 300V phase to neutral, 600V phase to phase **(OPTION G)**
- \*To be used also with PTs for extended input voltage.

## INPUT CURRENT RANGE

- 5A input at full scale, 10A maximum (programmable with any CT ratio)
- 1A input at full scale **(OPTION 1A)**

## INPUT WITHSTAND CAPABILITIES

- Voltage and Current continuous 200% rated; surge 10x maximum input for 3 seconds.
- Surge Withstanding: per IEEE C37.90.1, ANSI C62.41

## RELAY RATING

- 3 programmable KYZ Pulses **(OPTION NL2)**

## BURDEN

- Voltage: 0.1 VA, maximum
- Current: 0.1 VA, maximum
- Power Supply: 6VA maximum

## I/O ISOLATION

- 2500V AC/60 Hz (minimum isolation between any input-to-output digital communication module or relay output terminals)

## ENVIRONMENTAL

- Operating temperature: (-20 to +70)°C

## CONTROL POWER REQUIREMENTS

- 115V AC, +20%, 6VA 47-400Hz **(OPTION 115A)**
- 230V AC, +20%, 6VA 47-400Hz **(OPTION 230A)**
- 24-48 DC, +20%, 6VA **(OPTION D)**
- 125V AC or DC, +20%, 6VA **(OPTION D2)** universal
- 12V DC, +20%, 6VA **(OPTION D4)**

## SENSING METHOD

- True RMS sampling at 64 samples per cycle

## UPDATE TIME

- 1 second

## COMMUNICATION FORMAT

- 1 start bit, 8 data bits, 1 stop bit; programmable up to 9600 baud
- Protocols: DNP 3.0, Modbus RTU/ASCII, EIBus
- Modbus Plus Capability **(Accessory MP1)**

## FREQUENCY RANGE

- Fundamental 45-75 Hz

## CONSTRUCTION

- Metal housing with standard switchboard dimensions and cutout per ANSI 39.1

# Ordering Information

Specify a unit by writing its option numbers below. See sample. Specify your CT and Pt ratio, Delta or Wye System. If a specification is given, it will be preprogrammed in the factory.

Model	Connection	Operating Voltage	Control Power	Relay Option	Communication Protocol
<b>Option Numbers:</b>					
-	-	-	-	-	-
<b>Example:</b> DMMS 425	- 3E	- 120	- 115A	- NL2	- MODR
DMMS 425	<p><b>3E</b> 3 Element Wye System</p> <p><b>2.5E</b> 2.5 Element Wye System</p> <p><b>2E</b> 2 Element Delta System</p>	<p><b>120</b> 120/208 System</p> <p><b>G</b> 277-480 System</p>	<p><b>115A</b> 115V AC ±20%</p> <p><b>230A</b> 230V AC/DC ±20%</p> <p><b>D</b> 24-48V DC ±20%</p> <p><b>D2</b> 125V AC or DC ±20% Universal</p> <p><b>D4</b> 12V DC ±20%</p>	<p><b>NL2</b> 3 KYZ Pulse Outputs</p>	<p><b>MODR</b> Modbus RTU</p> <p><b>MODA</b> Modbus ASCII</p> <p><b>DNP</b> DNP 3.0</p> <p><b>EI</b> EI-BUS</p> <p><b>MP1</b> Modbus Plus</p>

# Accessories

<p><b>K110</b> <i>Mounting Kit</i></p> <p>Remote terminal block mounting kit with 36" cable and mounting bracket.</p>	<p><b>SF232DB</b> <i>RS232 Communication Adapter</i></p> <p>Limited to a distance of 100 feet between the central computer and the DMMS 425.</p>	<p><b>SF485DB</b> <i>RS485 Multi-Drop, Daisy Chain Communication Adapter</i></p> <p>The maximum distance is 4000 feet between the computer and DMMS 425.</p>	<p><b>MP1</b> <i>ModBus Plus Communication Adapter</i></p> <p>Modbus Plus Communication Module.</p>
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