

Power Sensor Station ZN-KMX

CSM_ZN-KMX_DS_E_2_10

Strong Support for Construction of a Monitoring System



- A single button operation logs, in block, the data on 31 KM series units.
- The PC Software Multi Data Viewer Light* easily enables graphic representation of the saved data.
- You can set the connected KMs at a time by use of the special tool.

* Download the PC Software Multi Data Viewer Light from the following OMRON website (<http://www.fa.omron.co.jp/multi-d-v-e>).



For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

Refer to the **Safety Precautions** on page 2.

Ordering Information

Main unit

Stations

Appearance	Item	Model	Power supply
	Station	ZN-KMX21-A	DC cable

Options

Appearance	Item		Model
	DC cable (ZN9-ED01-S comes with ZN-KMX21-A)	Straight type (2 m)	ZN9-ED01-S
		Right angle type (2 m)	ZN9-ED02-S
	AC Adapter Power supply voltage: 100 to 240 VAC/50 to 60 Hz Operating temperature range: 0 to 40°C		ZN9-ACP01-S
	Mounting Magnet		ZN9-EM01-S
	Special Cable (3 m) (One included with the ZN-KMX21 or ZN-KMX21-A)		ZN9-KMC30
	Special Cable (3 m)	For direct connection to KM-N-series Power Monitor	ZN9-KMC30-N
	Environmental Visualization Software Wave Inspire ES *1 *2 *3		ZN-SW11-S

*1. This software has the following merits.

- Real-time monitoring of waveforms is available.
- Monitoring is synchronized with temperature/humidity sensors and other environmental sensor series units
- Data is displayed on layout drawings.

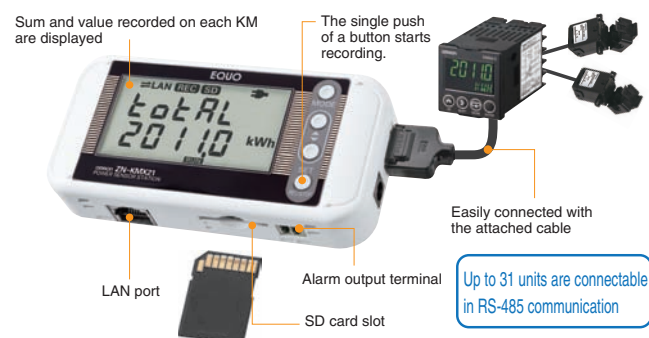
*2. System requirements

OS: Microsoft Windows 10 (32 bit/64 bit)/Microsoft Windows 11 (64 bit)
CPU: compatible Intel processors, 1 GHz or higher.
Memory: 1 GB or more (2 GB or more recommended)

*3. The compliant version is Ver. 2.4.0 or later

Connection Example

Data on 31 units of KM series for electric power monitoring can be logged, in block to the SD card.



Note: To directly connect KM-N1-FLK, KM-N2-FLK and KM-N3-FLK to the product, please purchase a separately sold dedicated connection cable ZN9-KMC30-N.

Ratings and Specifications

Station unit

Item	Model	ZN-KMX21-A
Connectable Power Sensor/Monitor		KM50-C/E, KM100, KM20-B40-FLK *9, KM-N1-FLK, KM-N2-FLK, KM-N3-FLK
Max. Number of Connectable Power Sensor/Monitor Units		31 units
Display		7-seg. 5-digit 2-step LCD display, auxiliary information indicator displays
Recording Interval		1 s, 2 s, 5 s, 10 s, 20 s, 30 s, 1 min.
Recorded data		Momentary power, Integrated power, Power factor, Sum of pulse input counts 1 and 2 *1
Operation Function		Integrated power total sum, integrated momentary power, electricity rate total sum
Recording Mode		Continue mode *2, Ring mode *3
External Output		Alarm output (Photocoupler output) *4
Internal storage device		128 KB (at max. load: approx. 200 data items; at min. load: approx. 6800 data items) *5
External storage device		SD card (measured value and converted value saving/set value saving and reading), Recommended SD card: HMC-SD292 (2 GB) and HMC-SD492 (4 GB) (manufactured by OMRON) *6
Power Supply		DC input: 24 VDC±10%
Current Consumption		80 mA max.
Operating Temperature		Without Ethernet: -10°C to 40°C (no condensation or icing) With Ethernet: 0°C to 40°C (no condensation or icing)
Operating Humidity		20% to 85% (no condensation or icing)
Storage Humidity/Temperature		-15°C to +60°C, 20% to 85% (no condensation or icing)
Insulation Resistance		20 MΩ (500 VDC)
Withstand Voltage		1000 VAC, 50/60 Hz, 1 min.
Vibration Resistance		10 to 150 Hz, 0.7 mm double amplitude, acceleration: 50 m/s ² for each in X, Y and Z directions for 80 min *7
Shock Resistance		150 m/s ² in 6 directions (+/-X, +/-Y, and +/-Z directions), 3 times each *7
Material		ABS
Degree of Protection		IP30
Mounting		Magnet mounting, screw mounting, hook
Weight (in Package)		Approx. 500 g
Accessories		Instruction Sheet, Startup Guide, Alarm Output Connector *8, KM Dedicated Connection Cable (3 m), DC cable (straight type), Ferrite core

*1. Only supported for KM50-C and KM50-E.

*2. Automatically writes the data to the SD memory card when the internal memory reaches its capacity and continues recording until the SD card memory capacity reaches its limit. The unit stops operation if there is no SD memory card inserted when the internal memory reaches its capacity. (Recording can be resumed after inserting an SD memory card and outputting the data to it at a press of button.)

*3. Continues the recording of the latest measured values until the internal memory reaches its capacity. (If the internal memory capacity exceeds the capacity, data is overwritten from the oldest one in the memory.)

*4. Output when the integrated power upper limit specified in THR mode is exceeded

*5. For details, refer to the instruction manual included with the product or the Cat. No. Z410 user manual.

*6. When using a third party SD card, it is recommended to use a reliable and durable industrial SD card (SD standard or SDHC standard (not compliant with SDXC standard), Class 4 or higher, flash memory type SLC or MLC type).
You must confirm the operation of the SD card yourself.

*7. The vibration resistance when mounted using the ZN9-EM01-S magnets (separately sold): 10 to 55 Hz, 0.3 mm double amplitude, acceleration: 20m/s² for each in X, Y and Z directions for 50 min. The installation place must be free from physical shock.

*8. OMRON's XW4B-02B1-H1 connector.

*9. Orders for the KM20-B40-FLK are no longer being accepted as of March 31, 2019.

Safety Precautions

WARNING

This product is not designed or rated for ensuring safety of persons either directly or indirectly.
Do not use it for such purposes.



For technical information and product FAQs, refer to the “Technical Guide” on your OMRON website.

Tolerance class IT16 applies to dimensions in this data sheet unless otherwise specified.

ZN-KMX21-A



Technical drawings of the power supply unit showing front and side views with dimensions:

- Front View:** A rectangular unit with a width of 70 mm and a height of 45 mm. It features a square input port on the left side.
- Side View:** Shows the unit's profile with a total height of 30.5 mm and a mounting tab height of 8 mm. The distance from the front face to the end of the cable is specified as 180 ± 50 mm.

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