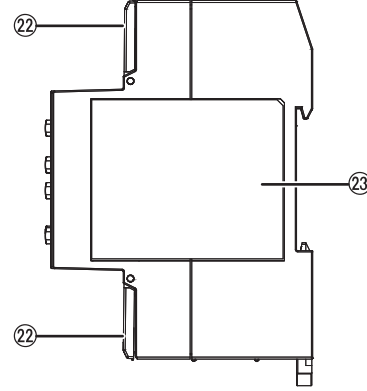
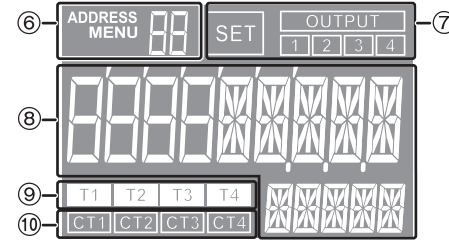
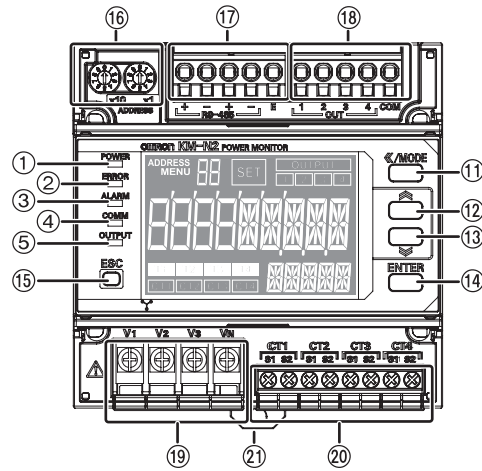


Names of the parts and their functions / 各部分名称及功能 / 各部の名称とはたらき

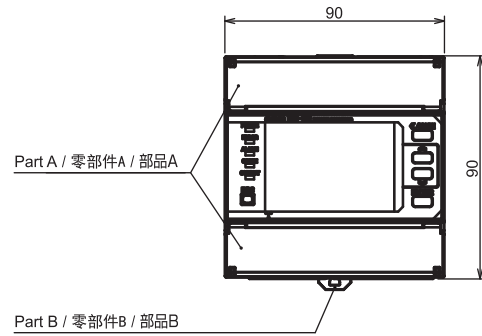
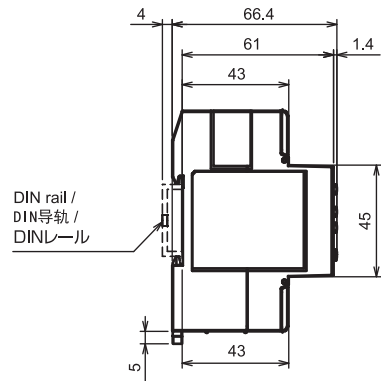
Front: Terminal panel cover removed /
正面：取下端子台盖板后的状态 /
正面：端子台カバーを外した状態

LCD display details /
LCD 显示器详情 /
LCD ディスプレイ詳細

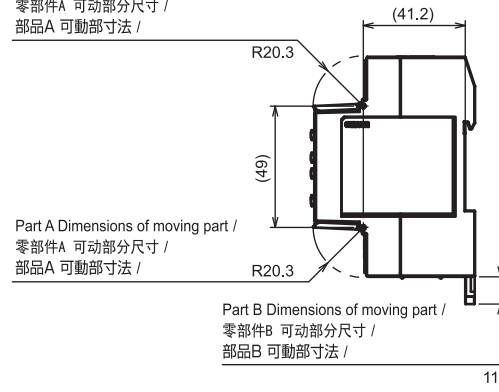
Right side surface /
右侧面 /
右側面



Dimensions / 外形尺寸 / 外形寸法



Part A Dimensions of moving part /
零部件A 可动部分尺寸 /
部品A 可动部分寸法 /



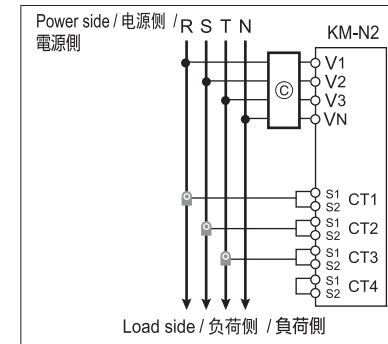
Part A Dimensions of moving part /
零部件A 可动部分尺寸 /
部品A 可动部分寸法 /

Part B Dimensions of moving part /
零部件B 可动部分尺寸 /
部品B 可动部分寸法 /

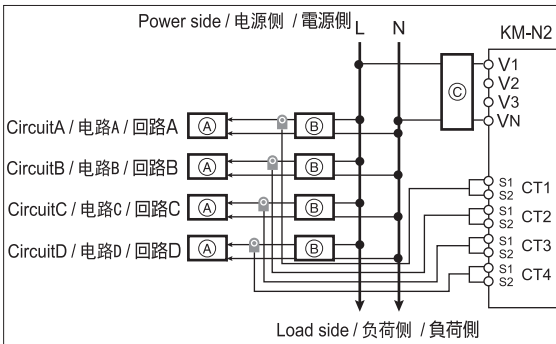
Wiring diagrams (multi-circuit metering) / 配线图 (多电路测量) / 配線図 (多回路計測)

Ⓐ Load / 负荷 / 負荷 Ⓑ Breaker / 断路器 / ブレーカー Ⓒ Branch circuit breaker / 分支电路断路器 / ブランチサーキットブレーカー

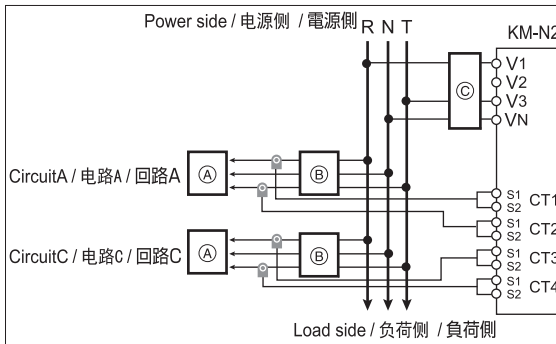
3-phase 4-wire / 三相四线 / 三相4線



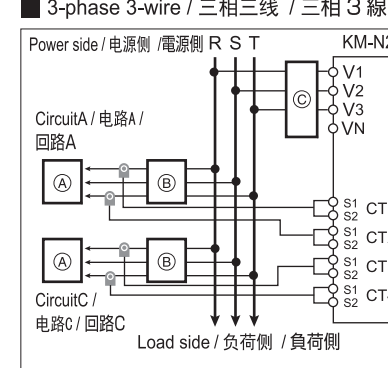
1-phase 2-wire / 单相两线 / 单相2線



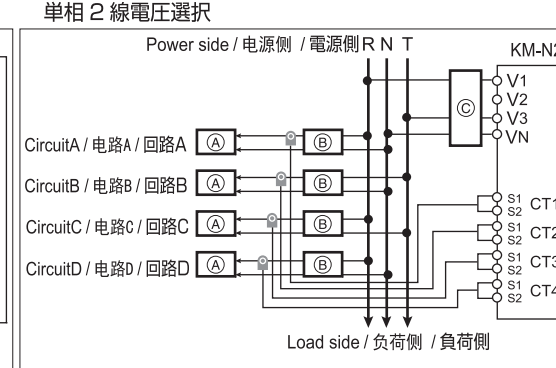
1-phase 3-wire / 单相三线 / 单相3線



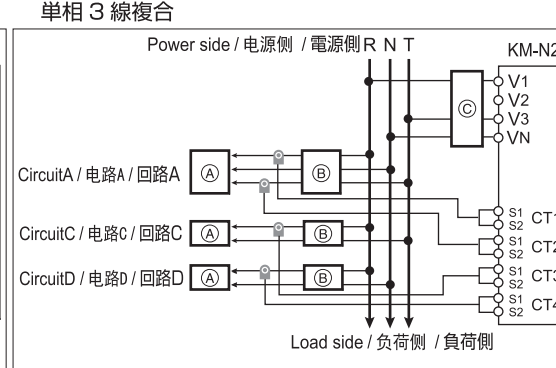
3-phase 3-wire / 三相三线 / 三相3線



1-phase 2-wire voltage selected / 单相两线电压选择 / 单相2線電圧選択



For 1-phase 3-wire composite / 复合单相三线 / 单相3線複合



ENGLISH

Names of the parts and their function

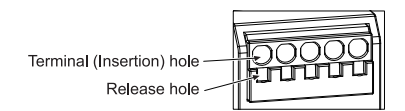
| Item | Description | |
|--|---|---|
| ① Power LED (green) | Lights when power is supplied | |
| ② Error LED (red) | Flashes when there is an error such as a malfunction | |
| ③ Alarm LED (orange) | Flashes to indicate a warning | |
| ④ Communication LED (yellow) | Lights when communicating | |
| ⑤ Pulse LED (yellow) | Lights when outputting a pulse from OUT1 (circuit A) | |
| ⑥ Communication address/Menu display | When ADDRESS is illuminated (in measuring mode): Displays the communication address When MENU is illuminated (in setting mode): Displays the menu number | |
| ⑦ Status display | SET | Lights in setting mode |
| | OUTPUT | Lights when setting pulse output |
| | 1 | Lights when outputting pulse from OUT1 |
| | 2 | Lights when outputting pulse from OUT2 |
| | 3 | Lights when outputting pulse from OUT3 |
| ⑧ Measured value/setting value display | Main display | Displays measured values and setting values |
| | Sub display | Displays the units for the measured values and the names of the setting items |
| | ⑨ Tariff display | |
| | ⑩ CT usage display | |
| ⑪ <<MODE key | | |
| ⑫ ⏶Key | | |
| ⑬ ⏷Key | | |
| ⑭ ENTER key | | |
| ⑮ ESC key | | |
| ⑯ Rotary SW | | |
| ⑰ RS-485 communication terminals | RS-485 +(1) | RS-485 + terminal |
| | RS-485 -(1) | RS-485 - terminal |
| | RS-485 +(2) | RS-485 + terminal (for crossover wiring) |
| | RS-485 -(2) | RS-485 - terminal (for crossover wiring) |
| | RS-485 E | RS-485 terminating resistor terminals |
| ⑱ Pulse output terminal | OUT1 | Circuit A pulse output terminal |
| | OUT2 | Circuit B pulse output terminal |
| | OUT3 | Circuit C pulse output terminal |
| | OUT4 | Circuit D pulse output terminal |
| | COM | Common terminal for pulse output |
| ⑲ Voltage input terminals | | |
| ⑳ CT input terminals | | |
| ㉑ DIN hook | | |
| ㉒ Terminal panel cover | | |
| ㉓ Terminal layout label | | |

Cautions when connecting the Push-In Plus terminal (RS-485 communication terminal and pulse output terminal)

Follow the below steps when connecting the Push-In Plus terminal (⑰ RS-485 communication terminal and ⑱ pulse output terminal).

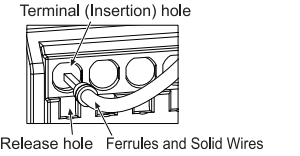
1 Connecting Wires to Push-In Plus Terminal Block

Part Names of the Terminal Block



Connecting Wires with Ferrules and Solid Wires

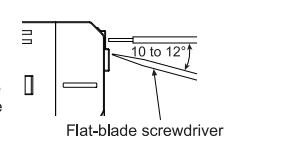
Insert the solid wire or ferrule straight into the terminal block until the end strikes the terminal block.



Connecting Stranded Wires

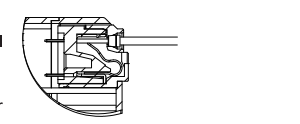
Use the following procedure to connect the wires to the terminal block.

- Hold a flat-blade screwdriver at an angle and insert it into the release hole. The angle should be between 10° and 12°. If the flat-blade screwdriver is inserted correctly, you will feel the spring in the release hole.
- With the screwdriver still inserted into the release hole, insert the wire into the terminal hole until it strikes the terminal block.
- Remove the flat-blade screwdriver from the release hole.



Checking Connections

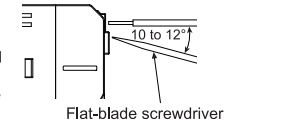
- After the insertion, pull gently on the wire to make sure that it will not come off and the wire is securely fastened to the terminal block.
- To prevent short circuits, insert the stripped part of a stranded or solid wire or the conductive part of a ferrule until it is hidden inside the terminal insertion hole. (See right diagram.)



2 Removing Wires from Push-In Plus Terminal Block

Use the following procedure to remove wires from the terminal block. The same method is used to remove stranded wires, solid wires, and ferrules.

- Hold a flat-blade screwdriver at an angle and insert it into the release hole.
- With the screwdriver still inserted into the release hole, remove the wire from the terminal insertion hole.
- Remove the flat-blade screwdriver from the release hole.

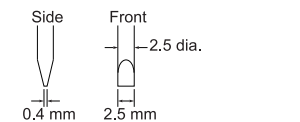


3 Recommended Tools

Recommended Flat-blade Screwdriver

Use a flat-blade screwdriver to connect and remove wires. Use the following flat-blade screwdriver.

| Model | Manufacturer |
|----------|--------------|
| XW4Z-00B | Omron |



Warnings

| Warning type | Description | Display | | Action to take |
|--------------|----------------------------------|---------|--------------------|---|
| | | LCD | LED | |
| Error | Setting value error | E-M1 | Error LED flashing | Repair is necessary. Contact the place of purchase or the manufacturer. |
| | Measured value error | E-M2 | | |
| | Calibration value error | E-M3 | | |
| Alarm | Input frequency warning | A-F1 | Alarm LED flashing | Input the power and voltage with the frequency within the rated ranges. |
| | VR phase warning | A-VR | | |
| | VS phase warning | A-VS | | |
| | VT phase warning | A-VT | | Redo the wiring correctly. |
| | Phase sequence error | A-W2 | | |
| | Active power is a negative value | A-W3 | | Redo the wiring correctly according to the situation* |
| | Pulse 1 Output warning | A-P1 | | |
| | Pulse 2 Output warning | A-P2 | | |
| | Pulse 3 Output warning | A-P3 | | |
| | Pulse 4 Output warning | A-P4 | | Change the pulse output unit so that pulses are not output while other pulses are being output. |

* If you intend to meter negative values (exported energy), then no correction is necessary. Metering continues normally even when a warning is displayed. If the warning is not needed, go to "Warning ON/OFF (MENU 0B)" and set to OFF.
• To cancel the alarm, take the actions described to remove the cause, then switch the power on again.

中文 (简体)

■ 各部分名称及功能

Table with 2 columns: 项目 (Item) and 内容 (Content). Lists various components like LEDs (power, error, alarm, communication, pulse), display modes (status, measurement, rate, CT), and terminals (RS-485, pulse output, voltage input, CT input, DIN hook, cover, labels).

■ 警告一览

Table with 4 columns: 警告的种类 (Warning Type), 内容 (Content), 显示 (Display - LCD/LED), 处理方法 (Handling Method). Categories include 报错 (Error) and 警报 (Alarm) with specific fault codes and resolution instructions.

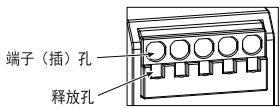
* 有意测定负值 (反向电能) 的情况下不需要修正。提示警告时也能够正常测量。不需要警告功能时, 请在 “警告 ON/OFF (MENU 0B)” 中设定为 OFF。
• 要解除警报, 请根据处理方法解除报警原因并重启电源。

■ Push-In Plus 端子台 (RS-485 通信端子、脉冲输出端子) 的连接注意事项

连接 Push-In Plus 端子 (⑰RS-485 通信端子、⑱ 脉冲输出端子) 时, 请按照如下步骤进行。

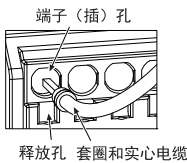
1 连接到 Push-In Plus 端子台

• 接线板的元件名称

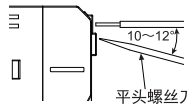


• 将带套圈的导线与实心电缆连接

将实心电缆或套圈直插入接线板, 直至末端接触接线板。



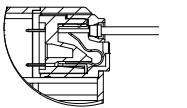
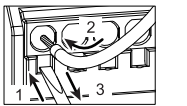
如果导线过细而难以连接, 请以与连接双绞线相同的方式使用平头螺丝刀。



• 连接绞线

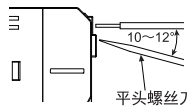
使用以下步骤将导线连接至接线板。

- 1. 以一定角度握住平头螺丝刀并将其插入释放孔。此角度应为 10° 至 12° 之间。如果正确插入了平头螺丝刀, 您将感觉到释放孔中的弹簧。
2. 在将螺丝刀插入释放孔的同时, 将导线直插入端子孔, 直至末端接触接线板。
3. 从释放孔中移除平头螺丝刀。



• 检查连接

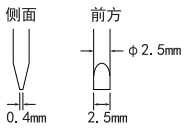
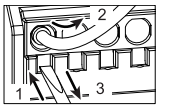
- 插入后, 轻拉导线, 确保其不会脱离且导线牢固固定在接线板上。
• 为防止短路, 在插入绞线或实心电缆的剥离部分或套圈的导体部分时使其隐藏在端子插入孔内。(参阅右图)。



2 从 Push-In Plus 端子台拆下

使用以下步骤将导线从接线板拆下。相同的方法可用于拆下绞线、实心电缆和套圈。

- 1. 以一定角度握住平头螺丝刀并将其插入释放孔。
2. 在螺丝刀仍插入释放孔时, 将导线从端子插孔中拆下。
3. 螺丝刀插入释放孔时, 将导线从端子插孔中拆下。



3 推荐工具

- 推荐平头螺丝刀
使用平头螺丝刀连接和拆下导线。
使用一下平头螺丝刀。

Table with 2 columns: 型号 (Model) and 制造商 (Manufacturer). Shows model XW4Z-00B and manufacturer Omron.

日本語

■ 各部の名称とはたらき

Table with 2 columns: 項目 (Item) and 内容 (Content). Lists functions for LEDs, display modes, measurement/rate/CT display, and terminals (RS-485, pulse output, voltage input, CT input, DIN hook, cover, labels).

■ 警告一覧

Table with 5 columns: 警告の種類 (Warning Type), 内容 (Content), 表示 (Display - LCD/LED), 対処方法 (Handling Method). Categories include エラー (Error) and アラーム (Alarm) with specific fault codes and resolution instructions.

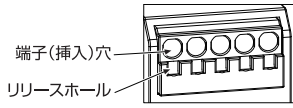
* 意図して負の値 (回生電力) を計測する場合は修正不要です。警告表示が出ても正常に計測できます。警告が不要の場合は、「警告 ON/OFF (MENU 0B)」にて OFF に設定してください。
• アラームを解除するためには、対処方法に従い原因を取り除き電源を再投入してください。

■ プッシュイン Plus 端子台 (RS-485 通信端子、パルス出力端子) 接続上の注意

プッシュイン Plus 端子 (⑰RS-485 通信端子、⑱パルス出力端子) の接続時は以下の手順に従ってください。

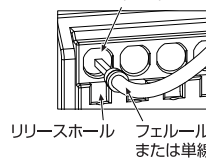
1 プッシュイン Plus 端子台への接続

• 端子台の各部の名称

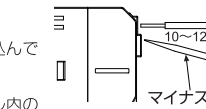


• 圧着棒端子 (以降フェール端子) 付き電線、単線の接続方法

端子台に接続するときは、単線またはフェール端子の先端が端子台に突き当たるまでまっすぐ挿入してください。



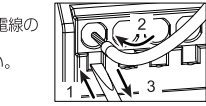
細い単線で接続しにくい場合は、より線の接続方法同様にマイナスドライバーを使用してください。



• より線の接続方法

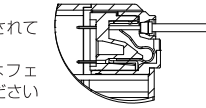
端子台に接続するときは、以下の手順により行ってください。

- 1. マイナスドライバーを斜めにし、リリースホールに押し込んでください。押し込み角度は、10°~12° が適切です。マイナスドライバーを正しく押し込むと、リリースホール内のパネの反発を感じます。
2. リリースホールにマイナスドライバーを押し込んだ状態で、電線の先端が端子台に突き当たるまでまっすぐ挿入してください。
3. マイナスドライバーをリリースホールから抜いてください。



• 接続確認

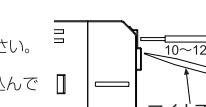
- 挿入後、軽く引っ張って電線が抜けないこと (端子台に固定されていること) を確認してください。
• 絡結防止のため、電線被覆剥きしろ (より線/単線) またはフェール端子導体部が端子 (挿入) 穴に隠れるまで挿入してください (右図参照)。



2 プッシュイン Plus 端子台からの取り外し

電線を端子台から取り外すときは、以下の手順により行ってください。

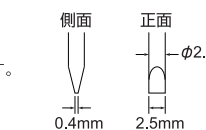
- 取り外し方法は、より線/単線/フェール端子とも同じです。
1. マイナスドライバーを斜めにし、リリースホールに押し込んでください。
2. リリースホールにマイナスドライバーを押し込んだ状態で、電線を端子 (挿入) 穴から抜いてください。
3. マイナスドライバーをリリースホールから抜いてください。



3 推奨工具

- 推奨マイナスドライバー
電線の接続と取り外しには、マイナスドライバーを使用します。マイナスドライバーは、下表のものを使用してください。

Table with 2 columns: 形式 (Form) and メーカー (Manufacturer). Shows form XW4Z-00B and manufacturer オムロン製 (Omron).

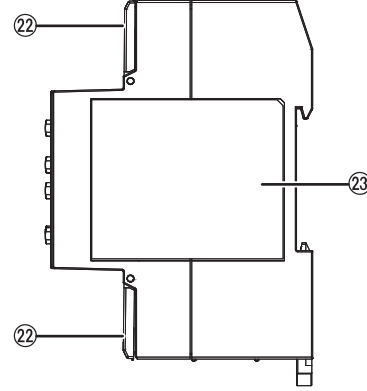
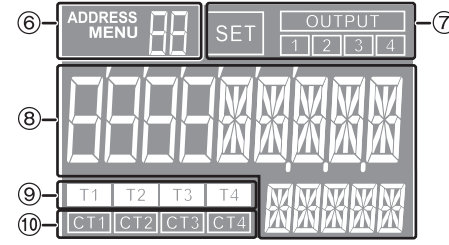
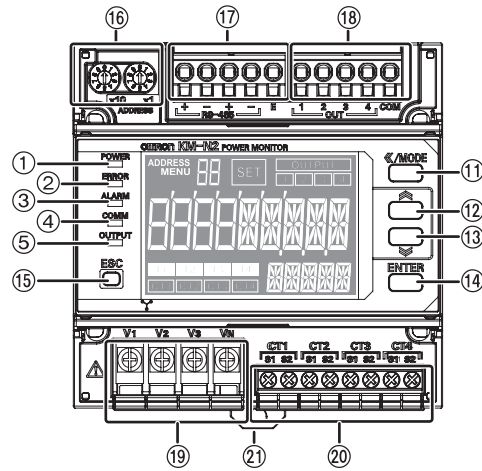


Names of the parts and their functions / 各部分名称及功能 / 各部の名称とはたらき

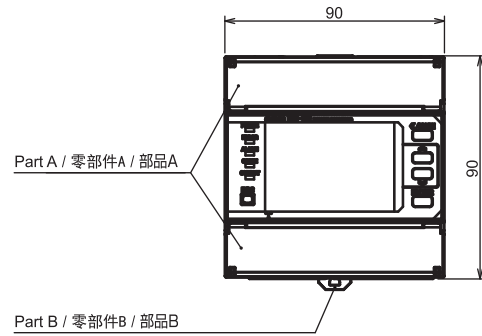
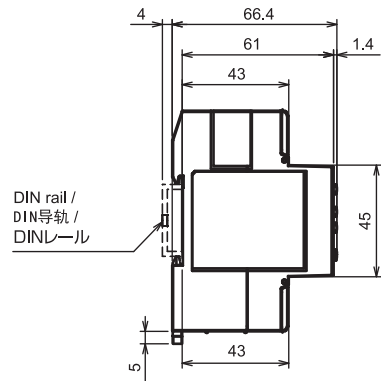
Front: Terminal panel cover removed /
正面：取下端子台盖板后的状态 /
正面：端子台カバーを外した状態

LCD display details /
LCD 显示器详情 /
LCD ディスプレイ詳細

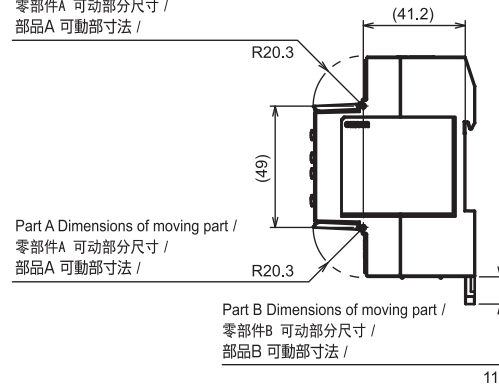
Right side surface /
右侧面 /
右側面



Dimensions / 外形尺寸 / 外形寸法



Part A Dimensions of moving part /
零部件A 可动部分尺寸 /
部品A 可动部寸法 /



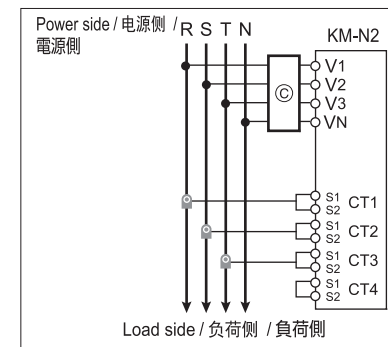
Part A Dimensions of moving part /
零部件A 可动部分尺寸 /
部品A 可动部寸法 /

Part B Dimensions of moving part /
零部件B 可动部分尺寸 /
部品B 可动部寸法 /

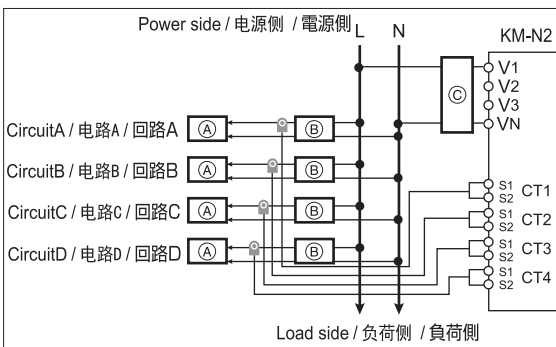
Wiring diagrams (multi-circuit metering) / 配线图 (多电路测量) / 配線図 (多回路計測)

Ⓐ Load / 负荷 / 負荷 Ⓑ Breaker / 断路器 / ブレーカー Ⓒ Branch circuit breaker / 分支电路断路器 / ブランチサーキットブレーカー

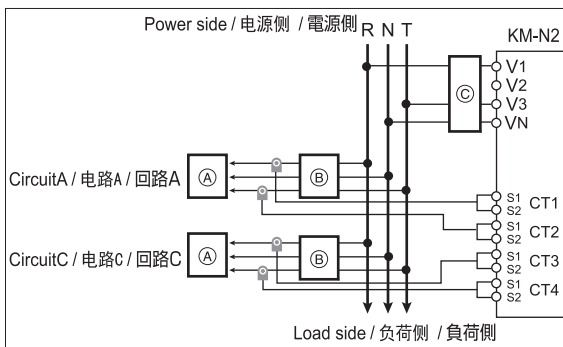
3-phase 4-wire / 三相四线 / 三相 4 線



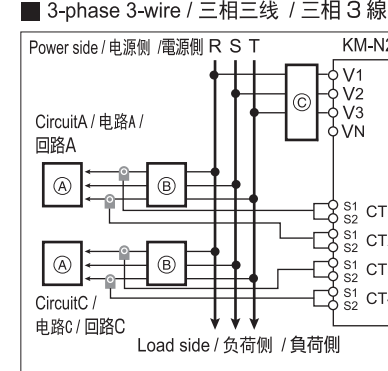
1-phase 2-wire / 单相两线 / 单相 2 線



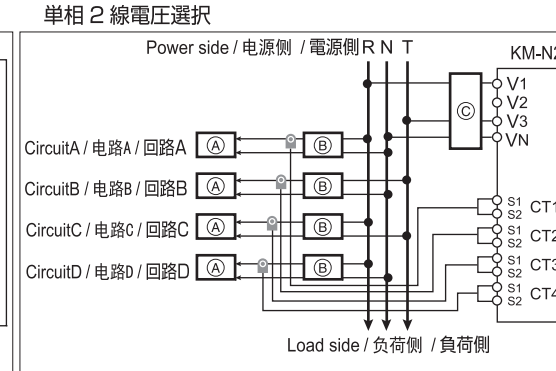
1-phase 3-wire / 单相三线 / 单相 3 線



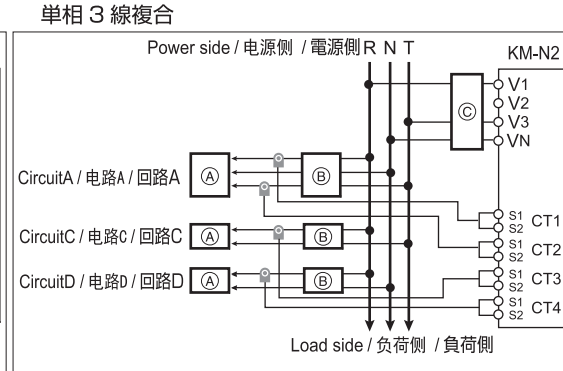
3-phase 3-wire / 三相三线 / 三相 3 線



1-phase 2-wire voltage selected / 单相两线电压选择 / 单相 2 線電圧選択



For 1-phase 3-wire composite / 复合单相三线 / 单相 3 線複合



ENGLISH

Names of the parts and their function

| Item | Description | |
|--|---|---|
| ① Power LED (green) | Lights when power is supplied | |
| ② Error LED (red) | Flashes when there is an error such as a malfunction | |
| ③ Alarm LED (orange) | Flashes to indicate a warning | |
| ④ Communication LED (yellow) | Lights when communicating | |
| ⑤ Pulse LED (yellow) | Lights when outputting a pulse from OUT1 (circuit A) | |
| ⑥ Communication address/Menu display | When ADDRESS is illuminated (in measuring mode): Displays the communication address When MENU is illuminated (in setting mode): Displays the menu number | |
| ⑦ Status display | SET | Lights in setting mode |
| | OUTPUT | Lights when setting pulse output |
| | 1 | Lights when outputting pulse from OUT1 |
| | 2 | Lights when outputting pulse from OUT2 |
| | 3 | Lights when outputting pulse from OUT3 |
| ⑧ Measured value/setting value display | Main display | Displays measured values and setting values |
| | Sub display | Displays the units for the measured values and the names of the setting items |
| | ⑨ Tariff display | |
| | ⑩ CT usage display | |
| ⑪ <<MODE key | | |
| ⑫ ⏴Key | | |
| ⑬ ⏵Key | | |
| ⑭ ENTER key | | |
| ⑮ ESC key | | |
| ⑯ Rotary SW | | |
| ⑰ RS-485 communication terminals | RS-485 +(1) | RS-485 + terminal |
| | RS-485 -(1) | RS-485 - terminal |
| | RS-485 +(2) | RS-485 + terminal (for crossover wiring) |
| | RS-485 -(2) | RS-485 - terminal (for crossover wiring) |
| | RS-485 E | RS-485 terminating resistor terminals |
| ⑱ Pulse output terminal | OUT1 | Circuit A pulse output terminal |
| | OUT2 | Circuit B pulse output terminal |
| | OUT3 | Circuit C pulse output terminal |
| | OUT4 | Circuit D pulse output terminal |
| | COM | Common terminal for pulse output |
| ⑲ Voltage input terminals | | |
| ⑳ CT input terminals | | |
| ㉑ DIN hook | | |
| ㉒ Terminal panel cover | | |
| ㉓ Terminal layout label | | |

Warnings

| Warning type | Description | Display | | Action to take |
|--------------|----------------------------------|---------|--------------------|---|
| | | LCD | LED | |
| Error | Setting value error | E-M1 | Error LED flashing | Repair is necessary. Contact the place of purchase or the manufacturer. |
| | Measured value error | E-M2 | | |
| | Calibration value error | E-M3 | | |
| Alarm | Input frequency warning | A-F1 | Alarm LED flashing | Input the power and voltage with the frequency within the rated ranges. |
| | VR phase warning | A-VR | | |
| | VS phase warning | A-VS | | |
| | VT phase warning | A-VT | | Redo the wiring correctly. |
| | Phase sequence error | A-W2 | | |
| | Active power is a negative value | A-W3 | | Redo the wiring correctly according to the situation* |
| | Pulse 1 Output warning | A-P1 | | |
| | Pulse 2 Output warning | A-P2 | | |
| | Pulse 3 Output warning | A-P3 | | |
| | Pulse 4 Output warning | A-P4 | | Change the pulse output unit so that pulses are not output while other pulses are being output. |

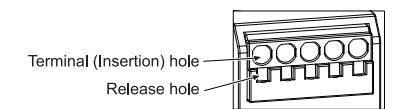
* If you intend to meter negative values (exported energy), then no correction is necessary. Metering continues normally even when a warning is displayed. If the warning is not needed, go to "Warning ON/OFF (MENU 0B)" and set to OFF.
• To cancel the alarm, take the actions described to remove the cause, then switch the power on again.

Cautions when connecting the Push-In Plus terminal (RS-485 communication terminal and pulse output terminal)

Follow the below steps when connecting the Push-In Plus terminal (⑰ RS-485 communication terminal and ⑱ pulse output terminal).

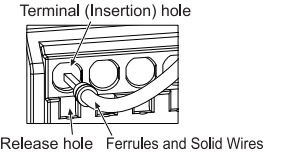
1 Connecting Wires to Push-In Plus Terminal Block

Part Names of the Terminal Block



Connecting Wires with Ferrules and Solid Wires

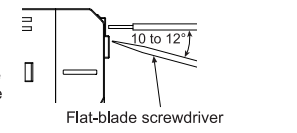
Insert the solid wire or ferrule straight into the terminal block until the end strikes the terminal block.



Connecting Stranded Wires

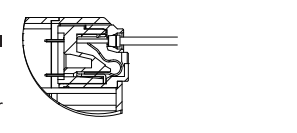
Use the following procedure to connect the wires to the terminal block.

- Hold a flat-blade screwdriver at an angle and insert it into the release hole. The angle should be between 10° and 12°. If the flat-blade screwdriver is inserted correctly, you will feel the spring in the release hole.
- With the screwdriver still inserted into the release hole, insert the wire into the terminal hole until it strikes the terminal block.
- Remove the flat-blade screwdriver from the release hole.



Checking Connections

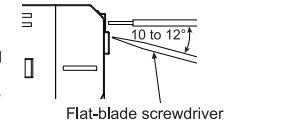
- After the insertion, pull gently on the wire to make sure that it will not come off and the wire is securely fastened to the terminal block.
- To prevent short circuits, insert the stripped part of a stranded or solid wire or the conductive part of a ferrule until it is hidden inside the terminal insertion hole. (See right diagram.)



2 Removing Wires from Push-In Plus Terminal Block

Use the following procedure to remove wires from the terminal block. The same method is used to remove stranded wires, solid wires, and ferrules.

- Hold a flat-blade screwdriver at an angle and insert it into the release hole.
- With the screwdriver still inserted into the release hole, remove the wire from the terminal insertion hole.
- Remove the flat-blade screwdriver from the release hole.



3 Recommended Tools

Recommended Flat-blade Screwdriver

Use a flat-blade screwdriver to connect and remove wires. Use the following flat-blade screwdriver.

| Model | Manufacturer |
|----------|--------------|
| XW4Z-00B | Omron |

