## Bi-power Relays

## LY

## Power-switching Compact General-purpose Relays

- The standard models include models that are compliant with the UL, CSA, and SEV safety standards and with the Electrical Appliances and Material Safety Act.
- Equipped with an arc barrier for arc interruption.
- Withstand voltages up to $2,000 \mathrm{~V}$.
- New built-in diode and built-in CR circuit models have joined the series.
- The lineup also includes models that are compliant with the LR and VDE safety standards.
- Single-pole and double-pole models have AC4 ratings and DC2 ratings (operating coil ratings: 100/ 110 VAC, 110/120 VAC, 200/220 VAC, 220/240 VAC, and 100/110 VDC).


Refer to the standards certifications and compliance section of your OMRON website for the latest information on certified models.

- Three-pole and four-pole models have AC4 ratings and DC2 ratings (operating coil ratings: 100/110 VAC, 200/220 VAC and 100/110 VDC).

Refer to the Common Relay Precautions.

## Model Number Structure

| Classification | Structure |  | Relays with Plug-in Terminals |  | Relays with PCB Terminals W | Case-surface mounting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | With operation indicators |  |  |
| Standard models <br> Compliance with Electrical Appliances and Material Safety Act | 1 |  | *LY1 | **LY1N | *LY1-0 | *LY1F |
|  | 2 |  | *LY2 | **LY2N | *LY2-0 | *LY2F |
|  |  | Bifurcated | **LY2Z | **LY2ZN | **LY2Z-0 | **LY2ZF |
|  | 3 |  | *LY3 | **LY3N | *LY3-0 | *LY3F |
|  | 4 |  | *LY4 | **LY4N | *LY4-0 | *LY4F |
| Models with diode for coil surge absorption (DC coil specification only) | 1 |  | **LY1-D | **LY1N-D2 | --- | --- |
|  | $2$ <br> Bifurcated |  | **LY2-D | **LY2N-D2 | --- | --- |
|  |  |  | **LY2Z-D | **LY2ZN-D2 | --- | --- |
|  | 3 |  | **LY3-D | **LY3N-D2 | --- | --- |
|  | 4 |  | **LY4-D | **LY4N-D2 | --- | --- |
| Models with CR circuits for coil surge absorption <br> (AC coil specification only) | 1 |  | - | - | P |  |
|  | 2 |  | **LY2-CR | **LY2N-CR | - |  |
|  |  | Bifurcated | **LY2Z-CR | **LY2ZN-CR |  |  |

Note: 1. Cells with a diagonal line cannot be manufactured. Ask your OMRON representative for details on manufacturing products for cells containing "---" in the above table.
2. If \#187 tab terminals are required, use the LY1F-T2 or LY2F-T2 (single-pole or double-pole models only).
3. Refer to page 12 for information on plug-in terminal and socket combinations.
4. Items with an asterisk (*) in the table are certified for UL, CSA, and SEV. This is indicated with a certification mark on the products.
5. Items with two asterisks $\left(^{* *}\right)$ in the table are certified for UL and CSA. This is indicated with a certification mark on the products.
6. All models in the table are certified for IEC (TÜV).
7. The models with plug-in terminals (single-pole, double-pole, and 4-pole) were combined with the PTF-E for the EC Declaration of Conformity. These products display the CE Marking.

## Ordering Information

## Models with Plug-in Terminals

| Classification | Number of poles | 1 pole |  | 2 poles |  | 3 poles |  | 4 poles |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Model | Rated voltage (V) | Model | Rated voltage (V) | Model | Rated voltage (V) | Model | Rated voltage (V) |
| Models with single contacts | Standard models | LY1 | $\begin{aligned} & 12,24,100 / 110, \\ & 110 / 120, \\ & \text { or 200/220 VAC } \end{aligned}$ | LY2 | $\begin{aligned} & 12,24,100 / 110,110 / \\ & 120,200 / 220, \\ & \text { or220/240 VAC } \end{aligned}$ | LY3 | $\begin{aligned} & \text { 12, 24, 100/110, or } \\ & 200 / 220 \text { VAC } \end{aligned}$ | LY4 | $\begin{aligned} & 12,24,100 / 110 \text {, or } \\ & 200 / 220 \text { VAC } \end{aligned}$ |
|  |  |  | $\begin{aligned} & \text { 12, 24, 48, } \\ & \text { or } 100 / 110 \text { VDC } \end{aligned}$ |  | $\begin{aligned} & \text { 12, 24, 48, } \\ & \text { or } 100 / 110 \mathrm{VDC} \end{aligned}$ |  | $\begin{aligned} & \hline 12,24,48, \\ & \text { or } 100 / 110 \text { VDC } \end{aligned}$ |  | $\begin{aligned} & 12,24,48, \\ & \text { or } 100 / 110 \mathrm{VDC} \end{aligned}$ |
|  | Models with built-in operation indicators | LY1N | $\begin{aligned} & 12,24,100 / 110, \\ & 110 / 120, \\ & \text { or 200/220 VAC } \end{aligned}$ | LY2N | $\begin{aligned} & \text { 12, 24, 100/110,110/ } \\ & \text { 120, 200/220, } \\ & \text { or 220/240 VAC } \end{aligned}$ | LY3N | $\begin{aligned} & \text { 12, 24, 100/110, or } \\ & 200 / 220 \text { VAC } \end{aligned}$ | LY4N | $\begin{aligned} & 12,24,100 / 110 \text {, or } \\ & 200 / 220 \text { VAC } \end{aligned}$ |
|  |  |  | $\begin{aligned} & 12,24, \\ & \text { or } 100 / 110 \mathrm{VDC} \end{aligned}$ |  | $\begin{aligned} & 12,24,48, \\ & \text { or } 100 / 110 \text { VDC } \end{aligned}$ |  | $\begin{aligned} & 12,24,48, \\ & \text { or 100/110 VDC } \end{aligned}$ |  | $\begin{aligned} & \text { 12, 24, 48, } \\ & \text { or } 100 / 110 \text { VDC } \end{aligned}$ |
|  | Models with built-in diodes | LY1-D | $\begin{aligned} & \hline 12,24,48, \\ & \text { or } 100 / 110 \text { VDC } \end{aligned}$ | LY2-D | $\begin{aligned} & 12,24,48, \\ & \text { or } 100 / 110 \mathrm{VDC} \end{aligned}$ | LY3-D | $\begin{aligned} & 12,24,48, \\ & \text { or } 100 / 110 \text { VDC } \end{aligned}$ | LY4-D | $\begin{aligned} & 12,24,48, \\ & \text { or } 100 / 110 \mathrm{VDC} \end{aligned}$ |
|  | Models with built-in diodes and operation indicators | $\begin{gathered} \text { LY1N- } \\ \text { D2 } \end{gathered}$ | 12, 24, or 48 VDC | LY2N-D2 | $\begin{aligned} & \text { 12, 24, 48, } \\ & \text { or 100/110 VDC } \end{aligned}$ | $\begin{gathered} \text { LY3N- } \\ \text { D2 } \end{gathered}$ | $12,24,$ <br> or 100/110 VDC | $\begin{gathered} \text { LY4N- } \\ \text { D2 } \end{gathered}$ | $\begin{aligned} & \text { 12, 24, 48, } \\ & \text { or } 100 / 110 \text { VDC } \end{aligned}$ |
|  | Models with built-in CR circuits | - | - | LY2-CR | 100/110, 110/120, 200/220, or 220/240 VAC | --- | -- | --- | --- |
|  | Models with built-in CR circuits and operation indicators | - | - | LY2N-CR | 100/110, 110/120, 200/220, or 220/240 VAC | --- | --- | --- | --- |
| Bifurcated contacts | Standard models | - | - | LY2Z | $\begin{aligned} & \text { 100/110 or200/220 } \\ & \text { VAC } \end{aligned}$ | -- | --- | --- | --- |
|  |  | - | - |  | $\begin{aligned} & 12,24,48 \text {, or } 100 / \\ & 110 \text { VDC } \end{aligned}$ | -- | --- | -- | --- |
|  | Models with built-in operation indicators | - | - | LY2ZN | $\begin{aligned} & \text { 100/110, 110/120, } \\ & \text { 200/220, } \\ & \text { or 220/240 VAC } \end{aligned}$ | -- | --- | -- | --- |
|  |  | - | - |  | 12 or 24 VDC | -- | -- | -- | --- |
|  | Models with built-in diodes | - | - | LY2Z-D | 12, 24, or 48 VDC | --- | --- | --- | --- |
|  | Models with built-in diodes and operation indicators | - | - | $\begin{aligned} & \text { LY2ZN- } \\ & \text { D2 } \end{aligned}$ | 12, 24, or $100 / 110$ VDC | --- | --- | --- | --- |
|  | Models with built-in CR circuits | - | - | LY2Z-CR | 100/110 VAC | --- | -- | -- | --- |
|  | Models with built-in CR circuits and operation indicators | - | - | $\begin{gathered} \text { LY2ZN }-~ \end{gathered}$ | 100, 110, 110/1 20, or 200/220 VAC | -- | --- | --- | --- |

Relays with PCB Terminals

| Number of poles Classification | 1 pole |  | 2 poles |  | 3 poles |  | 4 poles |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model | Rated voltage (V) | Model | Rated voltage (V) | Model | Rated voltage (V) | Model | Rated voltage (V) |
| Models with single contacts | LY1-0 | $\begin{aligned} & \text { 24,100/110, } \\ & \text { 110/120, or 200/220 } \\ & \text { VAC } \end{aligned}$ | LY2-0 | 12, 24, <br> 100/110, 110/120, 200/ <br> 220, or 220/240 VAC | LY3-0 | 24, 100/110, or 200/220 VAC | LY4-0 | $\begin{aligned} & 24,100 / 110 \text {, or } 200 / \\ & 220 \text { VAC } \end{aligned}$ |
|  |  | 12 or 24 VDC |  | $\begin{aligned} & \hline 12,24,48 \\ & \text { or } 100 / 110 \mathrm{VDC} \end{aligned}$ |  | 12, 24, 48, or 100/110 VDC |  | $\begin{aligned} & 12,24,48 \text {, or } \\ & 100 / 110 \text { VDC } \end{aligned}$ |
| Bifurcated contacts | --- | --- | LY2Z-0 | 100/110 VAC | --- | --- | --- | --- |
|  |  |  |  | $\begin{aligned} & 24,48, \text { or } \\ & 100 / 110 \text { VDC } \end{aligned}$ |  |  |  | -- |

## Case-surface Mounting

| Number of poles <br> Classification | 1 pole |  | 2 poles |  | 3 poles |  | 4 poles |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model | Rated voltage (V) | Model | Rated voltage (V) | Model | Rated voltage (V) | Model | Rated voltage (V) |
| Models with single contacts | LY1F | 24, 100/110, 110/120, 200/220, or 220/240 VAC | LY2F | $\begin{aligned} & \hline 12,24,100 / 110,110 / \\ & 120,200 / 220, \\ & \text { or 220/240 VAC } \\ & \hline \end{aligned}$ | LY3F | $\begin{aligned} & 12,24,100 / 110, \\ & \text { or } 200 / 220 \text { VAC } \end{aligned}$ | LY4F | $\begin{aligned} & 12,24,100 / 110, \\ & \text { or 200/220 VAC } \end{aligned}$ |
|  |  | $\begin{array}{\|l} \hline 6,12,24, \text { or } 100 / 110 \\ \text { VDC } \\ \hline \end{array}$ |  | $\begin{aligned} & 12,24,48, \text { or } 100 / 110 \\ & \text { VDC } \end{aligned}$ |  | 12, 24, or 100/110 VDC |  | $\begin{aligned} & 12,24, \text { or } 100 / 110 \\ & \text { VDC } \\ & \hline \end{aligned}$ |
| Bifurcated contacts | --- | -- | LY2ZF | $\begin{aligned} & \text { 24, 100/110, } \\ & \text { or 200/220 VAC } \end{aligned}$ | --- | --- | --- | --- |
|  |  |  |  | 12 or 24 VDC |  |  |  |  |

