

Pushbutton Switches - 22 mm

A22

Install in 22-mm dia. or 25-mm dia. Panel Cutout

- Locking lever ensures easy mounting and removal of switch unit
- Increase wiring efficiency and decrease mounting depth with three-row mounting of switch unit contact blocks
- Finger protection mechanism on switch unit provided as a standard feature
- Use optional 25-mm dia. ring to install in 25-mm dia. panel cutouts
- IP65 oil resistant: EN60947-5-1





This product was manufactured at OMRON Izumo. OMRON Izumo has obtained approvals from international certification bodies for its quality system and environmental control system.

Ordering Information



Operational Unit

Available Colors Non-illuminated: Red, green, yellow, white, blue, black Illuminated: Red, green, yellow, white, blue

Lamp

Light Source
 LED Lamp



(Illuminated model shown)

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- Incandescent Lamp
- —— Switch Unit
 - Contacts SPST-NO, SPST-NC, SPST-NO + SPST-NC, DPST-NO, DPST-NC

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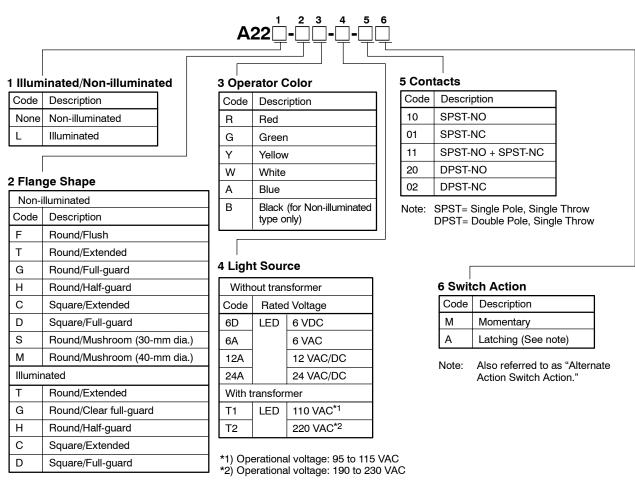
Lighting Method
 Non-illuminated
 Illuminated (without transformer)
 Illuminated (with transformer)

(Actual color of yellow pushbuttons more closely resembles amber than true yellow.)



PART NUMBER LEGEND (COMPLETE ASSEMBLY)

Shipped as a set which includes the Operational Unit, LED (Illuminated type only), and switch unit with contact blocks.



Note: With Transformer types the LED lamp (24 VAC/DC) can be lit by directly applying 110 VAC/DC (220 VAC/DC) to the lamp terminal. The LED is the 24-VAC/DC type.

(Actual color of yellow pushbuttons more closely resembles amber than true yellow.)

■ PUSHBUTTON SWITCH (COMPLETE ASSEMBLY)

Non-illuminated (Round Type)

| Description | | | Part number | |
|------------------------|-------------------|---|---------------------|---------------------|
| Appearance | Contacts | Operator color | Momentary operation | Latching operation |
| Round Flush type | SPST-NO | Insert one of the | A22-F□-10M | A22-F⊡-10A |
| A PAR | SPST-NC | following letters into the box \Box . | A22-F□-01M | A22-F⊡-01A |
| | SPST-NO + SPST-NC | | A22-F□-11M | A22-F□-11A |
| | DPST-NO | Y (yellow) | A22-F□-20M | A22-F□-20A |
| | DPST-NC | G (green) | A22-F□-02M | A22-F□-02A |
| Round/Extended | SPST-NO | W (white) A (blue) | A22-T□-10M | A22-T□-10A |
| type | SPST-NC | B (black) | A22-T□-01M | A22-T□-01A |
| | SPST-NO + SPST-NC | | A22-T□-11M | A22-T□-11A |
| | DPST-NO | | A22-T□-20M | A22-T□-20A |
| | DPST-NC | | A22-T□-02M | A22-T□-02A |
| Round/Full-guard | SPST-NO | _ | A22-G□-10M | A22-G□-10A |
| type | SPST-NC | | A22-G□-01M | A22-G□-01A |
| | SPST-NO + SPST-NC | | A22-G□-11M | A22-G□-11A |
| | DPST-NO | | A22-G□-20M | A22-G 20A |
| | DPST-NC | | A22-G□-02M | A22-G□-02A |
| Round/Half-guard | SPST-NO | Insert one of the | A22-H□-10M | A22-H□-10A |
| type | SPST-NC | following letters into the box □. | A22-H□-01M | A22-H□-01A |
| | SPST-NO + SPST-NC | R (red) | A22-H□-11M | A22-H□-11A |
| | DPST-NO | Y (yellow) | A22-H□-20M | A22-H□-20A |
| | DPST-NC | G (green) W (white) | A22-H□-02M | A22-H □-02 A |
| Small-size Mushroom | SPST-NO | A (blue) | A22-S⊡-10M | A22-S□-10A |
| type (30-mm dia. head) | SPST-NC | B (black) | A22-S□-01M | A22-S□-01A |
| | SPST-NO + SPST-NC | | A22-S□-11M | A22-S□-11A |
| | DPST-NO | | A22-S□-20M | A22-S□-20A |
| | DPST-NC | | A22-S□-02M | A22-S□-02A |
| Medium-size Mushroom | SPST-NO | 1 | A22-M□-10M | A22-M□-10A |
| type (40-mm dia head) | SPST-NC | 1 | A22-M□-01M | A22-M□-01A |
| | SPST-NO + SPST-NC | 1 | A22-M□-11M | A22-M⊡-11A |
| | DPST-NO | 1 | A22-M□-20M | A22-M□-20A |
| | DPST-NC | | A22-M□-02M | A22-M⊡-02A |

Non-illuminated (Square Type)

| Description | | | Part number | |
|-------------------|-------------------|---|---------------------|--------------------|
| Appearance | Contacts | Operator color | Momentary operation | Latching operation |
| Square/Extended | SPST-NO | Insert one of the | A22-C□-10M | A22-C□-10A |
| type | 3F31-NU | following letters into the box \Box . | A22-C□-01M | A22-C□-01A |
| | SPST-NO + SPST-NC | R (red) | A22-C□-11M | A22-C□-11A |
| | DPST-NO | Y (yellow) | A22-C□-20M | A22-C□-20A |
| | DPST-NC | G (green) | A22-C□-02M | A22-C□-02A |
| Square/Full guard | SPST-NO | W (white) A (blue) | A22-D□-10M | A22-D□-10A |
| type | SPST-NC | B (black) | A22-D□-01M | A22-D□-01A |
| | SPST-NO + SPST-NC | | A22-D□-11M | A22-D□-11A |
| | DPST-NO | | A22-D□-20M | A22-D□-20A |
| | DPST-NC | | A22-D□-02M | A22-D□-02A |

Illuminated (Round Type)

| Description | | | | Part number | |
|-----------------------------|-----------|---------------|----------------------------|---------------------|--------------------|
| Appearance | Contacts | Rated voltage | Illuminated operator color | Momentary operation | Latching operation |
| Round/Extended | SPST-NO | 6 VDC | Insert one of | A22L-T□-6D-10M | A22L-T□-6D-10A |
| type | | 6 VAC | the following | A22L-T□-6A-10M | A22L-T□-6A-10A |
| LED lighting | | 12 VAC/DC | $box \square$. | A22L-T□-12A-10M | A22L-T□-12A-10A |
| (Without transformer) | | 24 VAC/DC | R (red) | A22L-T□-24A-10M | A22L-T□-24A-10A |
| OF T | SPST-NC | 6 VDC | Y (yellow) | A22L-T□-6D-01M | A22L-T□-6D-01A |
| | | 6 VAC | G (green) W (white) | A22L-T□-6A-01M | A22L-T□-6A-01A |
| | | 12 VAC/DC | A (blue) | A22L-T□-12A-01M | A22L-T□-12A-01A |
| | | 24 VAC/DC | | A22L-T□-24A-01M | A22L-T□-24A-01A |
| | SPST-NO + | 6 VDC | | A22L-T□-6D-11M | A22L-T□-6D-11A |
| | SPST-NC | 6 VAC | | A22L-T□-6A-11M | A22L-T□-6A-11A |
| | | 12 VAC/DC | | A22L-T□-12A-11M | A22L-T□-12A-11A |
| | | 24 VAC/DC | | A22L-T□-24A-11M | A22L-T□-24A-11A |
| | DPST-NO | 6 VDC | | A22L-T□-6D-20M | A22L-T□-6D-20A |
| | | 6 VAC | | A22L-T□-6A-20M | A22L-T⊡-6A-20A |
| | | 12 VAC/DC | | A22L-T□-12A-20M | A22L-T□-12A-20A |
| | | 24 VAC/DC | | A22L-T□-24A-20M | A22L-T□-24A-20A |
| | DPST-NC | 6 VDC | | A22L-T□-6D-02M | A22L-T⊡-6D-02A |
| | | 6 VAC | | A22L-T⊡-6A-02M | A22L-T⊡-6A-02A |
| | | 12 VAC/DC |] | A22L-T□-12A-02M | A22L-T□-12A-02A |
| | | 24 VAC/DC | | A22L-T□-24A-02M | A22L-T□-24A-02A |
| Round/Extended | SPST-NO | 110 VAC | | A22L-T□-T1-10M | A22L-T□-T1-10A |
| type | SPST-NC | 220 VAC | | A22L-T□-T2-10M | A22L-T□-T2-10A |
| LED transformer lighting | | 110 VAC | | A22L-T□-T1-01M | A22L-T□-T1-01A |
| (With transformer) | | 220 VAC | | A22L-T□-T2-01M | A22L-T□-T2-01A |
| ~ | SPST-NO + | 110 VAC | | A22L-T□-T1-11M | A22L-T□-T1-11A |
| Q P | SPST-NC | 220 VAC | | A22L-T□-T2-11M | A22L-T□-T2-11A |
| | DPST-NO | 110 VAC | | A22L-T□-T1-20M | A22L-T□-T1-20A |
| | | 220 VAC | | A22L-T□-T2-20M | A22L-T□-T2-20A |
| | DPST-NC | 110 VAC | | A22L-T□-T1-02M | A22L-T□-T1-02A |
| | | 220 VAC | | A22L-T□-T2-02M | A22L-T□-T2-02A |
| Round/Half-guard | SPST-NO | 6 VDC | | A22L-H□-6D-10M | A22L-H□-6D-10A |
| type | | 6 VAC | | A22L-H□-6A-10M | A22L-H□-6A-10A |
| LED lighting (Without | | 12 VAC/DC | | A22L-H□-12A-10M | A22L-H□-12A-10A |
| transformer) | | 24 VAC/DC | | A22L-H□-24A-10M | A22L-H□-24A-10A |
| | SPST-NC | 6 VDC | | A22L-H□-6D-01M | A22L-H□-6D-01A |
| | | 6 VAC | | A22L-H⊡-6A-01M | A22L-H⊡-6A-01A |
| | | 12 VAC/DC | | A22L-H□-12A-01M | A22L-H□-12A-01A |
| | | 24 VAC/DC | | A22L-H□-24A-01M | A22L-H□-24A-01A |
| | SPST-NO + | 6 VDC | | A22L-H□-6D-11M | A22L-H⊡-6D-11A |
| | SPST-NC | 6 VAC | | A22L-H□-6A-11M | A22L-H□-6A-11A |
| | | 12 VAC/DC | | A22L-H□-12A-11M | A22L-H□-12A-11A |
| | | 24 VAC/DC | | A22L-H□-24A-11M | A22L-H□-24A-11A |

(This table continues on the next page.)

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Ordering Information Table - continued from previous page

| Description | | | | Part number | |
|---------------------------------------|-----------|---------------|----------------------------|---------------------|--------------------|
| Appearance | Contacts | Rated voltage | Illuminated operator color | Momentary operation | Latching operation |
| Round/Half-guard | DPST-NO | 6 VDC | Insert one of | A22L-H□-6D-20M | A22L-H□-6D-20A |
| type | | 6 VAC | the following | A22L-H□-6A-20M | A22L-H⊡-6A-20A |
| LED lighting (Without transformer) | | 12 VAC/DC | box \square . | A22L-H□-12A-20M | A22L-H□-12A-20A |
| | | 24 VAC/DC | R (red) | A22L-H□-24A-20M | A22L-H□-24A-20A |
| | DPST-NC | 6 VDC | Y (yellow) | A22L-H□-6D-02M | A22L-H⊡-6D-02A |
| | | 6 VAC | G (green) W (white) | A22L-H□-6A-02M | A22L-H⊡-6A-02A |
| | | 12 VAC/DC | A (blue) | A22L-H□-12A-02M | A22L-H□-12A-02A |
| | | 24 VAC/DC | | A22L-H□-24A-02M | A22L-H⊡-24A-02A |
| Round/Half-guard | SPST-NO | 110 VAC | | A22L-H□-T1-10M | A22L-H□-T1-10A |
| type | | 220 VAC | | A22L-H□-T2-10M | A22L-H□-T2-10A |
| LED lighting (With | SPST-NC | 110 VAC | | A22L-H□-T1-01M | A22L-H□-T1-01A |
| transformer) | | 220 VAC | | A22L-H□-T2-01M | A22L-H□-T2-01A |
| | SPST-NO + | 110 VAC | | A22L-H□-T1-11M | A22L-H□-T1-11A |
| | SPST-NC | 220 VAC | | A22L-H□-T2-11M | A22L-H□-T2-11A |
| | DPST-NO | 110 VAC | 7 | A22L-H□-T1-20M | A22L-H□-T1-20A |
| | | 220 VAC | | A22L-H□-T2-20M | A22L-H□-T2-20A |
| | DPST-NC | 110 VAC | | A22L-H□-T1-02M | A22L-H□-T1-02A |
| | | 220 VAC | | A22L-H□-T2-02M | A22L-H□-T2-02A |
| Round/Clear | SPST-NO | 6 VDC | 1 | A22L-G□-6D-10M | A22L-G□-6D-10A |
| full-guard type | | 6 VAC | 1 | A22L-G□-6A-10M | A22L-G□-6A-10A |
| LED lighting (Without transformer) | | 12 VAC/DC | 1 | A22L-G□-12A-10M | A22L-G□-12A-10A |
| | | 24 VAC/DC | - | A22L-G□-24A-10M | A22L-G□-24A-10A |
| | SPST-NC | 6 VDC | - | A22L-G□-6D-01M | A22L-G□-6D-01A |
| | | 6 VAC | - | A22L-G□-6A-01M | A22L-G□-6A-01A |
| | | 12 VAC/DC | 1 | A22L-G□-12A-01M | A22L-G□-12A-01A |
| • | | 24 VAC/DC | 1 | A22L-G□-24A-01M | A22L-G□-24A-01A |
| | SPST-NO + | 6 VDC | 1 | A22L-G□-6D-11M | A22L-G□-6D-11A |
| | SPST-NC | 6 VAC | - | A22L-G□-6A-11M | A22L-G□-6A-11A |
| | | 12 VAC/DC | - | A22L-G□-12A-11M | A22L-G□-12A-11A |
| | | 24 VAC/DC | - | A22L-G□-24A-11M | A22L-G□-24A-11A |
| | DPST-NO | 6 VDC | - | A22L-G□-6D-20M | A22L-G□-6D-20A |
| | | 6 VAC | - | A22L-G□-6A-20M | A22L-G□-6A-20A |
| | | 12 VAC/DC | - | A22L-G□-12A-20M | A22L-G□-12A-20A |
| | | 24 VAC/DC | - | A22L-G□-24A-20M | A22L-G□-24A-20A |
| | DPST-NC | 6 VDC | - | A22L-G□-6D-02M | A22L-G□-6D-02A |
| | | 6 VAC | - | A22L-G□-6A-02M | A22L-G□-6A-02A |
| | | 12 VAC/DC | - | | |
| | | 24 VAC/DC | - | A22L-G□-24A-02M | A22L-G□-24A-02A |
| Round/Clear | SPST-NO | 110 VAC | 1 | | |
| full-guard type | | 220 VAC | 1 | | |
| LED lighting | SPST-NC | 110 VAC | 1 | | |
| (With transformer) | | 220 VAC | 1 | A22L-G□-T2-01M | A22L-G□-T2-01A |
| O ESP | SPST-NO + | 110 VAC | 1 | | |
| | SPST-NC | 220 VAC | 1 | | |
| | DPST-NO | 110 VAC | 1 | A22L-G□-T1-20M | A22L-G□-T1-20A |
| | | 220 VAC | 1 | A22L-G□-T2-20M | A22L-G□-T2-20A |
| | | | _ | | |
| | DPST-NC | 110 VAC | | A22L-G□-T1-02M | A22L-G□-T1-02A |

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Illuminated (Square Type)

| Description | | | Part number | | |
|---------------------------------------|-----------|---------------|-----------------------------------|---------------------|--------------------|
| Appearance | Contacts | Rated voltage | Illuminated operator color | Momentary operation | Latching operation |
| Square/Extended | SPST-NO | 6 VDC | Insert one of | A22L-C□-6D-10M | A22L-C□-6D-10A |
| type | | 6 VAC | the following letters into the | A22L-C□-6A-10M | A22L-C□-6A-10A |
| LED lighting (Without transformer) | | 12 VAC/DC | box \square . | A22L-C□-12A-10M | A22L-C□-12A-10A |
| (without transformer) | | 24 VAC/DC | R (red) | A22L-C□-24A-10M | A22L-C□-24A-10A |
| | SPST-NC | 6 VDC | Y (yellow) | A22L-C□-6D-01M | A22L-C□-6D-01A |
| Q258 | | 6 VAC | G (green) W (white) | A22L-C□-6A-01M | A22L-C□-6A-01A |
| | | 12 VAC/DC | A (blue) | A22L-C□-12A-01M | A22L-C□-12A-01A |
| | | 24 VAC/DC | | A22L-C□-24A-01M | A22L-C□-24A-01A |
| | SPST-NO + | 6 VDC | | A22L-C□-6D-11M | A22L-C□-6D-11A |
| | SPST-NC | 6 VAC | | A22L-C□-6A-11M | A22L-C□-6A-11A |
| | | 12 VAC/DC | | A22L-C□-12A-11M | A22L-C□-12A-11A |
| | | 24 VAC/DC | | A22L-C□-24A-11M | A22L-C□-24A-11A |
| | DPST-NO | 6 VDC | | A22L-C□-6D-20M | A22L-C□-6D-20A |
| | | 6 VAC | | A22L-C□-6A-20M | A22L-C□-6A-20A |
| | | 12 VAC/DC | | A22L-C□-12A-20M | A22L-C□-12A-20A |
| | | 24 VAC/DC | | A22L-C□-24A-20M | A22L-C□-24A-20A |
| | DPST-NC | 6 VDC | | A22L-C□-6D-02M | A22L-C□-6D-02A |
| | | 6 VAC | | A22L-C□-6A-02M | A22L-C□-6A-02A |
| | | 12 VAC/DC | | A22L-C□-12A-02M | A22L-C□-12A-02A |
| | | 24 VAC/DC | | A22L-C□-24A-02M | A22L-C□-24A-02A |
| Square/Extended | SPST-NO | 110 VAC | | A22L-C□-T1-10M | A22L-C□-T1-10A |
| type | | 220 VAC | | A22L-C□-T2-10M | A22L-C□-T2-10A |
| LED lighting (With transformer) | SPST-NC | 110 VAC | | A22L-C□-T1-01M | A22L-C□-T1-01A |
| | | 220 VAC | | A22L-C□-T2-01M | A22L-C□-T2-01A |
| AN STREET | SPST-NO + | 110 VAC | | A22L-C□-T1-11M | A22L-C□-T1-11A |
| | SPST-NC | 220 VAC | | A22L-C□-T2-11M | A22L-C□-T2-11A |
| | DPST-NO | 110 VAC | | A22L-C□-T1-20M | A22L-C□-T1-20A |
| | | 220 VAC | | A22L-C□-T2-20M | A22L-C□-T2-20A |
| | DPST-NC | 110 VAC | | A22L-C□-T1-02M | A22L-C□-T1-02A |
| | | 220 VAC | | A22L-C□-T2-02M | A22L-C□-T2-02A |

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| Description | | | | Part number | | |
|---------------------------------------|-----------|---------------|-------------------------------|---------------------|--------------------|--|
| Appearance | Contacts | Rated voltage | Illuminated operator color | Momentary operation | Latching operation | |
| Square/Full-guard type | SPST-NO | 6 VDC | Insert one of | A22L-D□-6D-10M | A22L-D□-6D-10A | |
| LED lighting | | 6 VAC | the following | A22L-D□-6A-10M | A22L-D□-6A-10A | |
| (Without transformer) | | 12 VAC/DC | box \square . | A22L-D[]-12A-10M | A22L-D□-12A-10A | |
| NS-P | | 24 VAC/DC | R (red) | A22L-D□-24A-10M | A22L-D□-24A-10A | |
| | SPST-NC | 6 VDC | Y (yellow) | A22L-D□-6D-01M | A22L-D□-6D-01A | |
| | | 6 VAC | G (green) W (white) | A22L-D□-6A-01M | A22L-D□-6A-01A | |
| | | 12 VAC/DC | A (blue) | A22L-D□-12A-01M | A22L-D□-12A-01A | |
| – | | 24 VAC/DC | | A22L-D□-24A-01M | A22L-D□-24A-01A | |
| | SPST-NO + | 6 VDC | | A22L-D□-6D-11M | A22L-D□-6D-11A | |
| | SPST-NC | 6 VAC | 1 | A22L-D□-6A-11M | A22L-D□-6A-11A | |
| | | 12 VAC/DC | 1 | A22L-D□-12A-11M | A22L-D□-12A-11A | |
| | | 24 VAC/DC | 1 | A22L-D□-24A-11M | A22L-D□-24A-11A | |
| | DPST-NO | 6 VDC | 1 | A22L-D□-6D-20M | A22L-D□-6D-20A | |
| | | 6 VAC | | A22L-D□-6A-20M | A22L-D□-6A-20A | |
| | | 12 VAC/DC | | A22L-D□-12A-20M | A22L-D□-12A-20A | |
| | | 24 VAC/DC | | A22L-D□-24A-20M | A22L-D□-24A-20A | |
| | DPST-NC | 6 VDC | | A22L-D□-6D-02M | A22L-D□-6D-02A | |
| | | 6 VAC | | A22L-D□-6A-02M | A22L-D□-6A-02A | |
| | | 12 VAC/DC | | A22L-D□-12A-02M | A22L-D□-12A-02A | |
| | | 24 VAC/DC | | A22L-D□-24A-02M | A22L-D□-24A-02A | |
| Square/Full-guard type | SPST-NO | 110 VAC | | A22L-D□-T1-10M | A22L-D□-T1-10A | |
| LED lighting (Without transformer) | | 220 VAC | | A22L-D□-T2-10M | A22L-D□-T2-10A | |
| | SPST-NC | 110 VAC | | A22L-D□-T1-01M | A22L-D□-T1-01A | |
| | | 220 VAC | | A22L-D□-T2-01M | A22L-D□-T2-01A | |
| | SPST-NO + | 110 VAC | | A22L-D□-T1-11M | A22L-D□-T1-11A | |
| | SPST-NC | 220 VAC | | A22L-D□-T2-11M | A22L-D□-T2-11A | |
| | DPST-NO | 110 VAC | | A22L-D□-T1-20M | A22L-D□-T1-20A | |
| | | 220 VAC | | A22L-D□-T2-20M | A22L-D□-T2-20A | |
| | DPST-NC | 110 VAC | | A22L-D□-T1-02M | A22L-D□-T1-02A | |
| | | 220 VAC | | A22L-D□-T2-02M | A22L-D□-T2-02A | |

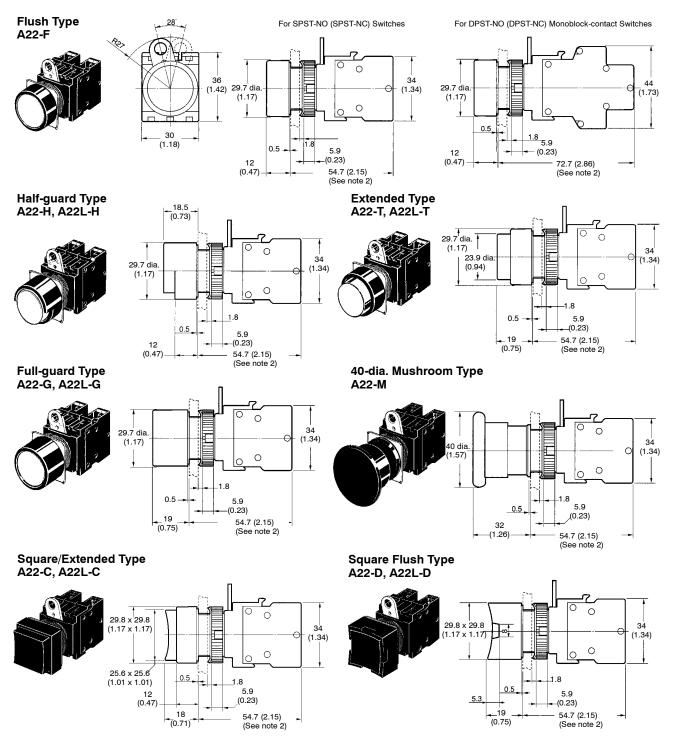
Ordering Information Table - continued from previous page

Unit: mm (inch)

Note: 1. The following illustrations are for momentary operation.

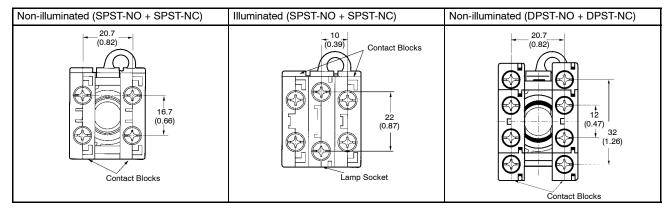
- 2. Latching operation models are 9.2 mm (0.36 in) longer.
- 3. Illuminated models have the same dimensions as shown below, whether they are with transformers or without transformers.

■ ILLUMINATED/NON-ILLUMINATED PUSHBUTTON SWITCHES

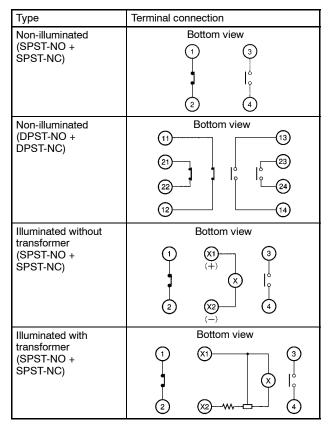


TERMINAL ARRANGEMENT

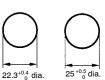
Terminal Arrangement (Bottom View)



TERMINAL CONNECTION



■ PANEL CUTOUT DIMENSIONS



Note: When applying a coating such as paint to a panel, the dimensions should be those after the application of the coating.

A lock fitting is provided as a standard item.

Note: For additional specifications and information refer to the Common to all assemblies section at the end of this publication.

Knob-type Selector Switch

A22S/W

Install in 22-mm dia. or 25-mm dia. Panel Cutout

- Illuminated and Non-illuminated models
- Locking lever ensures easy mounting and removal of switch unit
- Increase wiring efficiency and decrease mounting depth with three-row mounting of switch unit contact blocks
- Finger-safe contact blocks
- Use optional 25-mm dia. ring to install in 25-mm dia. panel cutouts
- IP65



This product was manufactured at OMRON Izumo. OMRON Izumo has obtained approvals from international certification bodies for its quality system and environmental control system.

(Ro

Ordering Information





Lock Fitting



Operational Unit

Number of Positions: 2 Positions/3 Positions

Applicable Colors

Non-illuminated: Black Illuminated: Red, green, yellow, blue

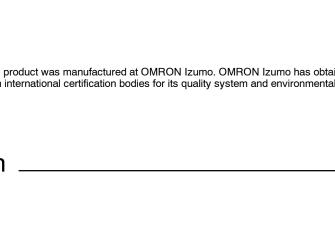
Lamp

Light Source LED Lamp Incandescent Lamp



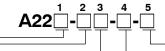
Switch Unit

- Contacts SPST-NO, SPST-NC, SPST-NO + SPST-NC, DPST-NO, DPST-NC
- **Lighting Method** Non-illuminated Illuminated (without transformer) Illuminated (with transformer)



PART NUMBER LEGEND

Shipped as a set which includes the Operational Unit, LED (Illuminated Type only), and Switch Unit.



3 Operator Color

1 Illuminated/Non-illuminated

| Code | Description |
|------|-----------------|
| S | Non-illuminated |
| W | Illuminated |

| Code | Description | | | | | |
|------|-------------------|--|--|--|--|--|
| None | Non-illuminated | | | | | |
| R | Red | | | | | |
| G | Green | | | | | |
| Y | Yellow | | | | | |
| А | Blue | | | | | |
| | Code None R | | | | | |

5 Contacts

| Code | Description |
|------|-------------------|
| 10 | SPST-NO (*) |
| 01 | SPST-NC (*) |
| 11 | SPST-NO + SPST-NC |
| 20 | DPST-NO |
| 02 | DPST-NC |

Note: * for models with 2 Positions only

Note: SPST= Single Pole, Single Throw DPST= Double Pole, Single Throw

| 2 | Number | ' of | Positions/ | Reset | Method |
|---|--------|------|------------|-------|--------|
| | | | | | |

| Code | Description |
|------|--|
| 2M | 2 Positions/Maintained |
| 2A | 2 Positions/Spring return |
| ЗМ | 3 Positions/Maintained |
| ЗA | 3 Positions/Spring return |
| C2M | 2 Positions/Maintained extended lever |
| C2A | 2 Positions/Spring return extended lever |
| СЗМ | 3 Positions/Maintained extended lever |
| СЗА | 3 Positions/Spring return extended lever |
| | |

4 Light Source

| Without transformer | | | |
|---------------------|-----------------|-----------|--|
| Code | Rated | d Voltage | |
| None | Non-il | luminated | |
| 6D | LED | 6 VDC | |
| 6A | | 6 VAC | |
| 12A | | 12 VAC/DC | |
| 24A | | 24 VAC/DC | |
| With t | ransfor | mer | |
| None | Non-illuminated | | |
| T1 | LED | 110 VAC*1 | |
| T2 | | 220 VAC*2 | |

*1) Operational voltage: 95 to 115 VAC*2) Operational voltage: 190 to 230 VAC

Note: With transformer types, the LED lamp (24 VAC/DC) can be lit by directly applying 110 VAC/DC (220 VAC/DC) to the lamp terminal. The LED is a 24-VAC/DC type.

(Actual color of yellow selector switches more closely resembles amber than true yellow.)

■ KNOB-TYPE SELECTOR SWITCH

Non-illuminated

| Appearance | Positions | Operating method | Contacts | Operator color | Part number |
|---------------------------|-------------|-------------------------------------|-------------------|----------------|-------------|
| Knob-type selector switch | 2 positions | Maintained | SPST-NO | Black | A22S-2M-10 |
| • | | | SPST-NC | | A22S-2M-01 |
| | | ~ | SPST-NO + SPST-NC | | A22S-2M-11 |
| Constant , | | | DPST-NO | | A22S-2M-20 |
| | | | DPST-NC | | A22S-2M-02 |
| | | Spring return | SPST-NO | | A22S-2A-10 |
| | | \checkmark | SPST-NC | | A22S-2A-01 |
| | | ~ | SPST-NO + SPST-NC | | A22S-2A-11 |
| | | | DPST-NO | | A22S-2A-20 |
| | | | DPST-NC | | A22S-2A-02 |
| | 3 positions | Maintained | SPST-NO + SPST-NC | | A22S-3M-11 |
| | | | DPST-NO | | A22S-3M-20 |
| | | \vee | DPST-NC | | A22S-3M-02 |
| | | Spring return | SPST-NO + SPST-NC | | A22S-3A-11 |
| | | $\langle \bullet \bullet \rangle$ | DPST-NO |] | A22S-3A-20 |
| | | \vee | DPST-NC | | A22S-3A-02 |
| Extended lever knob-type | 2 positions | Maintained | SPST-NO | Black | A22S-C2M-10 |
| selector switch | | | SPST-NC | | A22S-C2M-01 |
| | | × | SPST-NO + SPST-NC | | A22S-C2M-11 |
| | | | DPST-NO | | A22S-C2M-20 |
| | | | DPST-NC | | A22S-C2M-02 |
| | | Spring return | SPST-NO | | A22S-C2A-10 |
| | | \checkmark | SPST-NC | | A22S-C2A-01 |
| | | ~ | SPST-NO + SPST-NC | | A22S-C2A-11 |
| | | | DPST-NO | | A22S-C2A-20 |
| | | | DPST-NC | | A22S-C2A-02 |
| | 3 positions | Maintained | SPST-NO + SPST-NC | | A22S-C3M-11 |
| | | | DPST-NO | | A22S-C3M-20 |
| | | × | DPST-NC | | A22S-C3M-02 |
| | | Spring return | SPST-NO + SPST-NC | | A22S-C3A-11 |
| | | | DPST-NO | | A22S-C3A-20 |
| | | \bigvee | DPST-NC | | A22S-C3A-02 |

Illuminated (Without Transformer)

| Appearance | Positions | Operating method | Contacts | Rated voltage | Operator color | Part number |
|---------------------------|-------------|---------------------|-----------|---------------|----------------------------|-----------------|
| Knob-type selector switch | 2 positions | Maintained | SPST-NO | 6 VDC | Insert one of | A22W-2M□-6D-10 |
| LED lighting | | | | 6 VAC | the following | A22W-2M□-6A-10 |
| (without transformer) | | \sim | | 12 VAC/DC | letters into the box □. | A22W-2M□-12A-10 |
| | | | | 24 VAC/DC | R (red) | A22W-2M□-24A-10 |
| | | | SPST-NC | 6 VDC | Y (yellow) | A22W-2M□-6D-01 |
| | | | | 6 VAC | G (green) A (blue) | A22W-2M□-6A-01 |
| | | | | 12 VAC/DC | | A22W-2M□-12A-01 |
| | | | | 24 VAC/DC | | A22W-2M□-24A-01 |
| | | | SPST-NO + | 6 VDC | | A22W-2M□-6D-11 |
| | | | SPST-NC | 6 VAC | | A22W-2M□-6A-11 |
| | | | | 12 VAC/DC | | A22W-2M□-12A-11 |
| | | | | 24 VAC/DC | | A22W-2M□-24A-11 |
| | | | DPST-NO | 6 VDC | | A22W-2M□-6D-20 |
| | | | | 6 VAC | | A22W-2M□-6A-20 |
| | | | | 12 VAC/DC | | A22W-2M□-12A-20 |
| | | | | 24 VAC/DC | | A22W-2M⊡-24A-20 |
| | | | DPST-NC | 6 VDC | | A22W-2M□-6D-02 |
| | | | | 6 VAC | | A22W-2M□-6A-02 |
| | | | | 12 VAC/DC | | A22W-2M□-12A-02 |
| | | Spring return | | 24 VAC/DC | | A22W-2M□-24A-02 |
| | | | SPST-NO | 6 VDC | | A22W-2A□-6D-10 |
| | | \checkmark | | 6 VAC | | A22W-2A□-6A-10 |
| | | \sim | | 12 VAC/DC | | A22W-2A□-12A-10 |
| | | | | 24 VAC/DC | | A22W-2A□-24A-10 |
| | | | SPST-NC | 6 VDC | | A22W-2A□-6D-01 |
| | | | | 6 VAC | | A22W-2A□-6A-01 |
| | | | | 12 VAC/DC | | A22W-2A□-12A-01 |
| | | | | 24 VAC/DC | | A22W-2A□-24A-01 |
| | | | SPST-NO + | 6 VDC | | A22W-2A□-6D-11 |
| | | | SPST-NC | 6 VAC | | A22W-2A□-6A-11 |
| | | | | 12 VAC/DC | | A22W-2A□-12A-11 |
| | | | | 24 VAC/DC | | A22W-2A□-24A-11 |
| | | | DPST-NO | 6 VDC | | A22W-2A□-6D-20 |
| | | | | 6 VAC | - | A22W-2A□-6A-20 |
| | | | | 12 VAC/DC | | A22W-2A□-12A-20 |
| | | | | 24 VAC/DC | | A22W-2A□-24A-20 |
| | | | DPST-NC | 6 VDC |] | A22W-2A□-6D-02 |
| | | | | 6 VAC | 1 | A22W-2A□-6A-02 |
| | | | | 12 VAC/DC | 1 | A22W-2A□-12A-02 |
| | | | | 24 VAC/DC | 1 | A22W-2A□-24A-02 |

(This table continues on the next page.)

Ordering Information Table - continued from previous page

| Appearance | Positions | Operating method | Contacts | Rated voltage | Operator color | Part number |
|---------------------------|-------------|---------------------------------------|-----------|---------------|--|-----------------|
| Knob-type selector switch | 3 positions | Maintained | SPST-NO + | 6 VDC | Insert one of | A22W-3M⊡-6D-11 |
| LED lighting | | | SPST-NC | 6 VAC | the following | A22W-3M□-6A-11 |
| (without transformer) | | \vee | | 12 VAC/DC | the box \square . | A22W-3M□-12A-11 |
| | | | | 24 VAC/DC | R (red) | A22W-3M□-24A-11 |
| | | | DPST-NO | 6 VDC | Y (yellow) | A22W-3M□-6D-20 |
| | | | | 6 VAC | G (green) A (blue) | A22W-3M□-6A-20 |
| | | | | 12 VAC/DC | | A22W-3M□-12A-20 |
| | | | | 24 VAC/DC | | A22W-3M□-24A-20 |
| | | | DPST-NC | 6 VDC | | A22W-3M□-6D-02 |
| | | | | 6 VAC | - | A22W-3M⊡-6A-02 |
| | | | | 12 VAC/DC | | A22W-3M□-12A-02 |
| | | | | 24 VAC/DC | | A22W-3M□-24A-02 |
| Knob-type selector switch | 3 positions | Spring return | SPST-NO + | 6 VDC | Insert one of | A22W-3A□-6D-11 |
| LED lighting | | $\langle \uparrow \downarrow \rangle$ | SPST-NC | 6 VAC | the following | A22W-3A□-6A-11 |
| (without transformer) | | \bigvee | | 12 VAC/DC | the box \Box . | A22W-3A□-12A-11 |
| | | | | 24 VAC/DC | R (red) Y (yellow) G (green) A (blue) | A22W-3A□-24A-11 |
| | | | DPST-NO | 6 VDC | | A22W-3A□-6D-20 |
| | | | | 6 VAC | | A22W-3A□-6A-20 |
| | | | | 12 VAC/DC | | A22W-3A□-12A-20 |
| | | | | 24 VAC/DC | | A22W-3A□-24A-20 |
| | | | DPST-NC | 6 VDC |] | A22W-3A□-6D-02 |
| | | | | 6 VAC | - | A22W-3A□-6A-02 |
| | | | | 12 VAC/DC | | A22W-3A□-12A-02 |
| | | | | 24 VAC/DC |] | A22W-3A□-24A-02 |

Illuminated (With Transformer)

| Appearance | Positions | Operating method | Contacts | Rated voltage | Operator color | Part number | | | | | | |
|---------------------------|-------------|---------------------------------------|----------------------|---------------|-------------------------------|----------------|--|--|--|---------|---------|--|
| Knob-type selector switch | 2 positions | Maintained | SPST-NO | 110 VAC | Insert one of | A22W-2M□-T1-10 | | | | | | |
| LED lighting | | | | 220 VAC | the following letters into | A22W-2M□-T2-10 | | | | | | |
| (with transformer) | | | SPST-NC | 110 VAC | the box \square . | A22W-2M□-T1-01 | | | | | | |
| | | | | 220 VAC | R (red) | A22W-2M□-T2-01 | | | | | | |
| | | | SPST-NO + | 110 VAC | Y (yellow) | A22W-2M□-T1-11 | | | | | | |
| | | | SPST-NC | 220 VAC | G (green) A (blue) | A22W-2M□-T2-11 | | | | | | |
| | | | DPST-NO | 110 VAC | | A22W-2M□-T1-20 | | | | | | |
| | | | | 220 VAC | | A22W-2M□-T2-20 | | | | | | |
| | | | DPST-NC | 110 VAC | | A22W-2M□-T1-02 | | | | | | |
| • | | | | 220 VAC | | A22W-2M□-T2-02 | | | | | | |
| | | Spring return | SPST-NO | 110 VAC | | A22W-2A□-T1-10 | | | | | | |
| | | \sim | | 220 VAC | | A22W-2A□-T2-10 | | | | | | |
| | | \sim | SPST-NC | 110 VAC | | A22W-2A□-T1-01 | | | | | | |
| | | | | 220 VAC | | A22W-2A□-T2-01 | | | | | | |
| | | | SPST-NO + SPST-NC | 110 VAC | | A22W-2A□-T1-11 | | | | | | |
| | | | | 220 VAC | | A22W-2A□-T2-11 | | | | | | |
| | | | DPST-NO | 110 VAC | | A22W-2A□-T1-20 | | | | | | |
| | | | | 220 VAC | | A22W-2A□-T2-20 | | | | | | |
| | | | DPST-NC | 110 VAC | | A22W-2A□-T1-02 | | | | | | |
| | | | | 220 VAC | | A22W-2A□-T2-02 | | | | | | |
| | 3 positions | Maintained | SPST-NO + | 110 VAC | | A22W-3M□-T1-11 | | | | | | |
| | | | | | | | | | | SPST-NC | 220 VAC | |
| | | \bigvee | DPST-NO | 110 VAC | | A22W-3M□-T1-20 | | | | | | |
| | | | | 220 VAC | | A22W-3M□-T2-20 | | | | | | |
| | | | DPST-NC | 110 VAC | | A22W-3M□-T1-02 | | | | | | |
| | | | | 220 VAC | | A22W-3M□-T2-02 | | | | | | |
| | | Spring return | SPST-NO + | 110 VAC | | A22W-3A□-T1-11 | | | | | | |
| | | $\langle \uparrow \downarrow \rangle$ | SPST-NC | 220 VAC | | A22W-3A□-T2-11 | | | | | | |
| | | \bigvee | DPST-NO | 110 VAC | | A22W-3A□-T1-20 | | | | | | |
| | | | | 220 VAC | | A22W-3A□-T2-20 | | | | | | |
| | | | DPST-NC | 110 VAC |] | A22W-3A□-T1-02 | | | | | | |
| | | | | 220 VAC |] | A22W-3A□-T2-02 | | | | | | |

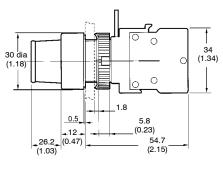
Dimensions

Unit: mm (inch)

■ KNOB-TYPE SELECTOR SWITCH (ILLUMINATED/NON-ILLUMINATED)

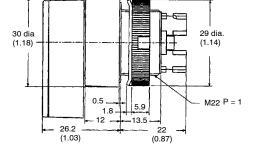
A22S-S

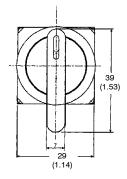




A22S-C3

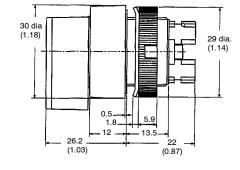


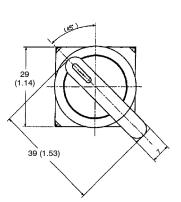




A22S-C2

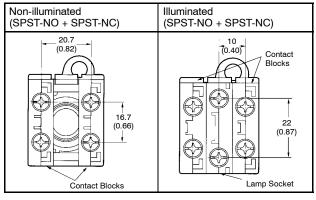




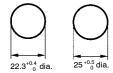


TERMINAL ARRANGEMENT

Terminal Arrangement (Bottom View)



PANEL CUTOUT DIMENSIONS



Note: When applying a coating such as paint to a panel, the dimensions should be those after the application of the coating.

A lock fitting is provided as a standard item.

CONTACT CONFIGURATION

2-Position Type

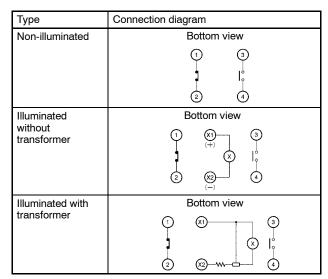
| Knob position | SPST-NO | SPST-NC | SPST-NO + SPST-NC | DPST-NO | DPST-NC |
|---------------|------------------|---------|----------------------|---------|-------------|
| \bigcirc | ~ ~ ~ | | | | ● ↓ ● ● ↓ ● |
| | 0 0 | | | | |

3-Position Type

| Knob position | SPST-NO + SPS | ST-NC | DPST-NO | | DPST-NC | |
|---------------|---------------|--|--------------|--------------------|-----------|-------|
| \bigcirc | 0 0 | <u>•</u> • | 0 0 | <u> </u> | | ●● |
| \bigcirc | | | - <u>-</u> o | $\overline{\circ}$ | | ● ↓ ● |
| | | <u>● </u> | | 0-1-0 | 99 | |

Note: For additional specifications and information refer to the Common to all assemblies section at the end of this publication.

TERMINAL CONNECTION



Note: The above terminal connection diagrams are examples for SPST-NO + SPST-NC.

Key-Type Selector Switch

A22K

Install in 22-mm dia. or 25-mm dia. Panel Cutout

- Locking lever ensures easy mounting and removal of switch unit
- Increase wiring efficiency and decrease mounting depth with three-row mounting of switch unit contact blocks
- Finger-safe contacts
- Use optional 25-mm dia. ring to install in 25-mm dia. panel cutouts
- Install using either round, forked crimp terminals, or ferrules
- IP65 oil resistant: EN60947-5-1

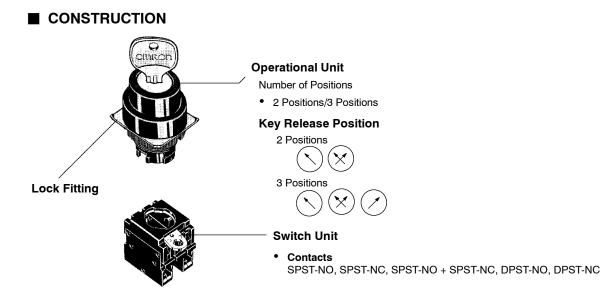






This product was manufactured at OMRON Izumo. OMRON Izumo has obtained approvals from international certification bodies for its quality system and environmental control system.

Ordering Information



PART NUMBER LEGEND

Shipped as a set which includes the Operational Unit and Switch Unit with contact blocks.

A22K-_____

1 Number of Positions/Reset Method

| Code | Positions | Reset method | Key release position |
|------|-------------|-----------------|----------------------|
| 2ML | 2 positions | Maintained | Left |
| 2M | | | Left and right |
| 2AL | | Spring return | Left |
| 3ML | 3 positions | Maintained | Left |
| ЗM | | | Left and right |
| 3MC | | | Center |
| 3AC | | Spring return | Center |

| 1 | 2 Contacts | | | | | | |
|---|------------------|-------------------|--|--|--|--|--|
| | Code Description | | | | | | |
| | 10 SPST-NO (*) | | | | | | |
| | 01 | SPST-NC (*) | | | | | |
| | 11 | SPST-NO + SPST-NC | | | | | |
| | 20 | DPST-NO | | | | | |
| | 02 | DPST-NC | | | | | |

Note: * for models with 2 Positions

Note: SPST= Single Pole, Single Throw DPST= Double Pole, Single Throw

■ KEY-TYPE SELECTOR SWITCH

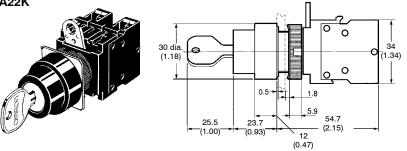
| Appearance | Positions | Operator type | Contacts | Key release position | Color of Operational Unit | Part number |
|--------------------------|-------------|---------------|----------------------|-------------------------|---------------------------------|-------------|
| Key-type selector switch | 2 positions | Maintained | SPST-NO | (\mathbf{x}) | Black | A22K-2ML-10 |
| | | | | $\overline{\times}$ | | A22K-2M-10 |
| | | | SPST-NC | \odot | | A22K-2ML-01 |
| | | | | \times | | A22K-2M-01 |
| | | | SPST-NO + SPST-NC | $\overline{\mathbf{N}}$ | | A22K-2ML-11 |
| | | | | \bigotimes | | A22K-2M-11 |
| | | | DPST-NO | \bigcirc | | A22K-2ML-20 |
| | | | | \bigotimes | | A22K-2M-20 |
| | | | DPST-NC | $\overline{\mathbf{N}}$ | | A22K-2ML-02 |
| | | | | \bigotimes | | A22K-2M-02 |
| | | Spring return | SPST-NO | | | A22K-2AL-10 |
| | | \checkmark | SPST-NC | | | A22K-2AL-01 |
| | | | SPST-NO + SPST-NC | | | A22K-2AL-11 |
| | | | DPST-NO | | | A22K-2AL-20 |
| | | | DPST-NC | | | A22K-2AL-02 |
| | 3 positions | Maintained | SPST-NO + SPST-NC | \bigcirc | - | A22K-3ML-11 |
| | | | | \bigotimes | - | A22K-3M-11 |
| | | | | | | A22K-3MC-11 |
| | | | DPST-NO | $\overline{\mathbf{N}}$ | | A22K-3ML-20 |
| | | | | \bigotimes | | A22K-3M-20 |
| | | | | (\uparrow) | | A22K-3MC-20 |
| | | | DPST-NC | $\overline{\mathbf{N}}$ | | A22K-3ML-02 |
| | | | | $\overline{\times}$ | - | A22K-3M-02 |
| | | | | | | A22K-3MC-02 |
| | | Spring return | SPST-NO + SPST-NC | $\overline{(\uparrow)}$ | | A22K-3AC-11 |
| | | | DPST-NO | | | A22K-3AC-20 |
| | | | DPST-NC | | 1 | A22K-3AC-02 |

Dimensions

Unit: mm (inch)

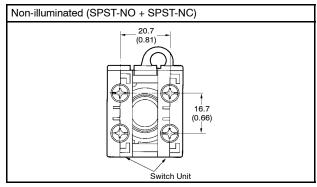
■ KEY-TYPE SELECTOR SWITCH

A22K

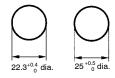


TERMINAL ARRANGEMENT

Terminal Arrangement (Bottom View)



PANEL CUTOUT DIMENSIONS



Note: When applying a coating such as paint to a panel, the dimensions should be those after the application of the coating.

A lock fitting is provided as a standard item.

TERMINAL CONNECTION

| Туре | Terminal connection | | | |
|-----------------|---|--|--|--|
| Non-illuminated | Bottom view (1) (3) 0 0 (2) (4) | | | |

Note: The above terminal connection diagrams are examples for SPST-NO + SPST-NC.

■ CONTACT CONFIGURATION

2-Position Type

| Knob position | SPST-NO | SPST-NC | SPST-NO + SPST-NC | DPST-NO | DPST-NC |
|--------------------|---------|---------|----------------------|---------|---------|
| \bigtriangledown | | ●↓● | | | |
| | 0 0 | | | | |

3-Position Type

| Knob position | SPST-NO + SPS | ST-NC | DPST-NO | | DPST-NC | |
|---------------|---------------|--------------|---------|--------------------|---------|--|
| \bigcirc | 0 0 | <u>•</u> • | 0-0 | $\overline{\circ}$ | | <u>• </u> |
| (\uparrow) | | ●● | | | • • • | <u>• </u> |
| | | | | $\overline{\circ}$ | 99 | |

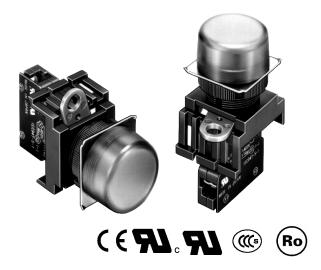
Note: For additional specifications and information refer to the Common to all assemblies section at the end of this publication.

Pilot Lights - 22 mm

M22

22-mm dia. and 25-mm dia. Round and Square Indicators

- Locking lever ensures easy mounting and removal of switch unit
- Use optional 25-mm dia. ring to install in 25-mm dia. panel cutouts
- Finger protection mechanism on Lamp Unit provided as a standard feature
- IP65 oil resistant: EN60947-5-1

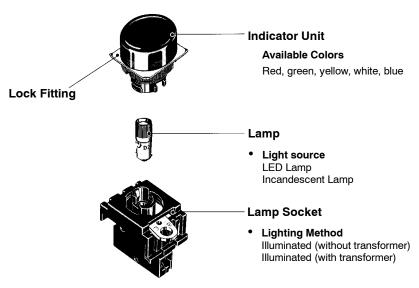




This product was manufactured at OMRON Izumo. OMRON Izumo has obtained approvals from international certification bodies for its quality system and environmental control system.

Ordering Information _____





(Actual color of yellow pushbuttons more closely resembles amber than true yellow.)

3 Light Source Without transformer

LED

With transformer

LED

Operating voltage

6 VDC

6 VAC

12 VAC/DC

24 VAC/DC

110 VAC

220 VAC

Code

6D

6A

12A

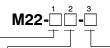
24A

Τ1

T2

PART NUMBER LEGEND

Shipped as a set which includes the Operational Unit, LED, and Lamp Socket.



1 Flange Shape

| Code | Description | |
|------|-----------------|--|
| F | Round/Flush | |
| С | Square/Extended | |

| 2 | Illum | ination | Color |
|---|-------|---------|-------|

| _ | | |
|---|-----|-------------|
| С | ode | Description |
| F | ۲ | Red |
| 0 | G | Green |
| | ſ | Yellow |
| ١ | N | White |
| ļ | A | Blue |

Note: With the transformer types, LED lamp (24 VAC/DC) can be lit by directly applying 110 VAC/DC (220 VAC/DC) to the lamp terminal. The LED is 24-VAC/DC type.

(Actual color of yellow pushbuttons more closely resembles amber than true yellow.)

M22 INDICATOR

| Appearance | Light | ting | Rated voltage | Operator color | Part number |
|--|-------|------|---------------|--|-------------|
| Round/Flush | LED | | 6 VDC | Insert one of the following letters into the box □. R (red) | M22-F□-6D |
| Without transformer | | | 6 VAC | | M22-F⊡-6A |
| (| | | 12 VAC/DC | | M22-F□-12A |
| | | Γ | 24 VAC/DC | Y (yellow) | M22-F□-24A |
| Round/Flush With transformer | A LED | | 110 VAC | G (green) W (white) A (blue | M22-F⊡-T1 |
| | | Γ | 220 VAC | | M22-F□-T2 |
| Square/Extended Without transformer | LED | | 6 VDC | | M22-C□-6D |
| | | | 6 VAC | | M22-C□-6A |
| | | | 12 VAC/DC | | M22-C□-12A |
| | | | 24 VAC/DC | | M22-C□-24A |
| Square/Extended With transformer | LED | | 110 VAC | | M22-C□-T1 |
| | | | 220 VAC | | M22-C□-T2 |

Note: To order Incandescent versions of the M22 Pilot Light, replace the last two digits in the part number (ie, 12A, 24A, T1) with the appropriate code from table 3 of the Part Number Legend at the top of the page. Example: M22-FR-24 is a red, round indicator with 24 VAC incandescent light source.

Specifications .

RATINGS

LED Lamp

| Rated voltage | Rated current | Operating voltage |
|---------------|---------------|-------------------|
| 6 VDC | 60 mA | 6 VDC±5% |
| 6 VAC/DC | 60 mA | 6 VAC/DC±5% |
| 12 VAC/DC | 30 mA | 12 VAC/DC±5% |
| 24 VAC/DC | 15 mA | 24 VAC/DC±5% |

Transformer Lighting

| Rated voltage | Operational voltage | Applicable lamp (BA9S/13 gold) |
|---------------|---------------------|--------------------------------|
| 110 VAC | 95 to 115 VAC | LED Lamp (A22-24□) |
| 220 VAC | 190 to 230 VAC | |

APPROVED STANDARDS

| Recognized organization | Standards | File No. |
|-------------------------|-------------|----------|
| UL, cUL (See note) | UL508 | E41515 |
| ASTA | EN60947-5-1 | — |

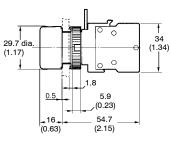
Note: UL: CSA C22 No. 14

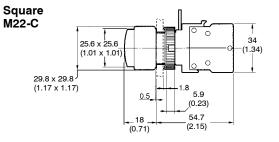
Dimensions

Unit: mm (inch)

■ INDICATORS

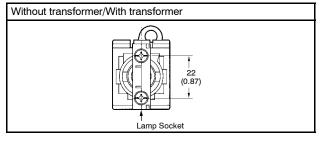






TERMINAL ARRANGEMENT

Terminal Arrangement (Bottom View)



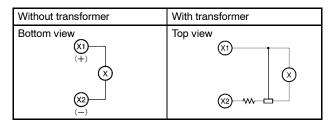
■ PANEL CUTOUT DIMENSIONS

| \bigcirc | \bigcap |
|--|---|
| \bigvee | \cup |
| 22.3 ^{+0.4} (0.88 ^{+0.02}) | 25 ^{+0.5} ₀ dia. (0.98 ^{+0.02} ₀) |

Note: When applying a coating such as paint to a panel, the dimensions should be those after the application of the coating. A lock fitting is provided as a standard item.

Note: For additional specifications and information refer to the Common to all assemblies section at the end of this publication.

TERMINAL CONNECTION



Specifications

■ APPROVED STANDARDS

| Recognized organization | Standards | File No. |
|-------------------------|-------------|----------|
| UL, cUL (See note) | UL508 | E41515 |
| ASTA | EN60947-5-1 | |

Note: UL: CSA C22 No. 14

RATINGS

Contacts (General-purpose Load)

| Rated carry | Rated | Rated current (A) | | | |
|-------------|---------|-----------------------|-----------------------|-----------------------|-----------------------|
| current | voltage | Utilization category | Utilization category | | |
| | | AC15 (inductive load) | AC12 (resistive load) | DC13 (inductive load) | DC12 (resistive load) |
| 10 amps | 24 VAC | 10 | 10 | — | — |
| | 110 VAC | 5 | 10 | | |
| | 220 VAC | 3 | 6 | | |
| | 380 VAC | 2 | 3 | | |
| | 440 VAC | 1 | 2 | | |
| | 24 VDC | — | — | 1.5 | 10 |
| | 110 VDC | | | 0.5 | 2 |
| | 220 VDC | | | 0.2 | 0.6 |
| | 380 VDC | | | 0.1 | 0.2 |

Note: 1. Rated current values are determined according to the testing conditions specified by JIS C4520. The above ratings were obtained by conducting tests under the following conditions as specified by JIS C4505.

- (1) Ambient temperature: 20°±2°C
- (2) Ambient humidity: 65±5%
- (3) Operating frequency: 20 operations/min
- 2. Minimum applied load: 10 mA, 5 VDC

Contacts (Microload)

| Rated applied load | Minimum applied load |
|-------------------------------|----------------------|
| 50 mA, 5 VDC (Resistive load) | 1 mA, 5 VDC |

LED Indicators without Transformer

| Rated voltage | Rated current | Operating voltage |
|---------------|---------------|-------------------|
| 6 VDC | 60 mA | 6 VDC±5% |
| 6 VAC | 60 mA | 6 VAC/DC±5% |
| 12 VAC/DC | 30 mA | 12 VAC/DC±5% |
| 24 VAC/DC | 15 mA | 24 VAC/DC±5% |

Transformer Lighting

| Rated voltage | Operational voltage | Applicable lamp (BA8S/13 gold) |
|---------------|---------------------|--------------------------------|
| 110 VAC | 95 to 115 VAC | LED Lamp (A22-24A) |
| 220 VAC | 190 to 230 VAC | |

■ CHARACTERISTICS

| ltem | | Pushbutton swite | ches | Emergency stop | o switches | Knob-type selector switches | | Key-type selector switch | |
|--------------------------------------|--------------------------|---|--|---|---|---|---|---|--|
| | | Non-illuminated models: A22-F, A22-T, A22-G, A22-S, A22-C, A22-D, A22-H, A22-M | Illuminated models: A22L-T, A22L-G, A22L-H, A22L-D, A22L-C | Non-illuminated models: A22E | Illuminated models: A22EL | Non-illuminated models: A22S | Illuminated models: A22W | Non-illuminated models: A22K | |
| Allowable operating | Mechanical | Momentary operation: 60 operations/min max. | | 30 operations/min max. | | | Manual release: 30 operations/min max. Automatic release: 30 operations/min max. | | |
| frequency | Electrical | 30 operations/m | in max. | | | 30 operations/m | iin max. | | |
| Insulation res | sistance | 100 M Ω min. (at | 500 VDC) | | | | | | |
| Dielectric str | ength | | | between termina between termina | | arity polarity and also b | etween each t | erminal and | |
| Vibration res (See note 2) | istance | Malfunction: 10 to 55 Hz, 1.5-mm double amplitude (malfunction within 1 ms) | | | | | | | |
| Shock resistance | Mechanical | 1,000 m/s ² {100G} | 1,000 m/s ² {100G} | s ² 1,000 m/s ² {100G} | | 1,000 m/s ² {100G} | 1,000 m/s ² {100G} | 1,000 m/s ² {100G} | |
| | Malfunction (See note 2) | 1,000 m/s ² {100G} max. | 600 m/s ² {60G} max. | 250 m/s ² {25G} | max. | 1,000 m/s ² {100G} max. | 600 m/s ² {60G} max. | 1,000 m/s ² {100G} max. | |
| Life expectancy | Mechanical | Momentary oper 5,000,000 opera | | Momentary operation: 300,000 operations min. | | 500,000 operations min. | 100,000 operations min. | 500,000 operations min. | |
| | Electrical | 500,000 operatio | ons min. | 300,000 operations min. | 300,000 operations min. | 500,000 operations min. | 100,000 operations min. | 500,000 operations min. | |
| Ambient temperature (See note 1) | | Operating: -20°C to 70°C (-4°F to 158°F) Storage: -40°C to 70°C (-40°F to 158°F) | Operating: -20°C to 55°C (-4°F to 131°F) Storage: -40°C to 70°C (-40°F to 158°F) | Operating: -20°C to 70°C (-4°F to 158°F) Storage: -40°C to 70°C (-40°F to 158°F) | Operating: -20°C to 55°C (-4°F to 131°F) Storage: -40°C to 70°C (-40°F to 158°F) | Operating: -20°C to 70°C (-4°F to 158°F) Storage: -40°C to 70°C (-40°F to 158°F) | Operating: -20°C to 55°C (-4°F to 131°F) Storage: -40°C to 70°C (-40°F to 158°F) | Operating: -20°C to 70°C (-4°F to 158°F) Storage: -40°C to 70°C (-40°F to 158°F) | |
| Ambient humidity Ope | | Operating: 35% | Operating: 35% to 85% | | | | | | |
| Degree of protection | | IP65 | | | | | | | |
| Electric shot class | k protection | Class II | | | | | | | |
| Degree of co | ontamination | 3 (IEC947-5-1) | | | | | | | |

Note: 1. With no icing or condensation.

2. Malfunction within 1 ms.

OPERATING CHARACTERISTICS (FOR SPST-NO/SPST-NC)

| Item | Pushbutton switches | Emergency stop switches | Knob-type selector switch | | h Key-type selector switch | |
|----------------------------------|--|---|--|--|---|--|
| | Illuminated Non-illuminated Pushbutton Switches | Push-lock turn-reset system | Manual release | Automatic release | Manual release | Automatic release |
| | A22-F, A22-G, A22-C, A22-S, A22-T, A22-H, A22-D, A22-M, A22L-T, A22L-H, A22L-D, A22L-G, A22L-C | A22E | A22S, A22W | A22S, A22W | A22K | |
| Total travel force (TTF) max. | 29.4 N {3.0 kgf} | 44.1 N {4.5 kgf} | 0.34 N • m {3.5 kgf • cm} (See note) | 0.25 N • m {2.5 kgf • cm} for two position (See note) | 0.34 N {3.5 gf} (See note) | 0.25 N • m {2.5 kgf • cm} for three position (See note) |
| | | | | 0.34 N • m {3.5 kgf • cm} for three position | | 0.34 N • m {3.5 kgf • cm} for three position |
| Total travel (TT) | 5.5 mm max. | 10±1 mm | Approx. 90° for two position (Approx. 45° for three position) | | Approx. 90° for tw | o position |
| Releasing force (RF) min. | | 0.25 N • m max. {2.5 kgf • cm} (See note) | 0.34 N • m max. {3.5 kgf • cm} (See note) | | 0.34 N • m max. {3.5 kgf • cm} (See note) | |

Note: Rotation torque for Emergency Stop Pushbutton, Knob-type Selector, and Key-type Selector Switches.

Accessories (Order Separately)

| Item | | Appearance | Classification | | Remarks | Part number |
|------------------|----------|----------------|--------------------------------|---------------------------|---|-------------|
| Contact Blocks | | _ | SPST-NO | General-pur- pose load | Provided as standard. Order Contact Blocks only when adding or replacing them. | A22-10 |
| | | | | Microload | | A22-10S |
| | | | SPST-NC | General-pur- pose load | | A22-01 |
| | | 9200 | | Microload | | A22-01S |
| | | | DPST-NO | General-pur- pose load | | A22-20 |
| | | | | Microload | | A22-20S |
| | | | DPST-NC | General-pur- pose load | | A22-02 |
| | | | | Microload | | A22-02S |
| Lamp Soc | kets | | Direct lighting | | Used when changing the light- | A22-TN |
| | | | Transformer | 110 VAC | ing method. | A22-T1 |
| | | | illumination | 220 VAC | | A22-T2 |
| Mounting Latches | | â | For momentary | v models | Provided as standard. Order Mounting Latches only when mounting Contact Blocks or Lamp Sockets that are pur- chased individually. | A22-3200 |
| Legend | Standard | _ | With Snap-in | White | Snap-in Legend Plate is acrylic. | A22Z-3321 |
| plate frames | size | | Legend Plate | Red | | A22Z-3322 |
| names | | | (Without text) | Black | | A22Z-3323 |
| Large size | | Without Snap-i | n Legend Plate | | A22Z-3320 | |
| | | ze L | With Snap-in | White | | A22Z-3331 |
| | size | | Legend Plate (Without text) | Red | | A22Z-3332 |
| | | | (Williout loxt) | Black | | A22Z-3333 |
| | | | Without Snap-i | n Legend Plate | | A22Z-3330 |

(This table continues on the next page.)

(continued from previous page)

| Item | | Appearance | Classification | | Remarks | Part number |
|---|-----------|------------|---|-----------------|---|---------------------------|
| Lock fitting | | | Round | | The body is equipped with a Lock Fitting. This Lock Fitting is used when a more secure lock feature is required. | A22Z-3360 |
| Metallic bezel rings | | | For flush or pro | pjection models | Replace with the standard model. | A22Z-3580 |
| | | | For full-guard r | nodels | Material: nickel-plated zinc | A22Z-3582 |
| Sealing cap | ps | | For flush models | | Used to prevent dust or water from entering the Operational | A22Z-3600F |
| | | | For extended r | | Unit. - Color: opaque | A22Z-3600T |
| 0.1.1 | | | For full-guard r | nodels | Material: silicon | A22Z-3600G |
| Color lense | es | | Red | | Used for changing the Opera- tional Unit color of the Pushbut- | A22Z-30TR |
| | | | Green | | ton Switch. | A22Z-30TG |
| | | | Yellow | | _ | A22Z-30TY |
| | | | White | | | A22Z-30TW |
| | | | Blue | | | A22Z-30TA |
| Three-throw | w spacers | He | For Pushbuttor | n Switches | Used when mounting three Non- Illuminated Switch Units. Cannot be used with Illuminated Emergency Stop Switches. | A22Z-3003 |
| Hole plug | | | Round | | Can be plugged into pre-cut panel holes for future expan- sion. The color is black. | A22Z-3550 |
| 25 mm-dia. | . ring | 0 | 25 mm ring | | Can be fit into a 25 mm-dia. hole in the panel. Since this is not attached to the main body, order separately. | A22Z-R25 |
| Snap-in | Standard | | Without text | Black | Attached to the Standard-size Legend Plate Frame. Material: Acrylic | A22Z-3443B |
| legend plates | size | | | Red | | A22Z-3443R |
| plates | | | | White | | A22Z-3443W |
| | | | | Transparent | | A22Z-3443C |
| | | | White text on | 0 | | A22Z-3443R-2 |
| | | | red back- ground | STOP | | A22Z-3443R-4 |
| | | | White text on | 1 | | A22Z-3443B-1 |
| | | | black back- | START | | A22Z-3443B-3 |
| | | | ground | ON | | A22Z-3443B-5 |
| | | | | OFF | | A22Z-3443B-6 |
| | | | | UP | 1 | A22Z-3443B-7 |
| | | | | DOWN | 1 | A22Z-3443B-8 |
| | | | | POWER ON | 1 | A22Z-3443B-9 |
| | | | | OFF-ON | 1 | A22Z-3443B-10 |
| | Large | | Without text | Black | Attached to the Large-size Leg- | A22Z-3443B-10 |
| | size | | Without toxt | Red | end Plate Frame | A22Z-3453B |
| | | | | White | Material: Acrylic | A22Z-3453N A22Z-3453W |
| | | | | | | A22Z-3453W |
| For Emer- gency Stop Switch | | SERGENO | Fransparent 60-dia. round plate with black letters on a yellow back- ground 90-dia. round plate with black letters on a yellow back- ground | | "EMERGENCY STOP" is engraved on the plate. Used as an Emergency Stop Switch Legend Plate. | A22Z-3453C A22Z-3466-1 |
| | | STOP | | | | A22Z-3476-1 |

(This table continues on the next page.)

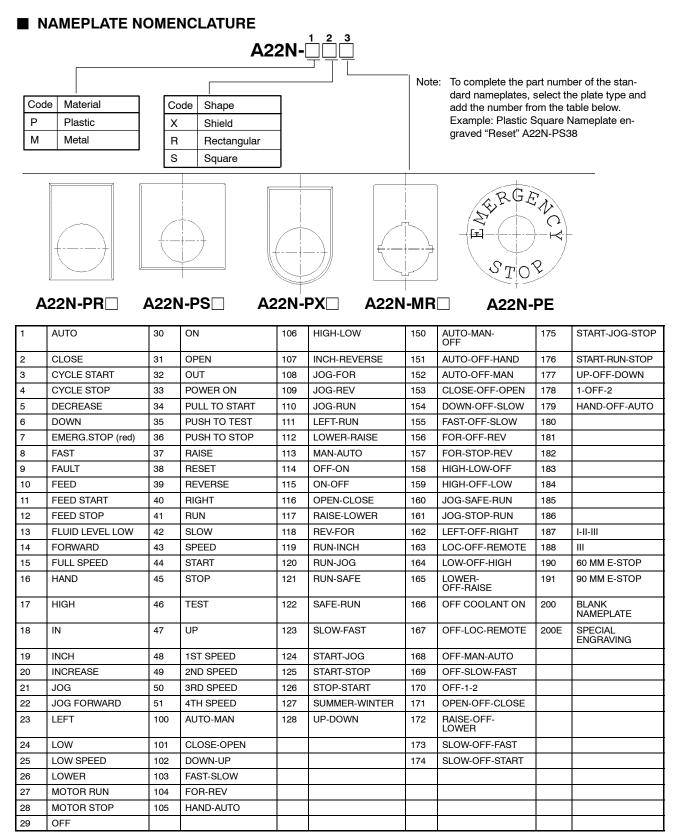
(continued from previous page)

| Item | Appearance | Classification | | Remarks | Part number |
|----------------------|------------|----------------|-------|---|-------------|
| Character films | | No print (Roun | d) | After printing on a film, affix to | A22Z-3460 |
| | \sim | Character | | the indicator plate of the Illumi- nated Pushbutton Switch. (The | A22Z-3460-1 |
| | | print (Round) | 0 | back is coated with adhesive.) | A22Z-3460-2 |
| | | | START | | A22Z-3460-3 |
| | | | STOP | | A22Z-3460-4 |
| | | No print (Squa | re) | | A22Z-3480 |
| Lamp extractor | State | _ | | Rubber tool used to easily replace Lamps. | A22Z-3901 |
| Tightening wrench | 3 | _ | | Tool used to tighten nuts from the back of the panel. | A22Z-3905 |
| Lens tightening tool | 6 | _ | | Used for replacing the cap of the Half-guard Pushbutton Switch. | A22Z-3908 |
| Lens puller | | _ | | Used for removing the lens from the indicator of the Square Illuminated Pushbutton Switch. | A3PJ-5080 |

ENCLOSURES

| Material | Hole size | Number of holes | Part number |
|-----------|-------------------|-----------------|--------------|
| Polyester | 22.5 mm (0.88 in) | 1 | A22N-PENC-1 |
| | | 2 | A22N-PENC-2 |
| | | 3 | A22N-PENC-3 |
| Metallic | 22.5 mm (0.88 in) | 1 | A22N-MENC-1 |
| | | 2 | A22N-MENC-2 |
| | | 3 | A22N-MENC-3 |
| | | 4 | A22N-MENC-4 |
| | | 6 | A22N-MENC-6 |
| | | 9 | A22N-MENC-9 |
| | | 12 | A22N-MENC-12 |
| | | 16 | A22N-MENC-16 |

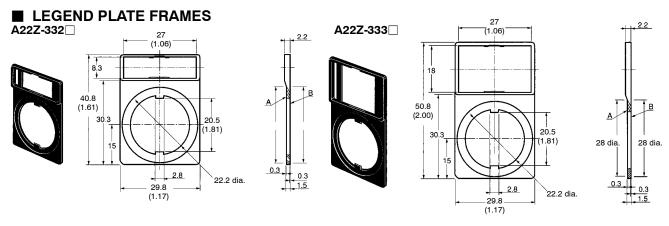
Note: For more information on pushbutton enclosures refer to drawings in the *Dimensions* section.



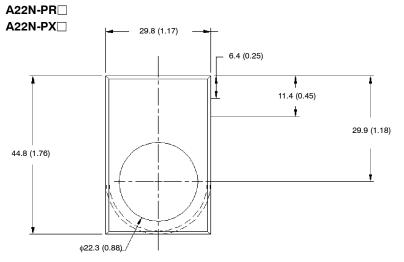
All plastic name plates are adhesive backed, contain beveled edges and are supplied standard with white lettering on black back-Note: ground. Any deviation from items listed here will be a special order. Contact Omron.

Dimensions

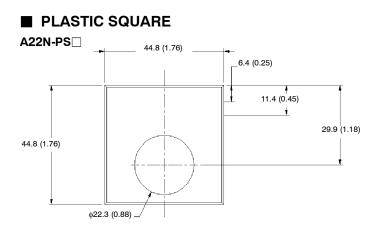
Unit: mm (inch)



■ PLASTIC RECTANGULAR AND SHIELD

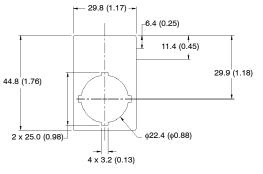


Note: Curved dashed line denotes difference between Rectangular and Rectangular to Round name plates.



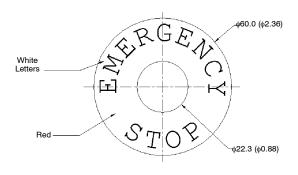
METAL RECTANGULAR

A22N-MR



■ 60MM EMERGENCY STOP

A22PE190



■ 90MM EMERGENCY STOP

A22N-PE191



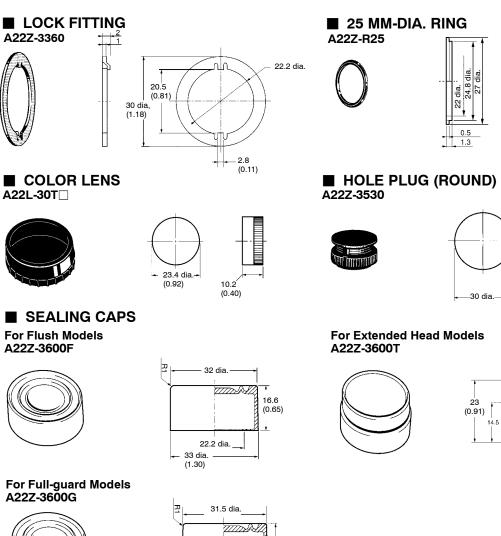
6 (0.24)

32 dia._____ 26 dia.

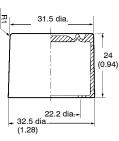
(1.02)

22.2 dia.-+

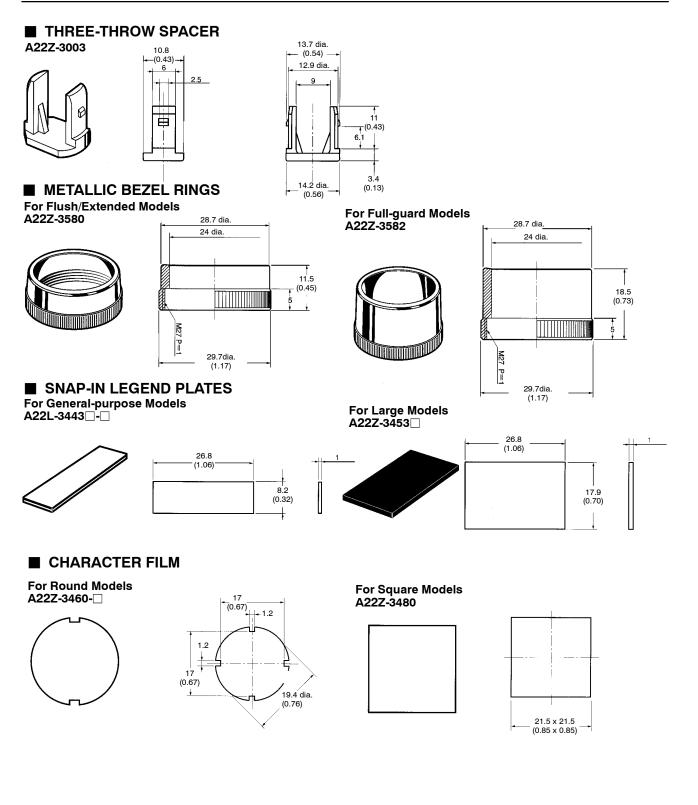
33 dia. (1.30) (0.51)



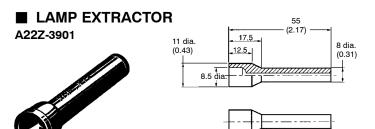




- OMRON -



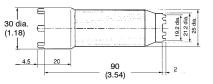
Unit: mm (inch)



■ TIGHTENING WRENCH

A22Z-3905



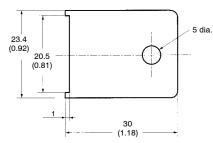


- OMRON -

■ LENS TIGHTENING TOOL

A22Z-3908

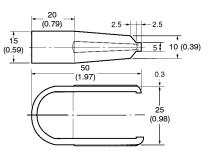




■ LENS PULLER



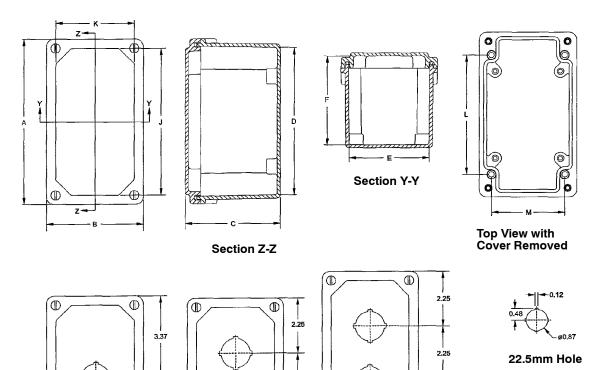




- OMRON ——

ENCLOSURES (POLYESTER)

A22N-PENC-



2.25

2.25

D

- 1.97

D

1.97

Hole Placement

3.37 (0.13)

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D

1.97

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- 1.97-(0.08) 2.25

2.25 (0.09)

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 \square

1.97

| | Ove | erall Dimen | sions | Insid | de Dimens | ions | | | | | No. of | Hole |
|-------------|------|-------------|-------|-------|-----------|------|------|------|------|------|--------|------|
| Part No. | А | В | С | D | Е | F | J | к | L | М | Holes | Size |
| A22N-PENC-1 | 6.74 | 3.93 | 3.88 | 6.01 | 3.26 | 3.63 | 5.99 | 3.18 | 4.88 | 2.94 | 1 | 22.5 |
| A22N-PENC-2 | 6.74 | 3.93 | 3.88 | 6.01 | 3.26 | 3.63 | 5.99 | 3.18 | 4.88 | 2.94 | 2 | 22.5 |
| A22N-PENC-3 | 8.99 | 3.93 | 3.88 | 8.26 | 3.26 | 3.63 | 8.24 | 3.18 | 7.13 | 2.94 | 3 | 22.5 |

~0.25 Dia 4 Places Typ.

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0.69

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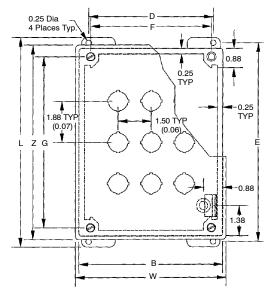
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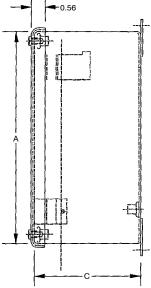
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ENCLOSURES (METALLIC)

A22N-MENC-



Body Type MENC-6 through MENC-16 (hinged)

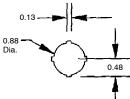


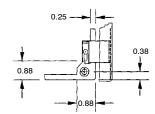
Side View

Body Type MENC-1 MENC-2, MENC-3 and MENC-4 (not hinged)

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Typical Pushbutton Detail

Hinge Detail

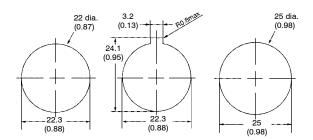
Retractable pin allows door to be mounted on left or right side

| Part No. | No. of | | | | | | | | Overall Di | mensions | | Ship |
|--------------|--------|-------|------|------|------|-------|------|------|------------|----------|-------|----------|
| | Holes | А | В | С | D | Е | F | G | L | W | Z | Wt. lbs. |
| A22N-MENC-1 | 1 | 3.25 | 2.75 | 3.50 | 1.88 | 3.75 | 1.71 | 2.50 | 4.25 | 3.06 | 3.56 | 2 |
| A22N-MENC-2 | 2 | 5.13 | 2.75 | 3.50 | 1.88 | 5.63 | 1.71 | 4.38 | 6.13 | 3.06 | 5.44 | 3 |
| A22N-MENC-3 | 3 | 7.00 | 2.75 | 3.50 | 1.88 | 7.50 | 1.71 | 6.25 | 8.00 | 3.06 | 7.31 | 3 |
| A22N-MENC-4 | 4 | 8.88 | 2.75 | 3.50 | 1.88 | 9.38 | 1.71 | 8.13 | 9.88 | 3.06 | 9.19 | 4 |
| A22N-MENC-6 | 6 | 8.50 | 5.00 | 4.25 | 4.13 | 9.00 | 3.96 | 7.75 | 9.50 | 5.31 | 8.81 | 5 |
| A22N-MENC-9 | 9 | 8.50 | 6.50 | 4.25 | 5.63 | 9.00 | 5.46 | 7.75 | 9.50 | 6.81 | 8.81 | 6 |
| A22N-MENC-12 | 12 | 10.38 | 6.50 | 4.25 | 5.63 | 10.88 | 5.46 | 9.36 | 11.38 | 6.81 | 10.69 | 6 |
| A22N-MENC-16 | 16 | 10.38 | 8.00 | 4.25 | 7.13 | 10.88 | 6.96 | 9.63 | 11.38 | 8.31 | 10.69 | 7 |

Installation

MOUNTING THE PANEL

Panel Hole Dimensions

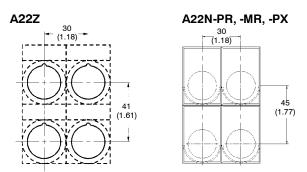


For 25 mm-dia. holes, always use 25 mm-dia. Rings. (Since the cutout dimensions are large, IP65 cannot be guaranteed unless 25-dia. Rings are used.)

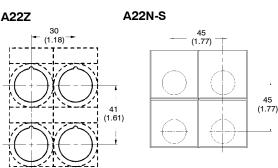
If outer surface treatment such as paint is applied to the panel, the panel dimensions after outer surface treatment must meet the specified panel dimensions.

MATRIX INSTALLATION

 The following panel hole dimensions apply when Switch Units and the Standard-size Legend Plate Frame Lock Fitting are mounted.



2. The following panel hole dimensions apply when the Large-size Legend Plate Frame is mounted.



Locking should be applied toward the Engraving Plate.

Note: The above dimensions are the smallest-possible mounting dimensions. However, these dimensions do not apply to large Pushbutton Switches. For large Pushbutton Switches, determine the distance between holes, taking the Operational Unit and Legend Plate Frame into account.

MOUNTING THE OPERATIONAL UNIT ON THE PANEL

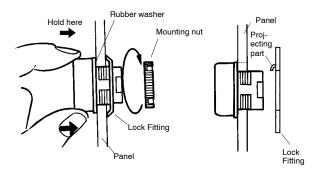
Insert the Operational Unit from the front surface of the panel, insert the Lock Fitting and the mounting nut from the terminal side, then tighten the nut. Before tightening, check that the rubber washer is present between the Operational Unit and the panel.

When using a Legend Plate Frame, put one rubber washer each between the Legend Plate Frame and the panel and between the Operational Unit and the Legend Plate Frame. (One rubber washer will be provided when one Legend Plate Frame is ordered.)

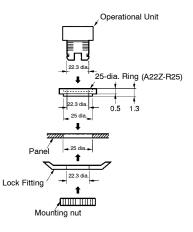
Align the Lock Fitting with the groove in the casing, then insert the Lock Fitting so that its edge is located on the panel side.

Tighten the mounting nut at a torque of 0.98 to $1.96 \text{ N} \cdot \text{m} \{10 \text{ to } 20 \text{ kgf} \cdot \text{cm}\}.$

When using a Lock Ring, replace with the supplied Lock Fitting, insert the projecting part into the lock slot, and then tighten the mounting nut.

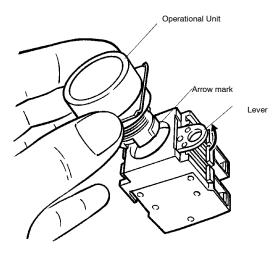


When the panel cutout dimension is 25 mm dia., remove the supplied rubber washer and mount the 25 mm-dia. Ring as shown below. (Since the A22Z-R25 is not attached to the main body, order separately.)



MOUNTING THE SWITCH ON THE OPERATIONAL UNIT

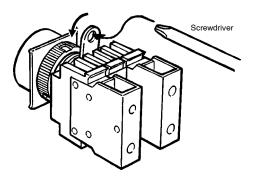
Insert the Operational Unit into the Switch Unit, aligning the arrow mark inscribed on the Operational Unit with the lever on the Switch Unit, then move the lever in the direction indicated by the arrow in the following figure.



REMOVING THE SWITCH

Move the lever in the direction indicated by the arrow in the following figure, then pull the Operational Unit or the Switch Unit.

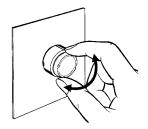
Since the lever has a hole with an inside diameter of 6.5 mm, the lever can be moved in the specified direction by inserting a screwdriver into the hole and then moving the screwdriver.



MOUNTING/REPLACING THE COLOR LENS

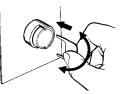
Projection, Full-guard

Grip and rotate the Color Lens with your fingers.



Half-guard Indicators

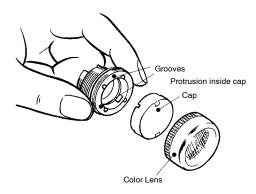
Put the tips of the Lens Tightening Tool (A22Z-3908) into the Color Lens slot and turn the Tool.



■ ASSEMBLING THE CAP

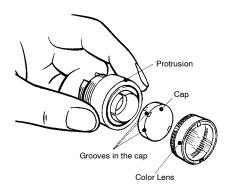
Lighted Pushbutton Switch

Mount the Color Lens so that the protrusions inside the cap fit into the grooves in the Operational Unit.



Indicator

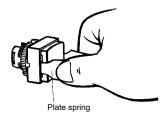
Mount the Color Lens so that the protrusions inside the Operational Unit fit into the grooves in the cap.



Square Pushbutton/Indicator

Removing the Color Lens:

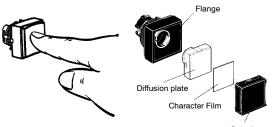
Insert the protruding tip of the Lens Puller (A3PJ-5080) into the lens slot, hold the plate spring, and pull them to remove the Color Lens.



Mounting the Color Lens:

Mount the Color Lens on the flange and firmly push the Color Lens. When the Color Lens is inserted, check whether it operates properly. When replacing the Lamp, remove the Color Lens and diffusion plate with fingers or Lens Puller.

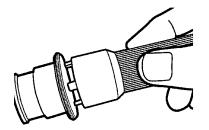
Attach the Character Film properly so that it fits inside the protruding part of the diffusion plate. Then, match the diffusion plate to the square flange and insert the Lens.



Color Lens

EMERGENCY STOP SWITCH

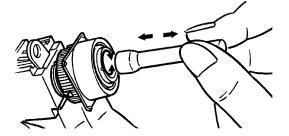
Insert the protrusion of the Tightening Wrench (A22Z-3905) into the Cap slot and then turn to remove the Cap.



■ INSTALLING/REPLACING THE LAMP

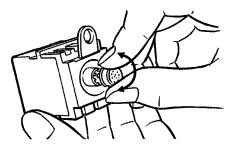
Installing from the Panel Surface

Insert the Lamp Extractor (A22Z-3901) into the lamp, then rotate the Extractor while pressing it.



Installing/Replacing on the Switch Unit

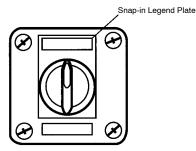
Grip the indicator with your fingers, then rotate the indicator while pressing it against the Switch Unit.



CONTROL BOX (ENCLOSURE)

Mounting the Switch

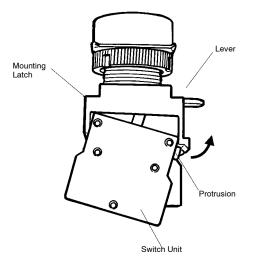
The Standard-size Legend Plate Frame can be mounted. Mount the Frame as shown in the following diagram. Mount the Switch in the same way as for an ordinary panel.



INSTALLING/REMOVING THE SWITCH UNIT

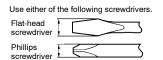
Installing the Switch Unit

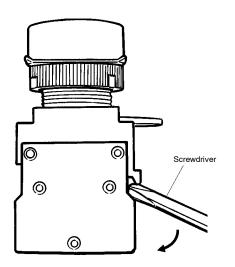
Hook the small protrusion on the Switch Unit into the groove on the other side of the lever, then push up the Switch Unit in the direction indicated by the arrow in the figure below.



Removing the Switch Unit

Insert a screwdriver between the Mounting Latch and the Switch Unit, then push down the screwdriver in the direction indicated by the arrow in the following figure.

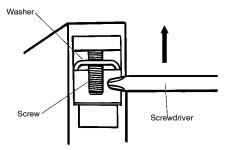




WIRING

Wiring Round Crimp Terminals

Loosen the terminal screw from the Switch Unit until it completely comes off the groove, insert a screwdriver as shown in the following figure, then push up the washer in the direction indicated by the arrow to temporarily secure it. Now, a round crimp terminal can be connected. After inserting the terminal, tighten the screws to complete wiring.



Engrave the characters on the surface on the Cap. Make sure that the characters are aligned parallel to the imaginary line connecting the two protruding portions to the left and right of the Cap.

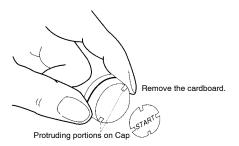
The characters must not be engraved deeper than 0.5 mm. Apply an alcohol-based paint coating, such as melamine, alkyd, or acrylic resin paint coating, to the engraved characters.

Protruding portions on Cap



AFFIXING CHARACTER FILM

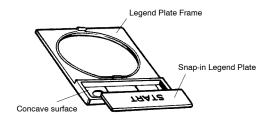
Hold the Cap, remove the cardboard on the Film, and attach the Film to the Cap. Make sure that the protruding portions of the Cap engage the cutout portions of the Film and that the characters are aligned parallel to the imaginary line connecting the two protruding portions to the left and right of the Cap.



MOUNTING AND DISMOUNTING SNAP-IN LEGEND

Press and secure the Snap-in Legend Plate onto the Legend Plate Frame.

The direction of the characters will vary with the mounting direction of the control panel if the Switch is a knob or key selector model.

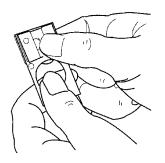


To easily remove the Snap-in Legend Plate from the Legend Plate Frame mounted to the panel, insert a Tool with a thin tip into the space between the Snap-in Legend Plate and the Legend Plate Frame.



The Snap-in Legend Plate is easily removed by pressing the Snap-in Legend Plate from the back of the Legend Plate Frame.

The Legend Plate Frame is made of acrylic resin, which is easily damaged by shock. Be sure to handle the Legend Plate Frame with care.



Precautions

Do not apply a voltage between the incandescent lamp and the terminal that is greater than the rated voltage. If the incandescent lamp is broken, the Operational Units may pop out.

Always turn OFF the power and wait for 10 minutes before replacing the incandescent lamp. If the lamp is replaced immediately after the power is turned OFF, the remaining heat may cause burns.

CORRECT USE

Mounting

Always make sure that the power is turned OFF before mounting, removing, or wiring the Switch, or performing maintenance.

Do not tighten the mounting ring more than necessary using tools such as pointed-nose pliers. Doing so will damage the mounting ring. The tightening torque is 0.98 to $1.96 \text{ N} \cdot \text{m}$ {10 to 20 kgf $\cdot \text{cm}$ }.

The panel thickness is 1 to 5 mm.

ENGRAVING METHOD

Material: Acrylic

Engrave the characters directly on the matted side of the Snap-in Legend Plate.

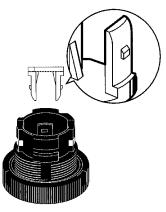
The characters must be engraved no deeper than 0.5 mm.

Apply alcohol-based paint coating to the engraved characters.

If the Snap-in Legend Plate is transparent, engrave the mirror-written characters on the back of the Snap-in Legend Plate and apply paint coating to the characters. Then apply paint coating of a different color to the remaining part of the Snap-in Legend Plate.

■ MOUNTING THREE-THROW SPACER

Press and secure the two protruding portions of the Three-throw Spacer to the two indented portions of the inner side of the control panel.



Wiring

After wiring the Switch, maintain an appropriate clearance and creepage distance.

When DC-specific LEDs are used, wire the Switch so that the X1 terminal is positive.

Terminal screws must be Phillips or slotted M3.5 screws with a square washer.

The tightening torque is 1.08 to 1.27 N • m {11 to 13 kgf • cm}.

Single wires, stranded wires, and crimp terminals can be connected to the Switch.

Operating Environment

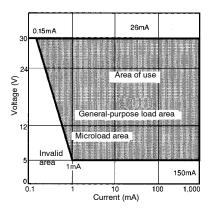
The IP65 model is designed with a protective structure so that it will not sustain damage if it is subjected to water from any direction to the front of the panel.

Using the Microload

Insert a contact protection circuit, if necessary, to prevent the reduction of life expectancy due to extreme wear on the contacts caused by loads where inrush current occurs when the contact is opened and closed.

The minimum applicable load is the N-level reference value. This value indicates the malfunction reference level for the reliability level of 60% (λ 60) (conforming to JIS C5003).

The equation, $\lambda 60 = 0.5 \times 10^{-4}$ /time indicates that the estimated malfunction rate is less than 1/2,000,000 with a reliability level of 60%.



LEDs

The LED current-limiting resistor is built-in, so internal resistance is not required.

If commercially available LEDs are used, select the ones that meet the following conditions:

Base: BA9S/13

Overall length: 26 mm max.

Power consumption: 2.6 W max.

Others

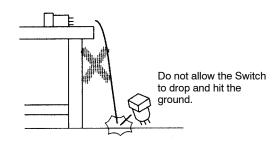
The oil-resistant IP65 uses NBR rubber and is resistant to general cutting oil and cooling oil. Some particular oils cannot be used with the oil-resistant IP65, however, so contact your OMRON representative for details.

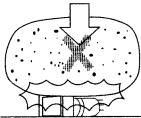
If the panel is to be finished with coating, etc., make sure that the panel meets the specified dimensions after the coating.

Do not subject the Switch to extreme shock or vibration. Doing so will cause malfunctions and damage to the Switch.

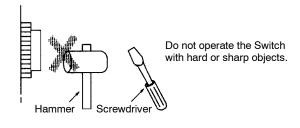
Do not let sharp objects come into contact with the Switches that are made of resin. Doing so will damage the Switches, causing scratches on the outside of the Operational Units, and malfunction.

When handling the Switches, do not throw or drop them.





Do not place or drop heavy objects on the Switch.



ONRON Custom Engraved Nameplate Order Form – A22N Series

Copy this form and utilize it to specify Custom Engraved Nameplates. Once completed: Mail the completed form to: Omron LLC, One Commerce Drive, Schaumburg, II. 60173-5302 Or fax to either Omron LLC at: 847.843.8261 or your local field sales office.

| Bill to: | Date: |
|-----------------|------------|
| Address: | Your Name: |
| City/State/Zip: | P.O.# |
| Attention: | Phone: |
| Ship to: | Fax: |
| Address: | |
| City/State/Zip: | |
| Attention: | Phone: |

Step 1) Select blank legend plate from the four depicted below (either A, B, C, or D).

Step 2)Write your choice in the small box under Legend Type and fill in the box marked Quantity.Step 3)Print text as it should appear on the finished nameplate.

| Plastic Shield Shape | Plastic Rectangular | Plastic Square | Metal Rectangular |
|----------------------|---------------------|----------------|-------------------|
| A | В | C | D |
| | | | |
| A22N-PX200E | A22N-PR200E | A22N-PS200E | A22N-MR200E |

11 Characters per Line Maximum, 2 Lines Maximum,

| Legend Type | Quantity | Legend Quantity Type | |
|----------------|----------|-------------------------|--|
| | | | |
| Legend Type | Quantity | Legend Quantity Type | |
| | | | |
| Legend Type | Quantity | Legend Quantity Type | |
| | | | |

| Legend Quant Type | ity | Legend Type | Quantity | |
|----------------------|-----|----------------|----------|--|
| | | | | |
| Legend Quant Type | ity | Legend Type | Quantity | |
| | | | | |
| Legend Quant Type | ity | Legend Type | Quantity | |
| | | | | |
| Legend Quant Type | ity | Legend Type | Quantity | |
| | | | | |
| Legend Quant Type | ity | Legend Type | Quantity | |
| | | | | |
| Legend Quant Type | ity | Legend Type | Quantity | |
| | | | | |
| Legend Quant Type | ity | Legend Type | Quantity | |
| | | | | |
| Legend Quant Type | ity | Legend Type | Quantity | |
| | | | | |

| YourSignature | Date |
|---------------|------|
| | |

Complete "Terms and Conditions of Sale" for product purchase and use are on Omron's website at www.omron247.com - under the "About Us" tab, in the Legal Matters section.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

OMRON ELECTRONICS LLC

1 Commerce Drive Schaumburg, IL 60173 Tel: 847.843.7900

For U.S. technical support or other inquiries: 800.556.6766

03/07

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