# **M22**

CSM\_M22\_DS\_E\_3\_1

# Round Indicator Series with 22 dia. and 25 dia. (when using a ring)

- Same type as the A22-series Pushbutton Switches.
- Use 25-dia. ring to install in 25-dia. panel cutouts.
- IP65





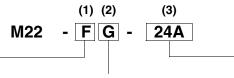
Refer to Safety Precautions for All Pushbutton Switches and Safety Precautions for the A22.

## **List of Models**

|        | Appearance | Model |
|--------|------------|-------|
| Round  | Flat       | M22-F |
| Square | Projection | M22-C |

## **Model Number Structure**

Model Number Legend..... Shipped as a set which includes the Display, Lamp, and Socket Unit. For information on combinations, refer to Ordering Information.



G

W

Α

## (1) Display Shape

| Code | Description       |
|------|-------------------|
| F    | Round/Flat        |
| С    | Square/Projection |

## (2) Illumination Color (3) Light Source

## Code Description Red Green Yellow White

Blue

## Without Voltage Reduction Unit

| Code | Type    | Operating voltage |
|------|---------|-------------------|
| 6A   |         | 6 VAC/VDC         |
| 12A  | LED     | 12 VAC/VDC        |
| 24A  |         | 24 VAC/VDC        |
| 5    | Incan-  | 5 VAC/VDC         |
| 12   | descent | 12 VAC/VDC        |
| 24   | lamp    | 24 VAC/VDC        |

## With Voltage Reduction Unit

| Code | Туре | Operating voltage |
|------|------|-------------------|
| T1   | LED  | 100 VAC           |
| T2   | LLD  | 200 VAC           |

<sup>•</sup> LED incorporates the 24-VAC/VDC type.

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# **Ordering Information**

**Completely Assembled** .... Shipped as a set which includes the Display, Lamp, and Socket Unit. **Indicator** 

| Appeara   | ance | Lighting | Operating voltage | Set        | Illumination color                     |  |
|---|------|----------|-------------------|------------|--|--|
| Round/Flat without Voltage                          |      |          | 6 VAC/VDC         | M22-F□-6A  |  |  |
| Reduction Unit<br>M22-F                             |      | LED      | 12 VAC/VDC        | M22-F□-12A |  |  |
| IVIZZ-I   |      |          | 24 VAC/VDC        | M22-F□-24A |  |  |
| Round/Flat<br>with Voltage<br>Reduction Unit        |      |          | LED               | 100 VAC    | M22-F□-T1                              |  |
| M22-F   |      | LLD      | 200 VAC           | M22-F□-T2  | R (red) Y (yellow) G (green) W (white) |  |
| Square/Projection without Voltage                   |      | <u> </u> | 6 VAC/VDC         | M22-C□-6A  |  |  |
| Reduction Unit                                      |      | LED      | 12 VAC/VDC        | M22-C□-12A | A (blue)                               |  |
| WIZZ-0  |      |          | 24 VAC/VDC        | M22-C□-24A |  |  |
| Square/Projection<br>with Voltage<br>Reduction Unit |      | LED      | 100 VAC           | M22-C□-T1  |  |  |
| M22-C   |      | LLD      | 200 VAC           | M22-C□-T2  |  |  |

Note: Insert a symbol indicating the color of the Operation Unit in the box in the model number above.

Individual models: Refer to pages 3 to 4.

(The Display, Lamp, and Socket Unit can be ordered separately.)

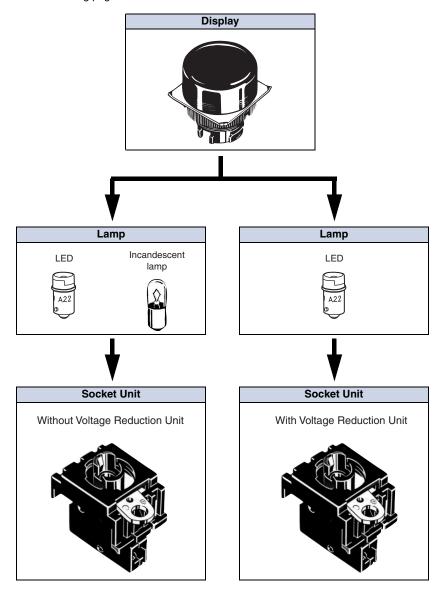
■ Specifications: Refer to page 5. ■ Dimensions: Refer to page 6.

■ Accessories: Refer to the A22.

# **Ordering Information**

**Subassembled** .......... The Display, Lamp, or Socket Unit can be ordered separately. Use them in combination for models that are not available as assembled Units. These can also be used as inventory for maintenance parts.

• Ordering: Specify models on the following page.



Ordering set combinations: Refer to page 2.

■ Specifications: Refer to page 5. ■ Dimensions: Refer to page 6.

■ Accessories: Refer to the A22.

# **Ordering Information**

Subassembled ......... The Display, Lamp, or Socket Unit can be ordered separately. Use them in combination for models that are not available as assembled Units. These can also be used as inventory for maintenance parts.

## **Display**

| Sealing             | IP65             |        |  |
|---------------------|------------------|--------|--|
| Appearance          | Color of Display | Model  |  |
| Round (Flat)        | Red              | M22-FR |  |
|                     | Green            | M22-FG |  |
|                     | Yellow           | M22-FY |  |
|                     | White            | M22-FW |  |
|                     | Blue             | M22-FA |  |
| Square (Projection) | Red              | M22-CR |  |
|                     | Green            | M22-CG |  |
|                     | Yellow           | M22-CY |  |
|                     | White            | M22-CW |  |
|                     | Blue             | M22-CA |  |

## Lamp

## LED

| Operating voltage |                       | 6 V       | 12 V    | 24 V     |          |
|-------------------|-----------------------|-----------|---------|----------|----------|
| Appearance        | AC/DC                 | LED light | Model   |          |          |
|                   | AC and DC Rec Gre Yel | Red       | A22-6AR | _        | _        |
|                   |                       | Green     | A22-6AG | _        | _        |
|                   |                       | Yellow *  | A22-6AY | _        | _        |
|                   |                       | Blue      | A22-6AA | _        | _        |
| A22               |                       | Red       | _       | A22-12AR | A22-24AR |
|                   |                       | Green     | _       | A22-12AG | A22-24AG |
|                   |                       | Yellow *  | _       | A22-12AY | A22-24AY |
|                   |                       | Blue      |         | A22-12AA | A22-24AA |

Note: For voltage-reduction lighting, use the A22-24A\(\subset \). Only 24-V LED lamps can be used. \* Used when the Display color is yellow or white.

## Incandescent

| Appearance | Operating voltage | 5 VAC/VDC | 12 VAC/VDC | 24 VAC/VDC |
|------------|-------------------|-----------|------------|------------|
|            |                   | A22-5     | A22-12     | A22-24     |

#### **Socket Unit**

| Appearance     |                                   |   |   |
|----------------|-----------------------------------|---|---|
| Classification | Without Voltage<br>Reduction Unit | With Voltage<br>Reduction Unit<br>(110 VAC) | With Voltage<br>Reduction Unit<br>(220 VAC) |
| Model          | M22-00                            | M22-00-T1                                   | M22-00-T2                                   |

Note: For voltage-reduction lighting, use the A22-24A $\square$ . Only 24-V LED lamps can be used.

## Accessories, Replacements, and Tools

The M22 uses the same accessories as the A22. Refer to the relevant information in the corresponding section for the A22.

## **Specifications**

## Ratings LED Lamp

| Rated voltage | Rated current | Operating voltage |
|---------------|---------------|-------------------|
| 6 VAC/VDC     |               | 6 VAC/VDC ±5%     |
| 12 VAC/VDC    | 8 mA          | 12 VAC/VDC ±5%    |
| 24 VAC/VDC    |               | 24 VAC/VDC ±5%    |

## **Incandescent Lamp**

| Rated voltage | Rated current | Operating voltage |
|---------------|---------------|-------------------|
| 6 VAC/VDC     | 200 mA        | 5 V               |
| 14 VAC/VDC    | 80 mA         | 12 V              |
| 28 VAC/VDC    | 40 mA         | 24 V              |

## **Voltage-reduction Lighting**

| Rated voltage | Rated current | Operating voltage         | Applicable lamp (BA9S/Base: 13) |
|---------------|---------------|---------------------------|---------------------------------|
| 110 VAC       | 8 mA          | 100 VAC<br>(95 to 115 V)  | LED lamp                        |
| 220 VAC       |               | 200 VAC<br>(190 to 230 V) | (A22-24□)                       |

## **Characteristics**

| Ambient operating temperature   | −20°C to 55°C    |
|---------------------------------|------------------|
| Ambient operating humidity      | 35% to 85%RH     |
| Ambient storage temperature     | -40°C to 70°C    |
| Degree of protection            | IP65             |
| Electric shock protection class | Class II         |
| PTI (tracking characteristic)   | 175              |
| Degree of contamination         | 3 (IEC60947-5-1) |

## **Approved Standard Ratings**

UL, cUL (File No. E41515)

Input voltage: 120 V max. 2.6 W max. (A22-TN)

110 VAC (A22-T1) 200 VAC (A22-T2)

Note: Only Lamp Sockets are recognized by UL.

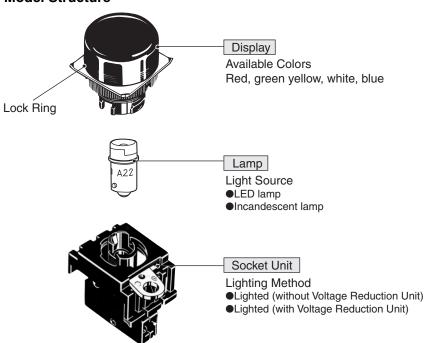
#### CCC (GB14048.5)

24 VAC/VDC max. (Without Voltage Reduction Unit)

100 VAC (With Voltage Reduction Unit: M22-□-T1)
200 VAC (With Voltage Reduction Unit: M22-□-T2)

## **Nomenclature**

#### **Model Structure**

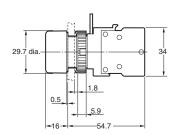


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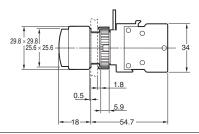
Dimensions (Unit: mm)

#### **Indicators**

## Round M22-F

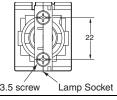


# Square M22-C



# Terminal Arrangement (Bottom View)

# With/Without Voltage Reduction Unit

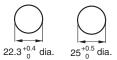


Note: The figure shows an example of the terminal arrangement when the Socket Unit is removed.

## **Terminal Connection**

| Туре                   | Without Voltage<br>Reduction Unit | With Voltage Reduction<br>Unit |
|------------------------|-----------------------------------|--------------------------------|
| Terminal<br>Connection | (x)<br>(+)<br>(x)<br>(x2)<br>(-)  | X1<br>X2<br>X2                 |

## **Panel Cutouts**



Lock Ring is provided as a standard item.

- When applying coating such as paint to the panel, the dimensions should be those after the application of coating.
- $\bullet$  Recommended panel thickness: 1 to 5 mm.
- Use an A22Z-R25 Ring when mounting to a panel with 25-mm holes.

## **Accessories**

Refer to the relevant information in the corresponding section for the A22.

# **Safety Precautions**

Refer to Safety Precautions for All Pushbutton Switches and Safety Precautions for the A22.

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