

CSM\_A22\_\_DS\_E\_3\_2

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

- Lever for easily mounting and removing the Switch Unit
- Increase wiring efficiency with three-row mounting of Switch Blocks.
- Finger protection mechanism on Switch Unit provided as a standard feature.
- Use 25-dia. ring to install in 25-dia. panel cutouts.
- Mounted using either open-type (fork-type) or closed-type (roundtype) crimp terminals.
- IP65 oil resistance (non-lighted models) IP65 (lighted models)

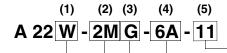


Refer to Safety Precautions for All Pushbutton Switches/ Indicators and Safety Precautions for the A22.



## **Model Number Structure**

Model Number Legend......Shipped as a set which includes the Selector, Lamp (lighted models only), and Switch. For information on combinations, refer to Ordering Information on pages 2 to 4.



## (1) Lighted/Non-lighted

Code	Description
S	Non-lighted
W	Lighted
	•

## (3) Illumination Color

Code	Color
R	Red
G	Green
Υ	Yellow
Α	Blue
None	Black*

<sup>\*</sup> For non-lighted models only

### (2) Number of Notches/Reset Method

Code	Number of Notches	Reset Method
2M	2 notches	Manual
2A	2 110101163	Automatic
ЗМ	3 notches	Manual
ЗА	3 HOLGHES	Automatic

### (4) Light Source Without Voltage Reduction Unit

Code	Туре	Operating Voltage
None	N	lon-lighted
6A	LED	6 VAC/VDC
12A		12 VAC/VDC
24A		24 VAC/VDC
5	Incan- descent lamp	5 VAC/VDC
12		12 VAC/VDC
24		24 VAC/VDC

## With Voltage Reduction Unit

Code	Туре	Operating Voltage
T1	LED	100 VAC
T2		200 VAC

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

## (5) Contacts

Code	Description
10	SPST-NO *
01	SPST-NC *
11	SPST-NO + SPST-NC
20	SPST-NO + SPST-NO
02	SPST-NC + SPST-NC

<sup>\*</sup> For models with 2 notches Note: The contacts are rated for standard loads. For microloads, refer to Accessories section for the A22.

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**Completely Assembled** ...... Shipped as a set which includes the Selector, Lamp (lighted models only), and Switch. **Non-lighted Knob-type Selector Switch** 

Appearance	Number of notches	Chithlit		Model	Color of Selector
Knob-type Selector Switch			SPST-NO	A22S-2M-10	
A22S			SPST-NC	A22S-2M-01	
		Manual	SPST-NO + SPST-NC	A22S-2M-11	
			SPST-NO + SPST-NO	A22S-2M-20	
	2 notches		SPST-NC + SPST-NC	A22S-2M-02	
	2 notches	Automatic	SPST-NO	A22S-2A-10	
			SPST-NC	A22S-2A-01	Black
			SPST-NO + SPST-NC	A22S-2A-11	
			SPST-NO + SPST-NO	A22S-2A-20	
			SPST-NC + SPST-NC	A22S-2A-02	
			SPST-NO + SPST-NC	A22S-3M-11	
		Manual	SPST-NO + SPST-NO	A22S-3M-20	
	3 notches		SPST-NC + SPST-NC	A22S-3M-02	
	3 notches		SPST-NO + SPST-NC	A22S-3A-11	
	A	Automatic	SPST-NO + SPST-NO	A22S-3A-20	
			SPST-NC + SPST-NC	A22S-3A-02	

Note: The contact ratings are for standard loads.

Completely Assembled......Shipped as a set which includes the Selector, Lamp (lighted models only), and Switch. **Lighted Knob-type Selector Switch** 

Appearance	Number of notches	Resetting method	Output	Operating voltage	Model	Illumination colo
(nob-type Selector Switch				6 VAC/VDC	A22W-2M□-6A-10	
A22W			SPST-NO	12 VAC/VDC	A22W-2M□-12A-10	
ED lighting				24 VAC/VDC	A22W-2M□-24A-10	
without Voltage Reduction Unit)				6 VAC/VDC	A22W-2M□-6A-01	
minout rollage reduction critis			SPST-NC	12 VAC/VDC	A22W-2M□-12A-01	
				24 VAC/VDC	A22W-2M□-24A-01	
		·	ODOT NO	6 VAC/VDC	A22W-2M□-6A-11	
		Manual	SPST-NO + SPST-NC	12 VAC/VDC	A22W-2M□-12A-11	
			3531-110	24 VAC/VDC	A22W-2M□-24A-11	
			ODOT NO	6 VAC/VDC	A22W-2M□-6A-20	
			SPST-NO + SPST-NO	12 VAC/VDC	A22W-2M□-12A-20	
			3F31-NO	24 VAC/VDC	A22W-2M□-24A-20	
			0007.110	6 VAC/VDC	A22W-2M□-6A-02	
			SPST-NC + SPST-NC	12 VAC/VDC	A22W-2M□-12A-02	
	0		SPST-NC	24 VAC/VDC	A22W-2M□-24A-02	
	2 notches			6 VAC/VDC	A22W-2A□-6A-10	
			SPST-NO	12 VAC/VDC	A22W-2A -12A-10	
_				24 VAC/VDC	A22W-2A -24A-10	
		•		6 VAC/VDC	A22W-2A□-6A-01	
			SPST-NC	12 VAC/VDC	A22W-2A -12A-01	
				24 VAC/VDC	A22W-2A -24A-01	
		•		6 VAC/VDC	A22W-2A□-6A-11	
		Automatic	SPST-NO + SPST-NC	12 VAC/VDC	A22W-2A -12A-11	R (red) Y (yellow)
				24 VAC/VDC	A22W-2A□-24A-11	
			SPST-NO + SPST-NO	6 VAC/VDC	A22W-2A□-6A-20	G (green)
				12 VAC/VDC	A22W-2A□-12A-20	A (blue)
				24 VAC/VDC	A22W-2A□-24A-20	
			SPST-NC + SPST-NC + SPST-NO + SPST-NC	6 VAC/VDC	A22W-2A□-6A-02	
				12 VAC/VDC	A22W-2A□-12A-02	
				24 VAC/VDC	A22W-2A□-24A-02	
				6 VAC/VDC	A22W-3M□-6A-11	
				12 VAC/VDC	A22W-3M□-12A-11	
				24 VAC/VDC	A22W-3M□-24A-11	
				6 VAC/VDC	A22W-3M□-6A-20	
		Manual	SPST-NO +	12 VAC/VDC	A22W-3M□-12A-20	
			SPST-NO	24 VAC/VDC	A22W-3M□-24A-20	
				6 VAC/VDC	A22W-3M□-6A-02	
			SPST-NC +	12 VAC/VDC	A22W-3M□-12A-02	
			SPST-NC	24 VAC/VDC	A22W-3M□-24A-02	
	3 notches			6 VAC/VDC	A22W-3A□-6A-11	_
			SPST-NO +	12 VAC/VDC	A22W-3A□-12A-11	_
			SPST-NC	24 VAC/VDC	A22W-3A -24A-11	-
				6 VAC/VDC	A22W-3A□-6A-20	_
		Automatic	SPST-NO +	12 VAC/VDC	A22W-3A□-12A-20	
			SPST-NO	24 VAC/VDC	A22W-3A -24A-20	
				6 VAC/VDC	A22W-3A -6A-02	
			SPST-NC +	12 VAC/VDC	A22W-3A -12A-02	
			SPST-NC	24 VAC/VDC	A22W-3A -24A-02	-

Note: 1. When ordering, specify the symbol that indicates color of the Selector in the □ of the model number. 2. The contact ratings are for standard loads.

Individual models: Refer to pages 6 to 7.

(The Selector, Lamp, and Switch can be ordered separately.)

■ Specifications: Refer to the A22. ■ Dimensions: Refer to page 10.

Completely Assembled ...... Shipped as a set which includes the Selector, Lamp (lighted models only), and Switch. **Lighted Knob-type Selector Switch** 

Appearance	Number of notches	Reset- ting method	Output	Operating voltage	Model	Selector symbol (color)
Knob-type Selector Switch			SPST-NO	100 VAC	A22W-2M□-T1-10	
A22W LED voltage-reduction lighting			01 01-110	200 VAC	A22W-2M□-T2-10	
(with Voltage Reduction Unit)			SPST-NC	100 VAC	A22W-2M□-T1-01	
(min remage reduction crim)			3531-110	200 VAC	A22W-2M□-T2-01	
		Manual	SPST-NO +	100 VAC	A22W-2M□-T1-11	
		Mariuai	SPST-NC	200 VAC	A22W-2M□-T2-11	
			SPST-NO +	100 VAC	A22W-2M□-T1-20	
			SPST-NO	200 VAC	A22W-2M□-T2-20	
			SPST-NC +	100 VAC	A22W-2M□-T1-02	
	2 notches		SPST-NC	200 VAC	A22W-2M□-T2-02	
	2 Holdries		SPST-NO	100 VAC	A22W-2A□-T1-10	
			3531-110	200 VAC	A22W-2A□-T2-10	
			SPST-NC	100 VAC	A22W-2A□-T1-01	
		Automatic	3P31-NC	200 VAC	A22W-2A□-T2-01	R (red) Y (yellow) G (green) A (blue)
			SPST-NO + SPST-NC	100 VAC	A22W-2A□-T1-11	
				200 VAC	A22W-2A□-T2-11	
			SPST-NO + SPST-NO	100 VAC	A22W-2A□-T1-20	
				200 VAC	A22W-2A□-T2-20	
			SPST-NC + SPST-NC	100 VAC	A22W-2A□-T1-02	
				200 VAC	A22W-2A□-T2-02	
			SPST-NO + SPST-NC	100 VAC	A22W-3M□-T1-11	
				200 VAC	A22W-3M□-T2-11	
		Manual	SPST-NO +	100 VAC	A22W-3M□-T1-20	
		Mariuai	SPST-NO	200 VAC	A22W-3M□-T2-20	
			SPST-NC +	100 VAC	A22W-3M□-T1-02	
	3 notches		SPST-NC	200 VAC	A22W-3M□-T2-02	
	3 Holdries		SPST-NO +	100 VAC	A22W-3A□-T1-11	
			SPST-NC	200 VAC	A22W-3A□-T2-11	
		Automatic	SPST-NO +	100 VAC	A22W-3A□-T1-20	
		Automatic	SPST-NO	200 VAC	A22W-3A□-T2-20	
			SPST-NC +	100 VAC	A22W-3A□-T1-02	
			SPST-NC	200 VAC	A22W-3A□-T2-02	

Note: 1. When ordering, specify the symbol that indicates color of the Selector in the □ of the model number. 2. The contact ratings are for standard loads.

Individual models: Refer to pages 6 to 7.

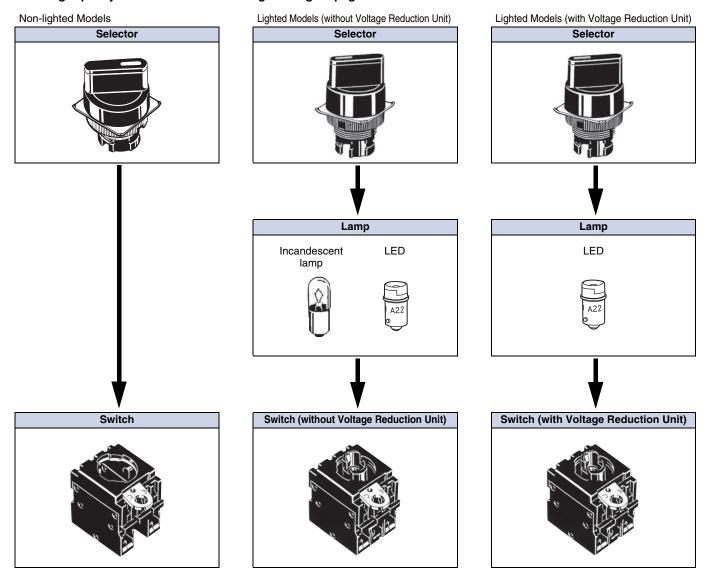
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(The Selector, Lamp, and Switch can be ordered separately.)

■ Specifications: Refer to the A22. ■ Dimensions: Refer to page 10.

**Completely Assembled**...... The Selector, Lamp, or Switch 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 the model from the listing starting on page 6.



Set models: Refer to pages 2 to 4.

■ Specifications: Refer to the A22. ■ Dimensions: Refer to page 10.

## **Selectors**

Non-lighted (Color: Only Black is Available)

	<b>.</b> "	1005 ( '' ' ' ' ' '
	Sealing	IP65 (oil-resistant)
	Appearance	Standard lever
Notches	Reset method	Model
2 notches	Manual	A22S-2M
2 Hotorics	Automatic	A22S-2A
3 notches	Manual	A22S-3M
	Automatic	A22S-3A

	Sealing	IP65 (oil-resistant)
	Appearance	Long lever
Notches	Reset method	Model
2 notches	Manual	A22S-C2M
2 Holdies	Automatic	A22S-C2A
3 notches	Manual	A22S-C3M
3 Holdies	Automatic	A22S-C3A

## Lighted

		IP65	
	Αŗ	ppearance	Standard lever
Notches	Reset method	Selector color	Model
	Manara	Red	A22W-2MR
	Manual	Green	A22W-2MG
		Yellow	A22W-2MY
2 notches		Blue	A22W-2MA
2 notches	A	Red	A22W-2AR
	Automatic	Green	A22W-2AG
		Yellow	A22W-2AY
		Blue	A22W-2AA
	Manual	Red	A22W-3MR
	wanual	Green	A22W-3MG
		Yellow	A22W-3MY
3 notches	*	Blue	A22W-3MA
	Automotic	Red	A22W-3AR
	Automatic	Green	A22W-3AG
		Yellow	A22W-3AY
		Blue	A22W-3AA

Note: Either incandescent lamps or LED lamps can be used with the above

Set models: Refer to pages 2 to 4.

■ Specifications: Refer to the A22. ■ Dimensions: Refer to page 10.

**Subassembled** ...... The Selector, Lamp, or Switch 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.

## **Switches (Standard Load)**

	Non-lighted		Lighted	
Appearance		Without Voltage Reduction Unit	With Voltage Reduction Unit 110 VAC	With Voltage Reduction Unit 220 VAC
Contacts	Model		-	
SPST-NO	A22-10M	A22L-10M	A22L-10M-T1	A22L-10M-T2
SPST-NC	A22-01M	A22L-01M	A22L-01M-T1	A22L-01M-T2
SPST-NO + SPST-NC	A22-11M	A22L-11M	A22L-11M-T1	A22L-11M-T2
SPST-NO + SPST-NO	A22-20M	A22L-20M	A22L-20M-T1	A22L-20M-T2
SPST-NC + SPST-NC	A22-02M	A22L-02M	A22L-02M-T1	A22L-02M-T2

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

#### Lamps

## **LED Lamp**

C	Operating voltage		6 VAC/VDC	12 VAC/VDC	24 VAC/VDC
<b>Appea</b>	rance	LED light	Model		
		Red	A22-6AR	A22-12AR	A22-24AR
AC and	Green	A22-6AG	A22-12AG	A22-24AG	
A22		Yellow*	A22-6AY	A22-12AY	A22-24AY
	Blue	A22-6AA	A22-12AA	A22-24AA	

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

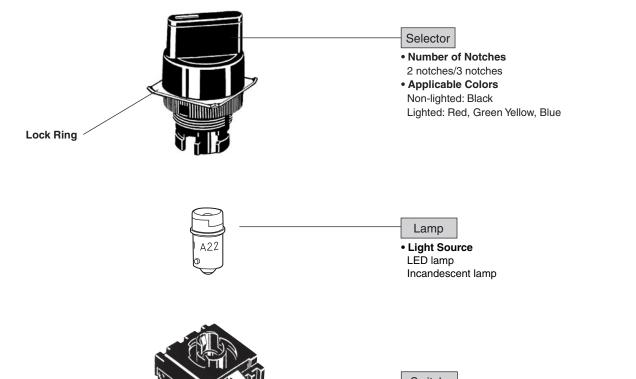
## **Incandescent Lamp**

Appear-	Operating voltage	5 VAC/VDC	12 VAC/VDC	24 VAC/VDC
	A22-5	A22-12	A22-24	

Set models: Refer to pages 2 to 4.

■ Specifications: Refer to the A22. ■ Dimensions: Refer to page 10.

## **Model Structure**



- Switch
- Contacts
   SPST-NO, SPST-NO, SPST-NO + SPST-NC, SPST-NO + SPST-NO, SPST-NC + SPST-NC (Minimum applicable load: 10 mA at 5 VDC)
- Lighting Method

Non-lighted

Lighted (without Voltage Reduction Unit) Lighted (with Voltage Reduction Unit)

- Specifications: Refer to the A22.
- Dimensions: Refer to page 10.
- Precautions for correct use: Refer to the A22.
- Accessories and tools: Refer to the A22.

# **Nomenclature**

## Contacts

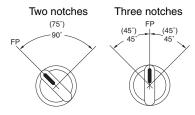
## 2-notch Type

Knob position	SPST- NO	SPST- NC	SPST-NO + SPST-NC	SPST-NO + SPST-NO	SPST-NC + SPST-NC
$\bigcirc$	0 0	• • •	0 0	0 0 0 0	•••
$\bigcirc$	0 0	• . •	0 0 0	0 0 0 0	• • • • •

## 3-notch Type

Knob position	SPST-NO + SPST-NC	SPST-NO + SPST-NO	SPST-NC + SPST-NC
$\bigcirc$	0 0	0 0 0 0	• • • • •
1	0 0	0 0 0	•••
$\bigcirc$	0 0 • •	0 0 0 0	<u>•.•</u>

# **Operation Angle**



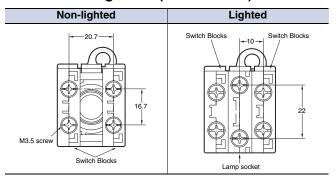
Note: 1. The angle used for automatic reset is shown in parentheses.
2. FP: Free Position

## **Dimensions**

## Knob-type Selector Switch (Lighted/Non-lighted)

# Knob-type Selector Switch A22S/A22W A22S-C

## **Terminal Arrangement (Bottom View)**



## **Terminal Connection**

Туре	Connection diagram
	Bottom view
Non-lighted	3
	(2) (4)
	Bottom view
Lighted without Voltage Reduction Unit	(1) (X) (3) (y) (X) (2) (2) (2) (4)
	Bottom view
Lighted with Voltage Reduction Unit	(1) (X) (3) (X) (4) (2) (2) (2) (4)

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

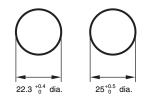
### **Accessories**

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

## **Safety Precautions**

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

## **Panel Cutouts**



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

#### Read and Understand This Catalog

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments

## Warranty and Limitations of Liability

#### WARRANTY

OMRON's exclusive warranty is that the products are free from defects in materials and workmanship for a period of one year (or other period if specified) from date of sale by OMRON.

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In no event shall the responsibility of OMRON for any act exceed the individual price of the product on which liability is asserted.

IN NO EVENT SHALL OMRON BE RESPONSIBLE FOR WARRANTY, REPAIR, OR OTHER CLAIMS REGARDING THE PRODUCTS UNLESS OMRON'S ANALYSIS CONFIRMS THAT THE PRODUCTS WERE PROPERLY HANDLED, STORED, INSTALLED, AND MAINTAINED AND NOT SUBJECT TO CONTAMINATION, ABUSE, MISUSE, OR INAPPROPRIATE MODIFICATION OR REPAIR.

## **Application Considerations**

#### SUITABILITY FOR USE

OMRON shall not be responsible for conformity with any standards, codes, or regulations that apply to the combination of products in the customer's application or use of the products.

At the customer's request, OMRON will provide applicable third party certification documents identifying ratings and limitations of use that apply to the products. This information by itself is not sufficient for a complete determination of the suitability of the products in combination with the end product, machine, system, or other application or use.

The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this catalog.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCTS ARE PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

## PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

## **Disclaimers**

#### CHANGE IN SPECIFICATIONS

Product specifications and accessories may be changed at any time based on improvements and other reasons.

It is our practice to change model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the products may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

## **DIMENSIONS AND WEIGHTS**

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

#### PERFORMANCE DATA

Performance data given in this catalog is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

#### **ERRORS AND OMISSIONS**

The information in this document has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical, or proofreading errors, or omissions.

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In the interest of product improvement, specifications are subject to change without notice.

