

# Safety Interlock Switches

# A165E



## Emergency Stop Switch (16 mm diameter)

- Separate construction with smallest class of depth in the world
- Direct opening mechanism to open contacts in emergencies, such as when they are welded.
- Conforms to EN418.
- Includes a safety lock to prevent misuse.
- Features separate construction that allows the switch to be separated for easier wiring and one-piece-like construction that allows easier handling.
- Models available with 3 contacts built into a single block (A165E-U).



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## Specifications

### Certified Standards

Certification body	Standard	File No.
UL *1	UL 508, CSA C22.2 No.14	E41515
TÜV SÜD	EN 60947-5-1, EN 60947-5-5	Consult your representative for details.
CQC (CCC)	GB14048.5	2003010303070678

\*Certification for CSA C22.2 No. 14 is authorized by the mark.

### Certified Standard Ratings

UL508, CSA C22.2 No. 14, CCC (GB14048.5)

#### Models with Separate Construction

Rated Voltage	Resistive Load
125 VAC	5 A
250 VAC	3 A
30 VDC	3 A

#### Models with One-piece Construction

Rated Voltage	Resistive Load
125 VAC	1 A
250 VAC	0.5 A
30 VDC	1 A

### TÜV (EN 60947-5-1)

#### Models with Separate Construction

Rated Voltage	Resistive Load
250 VAC	3 A
30 VDC	3 A

#### Models with One-piece Construction

Rated Voltage	Resistive Load
250 VAC	0.5 A
30 VDC	1 A

### Switch Ratings

#### Models with Separate Construction

Rated Voltage	Resistive Load
125 VAC	5 A
250 VAC	3 A
30 VDC	3 A

Note: Minimum applicable load: 5 VDC, 150 mA

#### Models with One-piece Construction

Rated Voltage	Resistive Load
125 VAC	1 A
250 VAC	0.5 A
30 VDC	1 A

Note: Minimum applicable load: 5 VDC, 1 mA

### LED Ratings (Only for models with LEDs)

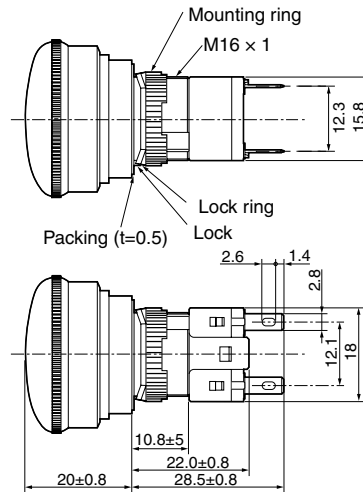
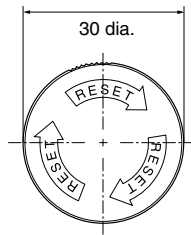
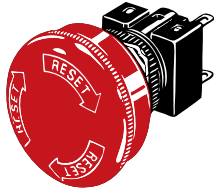
Rated Voltage	Rated Current	Operation Voltage
24 VAC/VDC	8 mA	24 VAC/DC $\pm$ 5%

(mm)

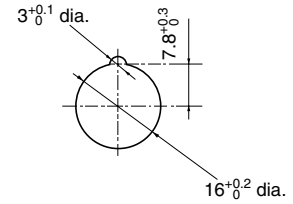
## Dimensions

### A165E-S

Non-lighted models  
30 mm diameter



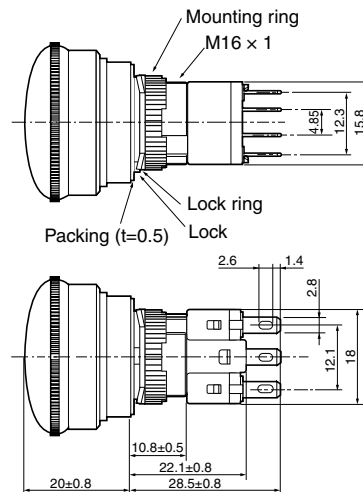
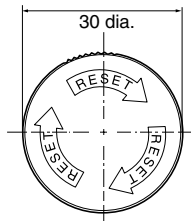
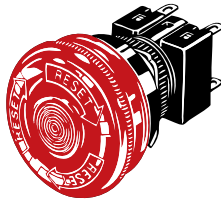
Panel cutout  
dimensions



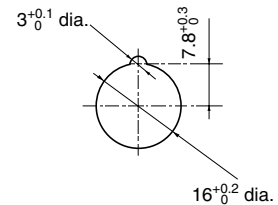
- When applying a coating such as paint to the panel, dimensions after the coating must satisfy the specified dimensions.
- Recommended panel thickness: 0.5 to 3.2 mm.

### A165E-LS

Lighted models  
30 mm diameter



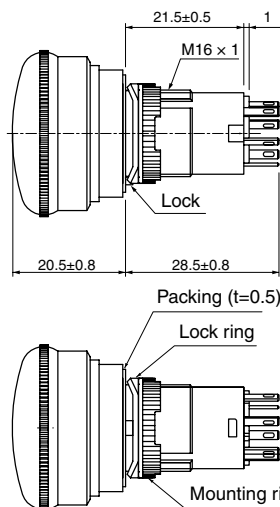
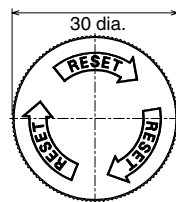
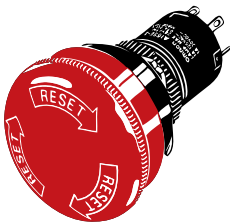
Panel cutout  
dimensions



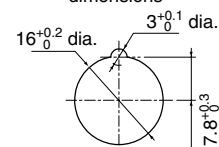
- When applying a coating such as paint to the panel, dimensions after the coating must satisfy the specified dimensions.
- Recommended panel thickness: 0.5 to 3.2 mm.

### A165E-S-03U

Non-lighted,  
One-piece construction models  
30 mm diameter



Panel cutout  
dimensions



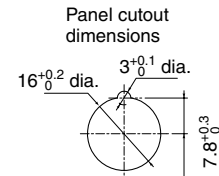
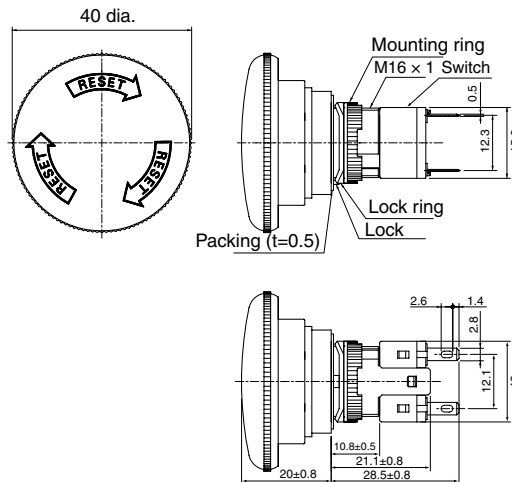
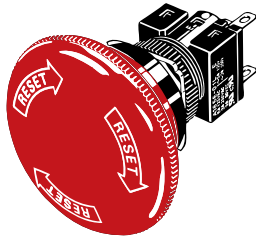
- When applying a coating such as paint to the panel, dimensions after the coating must satisfy the specified dimensions.
- Recommended panel thickness: 0.5 to 3.2 mm.

(mm)

# Dimensions (continued)

## A165E-M

Non-lighted models  
40 mm diameter

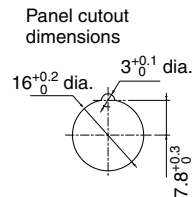
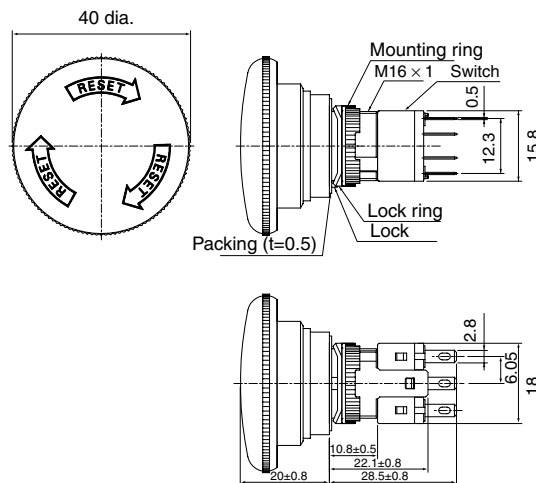
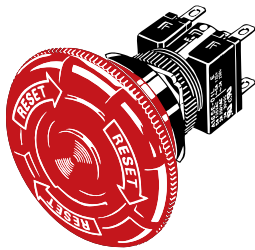


- When applying a coating such as paint to the panel, dimensions after the coating must satisfy the specified dimensions.
- Recommended panel thickness: 0.5 to 3.2 mm.

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## A165E-LM

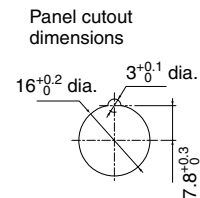
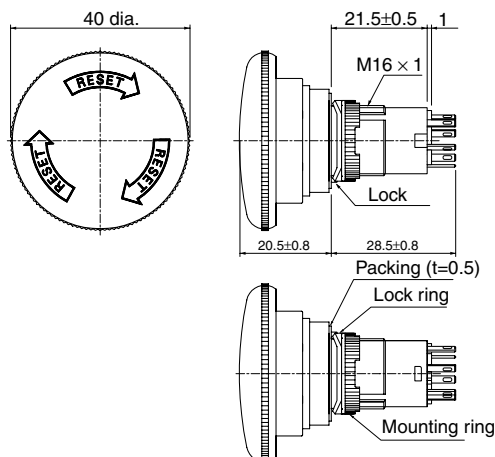
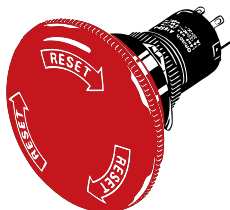
Lighted models  
40 mm diameter



- When applying a coating such as paint to the panel, dimensions after the coating must satisfy the specified dimensions.
- Recommended panel thickness: 0.5 to 3.2 mm.

## A165E-M-03U

One-piece construction models  
40 mm diameter



- When applying a coating such as paint to the panel, dimensions after the coating must satisfy the specified dimensions.
- Recommended panel thickness: 0.5 to 3.2 mm.

## Ordering

### Model Number Structure (Completely Assembled)

(Shipped as a set that includes the Operation Unit and light source.)

A165E – □ – □ – □

① ② ③

#### ① Operation Unit Shape and Function

S: Non-lighted, push-lock, turn-reset, 30 dia. pushbutton

LS: Lighted, push-lock, turn-reset, 40 dia. pushbutton

M: Non-lighted, push-lock, turn-reset, 40. dia. pushbutton

LM: Lighted, push-lock, turn-reset, 40 dia. pushbutton

#### ② Light Source

None: Non-lighted

24D: LED, 24 VAC/VDC  $\pm 5\%$  operation voltage, 24 VAC/VDC rated voltage

Note: Models with separate construction (SPST-NC and DPST-NC) are for normal loads only. One-piece models (TPST-NC) are for either normal loads or microloads.

#### ③ Contacts

01: SPST-NC

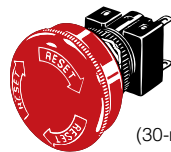

02: DPST-NC

03U: TPST-NC\*

\*TPST-NC models have once-piece construction with the contact unit. Only non-lighted models are available.

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### List of Models

Diameter of Operation Unit	Function	Model	Shape
30-mm models 40-mm models	Push-Lock, turn-reset	A165E	Separate construction  (30-mm model)
		A165E-□-03U	One-piece construction  (30-mm model)

### List of Sets



Illumination	Rated voltage	Pushbutton color	Pushbutton size	Terminal	Contact form	Model
LED	24 VAC/VDC	Red	30 dia.	Solder terminal	SPST-NC	A165E-LS-24D-01
Non-lighted	---				DPST-NC	A165E-LS-24D-02
					SPST-NC	A165E-S-01
					DPST-NC	A165E-S-02
LED	24 VAC/VDC		40 dia.		SPST-NC	A165E-LM-24D-01
Non-lighted	---				DPST-NC	A165E-LM-24D-02
					SPST-NC	A165E-M-01
					DPST-NC	A165E-M-02
Non-lighted	---		30 dia.		TPST-NC	A165E-S-03U
			40 dia.			A165E-M-03U

 = Highlighted **Rapid Delivery** products are available for shipment today or within **FIVE** days.


## Ordering (continued)

### Individual Parts (for Switches with Separate Construction)


#### Operation Units

Appearance	Illumination	Model
30 dia. 	Non-lighted	A165E-S
	Lighted	A165E-LS
40 dia. 	Non-lighted	A165E-M
	Lighted	A165E-LM

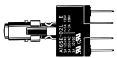
#### Switches

Appearance	Illumination	Contact form	Model
	Non-lighted	SPST-NC	A165E-01
		DPST-NC	A165E-02
	Lighted	SPST-NC	A165E-01L
		DPST-NC	A165E-02L

#### Lamps





Appearance	LED color		Rated voltage	Model
	Red	Bright	5 VDC	A16-5DSR
			12 VAC/VDC	A16-12DSR
			24 VAC/VDC	A16-24DSR

#### Switch Units

Appearance	Illumination	Contact form	Model
	Lighted	SPST-NC	A165E-R-24D-01
		DPST-NC	A165E-R-24D-02

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### Accessories (Order separately)

Item	Appearance	Type	Model	Precautions
Yellow Plate		Yellow, 45 dia.	A16Z-5070	Use this as an emergency stop nameplate.
Panel Plug		Round	A16ZT-3003	Used for covering the panel cutouts for future panel expansion. Degree of protection: IP40 Color: Black
Tightening Tool		---	A16Z-3004	Useful for repetitive mounting. Be careful not to tighten excessively.
Extractor			A16Z-5080	Convenient for extracting the Switch and Lamp.