

Pushbuttons, Selector Switches and Pilot Lights



NEW Enhanced brightness with low current consumption



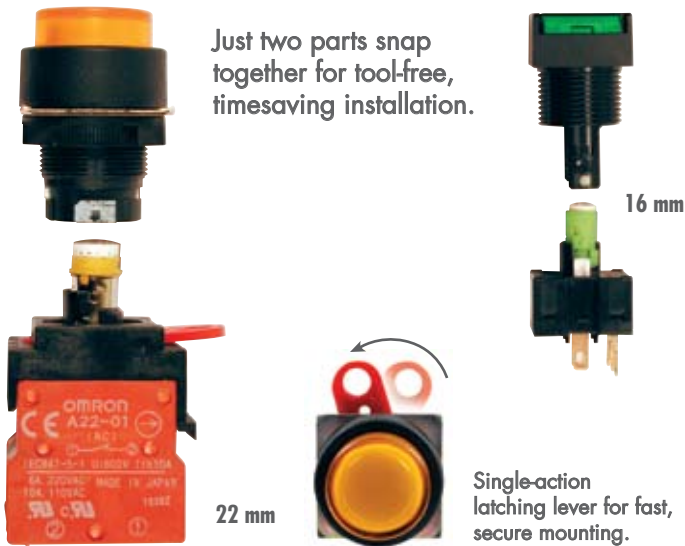
Build-to-Order Guides help you select the right model.

- » Wide range of styles in 16 mm and 22 mm
- » Over 6,000 models available
- » Short delivery time
- » Assembled to your order in U.S.A.

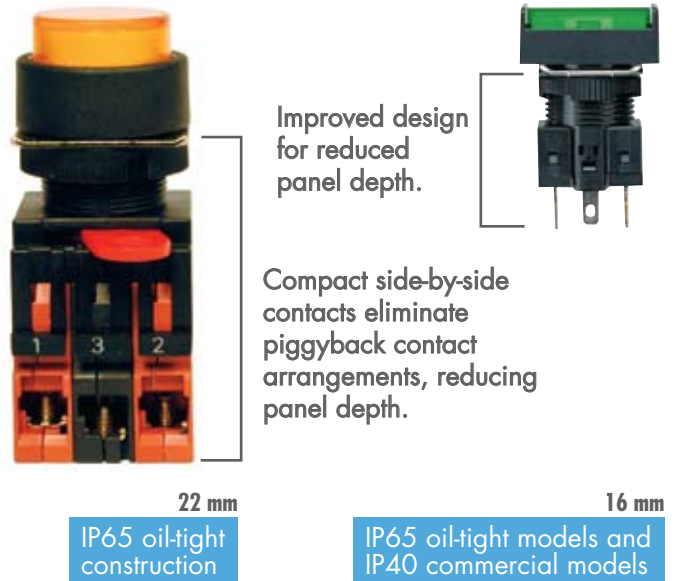
Why Choose Omron Industrial Switches?

Omron offers build-to-order Pushbuttons, Selector Switches and Pilot Lights to shorten delivery time and increase the availability of the exact parts you want. They are assembled at Omron's manufacturing facility in St. Charles, IL, so no matter where you are located, parts reach you in a just few days or overnight as needed. Use this guide to choose from over 6,000 part combinations as well as legend plates and accessories. Choose Omron for your next control panel project.

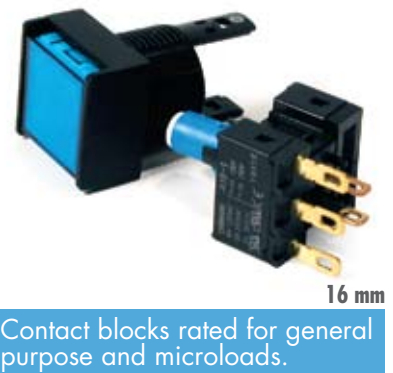
Reduce Installation Time



Reduce Panel Depth



Other Features



Super-bright LED illumination offers 60 times longer life than incandescent lamps, reducing maintenance.



All 16 mm and 22 mm models are UL and CE approved.

Ultra-bright, Energy Saving LEDs



Everyone wants to do their part for the environment and reducing power consumption can make a small but notable difference. Omron redesigned lighted pushbuttons, selector switches and indicators to take advantage of ultra-bright, energy-saving LEDs. Available now on 16 mm models, the new LEDs will be available soon on 22 mm models.

Bright, Evenly Lit Colors

Design your control panels with Omron's ultra-bright switches for appealing aesthetics and rich color evenly distributed across the lighted surface. Compared to Omron's previous LED, switches using the new lamp are fully 20% brighter for improved visibility for operators.

How Big is the Energy Savings?

Depending on the lamp voltage and color, Omron has reduced the current consumption by 20% to 73%! The milliamps saved add up to a fair energy savings over the years of operation and increased LED lifetime.

Lamp voltage	LED color	Before	After	Reduction
5 VDC	Red	15 mA	8 mA	47%
	Yellow, White, Green, Blue	30 mA	8 mA	73%
12 VDC	All colors	15 mA	8 mA	47%
24 VDC	All colors	10 mA	8 mA	20%

Eliminate Wiring Errors

The 12 V and 24 V switches now accept both AC and DC voltages. Non-polarized terminals are now provided to eliminate polarity errors during wiring. This flexibility also helps reduce inventory costs for panel builders and for customers who buy their machines.



Locally Built to Your Order

Fast Delivery From Local Stock

Omron builds the exact switches you need, when you need them, from a large local stock of components. Omron's manufacturing facility in St. Charles, Illinois makes 100% quality tested switches on a modern production line that meets both ISO-9000 and ISO-14000 standards.

Contact your Omron sales representative today for build-to-order switches and custom-built control panels.

Do You Need Custom-Built Panels?

Our manufacturing facility is a UL-certified panel builder ready to help you design and build control panels using Omron pushbutton switches, pilot lights, power supplies and other controls. We even incorporate controls from your preferred suppliers to maintain your standardized usage. Each panel is fully tested, documented then delivered ready to install on your machine.

Do You Need More Info?

Visit **omron247.com** and enter "pushbuttons," "switches," or "pilot lights" in our search center to learn more. You can also view part numbers of our most popular pushbutton types with complete part number description and pricing.

The screenshot shows the Omron website interface for industrial automation products. The main content area displays a list of pushbutton switches under the heading "A165". The table below provides detailed information for several models.

Part No.	SKU	Price	Qty	Description	Shape	Operator Color	Operating Function	Contact Form	Light Source
A165-A4N-0		\$14.71	1	Non-Illuminated 18 mm Pushbutton Switch, SPST, Sub-D Terminal	Square	Blue	Momentary	DPST	N/A
A165-A4N-1		\$14.21	1	Non-Illuminated 18 mm Pushbutton Switch, SPST, Sub-D Terminal	Square	Black	Momentary	DPST	N/A
A165-A4N-2		\$14.21	1	Non-Illuminated 18 mm Pushbutton Switch, SPST, Sub-D Terminal	Square	Red	Momentary	DPST	N/A
A165-A4N-3		\$14.21	1	Non-Illuminated 18 mm Pushbutton Switch, SPST, Sub-D Terminal	Square	Yellow	Momentary	DPST	N/A
A165-16P-1		\$14.21	1	Non-Illuminated 18 mm Pushbutton Switch, SPST, Sub-D Terminal	Rectangular	Green	Momentary	DPST	N/A
A165-16P-2		\$14.21	1	Non-Illuminated 18 mm Pushbutton Switch, SPST, Sub-D Terminal	Rectangular	Red	Momentary	DPST	N/A

Additional features visible on the page include a search bar, navigation tabs (Automation, Motion & Drives, Sensing, Safety, Control), and a sidebar with links to CAD Drawings, Application Solutions, and Top Sellers Center.

A22 Series: Overview

Reliable oil-tight pushbutton switches offer a wide range of shapes and colors. A locking lever ensures easy mounting and removal of the switch unit. To increase wiring efficiency and decrease mounting depth, switches feature a three-row mounting of switch contact blocks.



- Finger protection mechanism on switch unit provided as a standard feature
- Mounted using either open-type (fork-type) or closed-type (round-type) crimp terminals.
- Use 25-dia. ring to install in 25-dia. panel cutouts.
- Wide range of shapes and colors.
- IP65 oil resistant
- EN60947-5-1, IEN60947-5-1

Available Styles

	Series	Page
Pushbutton Switch, Non-Lighted	A22	5
Pushbutton Switch, Lighted	A22L	5
Emergency Stop Switch, Non-Lighted	A22E	6
Emergency Stop Switch, Lighted	A22EL	6
Selector Switches, Non-Lighted	A22S	7
Selector Switches, Lighted	A22W	7
Keyed Selector Switches	A22K	8
Pilot Light	M22	9



Automation...simple...powerful.

A22 Non-Lighted Pushbutton Switches, 22 mm dia., A22L Lighted Pushbutton Switches, 22 mm dia.

Non-Lighted



Round Flat
A22-F



Round
Projection
A22-T



Round Full
Guard
A22-G



Round Half
Guard **A22-H**

Non-Lighted



Square
Projection
A22-C



Square
Full Guard
A22-D



Round Mushroom
Head 30 mm dia.
A22-S



Round Mushroom
Head 40 mm dia.
A22-M

Lighted



Lighted Round
Projection
A22L-T



Lighted Round
Full Guard
A22L-G



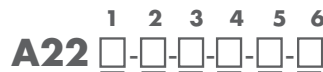
Lighted Round
Half Guard
A22L-H



Lighted Square
Projection
A22L-C



Lighted Square
Full Guard
A22L-D



1 Lighted/Non-lighted

Code	Description
No symbol	Non-lighted
L	Lighted

2 Flange Shape

Non-lighted	
Code	Description
F	Round/Flat
T	Round/Projection
G	Round/Full-guard
H	Round/Half-guard
C	Square/Projection
D	Square/Full-guard
S	Round/Mushroom (30-dia. head)
M	Round/Mushroom (40-dia. head)
Lighted	
T	Round/Projection
G	Round/Full-guard
H	Round/Half-guard
C	Square/Projection
D	Square/Full-guard

3 Illumination Color

Code	Description
R	Red
G	Green
Y	Yellow
W	White
A	Blue
B	Black (for non-lighted type only)

4 Light Source

Without Voltage Reduction Unit		
Code	Operating Voltage	
No symbol	Non-lighted	
6D	LED	6 VDC
6A		6 VAC
12A		12 VAC/VDC
24A		24 VAC/VDC
With Voltage Reduction Unit		
T1	LED	110 VAC (See note 1)
T2		220 VAC (See note 2)

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

Note: 1. Add a "-1" suffix to part number when ordering two contact styles consisting of one contact block.

2. Double contact block types add 18mm in depth and 10 mm in width from single contact types.

6 Switch Action

Code	Description
M	Momentary
A	Alternate

Note: 1. Operational voltage: 95 to 115 VAC
2. Operational voltage: 190 to 230 VAC
3. The LED lamp (24 VAC/VDC) can be lit by directly applying 100 VAC/VDC (200 VAC/VDC) to the lamp terminal.
4. LED incorporates the 24 VAC/VDC type to the Voltage Reduction Unit models.

A22E Series: Emergency Stop Switches, 22 mm dia.

Use these e-stop switches as part of a Safety Category 4 system.

- Direct opening mechanism opens the circuit when the contact welds.
- Safety lock mechanism prevents operating errors.
- Easily mount and remove Switch Blocks using a lever.
- Mount three Switch Units in series to improve wiring efficiency.
- Finger protection mechanism on Switch Unit provided as a standard feature.
- Install using either round or forked crimp terminals.
- Oil-resistant to IP65



Push-pull



Round Medium
40 mm dia.
Push-pull
A22E-MP



Round Large
60 mm dia.
Push-pull
A22E-LP

Push-lock turn-reset



Round Large
30 mm dia.
Push-lock turn-reset
A22E-S



Round Medium
40 mm dia.
Push-lock turn-reset
A22E-M



Round Large
60 mm dia.
Push-lock turn-reset
A22E-L



Lighted Round
Medium 40 mm dia.
Push-lock turn-reset
A22EL-M

A22E 1 2 3 4 5

1 Lighted/Non-lighted

Code	Description
None	Non-lighted
L	Lighted (See note.)

Note: Lighted Emergency Stop Switches are available only for the medium (M) push-lock turn-reset models.

2 Head Size

Code	Size	Description
MP	Medium 40 dia.	Push-pull
LP	Large 60 dia.	
S	Small 30 dia.	Push-lock turn-reset
M	Medium 40 dia.	
L	Large 60 dia.	
SK	Small 30 dia.	
MK	Medium 40 dia.	Push-lock key reset

3 Light Source

Without Voltage Reduction Unit		
Code	Operating Voltage	
None	Non-lighted	
6D	LED	6 VDC
6A		6 VAC
12A		12 VAC/VDC
24A		24 VAC/VDC
With Voltage Reduction Unit		
None	Non-lighted	
T1	LED	110 VAC
T2		220 VAC

Note: 1. The LED lamp (24 VAC/VDC) can be lit by directly applying 110 VAC/VDC (220 VAC/VDC) to the lamp terminal. LED incorporates the 24 VAC/VDC models.
2. Equipped with 24 VAC/DC LED.

4 Contacts

Code	Description
01	SPSTNC
11	SPSTNO + SPSTNC
02	DPSTNC

Note: 1. Add a "-1" suffix to part number when ordering two contact styles consisting of one contact block.
2. Double contact block types add 18mm in depth and 10 mm in width from single contact types.

5 Configuration

Code	Configuration
None	Switch only
B	Switch with Integrated Control Box

A22S Selector Switches, Non-Lighted, 22 mm dia.

A22W Selector Switches, Lighted, 22 mm dia.

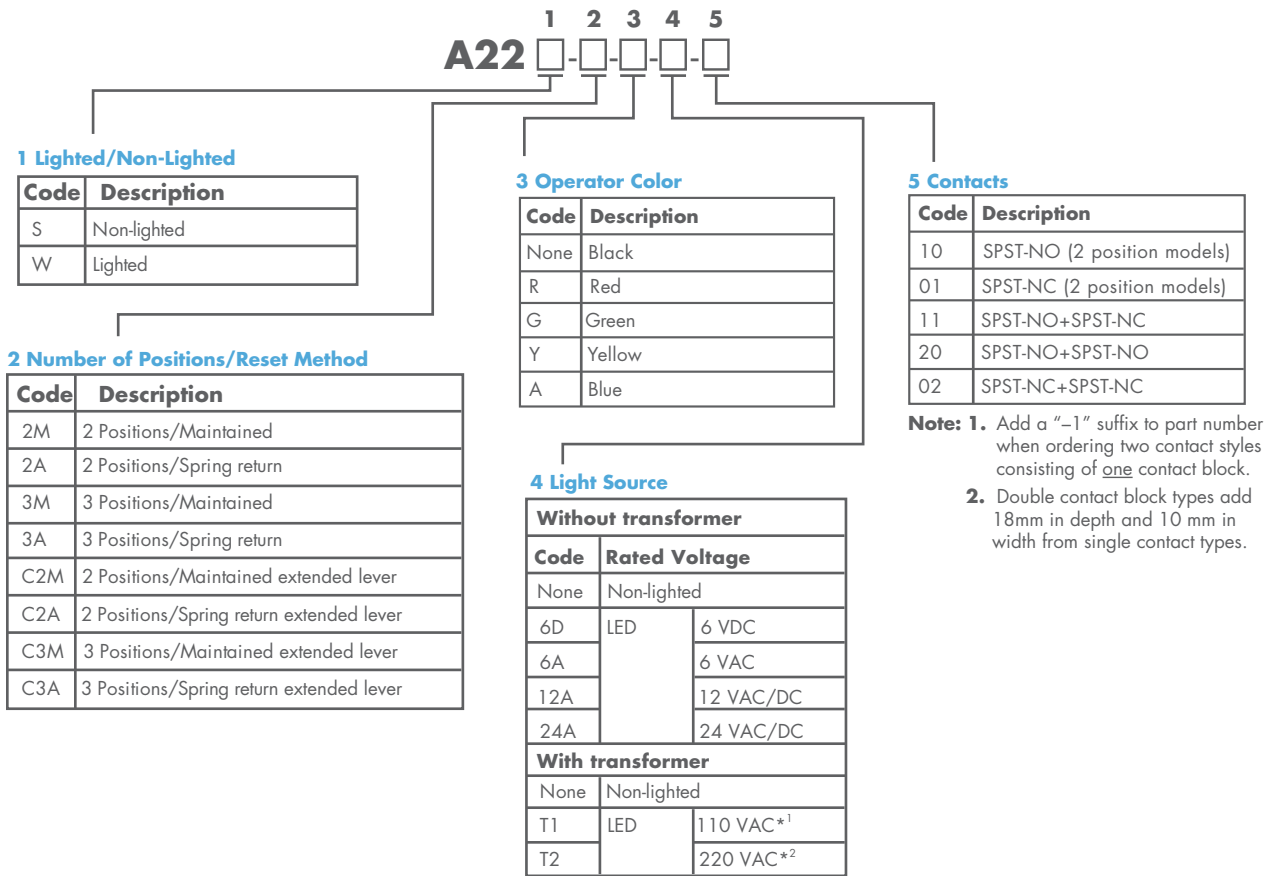
Knob style selector switches provide users a reliable way to start or choose between machine operations. Two- and three-position switches with manual or automatic reset are available in non-lighted and lighted models. Use optional legend plates to identify the selections.



Non-lighted
Selector Switch
A22S



Lighted
Selector Switch
A22W



Note: 1. Add a “-1” suffix to part number when ordering two contact styles consisting of one contact block.

2. Double contact block types add 18mm in depth and 10 mm in width from single contact types.

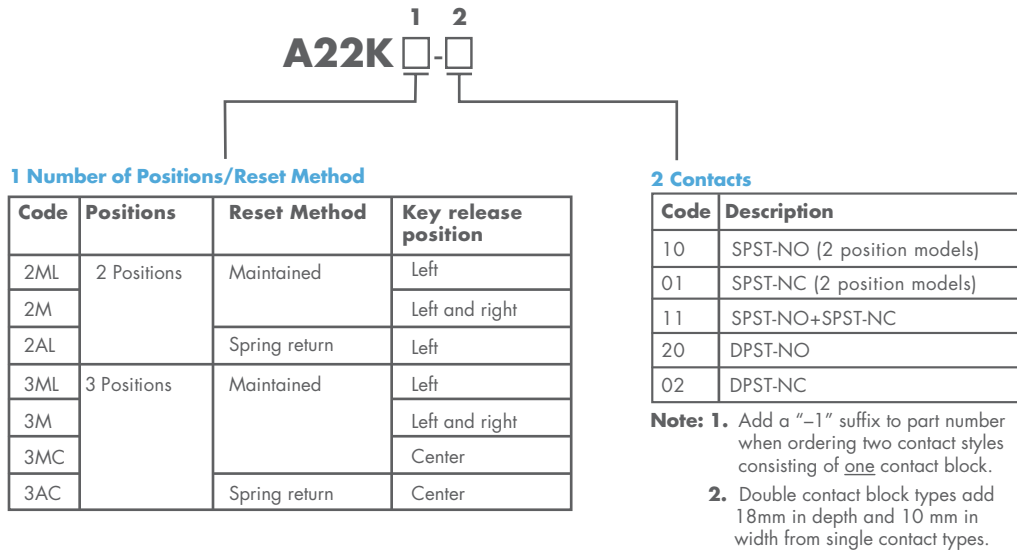
- Note: 1.** Operational voltage: 95 to 115 VAC
2. Operational voltage: 190 to 230 VAC
3. The LED lamp (24 VAC/VDC) can be lit by directly applying 100 VAC/VDC (200 VAC/VDC) to the lamp terminal.
4. LED incorporates the 24 VAC/VDC type to the Voltage Reduction Unit models.

A22K Series: Keyed Selector Switches, 22 mm dia.

Design in extra security with keyed selector switches. Only authorized operators are allowed to change settings using the key.



Keyed selector switch
A22K



Contact Configurations for Selector Switches A22K, A22S, A22W Models

2 Position Type					
Knob position	SPST-NO	SPST-NC	SPST-NO+SPST-NC	DPST-NO	DPST-NC

3 Position Type						
Knob position	SPST-NO+SPST-NC		DPST-NO		DPST-NC	

M22 Series: Pilot Lights, 22 mm dia.

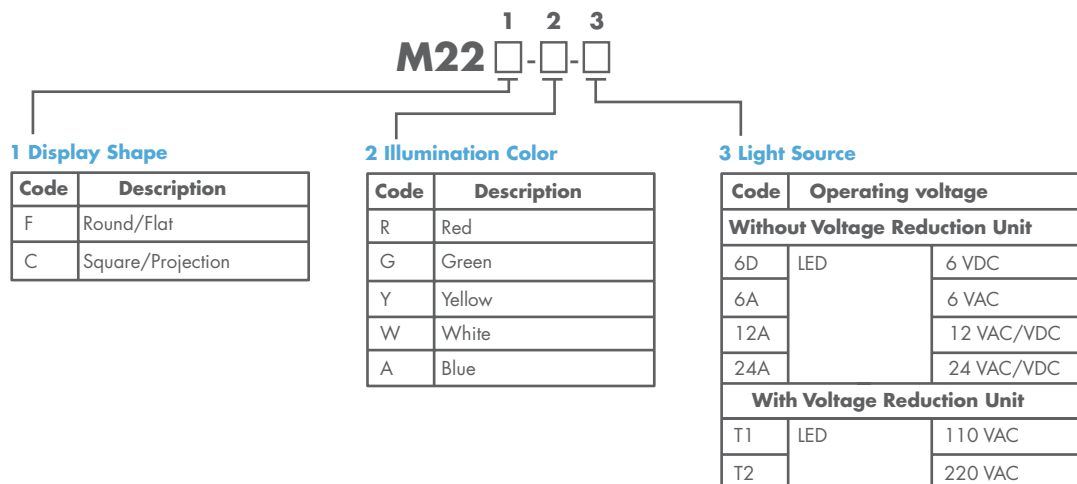
Pilot lights indicate status of machinery and processes on control panels. Bright LED light source is easy to read under most lighting conditions.



Square projection
pilot light
M22-CR



Round flat
pilot light
M22-FR



Note: The LED lamp (24 VAC/VDC) can be lit by directly applying 110 VAC/VDC (220 VAC/VDC) to the lamp terminal. LED incorporates the 24 VAC/VDC type.

A16 Series: Overview

Space-saving pushbutton switches offer a wide range of sizes, shapes and colors to match your panel requirements. Lighted models use color LED lamps instead of colored lenses so the switch appears white when unlit and a vivid color when lit. The LED lamp lasts 60 times longer than switches with incandescent lamps, lowering maintenance costs over the life of the machine.



- New Enhanced Brightness
- New Low Current types
- New non-polarized types
- New vivid color options including "Pure White"
- Quick and easy assembly, snap-in switch
- Shapes to match your aesthetic requirements: round, square and rectangular
- Wide range of switching capacity from standard to microload
- High reliability, in standard IP40 and oil-resistant IP65 models
- Short mounting depth, less than 28.5 mm below panel
- Conforms to EN60947-5-1, IEC60947-5-1

Available Styles

Available Styles	Series	Page
Pushbutton Switch, Non-Lighted, IP40	A16	11
Pushbutton Switch, Non-Lighted, IP65	A165	11
Pushbutton Switch, Lighted, IP40	A16L	11
Pushbutton Switch, Lighted, IP65	A165L	11
Emergency Stop Switch, Non-Lighted	A165E	12
Emergency Stop Switch, Lighted	A165E-L	12
Selector Switches, Non-Lighted, IP65	A165S	13
Selector Switches, Lighted, IP65	A165W	13
Keyed Selector Switches, IP65	A165K	14
Pilot Light, IP40	M16	15
Pilot Light, IP65	M165	15
Buzzer	M2BJ	15



Automation...simple...powerful.

A16 Series: Pushbutton Switches, 16 mm dia.

These switches deliver the wide range of options to match most of your panel building needs:

- Protection: IP65 oil-resistant models (A165) and standard IP40 models (A16)
- Lighting: Non-lighted (A16 and A165) and lighted (A16L and A165L)

Round



Lit and Unlit Round Projection
A16-T, A16L-T
A165-T, A165L-T



Lighted Round Projection,
110 VAC Transformer
A16L-T-T1
A165L-T-T1



Lighted Round Projection,
220 VAC Transformer
A16L-T-T2
A165L-T-T2

Square



Lit and Unlit Square
2-Way Guard
A16-A, A16L-A,
A165-A, A165L-A



Lighted Square 2-Way
Guard, 110 VAC
Transformer
A16L-A-T1
A165L-A-T1



Lighted Square 2-Way
Guard, 220 VAC
Transformer
A16L-A-T2
A165L-A-T2

Rectangular



Lit and Unlit Rectangular
2-Way Guard
A16-J, A16L-J,
A165-J, A165L-J



Lighted Rectangular
2-Way Guard, 110 VAC
Transformer
A16L-J-T1
A165L-J-T1



Lighted Rectangular
2-Way Guard, 220 VAC
Transformer
A16L-J-T2
A165L-J-T2

A16 ¹**5** ²**L** ³**J** ⁴**R** ⁵**M** ⁶**24D** ⁷**2**

1 Degree of Protection

Symbol	Protection
None	IP40
5	IP65 oil-resistant

2 Lighted/Non-lighted

Symbol	Type
None	Non-lighted
L	Lighted

3 Shape of Pushbutton

Symbol	Shape	
J	Rectangular	2-way guard
A	Square	2-way guard
T	Round	Projecting model

4 Color of Pushbutton

Symbol	Color
R	Red
Y	Yellow
PY	Pure yellow
G	Green
W	White
PW	Pure White
A	Blue
B	Black (non-lighted models only)

"Colored-illumination" models operate in the way shown below:
Unlit Lit



The built-in LED is colored.

5 Switch Operation

Symbol	Operation
M	Momentary
A	Alternate

Momentary: Self-resetting.
Alternate: Self-holding.

7 Contact Configuration

Symbol	Type	Terminal
1	SPDT	Solder Terminal
2	DPDT	
1P	SPDT	PCB Terminal
2P	DPDT	Screw-Less Clamp
2S	DPDT	

Only DPDT contacts are available with Screw-Less Clamp.

6 Light Source

Symbol	Type	Operating voltage	Rated voltage
None	Non-lighted		
5D	LED	5 ±5% VDC	5 VDC
12D		12 ±5% VAC/VDC	12 VAC/VDC
24D		24 ±5% VAC/VDC	24 VAC/VDC

Voltage Reduction Unit (24-V Built-in LED)

Symbol	Type	Operating voltage	Rated voltage
T1	LED	90 to 121 VAC/VDC	110 VAC
T2		180 to 242 VAC/VDC	220 VAC

- Note:
1. Solder terminals are available only with 100-V models.
 2. The Voltage Reduction Unit is not available for models with PCB terminals.
 3. "T2" is available only for the Screw-Less Clamp type.

A165E Series: Emergency Stop Switches, 16 mm dia.

Use these e-stop switches as part of a Safety Category 4 system.

- Direct opening mechanism to open contacts in emergencies, such as when they are welded.
- Conforms to EN60418.
- 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).



Push-lock
turn-reset



Lighted Round Small
30 mm dia.,
Push-lock turn-reset
A165E-LS



Round Medium
40 mm dia.,
Push-lock turn-reset
A165E-S



Round Medium
40 mm dia.,
Push-lock turn-reset
A165E-M

A165E 1 - 2 - 3

IP65 (Oil-resistant)

1 Operation Unit Shape and Functions

Code	Functions	Pushbutton
S	Non-lighted	30 dia.
LS	Lighted	
M	Non-lighted	40 dia.
LM	Lighted	

2 Light Source

Code	Type	Operation voltage	Rated voltage
None	Non-lighted	—	—
5D	LED	5 VDC	5 VDC
12D	LED	12 VDC	12 VAC/DC
24D	LED	24 VDC	24 VAC/DC

3 Contacts

Code	Description
01	SPSTNC
02	DPSTNC
03U	TPSTNC (See note.)

Note: TPSTNC models have one-piece construction with the contact unit. Only non-lighted models are available.

Note: Models with separate construction (SPSTNC and DPSTNC) are for normal loads only. One-piece models (TPSTNC) are for either normal loads or microloads.

A165S Selector Switches, Non-Lighted, 16 mm dia.

A165W Selector Switches, Lighted, 16 mm dia.

Knob style selector switches provide users a reliable way to start or choose between machine operations. Two- and three-position switches with manual or automatic reset are available in non-lighted and lighted models. Use optional legend plates to identify the selections.

Non-Lighted



Square Base Selector Switch
A165S-A



Rectangular Base Selector Switch
A165S-J



Round Base Selector Switch
A165S-T

Lighted



Lighted Square Base Selector Switch
A165W-A



Lighted Rectangular Base Selector Switch
A165W-J



Lighted Round Base Selector Switch
A165W-T

A 165 **W**-**A**-**2A****R**-**24D**-**1**

1 Lighted/Non-lighted

Symbol	Type
S	Non-lighted
W	Lighted

2 Shape of Selector

Symbol	Shape
J	Rectangular
A	Square
T	Round

3 Number of Notches/Resetting Method

Symbol	No. of notches	Reset method
2M	2 notches	Manual
2A		Automatic
3M	3 notches	Manual
3A		Automatic

4 Color of Selector

Symbol	Color
None	Black (non-lighted models only)
R	Red
G	Green
Y	Yellow

5 Light Source

Symbol	Type
None	Non-lighted
5D	5 VDC LED
12D	12 VAC/DC LED
24D	24 VAC/DC LED

6 Contact Configuration

Symbol	Type	Terminal
1	SPDT	Solder terminal
2	DPDT	
1P	SPDT	PCB terminal
2P	DPDT	
2S	DPDT	Screw-Less Clamp

Note: 1. Only DPDT contacts are available with 3-notch models and Screw-Less Clamp models.

2. PCB terminals are available only with 2-notch models.

Voltage Reduction Unit (24-V Built-in LED)

Symbol	Type	Rated voltage
T1	LED	110 VAC/VDC
T2		220 VAC/VDC

Note: 1. Solder terminals are only available with "T1" 110-V models.

2. The Voltage Reduction Unit is not available for models with PCB terminals.

A165K Series: Keyed Selector Switches, 16 mm dia.

Design in extra security with keyed selector switches. Only authorized operators are allowed to change settings using the key.



Square Base Keyed Selector Switch
A165K-A



Rectangular Base Keyed Selector Switch
A165K-J



Round Base Keyed Selector Switch
A165K-T

A165K-J-3ML-2

1 Shape of Selector

Symbol	Shape	Color
J	Rectangular	Black
A	Square	
T	Round	

2 Number of Notches/Resetting Method

Symbol	No. of notches	Reset method	Key release position
2ML	2 notches	Manual	Left
2MR			Right
2M		Automatic	Left and right
2AL			Left
3MC	3 notches	Manual	Center
3MR			Right
3ML		Left	
3M		Left, right, and center	
3AC	3 notches	Automatic	Center

3 Contact Configuration

Symbol	Type	Terminal
1	SPDT	Solder Terminal
2	DPDT	Solder Terminal
2S	DPDT	Screw-Less Clamp

- Note:**
- Only DPDT contacts are available with 3-notch models.
 - PCB terminals are available only with 2-notch models.

Contact Configurations for Selector Switches A165K, A165S, A165W Models

2 Position Type			
Knob position	SPDT (SW)	DPDT (SW1)	DPDT (SW2)
3 Position Type			
Knob position	DPDT (SW1)	DPDT (SW2)	

2 Position

3 Position



SW

SW1

SW2

Automation...simple...powerful.

M16 Series: Pilot Lights, 16 mm dia.

Pilot lights indicate status of machinery and processes on control panels. Bright LED light source is easy to read under most lighting conditions.

- Easy mounting and removal of socket unit.
- Standard IP40 and oil-resistant IP65 models



Square Pilot Light
M16-A, M165-A



Rectangular Pilot Light
M16-J, M165-J



Round Pilot Light
M16-T, M165-T

M 1 6-5-T R-24D-S

1 Degree of Protection

Symbol	Protection
No symbol	IP40
5	IP65 oil-resistant

2 Shape of Display

Symbol	Shape
J	Rectangular
A	Square
T	Round

3 Color of Display

Symbol	Color
R	Red
G	Green
Y	Yellow
PY	Pure yellow
W	White
PW	Pure White
A	Blue

5 Terminal Type

Symbol	Terminal type
No symbol	Solder terminals
S	Screw-Less Clamp

4 Light Source

Symbol	Type	Operating voltage	Rated voltage
5D	LED	5 ±5% VDC	5 VDC
12D		12 ±5% VAC/VDC	12 VAC/VDC
24D		24 ±5% VAC/VDC	24 VAC/VDC

Voltage Reduction Unit (24-V Built-in LED)

Symbol	Type	Rated voltage
T1	LED	110 VAC/VDC
T2		220 VAC/VDC

Solder terminals are available only with "T1" 110-V models.

M2BJ Series: Panel-Mounted Buzzer, 16 mm dia.

- Four models offer eight different types of sounds, plus two modes with high-sound output
- Intermittent or continuous sound selected by jumper setting
- Jumper storage provided at bottom of unit
- Complements the A16 range of Pushbuttons, Selector Switches and Key Switches.



Standard Sound Buzzer
M2BJ



High Volume Sound Buzzer
M2BJ-H

M2BJ-B 1 2 3 2

1 Sound Output

Symbol	Output
None	Standard Sound
H	High Volume Sound











2 Supply Voltage

Symbol	Voltage Range
06	6 VAC/VDC
24	12 to 24 VAC/VDC
24-D	12 to 24 VDC

3 Sound Types









Symbol	Sound with/without jumper
None	Intermittent/Continuous
A	Intermittent short/Intermittent long
B	Intermittent high pitched/Continuous high pitched
C	Intermittent short, high-pitched/Intermittent long, high-pitched
D	Intermittent high-pitched/Continuous
E	Intermittent short/Intermittent long

Accessories: 22 mm Switches

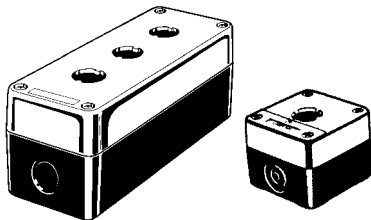
Item		Appearance	Classification		Remarks	Part Number
Contact Blocks		SPST-NO	General-purpose load	Provided as standard. Order contact blocks only when adding or replacing them.	A22-10	
			Mircoload		A22-10S	
			SPST-NC		General-purpose load	A22-01
			Mircoload		A22-01S	
		SPST-NO+SPST-NC	General-purpose load		A22-11	
		DPST-NO	General-purpose load		A22-20	
			Mircoload		A22-20S	
			DPST-NC		General-purpose load	A22-02
		Mircoload			A22-02S	
Lamp Sockets		Direct lighting	Used when changing the lighting method.	A22-TN		
		Transformer illumination		110 VAC	A22-T1	
				220 VAC	A22-T2	
Mounting Latches		For momentary operation models	Provided as standard. Order mounting latches only when mounting contact blocks or lamp sockets are purchased individually.	A22-3200		
		For maintained operation models		A22-3210		
Legend plate frames	Standard size	With Snap-in Legend Plate (without text)	White	Snap-in legend plate is acrylic.	A22Z-3321	
			Red		A22Z-3322	
			Black		A22Z-3323	
		Without Snap-in Legend Plate			A22Z-3320	
		Large size	With Snap-in Legend Plate (without text)		White	A22Z-3331
					Red	A22Z-3332
	Black				A22Z-3333	
	Without Snap-in Legend Plate		A22Z-3330			
	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 projection models	Replace with the standard model. Material: nickel-plated zinc.	A22Z-3580		
		For full-guard models		A22Z-3582		
Sealing Caps		For flush models	Used to prevent dust or water from entering the operational unit. Color: opaque. Material: silicon.	A22Z-3600F		
		For extended models		A22Z-3600T		
		For full-guard models		A22Z-3600G		
Color lenses		Red	Used for changing the operational unit color of the pushbutton switch.	A22Z-30TR		
		Green		A22Z-30TG		
		Yellow		A22Z-30TY		
		White		A22Z-30TW		
		Blue		A22Z-30TA		
Three-throw spacers		For Pushbutton 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 expansion. The color is black. Can be fit into a 25mm dia. hole in the panel.	A22Z-3550		
25 mm dia. ring		25 mm ring	Since this is not attached to the main body, order separately.	A22Z-R25		

Automation...simple...powerful.

Accessories, 22 mm *continued*

Item		Appearance	Classification		Remarks	Part Number
Snap-in legend plates	Standard size		Without text	Black	Attached to the standard-size legend plate frame. Material: Acrylic.	A22Z-3443B
				Red		A22Z-3443R
				White		A22Z-3443W
				Transparent		A22Z-3443C
			White text on red background	○		A22Z-3443R-2
				STOP		A22Z-3443R-4
			White text on black background			A22Z-3443B-1
				START		A22Z-3443B-3
				ON		A22Z-3443B-5
				OFF		A22Z-3443B-6
				UP		A22Z-3443B-7
				DOWN		A22Z-3443B-8
	POWER ON	A22Z-3443B-9				
	OFF-ON	A22Z-3443B-10				
	Large size		Without text	Black	Attached to the large-size legend plate frame. Material: Acrylic.	A22Z-3453B
Red				A22Z-3453R		
White				A22Z-3453W		
Transparent				A22Z-3453C		
For Emergency Stop Switch		60 dia. round plate with black letters on a yellow background 90 dia. round plate with black letters on a yellow background	"EMERGENCY STOP" is engraved on the plate. used as an emergency stop switch legend plate.		A22N-PE190	
					A22N-PE191	
Character films		No print (Round) Character print (Round) No print (Square)	After printing on a film, affix to the indicator plate of the illuminated pushbutton switch (The back is coated with adhesive.)		A22Z-3460	
					START	A22Z-3460-1
					STOP	A22Z-3460-2
						A22Z-3460-3
						A22Z-3460-4
Lamp extractor			Rubber tool used to easily replace lamps.		A22Z-3901	
Tightening wrench			Tool used to tighten nuts from the back of the panel.		A22Z-3905	
Lens tightening tool			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 lighted pushbutton switch.		A3PJ-5080	

Enclosures



Material	Hole Size	Number of Holes	Part Number
Polycarbonate	22.5 mm (0.88 in)	1	A22Z-B101
		2	A22Z-B102
		3	A22Z-B103
	22.5 mm (0.88 in)	1	A22Z-B101Y*

* Yellow box for emergency stop

Accessories, 22 mm continued

A22 Standard Nameplates

To complete the part number of the standard nameplates, select the plate type and add the number from the table below for the required text.

All plastic nameplates are adhesive backed for easy, permanent installation.

For custom engraved nameplates please use the order form on the next page.

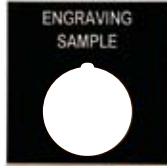
Example: Plastic Square Nameplate engraved "RESET": A22N-PS38



Code	Material/Shape
PR	Plastic Rectangular



Code	Material/Shape
PS	Plastic Square



Code	Material/Shape
PX	Plastic Shield



Code	Material/Shape
MR	Metal Rectangular



All plastic nameplates are supplied standard with white lettering on a black background.

Metal nameplates are brushed aluminum with black lettering.

1	AUTO	26	LOWER	50	3RD SPEED	122	SAFE-RUN	167	OFF-LOC-REMOTE
2	CLOSE	27	MOTOR RUN	51	4TH SPEED	123	SLOW-FAST	168	OFF-MAN-AUTO
3	CYCLE START	28	MOTOR STOP	100	AUTO-MAN	124	START-JOG	169	OFF-SLOW-FAST
4	CYCLE STOP	29	OFF	101	CLOSE-OPEN	125	START-STOP	170	OFF-1-2
5	DECREASE	30	ON	102	DOWN-UP	126	STOP-START	171	OPEN-OFF-CLOSE
6	DOWN	31	OPEN	103	FAST-SLOW	127	SUMMER-WINTER	172	RAISE-OFF-LOWER
8	FAST	32	OUT	104	FOR-REV	128	UP-DOWN	173	SLOW-OFF-FAST
9	FAULT	33	POWER ON	105	HAND-AUTO	150	AUTO-MAN-OFF	174	SLOW-OFF-START
10	FEED	34	PULL TO START	106	HIGH-LOW	151	AUTO-OFF-HAND	175	START-JOG-STOP
11	FEED START	35	PUSH TO TEST	107	INCH-REVERSE	152	AUTO-OFF-MAN	176	START-RUN-STOP
12	FEED STOP	36	PUSH TO STOP	108	JOG-FOR	153	CLOSE-OFF-OPEN	177	UP-OFF-DOWN
13	FLUID LEVEL LOW	37	RAISE	109	JOG-REV	154	DOWN-OFF-SLOW	178	1-OFF-2
14	FORWARD	38	RESET	110	JOG-RUN	155	FAST-OFF-SLOW	179	HAND-OFF-AUTO
15	FULL SPEED	39	REVERSE	111	LEFT-RUN	156	FOR-OFF-REV	180	I
16	HAND	40	RIGHT	112	LOWER-RAISE	157	FOR-STOP-REV	181	II
17	HIGH	41	RUN	113	MAN-AUTO	158	HIGH-LOW-OFF	182	I-O
18	IN	42	SLOW	114	OFF-ON	159	HIGH-OFF-LOW	183	O-I
19	INCH	43	SPEED	115	ON-OFF	160	JOG-SAFE-RUN	184	I-O-II
20	INCREASE	44	START	116	OPEN-CLOSE	161	JOG-STOP-RUN	185	I-II
21	JOG	45	STOP	117	RAISE-LOWER	162	LEFT-OFF-RIGHT	186	I-O-I
22	JOG FORWARD	46	TEST	118	REV-FOR	163	LOC-OFF-HIGH	187	IH-II
23	LEFT	47	UP	119	RUN-INCH	164	LOW-OFF-HIGH	188	III
24	LOW	48	1ST SPEED	120	RUN-JOG	165	LOWER-OFF-RAISE	200	BLANK NAMEPLATE
25	LOW SPEED	49	2ND SPEED	121	RUN-SAFE	166	OFF-COOLANT ON		

Emergency Stop Nameplates



A22N-PR7



A22N-PS7



A22N-PX7



A22N-PE190
60 mm diameter



A22N-PE191
90 mm diameter

Automation...simple...powerful.

A22 Custom Engraved Nameplates Order Form



Copy this order form and utilize it to specify Custom Engraved Nameplates. Once completed, mail the form to:
Omron Electronics LLC, Attn.: Customer Service, One Commerce Drive, Schaumburg, IL 60173-5302
 Or you may fax this form to either Omron Electronics LLC at: 847.843.8261 or to your local Omron Sales office.

BILL TO: Date: _____

Company name: _____ Your name: _____

Address: _____ Your signature: _____

City/State/Zip: _____ PO#: _____

Attention: _____ Fax: _____

SHIP TO:

Company name: _____

Address: _____

City/State/Zip: _____

Attention: _____ Phone: _____

To order: Select blank nameplate **Shape** (circle A, B, C, or D). For plastic nameplates - Select **Nameplate Color** (circle Black, Yellow, Red or White). Select **Text Color** (circle Black or White). Note - Metal nameplates are brushed aluminum with black text. All plastic nameplates are adhesive backed.

Fill in the **QUANTITY** box. Print text in the spaces provided as it should appear on the finished nameplate.

A - Plastic Rectangular
 11 characters max.
 2 lines max.



A22N-PR200E

B - Plastic Square
 14 characters max.
 2 lines max.



A22N-PS200E

C - Plastic Shield
 11 characters max.
 2 lines max.



A22N-PX200E

D - Metal Rectangular
 11 characters max.
 2 lines max.



A22N-MR200E







Shape _____	A	B	C	D	<input style="width: 100px; height: 30px;" type="text"/>
Nameplate Color	Black	Yellow	Red	White	
Text Color _____	Black	White	QUANTITY		




Shape _____	A	B	C	D	<input style="width: 100px; height: 30px;" type="text"/>
Nameplate Color	Black	Yellow	Red	White	
Text Color _____	Black	White	QUANTITY		

Shape _____	A	B	C	D	<input style="width: 100px; height: 30px;" type="text"/>
Nameplate Color	Black	Yellow	Red	White	
Text Color _____	Black	White	QUANTITY		

Shape _____	A	B	C	D	<input style="width: 100px; height: 30px;" type="text"/>
Nameplate Color	Black	Yellow	Red	White	
Text Color _____	Black	White	QUANTITY		

Accessories, 16 mm Switches

Item	Appearance	Classification			Remarks	Part Number	
Switch guards		Rectangular		Square and Round	Cannot be used with the dust cover.	A16ZJ-5050	
		Square and Round				A16ZA-5050	
Dust covers		Rectangular		Square and Round	Cannot be used with the switch guard.	A16ZJ-5060	
		Square				A16ZA-5060	
		Round				A16ZT-5060	
Panel plugs		Rectangular		Square and Round	Used for covering the panel cutouts for future panel expansion.	A3BJ-3003	
		Square				A3BA-3003	
		Round				A3BT-3003	
Legend panels		Rectangular	IP40	Opaque	A single legend panel (transparent) is included with a standard model. The opaque legend panel can be used with the IP40 and the oil-resistant IP65.	A16ZJ-5204	
				Transparent		A16ZJ-5202	
			Oil-resistant IP65	Opaque		A16ZJ-5204	
				Transparent		A16ZJ-5203	
		Square	IP40	Opaque		A16ZA-5204	
				Transparent		A16ZA-5202	
			Oil-resistant IP65	Opaque		A16ZA-5204	
				Transparent		A16ZA-5203	
		Round	IP40	Opaque		A16ZT-5204	
				Transparent		A16ZT-5202	
			Oil-resistant IP65	Opaque		A16ZT-5204	
				Transparent		A16ZT-5203	
Color caps (for IP40)		LED indicator/ Non-lighted	White	Insert one of the following letters into the box (□). J: Rectangular A: Square T: Round The color cap is supplied. Replace the cap if the color is to be changed. When using an LED indicator, be sure to use a color cap that matches the luminescent color of the LED. The materials used for the IP40 and oil-resistant IP65 are different, so be sure to use a color cap that matches the specifications of the switch.	A16Z□-5001W		
			Red		A16Z□-5001R		
			Yellow		A16Z□-5001Y		
		LED indicator	Green		A16Z□-5001GY		
			Non-lighted		Blue	A16Z□-5001A	
		Non-lighted	Green		A16Z□-5001G		
			Black		A16Z□-5011B		
		Color caps (for oil-resistant IP65)			LED indicator/ Non-lighted	White	A16Z□-5101W
						Red	A16Z□-5101R
Yellow	A16Z□-5101Y						
LED indicator	Green			A16Z□-5101GY			
	Non-lighted			Blue	A16Z□-5101A		
Green				A16Z□-5101G			
Non-lighted	Black			A16Z□-5111B			

Item	Appearance	Applicable types					Remarks	Part number
		Pushbutton Switch	Knob-type Selector Switch	Key-type Selector Switch	E-Stop Switch	Indicator		
Pushbutton switch extractor		Yes	No	No	No	Yes	Convenient for extracting pushbutton switches.	A3PJ-5080
Screw fitting		Yes	Yes	Yes	Yes	Yes	Convenient for ganged installation. Tighten to a torque of 0.39 N • (5 kgf • cm) min.	A16Z-3004
Lamp unit extractor		Yes	Yes	Yes	Yes	Yes	Convenient for extracting the switch unit and lamps.	A16Z-5080

Accessories, 16 mm *continued*

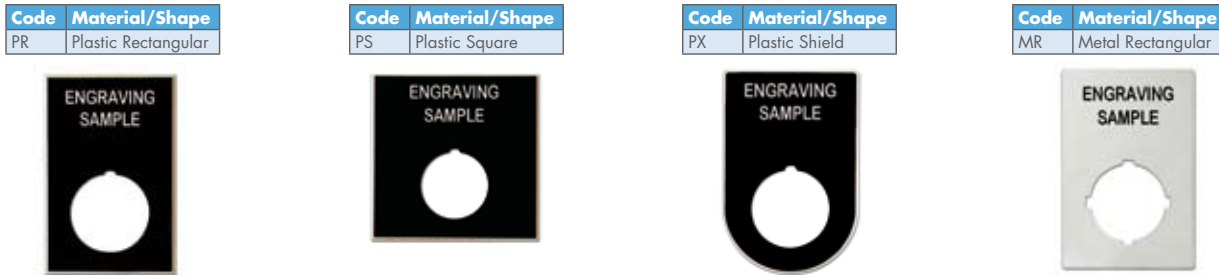
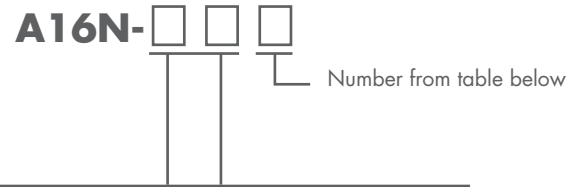
A16 Standard Nameplates

To complete the part number of the standard nameplates, select the plate type and add the number from the table below for the required text.

All plastic nameplates are adhesive backed for easy, permanent installation.

For custom engraved nameplates please use the order form on the next page.

Example: Plastic Square Nameplate engraved "RESET": A16N-PS38



All plastic nameplates are supplied standard with white lettering on a black background.

Metal nameplates are brushed aluminum with black lettering.

1	AUTO	26	LOWER	50	3RD SPEED	122	SAFE-RUN	167	OFF-LOC-REMOTE
2	CLOSE	27	MOTOR RUN	51	4TH SPEED	123	SLOW-FAST	168	OFF-MAN-AUTO
3	CYCLE START	28	MOTOR STOP	100	AUTO-MAN	124	START-JOG	169	OFF-SLOW-FAST
4	CYCLE STOP	29	OFF	101	CLOSE-OPEN	125	START-STOP	170	OFF-1-2
5	DECREASE	30	ON	102	DOWN-UP	126	STOP-START	171	OPEN-OFF-CLOSE
6	DOWN	31	OPEN	103	FAST-SLOW	127	SUMMER-WINTER	172	RAISE-OFF-LOWER
8	FAST	32	OUT	104	FOR-REV	128	UP-DOWN	173	SLOW-OFF-FAST
9	FAULT	33	POWER ON	105	HAND-AUTO	150	AUTO-MAN-OFF	174	SLOW-OFF-START
10	FEED	34	PULL TO START	106	HIGH-LOW	151	AUTO-OFF-HAND	175	START-JOG-STOP
11	FEED START	35	PUSH TO TEST	107	INCH-REVERSE	152	AUTO-OFF-MAN	176	START-RUN-STOP
12	FEED STOP	36	PUSH TO STOP	108	JOG-FOR	153	CLOSE-OFF-OPEN	177	UP-OFF-DOWN
13	FLUID LEVEL LOW	37	RAISE	109	JOG-REV	154	DOWN-OFF-SLOW	178	1-OFF-2
14	FORWARD	38	RESET	110	JOG-RUN	155	FAST-OFF-SLOW	179	HAND-OFF-AUTO
15	FULL SPEED	39	REVERSE	111	LEFT-RUN	156	FOR-OFF-REV	180	I
16	HAND	40	RIGHT	112	LOWER-RAISE	157	FOR-STOP-REV	181	II
17	HIGH	41	RUN	113	MAN-AUTO	158	HIGH-LOW-OFF	182	I-O
18	IN	42	SLOW	114	OFF-ON	159	HIGH-OFF-LOW	183	O-I
19	INCH	43	SPEED	115	ON-OFF	160	JOG-SAFE-RUN	184	I-O-II
20	INCREASE	44	START	116	OPEN-CLOSE	161	JOG-STOP-RUN	185	I-II
21	JOG	45	STOP	117	RAISE-LOWER	162	LEFT-OFF-RIGHT	186	I-O-I
22	JOG FORWARD	46	TEST	118	REV-FOR	163	LOC-OFF-HIGH	187	IH-III
23	LEFT	47	UP	119	RUN-INCH	164	LOW-OFF-HIGH	188	III
24	LOW	48	1ST SPEED	120	RUN-JOG	165	LOWER-OFF-RAISE	200	BLANK NAMEPLATE
25	LOW SPEED	49	2ND SPEED	121	RUN-SAFE	166	OFF COOLANT ON		

Emergency Stop Nameplates



A16N-PR7



A16N-PS7



A16N-PX7



A16N-PE190
60 mm diameter



A16N-PE191
90 mm diameter

A16 Custom Engraved Nameplates Order Form



Copy this order form and utilize it to specify Custom Engraved Nameplates. Once completed, mail the form to:
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 Or you may fax this form to either Omron Electronics LLC at: 847.843.8261 or to your local Omron Sales office.

BILL TO:

Date: _____
 Company name: _____ Your name: _____
 Address: _____ Your signature: _____
 City/State/Zip: _____ PO#: _____
 Attention: _____ Fax: _____

SHIP TO:

Company name: _____
 Address: _____
 City/State/Zip: _____
 Attention: _____ Phone: _____

To order: Select blank nameplate **Shape** (circle A, B, C, or D). For plastic nameplates - Select **Nameplate Color** (circle Black, Yellow, Red or White). Select **Text Color** (circle Black or White). Note - Metal nameplates are brushed aluminum with black text. All plastic nameplates are adhesive backed.

Fill in the **QUANTITY** box. Print text in the spaces provided as it should appear on the finished nameplate.

A - Plastic Rectangular
 11 characters max.
 2 lines max.



A16N-PR200E

B - Plastic Square
 14 characters max.
 2 lines max.



A16N-PS200E

C - Plastic Shield
 11 characters max.
 2 lines max.



A16N-PX200E

D - Metal Rectangular
 11 characters max.
 2 lines max.



A16N-MR200E

Shape	_____	A	B	C	D	QUANTITY
Nameplate Color	_____	Black	Yellow	Red	White	
Text Color	_____	Black	White			

Shape	_____	A	B	C	D	QUANTITY
Nameplate Color	_____	Black	Yellow	Red	White	
Text Color	_____	Black	White			

Shape	_____	A	B	C	D	QUANTITY
Nameplate Color	_____	Black	Yellow	Red	White	
Text Color	_____	Black	White			

Shape	_____	A	B	C	D	QUANTITY
Nameplate Color	_____	Black	Yellow	Red	White	
Text Color	_____	Black	White			



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Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

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«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

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