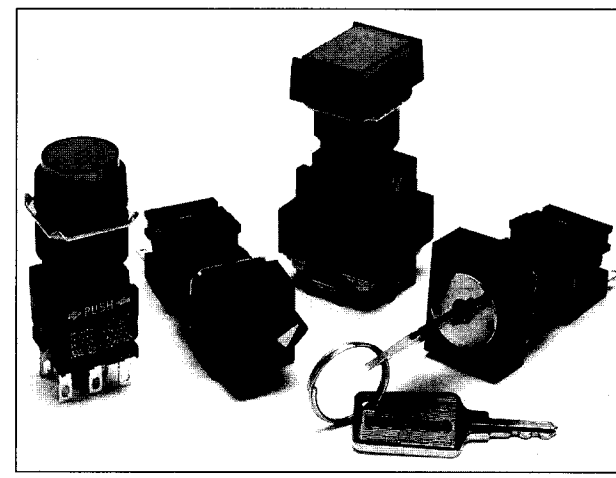
OMRON

Panel–mounted Switches

A3G

A Range of 16mm ∅ Pushbutton, Selector and Key Operated Switches

- Modular construction eases installation and replacement.
- Lamp, LED and Neon illumination.
- Contact block is available with solder, PCB or screw terminals.
- IP40 and IP65 versions.
- UL, CSA and VDE approved.



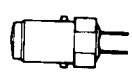
Ordering Information

■ Pushbutton/Indicator

Screen



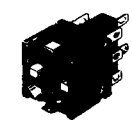
Illumination



Switch Unit

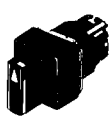


Contact Block

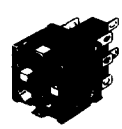


■ Selector Switch

Switch Unit

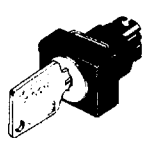


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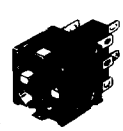


■ Key Switch

Switch Unit

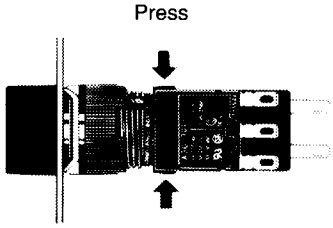


Contact Block



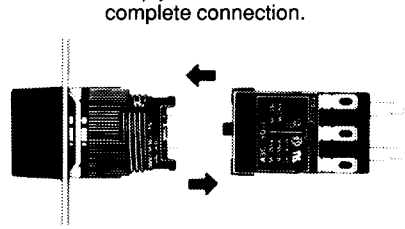
Snap-in action switch unit greatly improves wiring efficiency.

Press



Press

Simply insert the switch unit for complete connection.



Press the part indicated PUSH on the switch unit and pull to remove. Align white marks to insert.

Lighted Pushbuttons

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Specifications

■ Contact

Type	AC resistant load	DC resistant load
General purpose load	AC 250V 3A AC 125V 5A	DC 30V 3A

■ LED

Rated voltage	Rated currrent	Operating voltage
DC 24V	10mA	DC 24V ± 5%

■ Incandescent lamp

Rated voltage	Rated currrent	Operating voltage
6V	60mA	5V
14V	40mA	12V
18V	26mA	15V
28V	24mA	24V

■ Neon lamp

Rated voltage	Rated currrent	Operating voltage
AC 110V	1.5mA	AC 100V ± 10%
AC 220V	1.5mA	AC 200V ± 10%

Operating temperature	–10°C to 55°C (with no icing)
Storage temperature	–25°C to 65°C
Operating temperature	35 to 85% RH

■ Characteristics

Item		Illuminated pushbutton switch Pushbutton switch	Knob-type selector switch*	Key-type selector switch*
Allowable operating frequency	Mechanical	Momentary operation: 120 operations/minute max. Alternating operation: 60 operations/minute max.	20 operations/minute max.	
	Electrical	20 operations/minute max.	10 operations/minute max.	
Insulation resistance		100MΩ min. (at 500VDC)		
Dielectric strength		1,000VAC, 50/60Hz for 1 minute between terminals of same polarity 2,000VAC, 50/60Hz for 1 minute between terminals of different polarity and also between each terminal and ground**		
Vibration	Malfunction	10 to 55Hz, 1.5mm double amplitude		
Shock	Durability	Approx. 500m/s2 (50G)		
	Malfunction	Approx. 150m/s2 (15G)		
Life expectancy	Mechnical	Momentary operation: 2,000,000 operations min. Alternating operation: 200,000 operations min.	250,000 operations min.	250,000 operations min. (Life of key, 100,000 operations min.)
	Electrical	100,000 operations min.		
Degree of protection		IP40/IP65 (Oil-resistant)	IP65 (Oil-resistant)	
Weight		Approx. 13g (for illuminated type 2-contact switches with solder terminals)	Approx. 9g (for illuminated type 2-contact switches)	Approx. 40g (with one 2-contact switch key)

Note: * Set and reset constitute one operation. ** With LED and incandescent lamp not mounted.

■ Operating Characteristics

Type / Features	Illuminated pushbutton switch				Knob-type and key-type selector switches	
	IP40		IP65 oil-resistant type		2-notch	3-notch
	SPDT	DPDT	SPDT	DPDT		
Operating force (OF) max.	250g/245cN	450g/441cN	300g/294cN	500g/490cN	1,000g–cm	
Releasing force (RF) min.	30g/29.4cN					
Total travel (TT)	Approx. 3mm					
Pretravel (PT) max.	2.5mm					
*Lock stroke (LTA) min.	0.5mm					
Set position (SP)	–				90°+5°	45°+10°

* Lock stroke is for alternating operation.

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■ Pushbutton/Indicator Switches

Screen

IP Rating	IP40			IP65		
Colour	Rectangular 	Square 	Round 	Rectangular 	Square 	Round 
Blue	A3BJ–500A	A3BA–500A	A3BT–500A	A3BJ–510A	A3BA–510A	A3BT–510A
Yellow	A3BJ–500Y	A3BA–500Y	A3BT–500Y	A3BJ–510Y	A3BA–510Y	A3BT–510Y
Red	A3BJ–500R	A3BA–500R	A3BT–500R	A3BJ–510R	A3BA–510R	A3BT–510R
Red (Neon)	A3GJ–500D	A3GA–500D	A3GT–500D	A3GJ–510D	A3GA–510D	A3GT–510D
Green (Lamp)	A3BJ–500G	A3BA–500G	A3BT–500G	A3BJ–510G	A3BA–510G	A3BT–510G
Green (LED)	A3BJ–500GY	A3BA–500GY	A3BT–500GY	A3BJ–510GY	A3BA–510GY	A3BT–510GY
Green (Neon)	A3GJ–500GN	A3GA–500GN	A3GT–500GN	A3GJ–510GN	A3GA–510GN	A3GT–510GN
White	A3BJ–500W	A3BA–500W	A3BT–500W	A3BJ–510W	A3BA–510W	A3BT–510W
White (Neon)	A3GJ–500WN	A3GA–500WN	A3GT–500WN	A3GJ–510WN	A3GA–510WN	A3GT–510WN
Black	A3BJ–501B	A3BA–501B	A3BT–501B	A3BJ–511B	A3BA–511B	A3BT–511B

Illumination

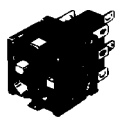
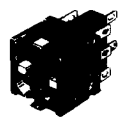
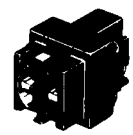
Voltage / Lamp/LED	5DC/6DC	12/14/18DC	24/28DC
Lamp (all colours)	A3B–006	A3B–014/018	A3B–028
LED – Red	A3B–005R	A3B–012R	A3B–024R
LED – Green	A3B–005G	A3B–012G	A3B–024G
LED – Yellow	A3B–005Y	A3B–012Y	A3B–24Y
LED – White	A3B–005Y	A3B–012Y	A3B–024Y

Voltage	110VAC	240VAC
Neon – Red	A3BH–1ND	A3BH–25ND
Neon – Green	A3BH–1NG	A3BH–25NG
Neon – White	A3BH–1ND	A3BH–25ND

Switch unit

IP Rating	IP40			IP65		
Switch type	Rectangular	Square	Round	Rectangular	Square	Round
Momentary	A3GJ–6011–1	A3GA–6011–1	A3GT–6011–1	A3GJ–6011–3	A3GA–6011–3	A3GT–6011–3
Alternate	A3GJ–6021–1	A3GA–6021–1	A3GT–6021–1	A3GJ–6021–3	A3GA–6021–3	A3GT–6021–3
Indicator	A3GJ–7001–1	A3GA–7001–1	A3GT–7001–1	A3GJ–7001–3	A3GA–7001–3	A3GT–7001–3

Contact block

	Standard 	Micro-load 	Screw terminals 
SPDT	A3G–4011	–	–
	–	A3G–4111	–
DPDT	A3G–4021	–	–
	–	A3G–4121	A3G–4024
Indicator	M2G–4901	–	–
	–	–	M2G–4904

Note: For PCB terminals please contact OMRON.

Lighted Pushbuttons

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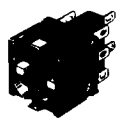
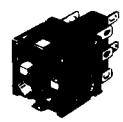
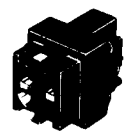
■ Selector Switches

Switch unit

Shape	No. of notches	Reset method	Model
Rectangular (A3GJ) 	2 notches	Manual	A3GJ–S511
		Automatic	A3GJ–S521
	3 notches	Manual	A3GJ–S552
		Combination	A3GJ–S562
		Combination	A3GJ–S572
		Automatic	A3GJ–S582
Square (A3GA) 	2 notches	Manual	A3GA–S511
		Automatic	A3GA–S521
	3 notches	Manual	A3GA–S552
		Combination	A3GA–S562
		Combination	A3GA–S572
		Automatic	A3GA–S582
Round (A3GT) 	2 notches	Manual	A3GT–S511
		Automatic	A3GT–S521
	3 notches	Manual	A3GT–S552
		Combination	A3GT–S562
		Combination	A3GT–S572
		Automatic	A3GT–S582

Note: For illuminated types please contact OMRON.

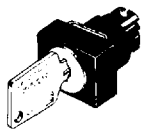
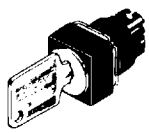
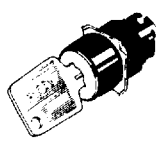
Contact block

	Standard 	Micro-load 	Screw terminals 
SPDT	A3G–4011	–	–
	–	A3G–4111	–
DPDT	A3G–4021	–	–
	–	A3G–4121	A3G–4024
Indicator	M2G–4901	–	–
	–	–	M2G–4904

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■ Key Switches

Switch unit

Shape	No. of notches	Reset method	Key release position	Model
Rectangular (A3GJ) 	2 notches	Manual		A3GJ-K511-C
				A3GJ-K511-B
				A3GJ-K511-G
		Automatic		A3GJ-K521-C
	3 notches	Manual		A3GJ-K552-A
				A3GJ-K552-B
				A3GJ-K552-C
				A3GJ-K552-F
		Combination		A3GJ-K562-A
				A3GJ-K562-B
		Combination		A3GJ-K572-A
				A3GJ-K572-C
		Automatic		A3GJ-K582-A
Square (A3GA) 	2 notches	Manual		A3GA-K511-C
				A3GA-K511-B
				A3GA-K511-G
		Automatic		A3GA-K521-C
	3 notches	Manual		A3GA-K552-A
				A3GA-K552-B
				A3GA-K552-C
				A3GA-K552-F
		Combination		A3GA-K562-A
				A3GA-K562-B
		Combination		A3GA-K572-A
				A3GA-K572-C
		Automatic		A3GA-K582-A
Round (A3GT) 	2 notches	Manual		A3GT-K511-C
				A3GT-K511-B
				A3GT-K511-G
		Automatic		A3GT-K521-C
	3 notches	Manual		A3GT-K552-A
				A3GT-K552-B
				A3GT-K552-C
				A3GT-K552-F
		Combination		A3GT-K562-A
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		Combination		A3GT-K572-A
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		Automatic		A3GT-K582-A

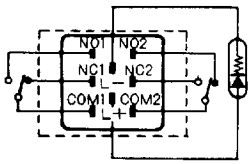
Note: For illuminated types please contact OMRON.

Contact block

See table of Contact Block on previous page.

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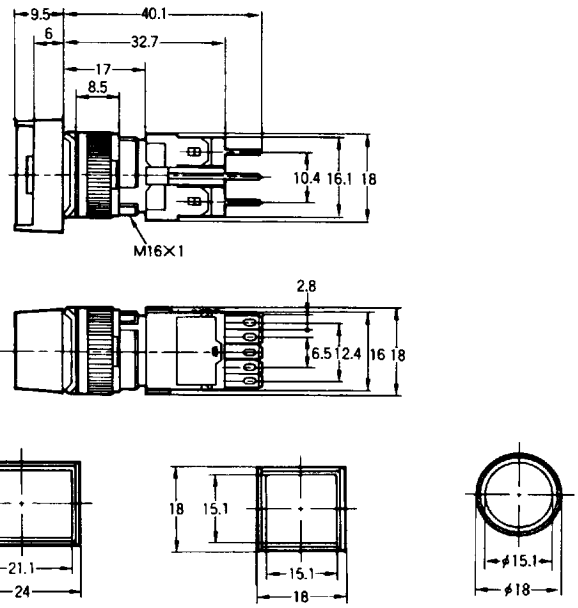
Terminal Arrangement (Bottom View)



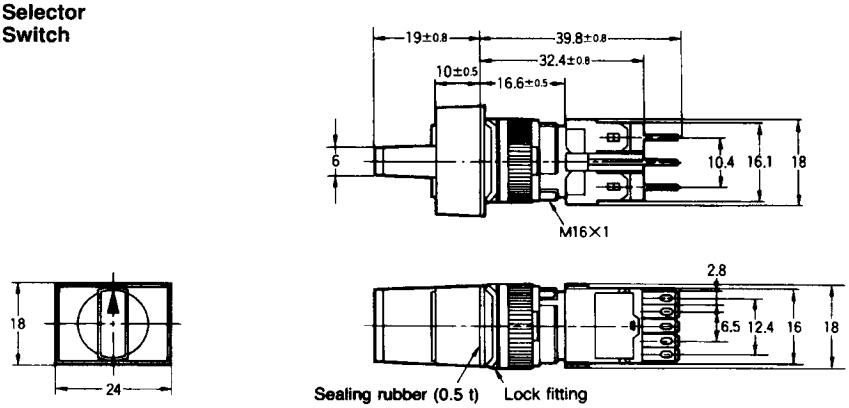
Do not connect L+ and L– terminals for non-illuminated type

Dimensions

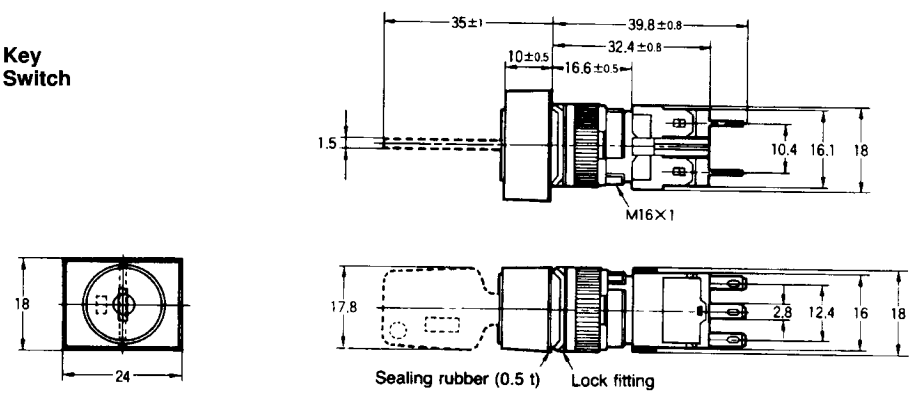
Pushbutton/Indicator Switch



Selector Switch



Key Switch



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