



SWITCH & CONNECTOR SELECTION



2019  
**OMRON**  
Switch & Connector  
Selection

MEMO

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## Switch

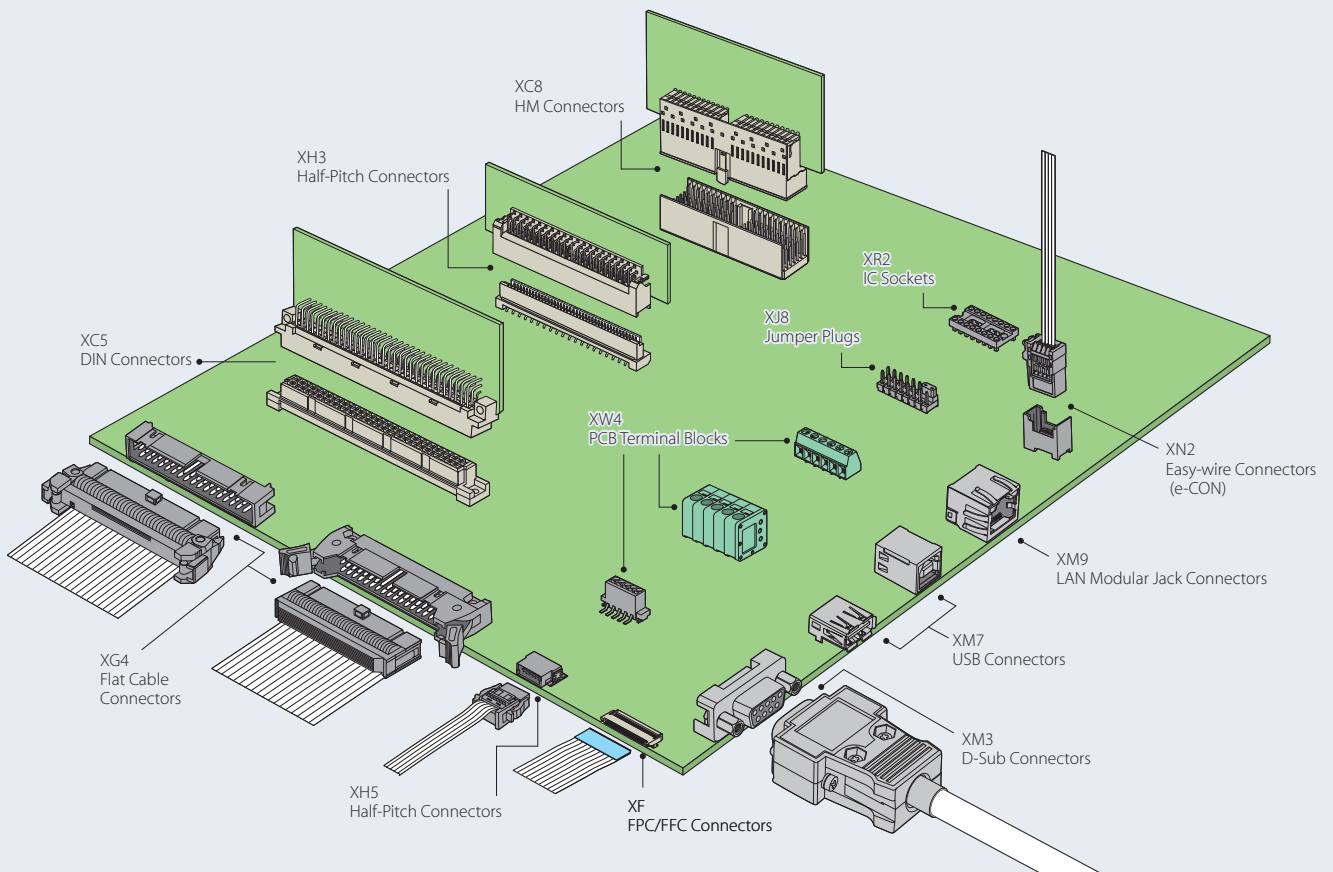
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# Connector

OMRON provides PCB Connector Series that meets the MIL, DIN, D-sub, and USB international standards.

We also provide PCB Terminal Block Connectors and other connectors that help increase mounting density and reliability of PCB. Let OMRON handle your connector needs. You will find a model that perfectly matches your requirements.

Excellent operability & wide variation suitable to your connection applications





# Board to FPC/FFC Connections

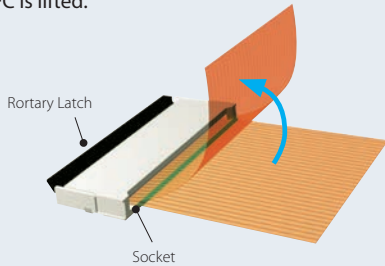
## FPC/FFC Connectors

P.11

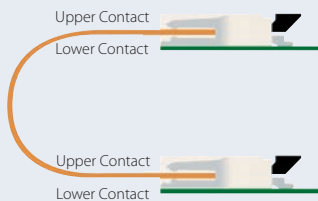
Improved insertion into FPC/FFC cable connectors with sure lock feeling to confirm proper connection.

### Features of Rotary Backlock Mechanism

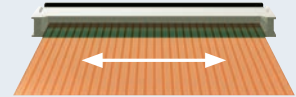
**1** Rotary latch is independent of the FPC/FFC socket. The rotary latch will not release if the FPC/FFC is lifted.



**2** Dual contact. There is no need to distinguish between the upper and lower FPC/FFC connection.



**3** Four-sided housing. Construction prevents FPC/FFC displacement.



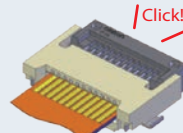
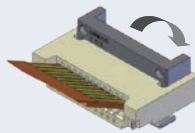
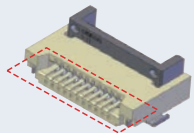
**4** Delivered with the rotary latch open. Less work required for FPC/FFC mounting.

Tradition Rotary connectors	OMRON Back lock connectors
<b>1.</b> Mount the connector 	<b>1.</b> Mount the connector 
<b>2.</b> Release the rotary latch 	<b>No need to release the rotary latch.</b>
<b>3.</b> Insert the FPC/FFC 	<b>2.</b> Insert the FPC/FFC 
<b>4.</b> Lock the rotary latch 	<b>3.</b> Lock the rotary latch 

## >> XF3M FPC/FFC Connectors

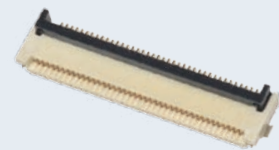
Improved FPC/FFC insertion and lock feeling

Easy to see the insertion opening



Clear Lock Feeling

- Models available with 0.5-mm or 1.0-mm pitch.
- Models available with dual-sided contacts or upper sided. (Models with upper sided come only with a 0.5-mm pitch.)
- Models available with gold or tin-plated. (Tin-plated is available only with models with dual-sided contacts.)
- Applicable FPC/FFC thickness of 0.3mm.



Small reels are available with only 100 connectors to fit small-scale applications.



Small reel 100pcs / reel



Standard reel 1,500pcs / reel

\* Applicable Connectors : XF3M / XF3M(1) / XF2M \* Standard reel of XF3M-8015-1BE is 1,000pcs / reel

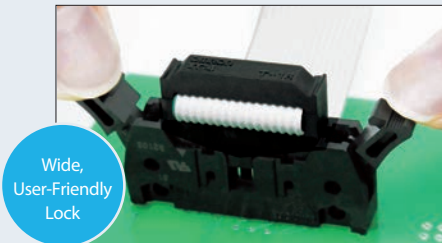
# Board to Wire Connections

## Flat Cable Connectors P.12

OMRON Flat Cable Connectors are compliant with MIL standards and provide high reliability and workability to support a broad range of requirements for board-to-wire connections.

### Flat Cable Connectors Plug

■ The user-friendly lock is wide enough to use your entire finger, which improves operability when connecting and disconnecting.



Wide, User-Friendly Lock



Wide lock type

Twice the Width



Slim lock type

■ Ensures secure and stable connection.

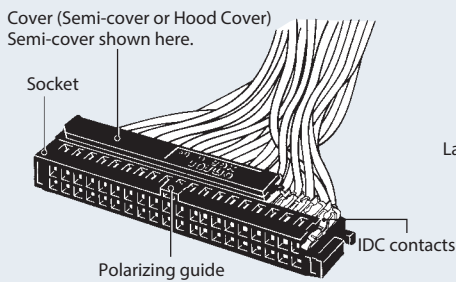


Click!

Clear Lock Feeling

### XG5M IDC Socket for Discrete Wires

■ Easy connection for Discrete Wires



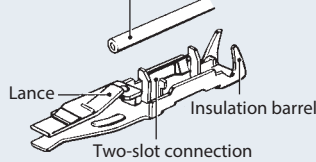
Cover (Semi-cover or Hood Cover)  
Semi-cover shown here.

Socket

Polarizing guide

IDC contacts

Wire can be connected without stripping cable insulation.



Lance

Insulation barrel

Two-slot connection

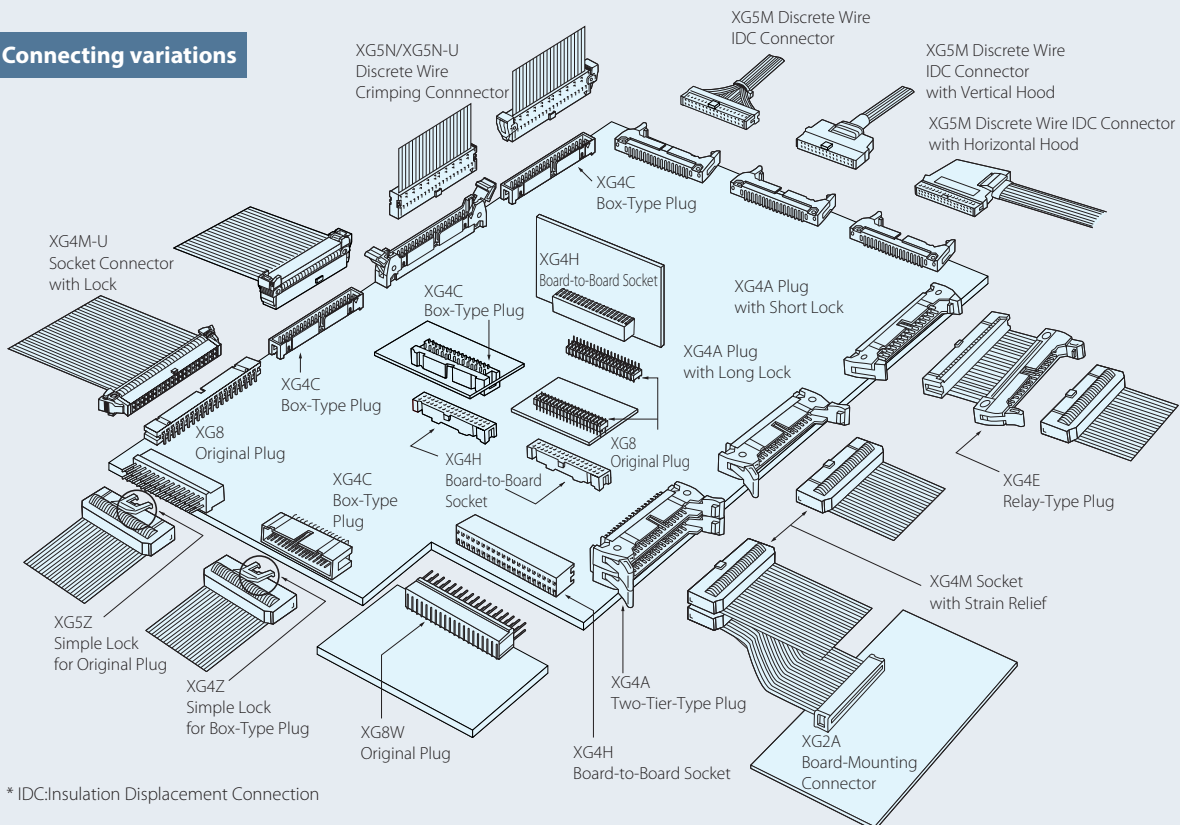
### XG5N-U Crimped Socket for Discrete Wires

■ Easy-to-use lock levers



One-Hand Operation

### Connecting variations



\* IDC:Insulation Displacement Connection

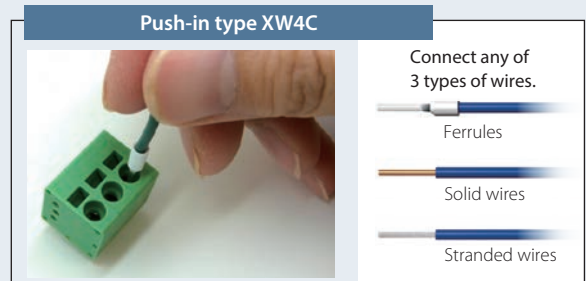
# Board to Wire Connections

## PCB Terminal Blocks P.13

Ideal for control device interfaces

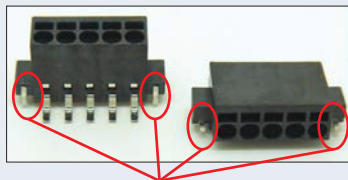
### » XW4A/XW4B/XW4C/XW4E DIP terminal type

- Models available with push-in and screw types.
- Push-in type available with 3.5-mm or 5.0-mm pitch.
- Just insert solid wires or ferrules to complete wiring. (Push-in type)
- Screw type available with 3.81-mm or 5.08-mm pitch.
- Repeated repairs are possible.

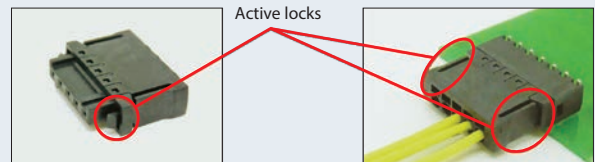


### » XW4H/XW4K/XW4L SMT terminal type

- Push-in type with 2.54-mm pitch.
- Hold-downs are provided on both ends to achieve robust mounting by increasing solder mounting strength.



- An active lock mechanism prevents the terminal blocks from coming off to provide superior vibration and shock resistance.

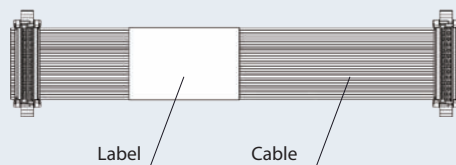
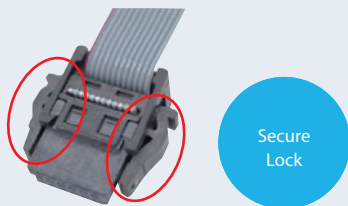


## Half-Pitch Connectors P.16

1.27-mm pitch Sockets with Cable

### » XH5H-N Sockets with Cable (Sockets on both ends)

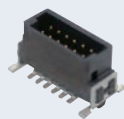
- Less work required by 1.27-mm pitch socket with cable, such as wire assembly, continuity check, etc.
- Cable length available with 100-mm / 200-mm / 300-mm.



- Please use the following plugs for mating.



XH5A-N  
Right-angle  
SMT



XH5E-N  
Straight  
SMT

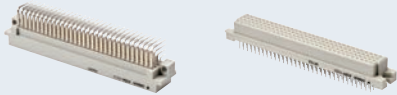
# Board to Board Connections

## DIN Connectors P.14

High-density, high-reliability connectors compliant with international standards.

### >> XC5 DIN-Style Connectors

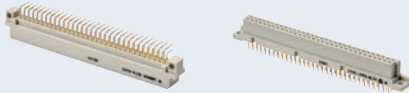
- Ideal for automated soldering because the connectors sit on top of the board.



	Standard DIN	DIN style 1	DIN style 2
PCB mounting			
	Fixed at PCB edge	PCB surface mounting	PCB surface mounting

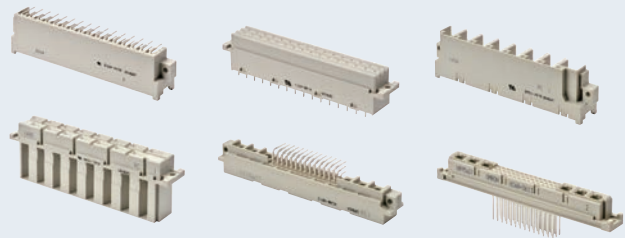
### >> XC7 Sequence Connectors

- A three-stage sequence is realized.
- Hot-swapping of daughter boards is possible by connecting the power line first and disconnecting the power line last.
- Insertion durability of 5,000 cycles, high reliability achieved by mated length of 4mm.



### >> XC4 Medium/High-Current Connectors

- Carry medium/high current (6 to 40A) for board-to-board or board-to-wire applications.



## Half-Pitch Connectors P.16

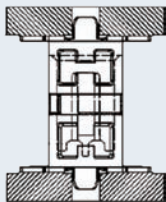
1.27mm pitch connectors for space-saving.

### >> XH5-N

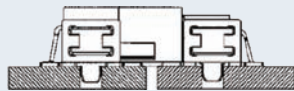
- SMT type. Back surfaces of circuit boards can be used for mounting the other components.
- Various BtoB and BtoW connecting solutions.



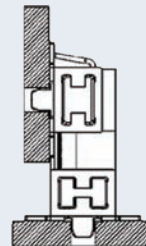
#### ● Stacking connection



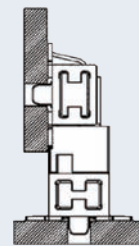
#### ● Horizontal connection



#### ● Vertical connection



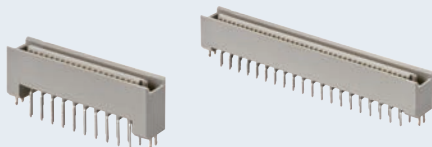
Right-angle Pins: Socket  
Straight Pins: Plug



Right-angle Pins: Plug  
Straight Pins: Socket

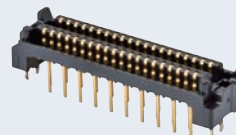
### >> XH3

- The stacking height can be flexibly adjusted from 12 to 20mm.



### >> XH4A

- Integrated male/female connectors with the stacking height from 5 to 11mm.  
(Surface-mounted connectors can be adjusted from 5 to 9mm.)



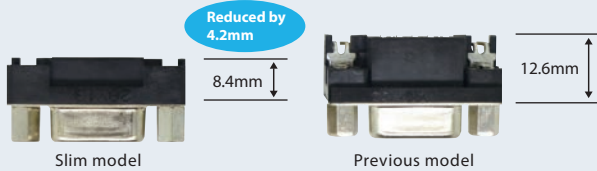
# External Connections

## D-Sub Connectors P.17

Space-saving models also available.

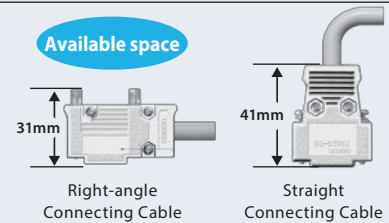
### >> XM3B-LS Slim D-Sub Connectors

- Board mounting area is reduced by 33% (compared with previous models) using depth of 8.4mm.



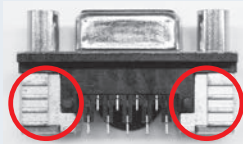
### >> XM2S Hood Covers

- Space-saving by right-angle connecting cable.

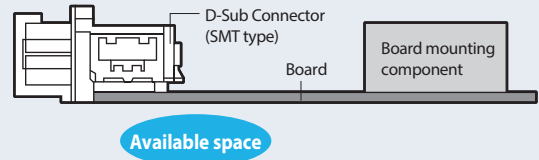


### >> XM3K-N/XM3L-N D-Sub SMT Connectors

- Hold-downs with rib structure provide enough pulling force performance.



- Through holes are not needed. Back surfaces of circuit boards can be used for mounting the other components.

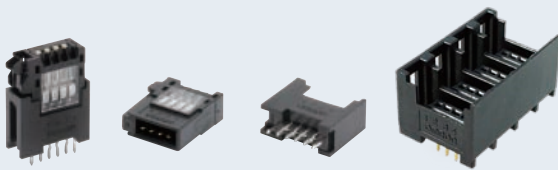


## Easy-Wire Connectors (e-CON) P.18

Easy-wire connectors with *e-CON* specifications, ideal for connecting sensors.

### >> XN2 Easy-wire Connectors (e-CON)

- No special tools required for easy wiring.
- Rewiring (repairing) is possible.
- Each connector accepts any wire size from stranded wire AWG28 (0.08mm<sup>2</sup>) to AWG20 (0.5mm<sup>2</sup>). (External sheath diameter: 1.5mm max.)
- With the simple tool Jig(XW2Z-0001), assembly can be completed for 4 wires simultaneously, is available.



No special tools required for easy wiring.



Rewiring (repairing) is possible.



Tool Jig  
XW2Z-0001



# External Connections

## USB Connectors P.18

Small interface connectors conforming to USB2.0 standards.

### >> XM7 USB Connectors

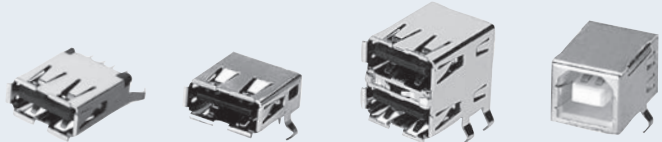
#### mini-USB Connectors

- Insertion durability of 5,000 times.
- Lineup includes models with right-angle DIP terminals and SMT terminals.
- Models with SMT terminals are available with reel packaging.



#### USB Connectors

- Insertion durability of 1,500 times.

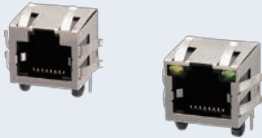


## LAN Modular Jack Connectors P.18

Small interface connectors.

### >> XM9 LAN Modular Jack Connectors

- Models available with or without indicators to match application needs.



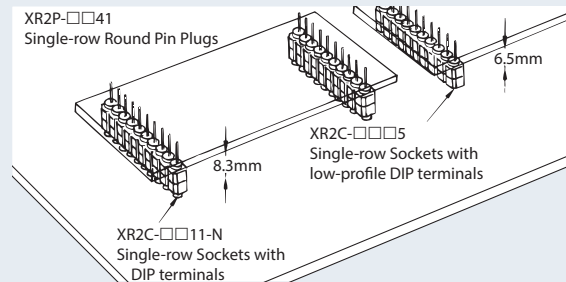
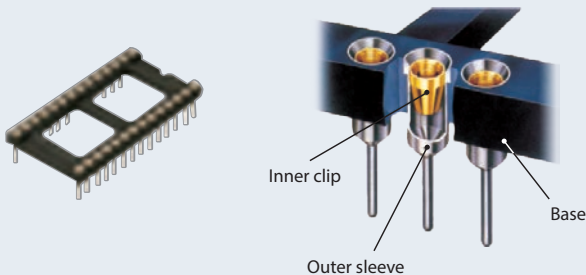
# Other Connections

## IC Sockets P.19


Excellent reliability and can tolerate momentary interruptions in power.





### >> XR2 IC Sockets

- Round pins and 4-point (4-finger) contact construction ensure long life and excellent shock and vibration durability.
- One-row connectors allow you to freely adjust the pitch between rows and can be divided into the required number of contacts.
- Low-profile stacking possible in combination with single-row IC sockets (XR2C and XR2P).












## Board to FPC/FFC Connections

 The products with this mark are also available in package reels of 100 pcs.

Classification	FPC/FFC Connections					
Model	XF3M			XF2M		
Appearance						
Contact pitch	0.5mm			1.0mm		
Type	Dual contact Au flash		Side-entry	Dual contact Au flash		Side-entry
No. of contacts *	Dual contact Sn	Upper contact Au flash	Dual contact Sn	Dual contact Au		
100						
90						
80						
70						
60						60
50	50 51 53 54 55 57		(50)			50 54 55
40	40 41 42 45		(40)(41)(42)(45)			40 42 45
30	35 36 37 38		(35)(36)(37)(38)	30 32	(30)(32)	30 32 33 34 35 36 38
20	30 31 32 33 34		(30)(31) 32 (33)(34)	25 26 28	(25)(26)(28)	20 22 24 26
10	25 26 28 29		(25)(26)(28)(29)	20 22 23 (24)	(20)(22)(23)(24)	10 12 14 18
	20 21 22 23 24		(20)(21)(22)(23)(24)	15 16 17 18 19	(15)(16)(17)(18)(19)	6 8
	15 16 17 18 19		(15)(16)(17)(18)(19)	10 11 12 13 14	(10)(11)(12)(13)(14)	
	10 11 12 13 14		(10)(11)(12)(13)(14)	4 5 6 7 8 9	(4)(5)(6)(7)(8) 9	
	4 5 6 7 8 9		(4)(5)(6)(7)(8) 9			
Rated current	0.5A AC/DC			0.5A AC/DC		
Rated voltage	50V AC/DC			50V AC/DC		
Ambient operating temperature	-30 to +85°C			-30 to +85°C		
Applicable FPC/FFC thickness	0.3±0.05mm			0.3±0.05mm		
Applicable board thickness	—			—		
Terminal shape						
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.					

\* Consult your OMRON representative for the marketing dates for the numbers of contacts in parentheses in the No. of contacts row.

- Terminal shape
-  Straight DIP terminals
  -  Right-angle DIP terminals
  -  Wrapping terminals
  -  Solder cup terminals
  -  IDC contacts
  -  Solder-free straight terminals
  -  Solder-free wrapping terminals
  -  SMT terminals
  -  Crimp contacts

# Board to Wire Connections

Classification	Flat Cable Connectors					
	Flat Cable Connectors Plug				Flat Cable Connectors Sockets	
Model	XG4A-□□31/71 □□34/74	XG4A-□□32/72 □□35/75	XG4A-□□33/73 □□36/76	XG4A-□□39/79-A	XG4M	XG4M-U
Appearance						
Contact pitch	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm
Type	Plug with long lock	Plug with short lock	Plug without lock	Two-tier plug	Socket	Socket with lock
No. of contacts	100					
	90					
	80					
	70					
	60	60 64	60 64	60 64	60 64	60 64
	50	50	50	50	50	50
	40	40	40	40	40	40
	30	30 34	30 34	30 34	30 34	30 34
	20	20 26	20 26	20 26	20 26	20 26
10	10 14 16	10 14 16	10 14 16	10 14 16	10 14 16	
Rated current	3A	3A	3A	3A	1A	1A
Rated voltage	300VAC	300VAC	300VAC	300VAC	250VAC	250VAC
Ambient operating temperature	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +105°C
Applicable wires	—	—	—	—	1.27mm pitch flat cable incorporating AWG28	1.27mm pitch flat cable incorporating AWG28
Applicable board thickness	1.6mm	1.6mm	1.6mm	1.6mm	—	—
Terminal shape						
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.					

Classification	Flat Cable Connectors				
	IDC Plugs		Box-type Plugs	Board-to-Board Sockets	Flat Cable Connectors for PCBs
Model	XG4E-□□31/71	XG4E-□□32/72	XG4C	XG4H	XG2A
Appearance					
Contact pitch	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm
Type	Plug with long lock	Plug with short lock	Plug	Socket	Standard terminal arrangement   Reverse terminal arrangement
No. of contacts	100				
	90				
	80				
	70				
	60	60 64	60 64	60 64	60 64
	50	50	50	50	50
	40	40	40	40	40
	30	30 34	30 34	30 34	30 34
	20	20 26	20 26	20 26	20 26
10	10 14 16	10 14 16	10 14 16	10 14 16	
Rated current	1A	1A	3A	3A	1A
Rated voltage	250VAC	250VAC	300VAC	300VAC	250VAC
Ambient operating temperature	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +85°C
Applicable wires	1.27mm pitch flat cable incorporating AWG28	1.27mm pitch flat cable incorporating AWG28	—	—	1.27mm pitch flat cable incorporating AWG28
Applicable board thickness	—	—	1.6mm	1.6mm	1.6mm
Terminal shape					
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.				

Note: Inquire about the compliant standards for individual models.

For the latest No. of contacts information, please visit our website, which is noted on the last page.

- Terminal shape
- Straight DIP terminals
  - Right-angle DIP terminals
  - Wrapping terminals
  - Solder cup terminals
  - IDC contacts
  - Solder-free straight terminals
  - Solder-free wrapping terminals
  - SMT terminals
  - Crimp contacts



# Board to Wire Connections

The products with this mark are also available in package reels of 100 pcs.

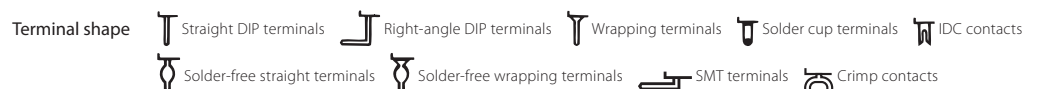
Classification	Original Plugs		IDC Socket for Discrete Wires			Crimped Socket for Discrete Wires		
	Model	XG8A/XG8V	XG8B/XG8W	XG5M	XG55-□□01	XG55-□□02	XG5N	XG5N-U
Appearance								
Contact pitch	2.54mm	2.54mm	2.54mm	—	—	2.54mm	2.54mm	—
Type	One-row plugs	Two-row plugs	Socket	Semi-cover	Hood-cover	Socket	Socket with lock	Crimp contact
No. of contacts	100	100						
	90							
	80							
	70							
	60	50	60	60 64		60	60 64	60 64
	50		50	50		50	50	50
	40		40	40		40	40	40
	30	36	30 34	30 34	30 32	30 34	30 34	30 34
	20	20	20 26	20 26	20 25	20 26	20 26	20 26
10	10 12 13 15 16 17 2 3 4 5 6 7 8	10 14 16	10 14 16	10 13 15 17 5 7 8		10 14 16	10 14 16	
Rated current	3A	3A	3A max.	—	—	3A max.	3A max.	3A max.
Rated voltage	300VAC	300VAC	300VAC	—	—	250VAC	250VAC	250VAC
Ambient operating temperature	-55 to +105°C	-55 to +105°C	-55 to +85°C	-55 to +85°C	-55 to +85°C	-55 to +105°C	-55 to +105°C	-55 to +105°C
Applicable wires	—	—	Discrete wires AWG24,26,28	—	—	Discrete wires AWG22,24,26,28	Discrete wires AWG22,24,26,28	Discrete wires AWG22,24,26,28
Applicable board thickness	1.6mm	1.6mm	—	—	—	—	—	—
Terminal shape				—	—			
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.							

Classification	PCB Terminal Blocks					
	Push-in SMT Terminal Type		Push-in Type	Screw Type	Connector Terminal Blocks	
Model	XW4K	XW4H/XW4L	XW4C	XW4E	XW4A	XW4B
Appearance						
Contact pitch	2.54mm	2.54mm	3.5mm, 5.0mm	3.81mm, 5.08mm	3.81mm, 5.08mm	3.81mm, 5.08mm
Type	Plug	Socket Board-mounting	Board-mounting	Board-mounting	Plug	Socket
No. of contacts	100					
	90					
	80					
	70					
	60					
	50					
	40					
	30					
	20	10 11 12	10 11 12	10	10 12 14 16 18	10
10	2 3 4 5 6 7 8 9	2 3 4 5 6 7 8 9	2 3 4 5 6 7 8 9	2 3 4 5 6 7 8 9	2 3 4 5 6 7 8 9	2 3 4 5 6 7 8 9
Rated current	6A *2	6A *2	10A/17.5A/24A	8A/10A/13.5A/14A	8A/12A/16A	8A/12A/15A
Rated voltage	160VAC	160VAC	200VAC/300VAC/400VAC	160VAC/250VAC/300VAC	160VAC/250VAC/300VAC	160VAC/250VAC/300VAC
Ambient operating temperature	-40 to +125°C	-40 to +125°C	-40 to +100°C	-40 to +100°C	-40 to +100°C	-40 to +100°C
Applicable wires	—	Discrete wires AWG26 to 20	Discrete wires AWG24 to 12	Discrete wires AWG26 to 16	—	Discrete wires AWG28 to 14
Applicable board thickness	—	—	1.6mm	1.6mm	1.6mm	—
Terminal shape						—
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.					

\*1. XW4K and XW4L only.

\*2. This is the maximum value for the connector.

If the rated current of the cable is lower than the rated current of the connector, use the rated current of the cable.



## Board-to-Board Connections

Classification	DIN Connectors							
	DIN-standard Type				DIN-style			
Model	XC5A/XC5E-□□□□	XC5B/XC5F-□□□□	XC5C/XC5G-□□□□	XC5D/XC5H-□□□□	XC5A-□□□□-1 XC5E-□□□□-2/3	XC5B-□□□□-0/3 XC5F-□□□□-2	XC5C-□□□□-1	XC5D-□□□□-0
Appearance								
Contact pitch	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm
Type	Double-row plugs	Double-row sockets	Triple-row plugs	Triple-row sockets	Double-row plugs	Double-row sockets	Triple-row plugs	Triple-row sockets
No. of contacts	100	100	96 *	96 *	100	100	96	96
	90							
	80							
	70							
	60	64 *	64 *	64 *	64 *	64	64	64
	50	50	50	50	50	50	50	50
	40	44	44	48 *	48 *	44	44	44
	30	32 *	32 *	32 *	32 *	30 32	30 32	30 32
	20	20	20			20 24	20 24	20 24
	10					10 14 16	10 14 16	
Rated current	2A	2A	2A	2A	2A	2A	2A	2A
Rated voltage	300VAC	300VAC	300VAC	300VAC	300VAC	300VAC	300VAC	300VAC
Ambient operating temperature	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C
Applicable wires	—	—	—	—	—	—	—	—
Applicable board thickness	1.6mm	1.6mm	1.6mm	1.6mm	1.6mm	1.6mm	1.6mm	1.6mm
Terminal shape								
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.							

\* DIN 41612 and IEC 603-2 compliant.









Classification	DIN Connectors						
	Stacking-connect Type	Fine-fit Type (Press-fit)				Quadruple-row, 128-contact Type	
Model	XC5K	XC5E-□□□P-11□□	XC5B-□□□P-11□□	XC5G-□□□P-11□□	XC5D-□□□P-11□□	XC5M	XC5N
Appearance							
Contact pitch	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm
Type	Double-row plugs	Double-row plugs	Double-row sockets	Triple-row plugs	Triple-row sockets	Quadruple-row plugs	Quadruple-row sockets
No. of contacts	100	100	100	96	96	128	128
	90						
	80						
	70						
	60		64	64	64	64	
	50						
	40				48	48	
	30	32	32	32			
	20	20					
	10	16					
Rated current	2A	2A	2A	2A	2A	2A	2A
Rated voltage	300VAC	300VAC	300VAC	300VAC	300VAC	300VAC	300VAC
Ambient operating temperature	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C
Applicable wires	—	—	—	—	—	—	—
Applicable board thickness	1.6mm	1.6 to 3.2mm	1.6 to 3.2mm	1.6 to 3.2mm	1.6 to 3.2mm	1.6mm	1.6mm
Terminal shape							
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.						










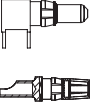
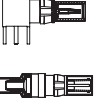











Note: Inquire about the compliant standards for individual models.

For the latest No. of contacts information, please visit our website, which is noted on the last page.

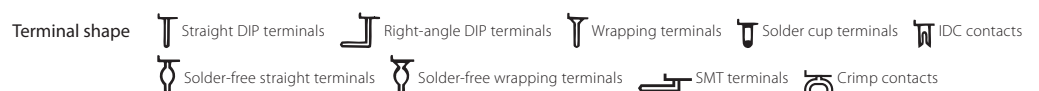
- Terminal shape
- Straight DIP terminals
  - Right-angle DIP terminals
  - Wrapping terminals
  - Solder cup terminals
  - IDC contacts
  - Solder-free straight terminals
  - Solder-free wrapping terminals
  - SMT terminals
  - Crimp contacts

## Board-to-Board Connections

Classification	DIN Connectors			
	Sequence Type			
Model	XC7A	XC7B	XC7C	XC7D
Appearance				
Contact pitch	2.54mm	2.54mm	2.54mm	2.54mm
Type	Double-row plugs	Double-row sockets	Triple-row plugs	Triple-row sockets
No.of contacts	100	100		
	90	90	96	96
	80			
	70			
	60	64	64	
	50			
	40			
	30			
	20			
	10			
Rated current	2A	2A	2A	2A
Rated voltage	300VAC	300VAC	300VAC	300VAC
Ambient operating temperature	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C
Applicable wires	—	—	—	—
Applicable board thickness	1.6mm	1.6mm	1.6mm	1.6mm
Terminal shape				
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.			

Classification	DIN Connectors										
	Medium/High-current Type										
Model	XC4A	XC4B	XC4E	XC4F	XC4G	XC4H	XC4K	XC4L	XC4M	XC4W	
Appearance											
Contact pitch	5.08mm		5.08mm		5.08mm		5.08mm		2.54mm	—	—
Type	Plug	Socket	Plug	Socket	Plug	Socket	Plug	Socket	Plug	High-current contacts for XC4M	Coaxial contacts for XC4M
No.of contacts	100										
	90										
	80										
	70										
	60									78 *1	
	50	48		48						60 *1	
	40			32		32				42 *1	
	30										
	20										
	10							15		2 4 6 *2	
Rated current	6A		6A		6A		15A		2A	10A/20A/40A	—
Rated voltage	380VAC		500VAC		500VAC		500VAC		300VAC	300VAC	—
Ambient operating temperature	-55 to +125°C		-55 to +125°C		-55 to +125°C		-55 to +125°C		-55 to +125°C	-55 to +125°C	-55 to +125°C
Applicable wires	—		—		—		—		—	φ 1.7mm/2.8mm /4.8mm	φ 3.2mm
Applicable board thickness	1.6mm		1.6mm		1.6mm		1.6mm		1.6mm	1.6mm	1.6mm
Terminal shape											
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.										

\*1. The numbers shown are the number of signal circuit contacts.  
 \*2. The numbers shown are the slots for XC4W.



# Board-to-Board Connections

Classification	Half-pitch Connectors					
	SMT Type		Cable with Connectors on Both Ends	Board-to-Board Connectors		
Model	XH5A-N/XH5E-N	XH5F-N/XH5B-N	XH5H-N	XH3A	XH3B	
Appearance						
Contact pitch	1.27mm	1.27mm	1.27mm	1.27mm	1.27mm	
Type	Plug	Socket	Socket	Plug	Socket	
No. of contacts	100			100 120	100 120	
	90					
	80	80	80	80	80	
	70					
	60	68	68	68	60 68	60 68
	50	50	50	50	50	50
	40				40	40
	30				30	30
	20	26	26	26	20	20
	10	12	12	12		
Rated current	1A	1A	1A	0.5A	0.5A	
Rated voltage	100VAC	100VAC	100VAC	125VAC	125VAC	
Ambient operating temperature	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +105°C	
Applicable wires	—	—	—	—	—	
Applicable board thickness	—	—	—	1.6mm	1.6mm	
Terminal shape			—			
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.					

Classification	Half-pitch Connectors			HM Connectors	
	Low-profile Stacking Connectors	Board-to-Board Connectors			
Model	XH4A	XH2A	XH2B	XC8A/XC8C/ XC8E/XC8K	XC8B/XC8D/ XC8F/XC8L
Appearance					
Contact pitch	1.27mm	1.27mm	1.27mm	2.0mm	2.0mm
Type	Plug/Socket Integrated	Plug	Socket	Plug	Socket
No. of contacts	100			110 125	110 125
	90			95	95
	80	80	80		
	70				
	60	60	60 68	60 68	
	50	50	50	50	55
	40	40	40	40	
	30		30	30	
	20		20	20	
	10				
Rated current	0.5A	0.5A	0.5A	1A	1A
Rated voltage	125VAC	125VAC	125VAC	500VAC	500VAC
Ambient operating temperature	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +125°C	-55 to +125°C
Applicable wires	—	—	—	—	—
Applicable board thickness	1.6mm	1.6mm	1.6mm	1.6mm to 6.0mm	1.6mm to 3.4mm
Terminal shape					
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.				

Note: Inquire about the compliant standards for individual models.  
For the latest No. of contacts information, please visit our website, which is noted on the last page.

- Terminal shape
- Straight DIP terminals
  - Right-angle DIP terminals
  - Wrapping terminals
  - Solder cup terminals
  - IDC contacts
  - Solder-free straight terminals
  - Solder-free wrapping terminals
  - SMT terminals
  - Crimp contacts










## External Connections

Classification	D-Sub Connectors						
	D-Sub Connector		Hood Cover			D-Sub Connector	
Model	XM3A/XM3C	XM3B/XM3D/XM3F	XM2S-□□1□	XM2S-□□2□	XM2S-E	XM2C-L/XM2E-L	XM2F-L/XM3B-L
Appearance							
Contact pitch	2.74mm, 2.76mm	2.74mm, 2.76mm	—	—	—	2.77mm	2.77mm
Type	Plug	Socket	Straight-angle connection	Right-angle connection	Straight-angle connection with ESD protection	Plug	Socket
No. of contacts	100						
	90						
	80						
	70						
	60						
	50						
	40						
30	37	37	37				
20	25	25	25	25		25	25
15	15	15	15			15	15
10	9	9	9	9	9	9	9
Rated current	3A/5A	5A	—	—	—	3A	3A
Rated voltage	300VAC	300VAC	—	—	—	300VAC	300VAC
Ambient operating temperature	-55 to +105°C	-55 to +105°C	-25 to +85°C	-25 to +85°C	-25 to +85°C	-25 to +105°C	-25 to +105°C
Applicable wires	AWG22 max.	AWG22 max.	—	—	—	—	—
Applicable board thickness	1.6mm	1.6mm	—	—	—	1.6mm	1.6mm
Terminal shape			—	—	—		
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.						

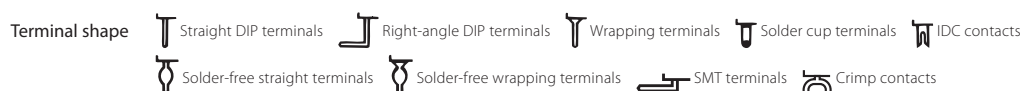
Classification	D-Sub Connectors					
	D-sub SMT Connectors		High-density D-sub Connectors		Slim D-sub Connectors	
Model	XM3K-N	XM3L-N	XM4K	XM4L	XM3C-LS	XM3B-LS
Appearance						
Contact pitch	2.76mm	2.76mm	2.29mm	2.29mm	2.74mm	2.74mm
Type	Plug	Socket	Plug	Socket	Plug	Socket
No. of contacts	100					
	90					
	80					
	70					
	60					
	50					
	40					
30						
20	25	25	15	15		
10	9	9			9	9
Rated current	3A	3A	3A	3A	3A	3A
Rated voltage	300VAC	300VAC	300VAC	300VAC	300VAC	300VAC
Ambient operating temperature	-55 to +105°C	-55 to +105°C	-25 to +105°C	-25 to +105°C	-25 to +105°C	-25 to +105°C
Applicable wires	—	—	—	—	—	—
Applicable board thickness	—	—	1.6mm	1.6mm	1.0mm, 1.6mm	1.0mm, 1.6mm
Terminal shape						
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.					

Terminal shape Straight DIP terminals Right-angle DIP terminals Wrapping terminals Solder cup terminals IDC contacts  
 Solder-free straight terminals Solder-free wrapping terminals SMT terminals Crimp contacts

# External Connections

Classification	Easy-wire Connectors for Industrial Components		USB Connectors		LAN Modular Jack Connectors
Model	XN2A	XN2B/XN2D	XM7A/XM7B	XM7D	XM9B
Appearance					
Contact pitch	2.0mm	2.0mm	2.0mm,2.5mm	0.8mm	2.04mm
Type	Plug	Socket	USB2.0	USB2.0 mini-USB	Without indicator/ With indicator
No.of contacts	100				
	90				
	80				
	70				
	60				
	50				
	40				
	30				
	20				
	10				
Rated current	3A max.	3A max.	1A	1A	1.5A
Rated voltage	32VDC	32VDC	30VAC	30VAC	250VAC
Ambient operating temperature	-30 to +75°C	-30 to +75°C	-40 to +60°C	0 to +50°C	-45 to +80°C
Applicable wires	Discrete wires AWG28 to 20	Discrete wires AWG28 to 20	—	—	—
Applicable board thickness	—	1.6mm	1.6mm	1.0mm	1.6mm
Terminal shape	—				
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.				

Note: Inquire about the compliant standards for individual models.  
For the latest No. of contacts information, please visit our website, which is noted on the last page.



## Other Connections

Classification	Jumper Plugs/Sockets			
Model	XG85/XJ8B	XG8T/XJ8C	XJ8D	XJ8A
Appearance				
Contact pitch	2.54mm	2.54mm	2.54mm	2.54mm
Type	Single-row plugs	Double-row plugs	Triple-row plugs	Jumper socket
No.of contacts	100			
	90			
	80			
	70			
	60			
	50			
	40			
30				
20		20	21 24	
10	12 14 16 18 2 3 4 5 6 7 8 9	10 12 14 16 18 2 4 6 8	12 15 18 3 6 9	2
Rated current	2A	2A	2A	2A
Rated voltage	300VAC	300VAC	300VAC	300VAC
Ambient operating temperature	-55 to +105°C	-55 to +105°C	-55 to +105°C	-55 to +105°C
Applicable wires	—	—	—	—
Applicable board thickness	1.6mm	1.6mm	1.6mm	1.6mm
Terminal shape				
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.			

Classification	IC Sockets					
Model	XR2A	XR2B	XR2T	XR2C	XR2P	XR3G
Appearance						
Contact pitch	2.54mm	2.54mm	2.54mm	2.54mm	2.54mm	1.778mm
Type	Open-frame sockets	Closed-frame sockets	Open-frame sockets with seal Tape	Single-row sockets	Round Pin plugs	Shrink IC sockets
No.of contacts	100					
	90					
	80					
	70					
	60	64				64
	50	50				52
	40	40 42 48	40	40 48		42
30	32	32	32	32	32	
20	20 22 24 28	24 28	20 22 24 28	20	20	28
10	14 16 18 8	16	14 16 18 8	10 16	10 16	
Rated current	1A	1A	1A	1A	1A	1A
Rated voltage	300VAC	300VAC	300VAC	300VAC	300VAC	150VAC
Ambient operating temperature	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C	-55 to +125°C
Applicable wires	—	—	—	—	—	—
Applicable board thickness	1.6mm	1.6mm	1.6mm	1.6mm	1.6mm	1.6mm
Terminal shape						
International standards	See the "Standards certification / conformity list" for information on conformity to certification standards.					

Terminal shape Straight DIP terminals Right-angle DIP terminals Wrapping terminals Solder cup terminals IDC contacts  
 Solder-free straight terminals Solder-free wrapping terminals SMT terminals Crimp contacts

# Switch

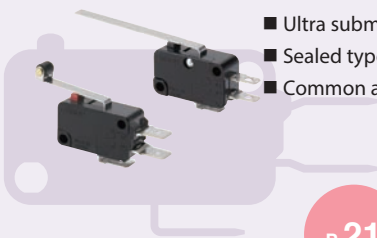
Miniature switches to be installed in devices and mounted on the PCB.

Enable to select suitable switches from wide variations according to the applications and shapes.

## Detection Switches Used to detect the positions of objects.

### Basic Switches

- Miniature types(V-size)
- Subminiature types(S-size)
- Ultra subminiature types(J-size)
- Sealed types
- Common accessories



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### Door Switches/Power Switches

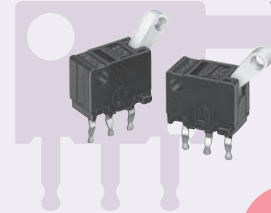
- Miniature door
- Door interlock



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### Miniature Detection Switches

- Through hole mount types
- Surface mount types

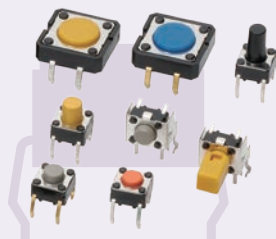


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## Manual Switches Used to allow workers to make inputs to equipment.

### Tactile Switches

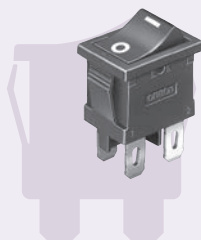
- Through-hole mounting types
- Surface mounting types
- Illuminated types
- Sealed types



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### Rocker Switches

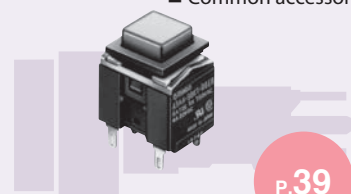
- Miniature types
- Illuminated types
- Reset function types



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### Pushbutton Switches/Indicators

- Round types
- Square types
- Common accessories

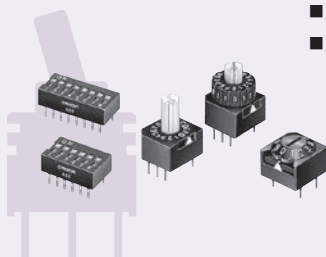


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## Setting Switches Used to set up the operation of equipment.

### DIP Switches

- Slide types
- Piano types
- Rotary types



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### Thumbwheel Switches

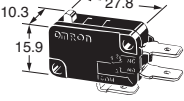
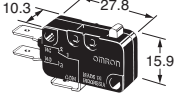
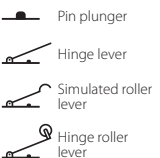
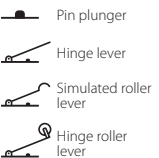
- Push operation types
- Rotary operation types



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# Basic Switches

Classification		Miniature Basic Switches (V-size)									
Model		V					D3V				
Appearance											
	V-21		V-16		V-15	V-11	V-10	D3V-21G	D3V-16	D3V-11	D3V-6
Features		Standard miniature basic switch offers high reliability.					Miniature basic switch with wide range variation from 0.1A to 21A. V series compatible mounting.				
Contact form		SPDT / SPST-NC / SPST-NO					SPDT / SPST-NC / SPST-NO				
Contact	Specification	Rivet					Rivet				Crossbar
	Material	Silver alloy			Silver		Silver alloy				Gold alloy
	Gap	1mm					0.5mm	1.0mm/0.5mm			1.0mm
Ratings (resistive load)		21A 250VAC 0.6A 125VDC 0.3A 250VDC	16A 250VAC 0.6A 125VDC 0.3A 250VDC	15A 250VAC 0.6A 125VDC 0.3A 250VDC	11A 250VAC 0.6A 125VDC 0.3A 250VDC	10A 250VAC 0.6A 125VDC 0.3A 250VDC	21A 250VAC 0.6A 125VDC 0.3A 250VDC	16A 250VAC 0.6A 125VDC 0.3A 250VDC	11A 250VAC 0.6A 125VDC 0.3A 250VDC	6A 250VAC 0.4A 125VDC 0.3A 250VDC	0.1A 125VAC 0.1A 30VDC
Inrush current	NC	50A max.	40A max.	36A max.	24A max.		50A max.	40A max.	24A max.	15A max.	—
	NO	50A max.	40A max.	36A max.	24A max.		50A max.	40A max.	24A max.	15A max.	—
Minimum applicable load (reference values)		160mA at 5VDC					160mA at 5VDC				1mA at 5VDC
Contact resistance (initial values)		15mΩ max.					50mΩ max.	30mΩ max.			0.49N:50mΩmax. 0.25N:100mΩmax.
Operating force (see note1)		3.92N max.	1.96N max. 3.92N max.		0.98N max.	0.98N max. 1.96N max.	1.23N max.	1.96N max.	0.98N max. 1.96N max.	0.49N max. 0.98N max.	0.49N max.
Durability (see note1)	Mechanical	50,000,000 operations min.					10,000,000 operations min.				
	Electrical	100,000 operations min.			300,000 operations min.		50,000 operations min.	100,000 operations min.	200,000 operations min.	500,000 operations min.	
Degree of protection		IEC IP40					IEC IP40				
Ambient operating temperature		-25 to +80°C	-25 to +105°C (Heat resistive:-25 to +150°C)				-25 to +85°C	-25 to +105°C			-25 to +85°C
Ambient operating humidity		85%RH max. (for +5 to +35°C)					85%RH max. (for +5 to +35°C)				
Actuators											
Terminals		Quick-connect (#250)	Solder Quick-connect (#187) Quick-connect (#250)				Solder Quick-connect (#187) Quick-connect (#250)				
Approved standard (see note2)	UL	●					●				
	CSA	●					●				
	EN/IEC	○ (VDE approval)	○ (VDE approval)	—	○ (VDE approval)	—	○ (VDE approval)				

Note 1: For pin plunger type

Note 2: ● : Approved model with standard marking on the switch

○ : Approved model. However no-approved types are included. They are without standard marking on the switch.  
Consult your OMRON sales representative.

# Basic Switches

Classification		Miniature Basic Switches (V-size)							
Model		VX		D2MV		D2RV		D2MC	
Appearance									
		VX-5	VX-01	D2MV-1	D2MV-01			D2MC-5	D2MC-01
Features		Miniature basic switch with low operating force and high contact reliability.		Highly reliable basic switch with ultra low operating force.		High reliability for micro load applications, even in adverse atmosphere.		Rotary-action switch with low torque operation.	
Contact form		SPDT / SPST-NC / SPST-NO		SPDT		SPST-NO		SPDT	
Contact	Specification	Rivet	Crossbar	Needle	Crossbar	Reed switches		Rivet	Crossbar
	Material	Silver alloy	Gold alloy	Silver	Gold alloy			Silver alloy	Gold alloy
	Gap	0.5mm		0.5mm				0.5mm	
Ratings (resistive load)		5A 250VAC	0.1A 125VAC 0.1A 30VDC	1A 125VAC 1A 30VDC	0.1A 125VAC 0.1A 30VDC	Switching voltage 100V DC max. Switching current 0.25ADC max. Contact capacity 10WDC max.		5A 125VAC 5A 250VAC	0.5A 125VAC 0.5A 30VDC
Inrush current	NC	15A max.	—	1A max.	0.1A max.	—		15A max.	0.5A max.
	NO							7A max.	
Minimum applicable load (reference values)		160mA at 5VDC	1mA at 5VDC	30mA at 5VDC	1mA at 5VDC	0.1mA at 5VDC		160mA at 5VDC	1mA at 5VDC
Contact resistance (initial values)		30mΩ max.	50mΩ max.	30mΩ max.	50mΩ max.	150mΩ max.		20mΩ max.	100mΩ max.
Operating force (see note1)		0.25N max. 0.49N max.		0.10N max. 0.25N max. 0.49N max.		0.25N max. 0.49N max. 0.98N max.		0.5mN·m max. 0.75mN·m max. 1.00mN·m max.	
Durability (see note1)	Mechanical	50,000,000 operations min.	10,000,000 operations min.	10,000,000 operations min.		10,000,000 operations min.		10,000,000 operations min.	
	Electrical	500,000 operations min.	1,000,000 operations min.	500,000 operations min.	1,000,000 operations min.	3,000,000 operations min.		100,000 operations min.	
Degree of protection		IEC IP40		IEC IP40		IEC IP40		IEC IP40	
Ambient operating temperature		-25 to +105°C		-25 to +80°C		-10 to +60°C		-25 to +80°C	
Ambient operating humidity		85%RH max. (for +5 to +35°C)		85%RH max. (for +5 to +35°C)		85%RH max. (for +5 to +35°C)		85%RH max. (for +5 to +35°C)	
Actuators									
Terminals		Solder Quick-connect (#187)		Solder		Solder		Quick-connect (#205)	
Approved standard (see note2)	UL	●		●		—		●	
	CSA	●		●		—		●	
	EN/IEC	● (VDE approval)		—		—		—	

Note 1: For pin plunger type

Note 2: ● : Approved model with standard marking on the switch

○ : Approved model. However no-approved types are included. They are without standard marking on the switch.

Consult your OMRON sales representative.

# Basic Switches

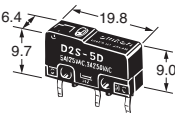
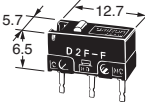
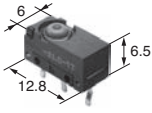
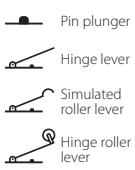
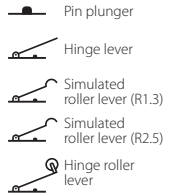
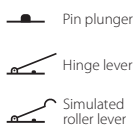
Classification		Subminiature Basic Switches (S-size)					
Model		D3M		SS		SS-P	
Appearance							
			SS-10	SS-5	SS-01	SS-3P	SS-01P
Features		Quick-connect terminals simplify wiring.		S-size standard basic switch offers high reliability and easy-to-use.		SS series compatible mounting. One-piece terminals construction to keep out flux.	
Contact form		SPST-NC / SPST-NO		SPDT / SPST-NC / SPST-NO		SPDT	
Contact	Specification	Crossbar		Rivet		Crossbar	
	Material	Gold alloy		Silver alloy		Silver	
	Gap	0.5mm		0.5mm		0.25mm	
Ratings (resistive load)		0.1A 30VDC		10.1A 250VAC		5A 125VAC 3A 250VAC	
Inrush current	NC	1A max.		20A max.		1A max.	
	NO	1A max.		15A max.		10A max.	
Minimum applicable load (reference values)		1mA at 5VDC		160mA at 5VDC		1mA at 5VDC	
Contact resistance (initial values)		100mΩ max.		OF 1.47N : 30mΩ max.		OF 1.47N : 30mΩ max. OF 0.49N : 50mΩ max.	
Operating force (see note1)		1.50N max.		1.47N max.		0.49N max. 1.47N max.	
Durability (see note1)	Mechanical	500,000 operations min.		10,000,000 operations min.		30,000,000 operations min.	
	Electrical	200,000 operations min.		50,000 operations min.		200,000 operations min.	
Degree of protection		IEC IP40		IEC IP40		IEC IP40	
Ambient operating temperature		-25 to +85°C		-25 to +85°C		-25 to +85°C	
Ambient operating humidity		80%RH max. (for +5 to +35°C)		85%RH max. (for +5 to +35°C)		85%RH max. (for +5 to +35°C)	
Actuators							
Terminals		The terminals connect to JST's XA Connector		Solder Quick-connect (#110) PCB		Solder Quick-connect (#110) PCB	
Approved standard (see note2)	UL	●		●		●	
	CSA	●		●		●	
	EN/IEC	● (TUV approval)		○ (VDE approval)		—	

Note 1: For pin plunger type

Note 2: ● : Approved model with standard marking on the switch

○ : Approved model. However no-approved types are included. They are without standard marking on the switch. Consult your OMRON sales representative.

# Basic Switches

Classification		Subminiature Basic Switches (S-size)			Ultra Subminiature Basic Switches (J-size)							
Model		D2S			D2F			D2FD				
Appearance												
	D2S-10    D2S-5    D2S-01			D2F-5    D2F    D2F-01			D2FD-2    D2FD-01					
Features		S-size basic switch with superb flux resistance.			Ultra subminiature basic switches with wide variations, which meet a wide range of applications.							
Contact form		SPDT			SPDT							
Contact	Specification	Rivet		Crossbar	Crossbar							
	Material	Silver alloy		Gold alloy	Silver alloy			Gold alloy				
	Gap	0.5mm			0.25mm			0.25mm				
Ratings (resistive load)		10.1A 250VAC	5A 125VAC 3A 250VAC	0.1A 125VAC 0.1A 30VDC	5A 250VAC	3A 125VAC 2A 30VDC	1A 125VAC 0.5A 30VDC	0.1A 30VDC		2A 125VAC 2A 30VDC	0.1A 125VAC 0.1A 30VDC	
Inrush current	NC	20A max.		1A max.	—	—	—	—	—	—	—	
	NO	15A max.	10A max.		—	—	—	—	—	—	—	
Minimum applicable load (reference values)		160mA at 5VDC		1mA at 5VDC	100mA at 5VDC			1mA at 5VDC		100mA at 5VDC	1mA at 5VDC	
Contact resistance (initial values)		OF 1.47N : 30mΩ max.	OF 1.47N : 30mΩ max. OF 0.49N : 50mΩ max.	OF 1.47N : 50mΩ max. OF 0.49N : 100mΩ max.	30mΩ max.		50mΩ max.	100mΩ max		30mΩ max.	100mΩ max.	
Operating force (see note1)		1.47N max.	0.49N max. 1.47N max.		1.47N max.	0.74N max.	1.47N max.	0.74N max.	2.0N max.			
Durability (see note1)	Mechanical	10,000,000 operations min.	30,000,000 operations min.		1,000,000 operations min.							
	Electrical	50,000 operations min.	200,000 operations min.		10,000 operations min.	30,000 operations min.	100,000 operations min.		30,000 operations min.	100,000 operations min.		
Degree of protection		IEC IP40			IEC IP40							
Ambient operating temperature		-25 to +85°C			-40 to +85°C							
Ambient operating humidity		85%RH max. (for +5 to +35°C)			85%RH max. (for +5 to +35°C)							
Actuators												
Terminals		Self-clinching PCB Solder			PCB (straight, right angle, left angle, self-clinching) Solder						Self-clinching PCB Solder	
Approved standard (see note2)	UL	○			—	●	●		—			
	CSA	○			—	●	●		—			
	EN/IEC	—			—	—						

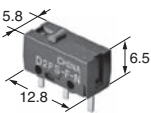
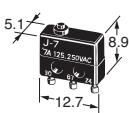
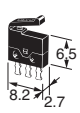

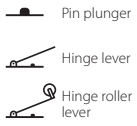

Note 1: For pin plunger type

Note 2: ● : Approved model with standard marking on the switch

○ : Approved model. However no-approved types are included. They are without standard marking on the switch.

Consult your OMRON sales representative.

# Basic Switches

Classification		Ultra Subminiature Basic Switches (J-size)			
Model		D2FS	J	D2MQ	
Appearance					
Features		Suitable for low frequency long life use tools.	Ultra subminiature models capable of 7A load.	Snap action switch with thin 2.7mm.	
Contact form		SPST-NO	SPDT	SPDT	
Contact	Specification	Crossbar	Rivet	Rivet	
	Material	Silver	Silver alloy+ Gold plated	Silver plated	Gold plated
	Gap	0.4mm	0.35mm	0.15mm	
Ratings (resistive load)		0.1A 6VDC	7A 125VAC 7A 250VAC	0.5A 30VDC	50mA 30VDC
Inrush current	NC	—	—	—	—
	NO	—	—	—	—
Minimum applicable load (reference values)		1mA at 5VDC	1mA at 5VDC	50mA at 5VDC	5mA at 5VDC
Contact resistance (initial values)		100mΩ max.	15mΩ max.	100mΩ max.	
Operating force (see note1)		0.85N max.	1.37N max.	1.18N max.	
Durability (see note1)	Mechanical	100,000 operations min.	10,000,000 operations min.	30,000 operations min.	
	Electrical	10,000 operations min.	50,000 operations min.	10,000 operations min.	
Degree of protection		IEC IP40	IEC IP40	IEC IP40	
Ambient operating temperature		-20 to +70°C	-10 to +80°C	-15 to +70°C	
Ambient operating humidity		85%RH max. (for +5 to +35°C)	85%RH max. (for +5 to +35°C)	35 to 85%RH (for +5 to +35°C)	
Actuators					
Terminals		PCB (straight, right angle, left angle) Self-clinching PCB	Solder	PCB (straight, right angle, left angle)	
Approved standard (see note2)	UL	—	○	—	
	CSA	—	○	—	
	EN/IEC	—	—	—	

Note 1: For pin plunger type

Note 2: ● : Approved model with standard marking on the switch

○ : Approved model. However no-approved types are included. They are without standard marking on the switch.

Consult your OMRON sales representative.

# Basic Switches

Classification		Sealed Basic Switches					
Model		D2VW		D2SW		D2SW-P	
Appearance							
		D2VW-5	D2VW-01	D2SW-3	D2SW-01	D2SW-P2	D2SW-P01
Features		Sealed miniature basic switch conforms to IP67.		Sealed subminiature basic switch conforms to IP67.		Sealed basic switch with simplified construction, mounting compatible with SS and D2SW series.	
Contact form		SPDT / SPST-NC / SPST-NO		SPDT / SPST-NC / SPST-NO		SPDT / SPST-NC / SPST-NO	
Contact	Specification	Rivet	Crossbar	Rivet	Crossbar	Rivet	Crossbar
	Material	Silver alloy	Gold alloy	Silver	Gold alloy	Silver	Gold alloy
	Gap	0.5mm		0.5mm		0.5mm	
Ratings (resistive load)		5A 125VAC 5A 250VAC 5A 30VDC	0.1A 125VAC 0.1A 30VDC	3A 125VAC 2A 250VAC 3A 30VDC	0.1A 125VAC 0.1A 30VDC	2A 250VAC 2A 30VDC	0.1A 125VAC 0.1A 30VDC
Inrush current	NC	15A max.	—	20A max.	1A max.	6A max.	—
	NO			10A max.			
Minimum applicable load (reference values)		160mA at 5VDC	1mA at 5VDC	160mA at 5VDC	1mA at 5VDC	160mA at 5VDC	1mA at 5VDC
Contact resistance (initial values)		Terminal model : 50mΩ max. Molded lead wire 300mm : 100mΩ max. Molded lead wire 1,000mm : 200mΩ max.		Terminal model:30mΩ max. Molded lead wire :50mΩ max.	Terminal model :50mΩ max. Molded lead wire : 70mΩ max.	Terminal model:50mΩ max. Molded lead wire :100mΩ max.	Terminal model:100mΩ max. Molded lead wire :150mΩ max.
Operating force (see note1)		1.96N max.		1.77N max.		1.8N max.	
Durability (see note1)	Mechanical	10,000,000 operations min.		5,000,000 operations min.		1,000,000 operations min.	
	Electrical	100,000 operations min.	1,000,000 operations min.	200,000 operations min.		50,000 operations min.	200,000 operations min.
Degree of protection		IEC IP67(Excluding the terminals on terminal model)		IEC IP67(Excluding the terminals on terminal model)		IEC IP67(Excluding the terminals on terminal model)	
Ambient operating temperature		-40 to +85°C		-40 to +85°C		-20 to +70°C	
Ambient operating humidity		95%RH max. (for +5 to +35°C)		95%RH max. (for +5 to +35°C)		85%RH max. (for +5 to +35°C)	
Actuators							
Terminals		Molded lead wire Solder		Molded lead wire Solder Quick-connect (#110) PCB		Molded lead wire Solder Quick-connect (#110) PCB	
Approved standard (see note2)	UL	○		○		○	
	CSA	○		○		○	
	EN/IEC	○ (VDE approval)		○ (VDE approval)		○ (VDE approval)	

Note 1: For pin plunger type

Note 2 : ○ : Approved model with standard marking on the switch

○ : Approved model. However no-approved types are included. They are without standard marking on the switch.  
Consult your OMRON sales representative.

# Basic Switches



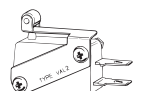
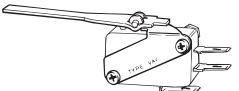
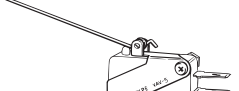

Classification		Sealed Basic Switches			
Model		D2HW	D2JW	D2QW	D2AW
Appearance					
Features		Small sealed snap-action switch with a very long stroke for reliable ON/OFF action.	Sealed ultra subminiature basic switch conforms to IP67.	Sealed long stroke slide-contact switch for reliable ON/OFF action even in severe environmental conditions.	Long stroke seal switch with high reliability and high insulation Performance.
Contact form		SPDT / SPST-NC / SPST-NO	SPDT / SPST-NC / SPST-NO	SPST-NC / SPST-NO	SPST-NC / SPST-NO
Contact	Specification	Crossbar	Crossbar	Slide	Slide
	Material	Gold alloy	Gold alloy	Gold plated / Silver plated	Silver plated
	Gap	0.5mm	0.5mm	—	—
Ratings (resistive load)		0.1A 125VAC 2A 12VDC 1A 24VDC 0.5A 42VDC	0.1A 30VDC	0.1A 30VDC 10mA 14VDC	0.1A 12VDC
Inrush current	NC	—	0.1A max.	—	—
	NO	—	—	—	—
Minimum applicable load (reference values)		1mA at 5VDC	1mA at 5VDC	1mA at 5VDC	1mA at 5VDC
Contact resistance (initial values)		Terminal model:100mΩ max. Molded lead wire :150mΩ max.	Terminal model:100mΩ max. Molded lead wire :140mΩ max.	Terminal model:100mΩ max. Molded lead wire :150mΩ max.	Terminal model:100mΩ max.
Operating force (see note1)		0.75N max.	2.45N max.	1.5N max.	1.0N max.
Durability (see note1)	Mechanical	1,000,000 operations min.	1,000,000 operations min.	500,000 operations min.	200,000 operations min.
	Electrical	100,000 operations min.	100,000 operations min.	0.1A 30VDC : 200,000 operations min. 10mA 14VDC : 500,000 operations min.	200,000 operations min.
Degree of protection		IEC IP67(Excluding the terminals on terminal model)	IEC IP67(Excluding the terminals on terminal model)	IEC IP67(Excluding the terminals on terminal model)	IEC IP67(Excluding the terminals on terminal model)
Ambient operating temperature		-40 to +85°C	-40 to +85°C	-40 to +85°C	-40 to +85°C
Ambient operating humidity		95%RH max. (for +5 to +35°C)	35 to 98%RH (for +5 to +35°C)	95%RH max. (for +5 to +35°C)	95%RH max. (for +5 to +35°C)
Actuators		<ul style="list-style-type: none"> <li> Pin plunger</li> <li> Hinge lever</li> <li> Simulated roller lever</li> <li> Hinge roller lever</li> <li> Leaf lever</li> <li> Simulated leaf lever</li> </ul>	<ul style="list-style-type: none"> <li> Pin plunger</li> <li> Hinge lever</li> <li> Simulated roller lever</li> <li> Hinge roller lever</li> </ul>	<ul style="list-style-type: none"> <li> Pin plunger</li> <li> Simulated leaf lever</li> <li> Leaf lever</li> <li> Bent leaf lever</li> </ul>	<ul style="list-style-type: none"> <li> Pin plunger</li> <li> Leaf lever</li> <li> Simulated roller leaf lever</li> </ul>
Terminals		Molded lead wire Solder PCB (straight, right angle, left angle)	Molded lead wire Solder	Molded lead wire Solder PCB	Solder PCB
Approved standard (see note2)	UL	○	—	—	—
	CSA	○	—	—	—
	EN/IEC	—	—	—	—

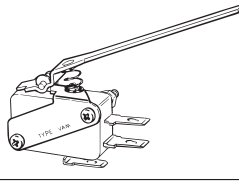

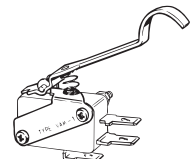
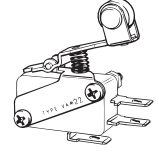
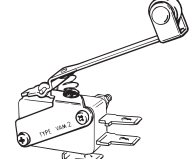
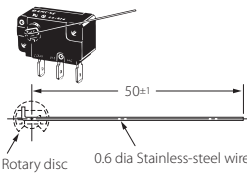
Note 1: For pin plunger type

Note 2: ● : Approved model with standard marking on the switch

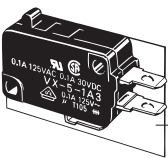
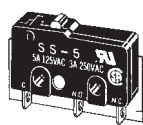
○ : Approved model. However no-approved types are included. They are without standard marking on the switch.  
Consult your OMRON sales representative.

## Actuator (sold separately)

Model	Appearance	Applicable switches
leaf spring		V D2VW pin plunger type with OF over 1.96N
VAL		
Simulated roller Leaf Spring		V D2VW pin plunger type with OF over 1.96N
VAL12		
Roller Leaf Spring		V D2VW pin plunger type with OF over 1.96N
VAL2 VAL02		
Long Hinge Lever		V D2RV D2VW pin plunger type with OF over 0.98N
VAV		
Hinge Wire Lever		V D3V VX D2MV D2RV D2VW pin plunger type with OF over 0.25N
VAV-5		
Hinge Roller Lever		V D2RV D2VW pin plunger type with OF over 0.98N
VAV2		

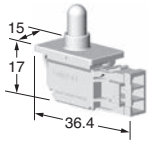
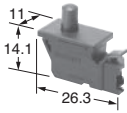
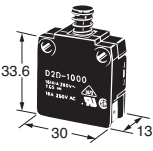
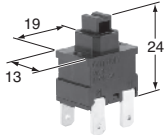





Model	Appearance	Applicable switches
Reverse Long Hinge Lever		V D3V VX D2MV D2RV
VAM		
Reverse Hinge Lever		V D3V VX D2MV D2RV
VAM21		
Reverse Hinge Modified Lever		V D3V VX D2MV D2RV
VAM-1		
Reverse Roller Modified Lever		V D3V VX D2MV D2RV
VAM22		
Reverse Long Hinge Roller Lever		V D3V VX D2MV D2RV
VAM2		
Actuator Lever		D2MC
CAA1M		

## Separator (sold separately)

Model	Thickness	Appearance	Applicable switches
SEPARATOR FOR V0.18	0.18mm		V D3V VX D2MV D2RV D2VW
SEPARATOR FOR V0.25	0.25mm		
SEPARATOR FOR SS0.18	0.18mm		SS SS-P SSG D2S D2SW D2SW-P
SEPARATOR FOR SS0.4	0.4mm		



# Door Switches / Power Switches

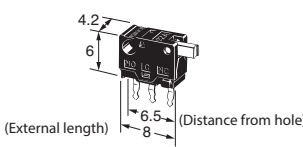
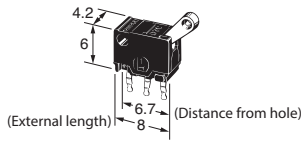
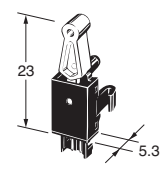
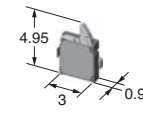
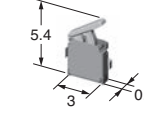





Classification		Miniature Door Switches		Door Power Switches		Miniature Power Switches
Model		D3D	D3DC	D2D		C4V
Appearance						
				Standard	Pull-on lock	
Features		Door switch with long stroke, 9mm.	Door switch indicated the OP with long stroke.	Door interlock power switch with contact gap, 3mm.		Miniature power switch with contact gap, over 3mm.
Contact form		SPDT / SPST-NC / SPST-NO	SPST-NC / SPST-NO	DPST-NO/DPST-NO+SPST-NC/SPST-NC/SPST-NO/ SPST-NO+SPST-NC		DPST-NO / SPST-NO
Contact	Specification	Crossbar	Rivet	Rivet		Rivet
	Material	Gold alloy	Silver	Silver		Silver alloy
	Gap	0.5mm	0.3mm	3mm min.	1mm	3mm
Ratings (resistive load)		1A 125VAC 0.5A 250VAC	0.1A 30VDC	16A 250VAC	10A 250VAC	8A 125/250VAC
Inrush current	NC	—	—	30A max.	24A max.	—
	NO	—	—	—	—	—
Minimum applicable load (reference values)		1mA at 5VDC	1mA at 5VDC	160mA at 5VDC		—
Contact resistance (initial values)		100mΩ max.	300mΩ max.	50mΩ max.		50mΩ max.
Operating force (see note1)		2.0N max.	1.0N max.	5.88N max. 2.94N max.	19.61N max. 1.96N max.	7N max.
Durability (see note1)	Mechanical	300,000 operations min.	100,000 operations min.	10,000,000 operations min.		10,000 operations min.
	Electrical	50,000 operations min.	100,000 operations min.	100,000 operations min.		10,000 operations min.
Degree of protection		IEC IP00	IEC IP00	IEC IP40		IEC IP00
Ambient operating temperature		-30 to +60°C	-25 to +85°C	-25 to +85°C		-10 to +55°C
Ambient operating humidity		85%RH max. (for +5 to +35°C)	85%RH max. (for +5 to +35°C)	85%RH max. (for +5 to +35°C)		45 to 85%RH (for +5 to +35°C)
Actuators		 Plunger  Lever	 Plunger	 Pin plunger		 Plunger
Terminals		The terminals connect to JST's HL Connector	The terminals connect to JST's XA Connector	Quick-connect (#250)		Quick-connect (#187)
Approved standard (see note2)	UL	●	●	●		●
	CSA	●	●	●		●
	EN/IEC	● (VDE approval)	—	● (VDE approval)		● (TUV approval)

Note 1: For pin plunger type

Note 2: ● : Approved model with standard marking on the switch

○ : Approved model. However no-approved types are included. They are without standard marking on the switch.  
Consult your OMRON sales representative.

# Miniature Detection Switches

Classification		Detection Switches				Surface Mount Detection Switches		
Model		D2A		D3C		D2X	D3SK	D3SH
Appearance								
	Standard	Low operating force	Standard	Low operating force				
Features		Detection switch with push action.		Detection switch with lever action.		Detection switch with connector terminals.	The smallest detection switch in the industry with high precision operation.	SMD detection switch. Ideal for miniature mobile devices.
Contact form		SPDT		SPDT		SPST-NC	SPST-NC / SPST-NO	SPST-NC / SPST-NO
Contact	Specification	Slide		Slide		Slide	Slide	Slide
	Material	Silver plated		Silver plated		Gold plated	Gold plated/Silver plated	Gold plated/Silver plated
Ratings (resistive load)		0.1A 30VDC		0.1A DC30V		0.1A 30VDC	1mA 5VDC	1mA 5VDC
Minimum applicable load (reference values)		1mA at 5VDC		1mA at 5VDC		1mA at 5VDC	15µA at 3VDC	15µA at 3VDC
Contact resistance (initial values)		50mΩ max.		50mΩ max.		200mΩ max.	3Ω max.	3Ω max.
Operating force (see note1)		0.98N max.	0.49N max.	1.28N max.	0.39N max.	0.49N max.	0.4N max.	0.3N max.
Durability (see note1)	Mechanical	—		—		1,000,000 operations min.	150,000 operations min.	150,000 operations min.
	Electrical	50,000 operations min		50,000 operations min		50,000 operations min	100,000 operations min	100,000 operations min
Degree of protection		IEC IP00		IEC IP00		IEC IP00	IEC IP40	IEC IP40
Ambient operating temperature		-10 to +80°C		-20 to +80°C		-10 to +70°C	-25 to +85°C	-25 to +85°C
Ambient operating humidity		85%RH max. (for +5 to +35°C)		85%RH max. (for +5 to +35°C)		45 to 85%RH (for +5 to +35°C)	85%RH max. (for +5 to +35°C)	85%RH max. (for +5 to +35°C)
Actuators		 Pin plunger		 Rotary lever		 Rotary lever	 Rotary lever	 Rotary lever
Terminals		PCB		PCB		The terminals connect to Tyco Electronics Japan's CT Connector	Surface mount PCB	Surface mount PCB
Approved standard (see note2)	UL	—		—		—	—	—
	CSA	—		—		—	—	—
	EN/IEC	—		—		—	—	—

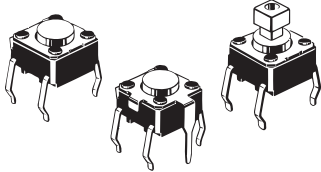
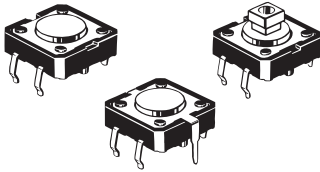
Note 1: For pin plunger type

Note 2: ● : Approved model with standard marking on the switch

○ : Approved model. However no-approved types are included. They are without standard marking on the switch.

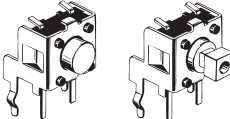
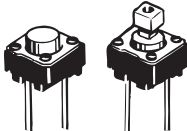
Consult your OMRON sales representative.

# Tactile Switches

Mounting		Through-hole mounting								
Sealed / Unsealed		Unsealed								
Model		B3F								
Size		6×6mm				12×12mm				
Appearance										
Series		B3F-1000		B3F-1000-G		B3F-4000		B3F-5000		B3F-5001
		Standard		Micro load		Standard		Long durability		High reliability
Features		Standard tactile switch with through-hole terminals Wide range of models, including 6×6mm, 12×12mm, side-operated, radial tapping packaged, high-force and gold plated types.								
Contact materials		Silver plated		Gold plated		Silver plated		Silver plated		Gold plated
Ratings (resistive load)		1 to 50mA, 3 to 24VDC		100μA to 50mA, 3 to 24VDC		1 to 50mA, 3 to 24VDC				
Minimum applicable load (reference values)		10μA at 1VDC								
Contact resistance (initial values)		100mΩ max.								
Operating force		0.98N	1.47N	2.55N	1.76N	1.27N	2.55N	1.27N	1.27N	
Durability		1,000,000 operations min.	300,000 operations min.	100,000 operations min.	300,000 operations min.	3,000,000 operations min.	1,000,000 operations min.	10,000,000 operations min.	10,000,000 operations min.	
Plunger	Flat type (height:4.3mm)	Without ground	B3F-1000	B3F-1002	B3F-1005	B3F-1002-G	B3F-4000	B3F-4005	B3F-5000	B3F-5001
		With ground	B3F-1100	B3F-1102	B3F-1105	B3F-1102-G	B3F-4100	B3F-4105	B3F-5100	B3F-5101
	Flat type (height:5.0mm)	Without ground	B3F-1020	B3F-1022	B3F-1025	B3F-1022-G	—	—	—	—
		With ground	B3F-1120	B3F-1122	B3F-1125	B3F-1122-G	—	—	—	—
	Flat type (height:9.5mm)	Without ground	B3F-1070	B3F-1072	B3F-1075	B3F-1072-G	—	—	—	—
		With ground	—	—	—	—	—	—	—	—
	Projected type (height:7.3mm)	Without ground	B3F-1050	B3F-1052	B3F-1055	B3F-1052-G	B3F-4050	B3F-4055	B3F-5050	B3F-5051
		With ground	B3F-1150	B3F-1152	B3F-1155	—	B3F-4150	B3F-4155	B3F-5150	B3F-5151
Others	Without ground	—	—	—	—	—	—	—	—	
	With ground	—	—	—	—	—	—	—	—	
Degree of protection		—								
Washing		Not possible								
Ambient operating temperature		-25 to +70°C								
Ambient operating humidity		35 to 85%RH (for +5 to +35°C)								
Packaging		Bag								
Key top (sold separately)	4×4mm	B32-10□□				—				
	φ6mm	B32-20□□				—				
	D-shaped	B32-21□□				—				
	9×9mm	—				B32-12□□				
	12×12mm	—				B32-13□□				
	φ9.5mm	—				B32-16□□				

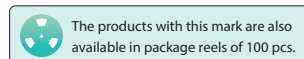
Note: The color is indicated in □ models for key tops. (Refer to page 35 for details)

# Tactile Switches

Mounting		Through-hole mounting						
Sealed / unsealed		Unsealed						
Model		B3F						
Size		6×6mm						
Appearance								
Series		B3F-3000 Side-operated		B3F-3000-G Micro load		B3F-6000 Radial tapping		
Features		Standard tactile switch with through-hole terminals Wide range of models, including 6×6mm, 12×12mm, side-operated, radial tapping packaged, high-force and gold plated types.						
Contact materials		Silver plated		Gold plated		Silver plated		
Ratings (resistive load)		1 to 50mA, 3 to 24VDC		100µA to 50mA, 3 to 24VDC		1 to 50mA, 3 to 24VDC		
Minimum applicable load (reference values)		10µA at 1VDC						
Contact resistance (initial values)		100mΩ max.						
Operating force		0.98N	1.47N	2.55N	1.76N	0.98N	1.47N	
Durability		1,000,000 operations min.	300,000 operations min.	100,000 operations min.	300,000 operations min.	1,000,000 operations min.	300,000 operations min.	
Plunger	Flat type (height:4.3mm)	Without ground	—	—	—	—	B3F-6000	B3F-6002
		With ground	B3F-3100	B3F-3102	B3F-3105	—	B3F-6100	B3F-6102
	Flat type (height:5.0mm)	Without ground	—	—	—	—	B3F-6020	B3F-6022
		With ground	B3F-3120	B3F-3122	B3F-3125	B3F-3122-G	B3F-6120	B3F-6122
	Flat type (height:9.5mm)	Without ground	—	—	—	—	—	—
		With ground	—	—	—	—	—	—
	Projected type (height:7.3mm)	Without ground	—	—	—	—	B3F-6050	B3F-6052
		With ground	B3F-3150	B3F-3152	B3F-3155	—	B3F-6150	B3F-6152
Others	Without ground	—	—	—	—	—	—	
	With ground	—	—	—	—	—	—	
Degree of protection		—						
Washing		Not possible						
Ambient operating temperature		-25 to +70°C						
Ambient operating humidity		35 to 85%RH (for +5 to +35°C)						
Packaging		Bag			Radial tapping			
Key top (sold separately)	4×4mm	B32-10□0			B32-10□0			
	φ6mm	B32-20□0			B32-20□0			
	D-shaped	B32-21□0			B32-21□0			
	9×9mm	—			—			
	a12×12mm	—			—			
	φ9.5mm	—			—			

Note: The color is indicated in □ models for key tops. (Refer to page 35 for details)

# Tactile Switches



Mounting		Surface mount												
Sealed / Unsealed		Unsealed												
Model		B3FS					B3AL							
Size		6×6mm		12×12mm			6×6.9mm							
Appearance														
Series		B3FS-1000		B3FS-4000										
Features		Standard tactile switch with surface mounting terminals.					Long-stroke tactile switch with high operating force and high durability.							
Contact materials		Silver plated					Silver plated							
Ratings (resistive load)		1 to 50mA, 3 to 24VDC					1 to 50mA, 5 to 16VDC							
Minimum applicable load (reference values)		10µA at 1VDC					—							
Contact resistance (initial values)		100mΩ max.					100mΩ max.							
Operating force		0.98N	1.47N	2.55N	1.47N	2.55N	1.96N	2.45N	3.0N	3.5N	4.0N	4.5N	5.0N	
Durability		1,000,000 operations min.	300,000 operations min.	100,000 operations min.	3,000,000 operations min.	1,000,000 operations min.	1,000,000 operations min.						500,000 operations min.	
Plunger	Flat type (height:3.1mm)	Without ground	⊕ B3FS-1000	⊕ B3FS-1002	B3FS-1005	—	—	—	—	—	—	—	—	
		With ground	—	—	—	—	—	—	—	—	—	—	—	
	Flat type (height:3.4mm)	Without ground	—	—	—	—	—	—	—	—	—	—	—	
		With ground	—	—	—	—	—	—	—	—	—	—	—	
	Flat type (height:4.3mm)	Without ground	⊕ B3FS-1010	⊕ B3FS-1012	B3FS-1015	B3FS-4002P	B3FS-4005P	—	—	—	—	—	—	
		With ground	—	—	—	—	—	—	—	—	—	—	—	
	Flat type (height:5.1mm)	Without ground	—	—	—	—	—	—	—	—	—	—	—	
		With ground	—	—	—	—	—	—	—	—	—	—	—	
	Projected type (height:7.3mm)	Without ground	B3FS-1050	B3FS-1052	—	B3FS-4052P	B3FS-4055P	—	—	—	—	—	—	
		With ground	—	—	—	—	—	—	—	—	—	—	—	
	Others	Without ground	—	—	—	—	—	B3AL-1000	B3AL-1001	B3AL-1002	B3AL-1003	B3AL-1006	B3AL-1005	B3AL-1004
		With ground	—	—	—	—	—	—	—	B3AL-1002-MS	B3AL-1003-MS	—	—	—
Degree of protection		—					—							
Washing		Not possible					Not possible							
Ambient operating temperature		-25 to +70°C					-40 to +90°C							
Ambient operating humidity		35 to 85%RH (for +5 to +35°C)					35 to 85%RH (for +5 to +35°C)							
Packaging		Bag/Embossed taping			Embossed taping		Bag/Embossed taping							
Key top (sold separately)	4×4mm	B32-10□0			—		—							
	φ6mm	B32-20□0			—		—							
	D-shaped	B32-21□0			—		—							
	9×9mm	—			B32-12□0		—							
	12×12mm	—			B32-13□0		—							
	φ9.5mm	—			B32-16□0		—							

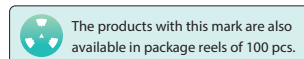
Note: The color is indicated in □ models for key tops. (Refer to page 35 for details)

# Tactile Switches

Mounting		Surface mount						
Sealed / unsealed		Unsealed		Sealed				
Model		B3U		B3W				
Size		3x2.5mm		6x6mm		12x12mm		
Appearance								
Series		B3U-1000 Top-operated	B3U-3000 Side-operated	B3W-1000		B3W-4000		
Features		Surface mounted ideal for high-density mounting.		Standard sealed tactile switch with through-hole terminals. Sealed construction for highly reliable operation in locations exposed to dust or water.				
Contact materials		Silver plated		Silver plated				
Ratings (resistive load)		1 to 50mA, 3 to 12VDC		1 to 50mA, 3 to 24VDC				
Minimum applicable load (reference values)		10µA at 1VDC		10µA at 1VDC				
Contact resistance (initial values)		100mΩ max.		100mΩ max.				
Operating force		1.5N	1.59N	1.57N max.	2.26N max.	1.96N max.	3.43N max.	
Durability		200,000 operations min.	100,000 operations min.	1,000,000 operations min.	300,000 operations min.	3,000,000 operations min.	1,000,000 operations min.	
Plunger	Flat type (height:3.1mm)	Without ground	—	—	—	—	—	
		With ground	—	—	—	—	—	
	Flat type (height:3.4mm)	Without ground	—	—	—	—	—	
		With ground	—	—	—	—	—	
	Flat type (height:4.3mm)	Without ground	—	—	B3W-1000	B3W-1002	B3W-4000	B3W-4005
		With ground	—	—	B3W-1100	B3W-1102	B3W-4100	B3W-4105
	Flat type (height:5.1mm)	Without ground	—	—	B3W-1020	B3W-1022	—	—
		With ground	—	—	—	—	—	—
Projected type (height:7.3mm)	Without ground	—	—	B3W-1050	B3W-1052	B3W-4050	B3W-4055	
	With ground	—	—	B3W-1150	B3W-1152	B3W-4150	B3W-4155	
Others	Without ground	B3U-1000P	B3U-3000P	—	—	—	—	
	With ground	B3U-1100P	B3U-3100P	—	—	—	—	
Degree of protection		—		IEC IP67				
Washing		Not possible		Possible				
Ambient operating temperature		-25 to +70°C		-25 to +70°C				
Ambient operating humidity		35 to 85%RH (for +5 to +35°C)		35 to 85%RH (for +5 to +35°C)				
Packaging		Embossed taping		Bag				
Key top (sold separately)	4x4mm	—		B32-10□0		—		
	φ6mm	—		B32-20□0		—		
	D-shaped	—		B32-21□0		—		
	9x9mm	—		—		B32-12□0		
	12x12mm	—		—		B32-13□0		
	φ9.5mm	—		—		B32-16□0		

Note: The color is indicated in □ models for key tops. (Refer to page 35 for details)

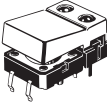
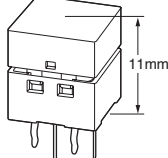
# Tactile Switches



Mounting		Surface mount							
Sealed / unsealed		Sealed							
Model		B3S		B3SN		B3SL		B3SE	
Size		6x6mm		6x6mm		6x6mm		6x6mm	
Appearance									
Series		B3S-1000							
Features		Surface mounting tactile switch with sealed structure.		Surface mounting thin type tactile switch with sealed structure.		Surface mounting tactile switch with sealed structure and middle stroke.		6x6mm surface mounting tactile switch with high durability, ultra thin, and sealed structure.	
Contact materials		Silver plated		Silver plated	Gold plated	Silver plated		Silver plated	
Ratings (resistive load)		1 to 50mA, 3 to 24VDC		1 to 50mA, 3 to 24VDC		1 to 50mA, 3 to 12VDC		1 to 50mA at 3 to 12VDC	
Minimum applicable load (reference values)		10µA at 1VDC		10µA at 1VDC		10µA at 1VDC		10µA at 1VDC	
Contact resistance (initial values)		100mΩ max.		100mΩ max.		100mΩ max.		100mΩ max.	
Operating force		1.57N max.	2.26N max.	1.57N	1.76N	1.96N	3.5N	1.96N	
Durability		500,000 operations min.	300,000 operations min.	100,000 operations min.		100,000 operations min.		1,000,000 operations min.	
Plunger	Flat type (height:3.1mm)	Without ground	—	—	♻️ B3SN-3012	B3SN-3012P-G	—	—	—
		With ground	—	—	♻️ B3SN-3112	—	—	—	—
	Flat type (height:3.4mm)	Without ground	—	—	—	—	♻️ B3SL-1002P	♻️ B3SL-1005P	—
		With ground	—	—	—	—	—	—	—
	Flat type (height:4.3mm)	Without ground	B3S-1000	B3S-1002	—	—	—	—	—
		With ground	B3S-1100	B3S-1102	—	—	—	—	—
	Flat type (height:5.1mm)	Without ground	—	—	—	—	B3SL-1022P	B3SL-1025P	—
		With ground	—	—	—	—	—	—	—
Projected type (height:7.3mm)	Without ground	—	—	—	—	—	—	—	
	With ground	—	—	—	—	—	—	—	
Others	Without ground	—	—	—	—	—	—	B3SE-1002P	
	With ground	—	—	—	—	—	—	—	
Degree of protection		IEC IP67		IEC IP67		IEC IP67		IEC IP67	
Washing		Possible		Possible		Not possible		Not possible	
Ambient operating temperature		-25 to +70°C		-25 to +70°C		-25 to +90°C		-25 to +70°C	
Ambient operating humidity		35 to 85%RH (for +5 to +35°C)		35 to 85%RH (for +5 to +35°C)		35 to 85%RH (for +5 to +35°C)		35 to 85%RH (for +5 to +35°C)	
Packaging		Bag/Embossed taping		Bag/Embossed taping	Embossed taping	Embossed taping		Embossed taping	
Key top (sold separately)	4x4mm	—		—		—		—	
	φ6mm	—		—		—		—	
	D-shaped	—		—		—		—	
	9x9mm	—		—		—		—	
	12x12mm	—		—		—		—	
	φ9.5mm	—		—		—		—	

Note: The color is indicated in □ models for key tops. (Refer to page 35 for details)

# Tactile Switches

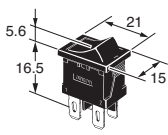
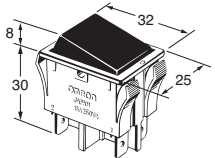
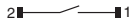
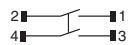
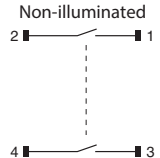
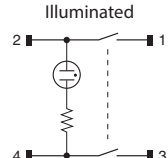
Mounting		Through-hole mounting				
Sealed / unsealed		Unsealed				
Model		B3J		B3W-9		
Size		12x18mm		10x10mm	12x12mm	
Appearance						
Features		Hinged tactile switches.		3-colors illuminated tactile switches with 2 LEDs. Display 2 different labels in combination with text combination films.		
Contact materials		Silver plated		Silver plated		
Ratings (resistive load)		1 to 50mA, 3 to 24VDC		1 to 50mA, 3 to 24VDC		
Minimum applicable load (reference values)		10µA at 1VDC		10µA at 1VDC		
Contact resistance (initial values)		100mΩ max.		100mΩ max.		
Operating force		1.27N	1.57N max.	2.26N max.	1.57N max.	2.26N max.
Durability		3,000,000 operations min.	1,000,000 operations min.	300,000 operations min.	1,000,000 operations min.	300,000 operations min.
Non-Illuminated		B3J-1□00	—	—	—	—
Illuminated	1 LED types	B3J-2□00	B3W-9000-□1□	B3W-9002-□1□	B3W-9010-□1□	B3W-9012-□1□
		B3J-3□00				
		B3J-4□00				
	2 LED types	B3J-5□00	B3W-9000-□2□	B3W-9002-□2□	B3W-9010-□2□	B3W-9012-□2□
		B3J-6□00				
		B3J-7□00				
Degree of protection		—		—		
Washing		Not possible		Not possible		
Ambient operating temperature		-25 to +70°C		-25 to +70°C		
Ambient operating humidity		35 to 85%RH (for +5 to +35°C)		35 to 85%RH (for +5 to +35°C)		
Packaging		Tray		Tray		
Optional accessories (sold separately)		—		B3W-9 Text combination films B3W-9□□-F□		

# Tactile Switch Key Top

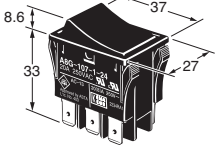
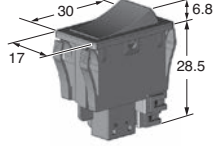
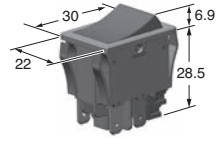
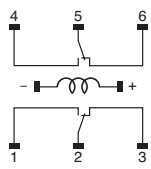
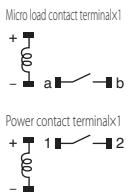
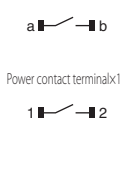
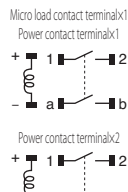
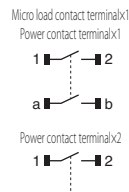
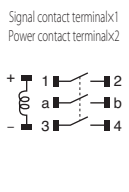
Classifications		Key top				
Model		B32				
Size	6x6mm switches			12x12mm switches		
	B3F-1000 / -1000-G / -3000 / -3000-G / -6000 / B3W-1000 / B3FS-1000			B3F-4000 / -5000 / -5001 / B3W-4000 / B3FS-4000		
Color	4x4mm	φ6mm	D type	9x9mm	12x12mm	φ9.5mm
Ivory	B32-1000	B32-2000	B32-2100	B32-1200	B32-1300	B32-1600
Black	B32-1010	B32-2010	B32-2110	B32-1210	B32-1310	B32-1610
Orange	B32-1020	—	—	B32-1220	B32-1320	B32-1620
Yellow	B32-1030	—	—	B32-1230	B32-1330	B32-1630
Blue	B32-1040	—	—	B32-1240	B32-1340	—
Green	B32-1050	—	—	B32-1250	B32-1350	—
White	B32-1060	—	—	B32-1260	B32-1360	—
Red	B32-1080	—	—	B32-1280	B32-1380	—


















# Rocker Switches

Classifications	Miniature Rocker Switches		Illuminated Rocker Switches	
Model	A8L		A8A	
Appearance				
Features	Miniature rocker switch for high capacity switching.		Illuminated Rocker Switches.	
Contact form	SPST	DPST	DPST	
				
Case color	Black		White / Black / Gray	
Cap color	Black		Non-illuminated:White/Red/Green/Blue/Yellow/Black Illuminated:Red/Green/Orange	
Marking	With / Without		With / Without	
Ratings (resistive load)	10A 250VAC 10A 125VAC		16A 250VAC 16A 125VAC	
Inrush current	100A max.		100A max.	
Operating force	SPST : 2.16N DPST : 3.92N		19.6N max.	
Durability	Mechanical	50,000 operations min.	40,000 operations min.	
	Electrical	10,000 operations min.	20,000 operations min.	
Protection of Degree	IEC IP40		IEC IP40	
Terminals	Solder / PCB / Quick-connect (#187)		Quick-connect (#250)	
Ambient operating temperature	-20 to +55°C		-20 to +50°C	
Ambient operating humidity	45 to 85%RH (for +5 to +35°C)		45 to 85%RH (for +5 to +35°C)	
Approved standard	UL	●	●	
	cUL	●	●	
	CSA			
	EN	●	●	
Optional accessories (sold separately)	—		A8A-RUBBER CAP	

# Rocker Switches

Classifications		Rocker Switches with reset function						
Model		A8G		A8GS		A8GS-T		
Appearance								
Features		Rocker switch with reset function for switching 20A.		Small size rocker switch with reset function.		Remote reset rocker switch with delay OFF function.		
Contact form		DPDT		SPST		DPST		
		With reset function		With reset function	Without reset function	With reset function	Without reset function	With reset and delay off funtion
								
Case color		Black		Black		Black		
Cap color		Black		Black		Black		
Marking		Without		With / Without		With / Without		
Ratings (resistive load)		Contact : 20A 250VAC Reset coil : 185mA 24VDC		Power contact : 10A 250VAC / 16A 125VAC Micro load contact : 0.2A 5VDC Reset coil : 455mA 5VDC / 300mA 3.3VDC		Power contact : 10A 250VAC / 16A 125VAC Micro load contact : 0.2A 5VDC Reset coil : 455mA 5VDC		
Inrush current		100A max.		117A max. (Power contact)		—		
Operating force		19.6N max.		Micro load contact SPST : 1.0N / Power contact SPST : 1.5N / DPST 2.0N		1.8N		
Durability	Mechanical	Switch operation : 100,000 operations min.		Switch operation : 30,000 operations min. Coil operation : 10,000 operations min.		Switch operation : 30,000 operations min. Coil operation : 10,000 operations min.		
	Electrical	Switch operation : 50,000 operations min. Coil operation : 10,000 operations min.		Switch operation : 10,000 operations min.		Switch operation : 10,000 operations min. Coil operation : 10,000 operations min.		
Protection of Degree		IEC IP40		IEC IP40		IEC IP40		
Terminals		Contact : Quick-connect(#250) Reset Coil : Quick-connect(#110)		Micro load contact terminal : CT connector Power contact terminal : Quick-connect terminals(#187), Solder terminals		Micro load contact terminal : CT connector Power contact terminal : Quick-connect terminals(#187), Solder terminals		
Ambient operating temperature		-10 to +55°C		-10 to +55°C		-10 to +55°C		
Ambient operating humidity		45 to 85%RH (for +5 to +35°C)		90%RH max. (for +5 to +35°C)		90%RH max. (for +5 to +35°C)		
Approved standard	UL	●		●		●		
	cUL	●						
	CSA			●		●		
	EN	●		●		●		





# Pushbutton Switches

Panel cutout		Round (12dia.)			Round (16dia.)			Square				
Model		A3C			M2C			A16□-P		A3A		
Appearance												
Features		Pushbutton switch (illuminated/non-illuminated) with cylindrical 12dia. body.			Indicator with cylindrical 12dia. body.			Pushbutton switch (illuminated/non-illuminated) with cylindrical 16dia. body and PCB terminals.			Lighted pushbutton switch with square body.	
Body		20mm			20mm			21mm			12.5mm	
Shape of pushbutton		Rectangular Square Round 			Rectangular Square Round 			Rectangular Square Round 			Square Round 	
Color of pushbutton	illuminated	LED lamp 			LED lamp 			LED lamp 			LED lamp 	
	Non-Illuminated				—							
Contact form		SPDT			—			DPDT / SPDT			SPDT / SPST-NO	
Action		Momentary Alternate			—			Momentary Alternate			Momentary Alternate	
Operating force		2.45N max.			—			IP40 : 4.41N max. IP66 : 4.91N max.			2.45N max.	
Ratings (resistive load)	Standard load	0.5A 250VAC 1A 125VAC 1A 30VDC			—			3A 250VAC 5A 125VAC 3A 30VDC			SPST-NO : 2A 250VAC 6A 125VAC 4A 30VDC SPDT : 3A 125VAC 2A 30VDC	
	Micro load	0.1A 125VAC 0.1A 30VDC			—			—			—	
Minimum applicable load		1mA at 5VDC			—			1mA at 5VDC			1mA at 5VDC	
Durability		100,000 operations min.			—			100,000 operations min.			50,000 operations min.	
Degree of protection		IEC IP40			IEC IP40			IEC IP40 / 66			IEC IP40	
Terminals		Solder			Solder			PCB			Solder PCB	
Ambient operating temperature		-10 to +55°C			-10 to +55°C			-10 to +55°C			-10 to +55°C	
Ambient operating humidity		35 to 85%RH			35 to 85%RH			35 to 85%RH			35 to 85%RH	
Approved standard		UL / CSA / CCC			UL / CSA			UL / CSA / EN / CCC			UL / CSA	



# Pushbutton Switches

## Accessories, Tools and Replacements for A3C/M2C (sold separately)


### Accessories

Name	Shape	Classification	Model	Remarks
Socket		Wire-wrap terminals	A3C-4101	Cannot be used together with Insulation Cover.
		PCB terminals	A3C-4102	
		Solder terminals	A3C-4103	
Insulation Cover		—	A3C-3002	Cannot be used together with Socket.
Switch Guard		For rectangular	A3CJ-5050	Cannot be used together with Dust Cover.
		For square, round	A3CA-5050	
Dust Cover		For rectangular	A3CJ-5060	Cannot be used together with Switch Guard. Can be used together with Dust Cover attached.

### Tools

Name	Shape	Classification	Model
Tightening Tools		—	A3C-3004
Extractor		—	A3PJ-5080

### Replacements

Name	Shape	Classification	Model
Legend Plate		For rectangular	A3CJ-5201
		For square	A3CA-5201
		For round	A3CT-5201




## Accessories for A3A (sold separately)

### Flange (Select according to panel color.)

Name	Shape	Classification	Model		
Flange	Square □12.7	Flange alone	Black	A3A-241	
			Light gray	A3A-242	
	Black		A3A-251		
	Light gray		A3A-252		
	Round φ12.7	Leaf spring alone	A3A-200		
			A3A-200		
	Square □12.7		Flange and leaf spring (one each)	Black	A3A-211
				Light gray	A3A-212
Round φ12.7	Black	A3A-221			
	Light gray	A3A-222			


An A3A with solder terminals is provided with a round or square black flange and leaf spring. A round black flange is provided with each A3A having solder terminals and a round pushbutton. A square black flange is provided with each A3A having solder terminals and a square pushbutton.

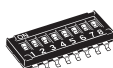

# Pushbutton Hand Switches


Model	C2U	C2UW	
Appearance			
Series	C2U (wired)	C2UW-D (wired)	C2UW-L (wireless)
Features	Double action hand switch.	Double action hand switch with a sub switch.	Double action hand switch with a sub switch.
Contact form	DPST	Main switch : DPST Sub switch : SPST-NO	
Action	Momentary	Momentary	
Operating force	1st stage : 4.9±1.47N 2nd stage : 15.69±2.94N	Main switch 1st stage : 4.7±1.5N 2nd stage : 12.6±3.0N Sub switch : 4N max.	
Ratings (resistive load)	2A 30VDC 2A 125VAC	Main switch : 10mA 14VDC 0.1A 30VDC Sub switch : 50mA 24VDC	Internal battery CR17345/CR123A (Lithium primary battery 3VDC)
Durability	Mechanical	500,000 operations min.	
	Electrical	200,000 operations min.	
Degree of protection	IEC IP00	IEC IP00	IEC IP00
Ambient operating temperature	-10 to +40°C	0 to +40°C	
Ambient operating humidity	75%RH max.(for +5 to +35°C)	90%RH max.(for +5 to +35°C)	
Wireless certification	—	—	As of September 2018* Japan, USA, EU, Korea, Canada, Australia, India, Brazil

\* Contact your OMRON representative for the latest countries to have acquired wireless certification.

# Slide DIP Switches


 The products with this mark are also available in package reels of 100 pcs.

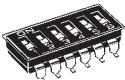
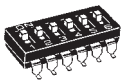
Mounting		Surface mounting					
Model		A6H					
Terminal pitch		1.27mm (Half pitch)					
Appearance							
Features		Slide DIP switch with ultra low profile, 1.55mm and half pitch.					
Actuator types		Flat actuator			Flat actuator with seal tape		
Packaging		Tube	Embossed taping standard reel (4,000 pcs)	Embossed taping small reel (500 pcs)	Tube	Embossed taping standard reel (4,000 pcs)	Embossed taping small reel (500 pcs)
Contact material		Gold plated					
Ratings(resistive load)		25mA 24VDC / 10µA (minimum current) at 3.5VDC					
Contact resistance(initial values)		200mΩ max.					
No. of poles	1	—	—	—	—	—	—
	2	A6H-2101	A6H-2101-P	A6H-2101-PM	A6H-2102	A6H-2102-P	A6H-2102-PM
	3	—	—	—	—	—	—
	4	A6H-4101	A6H-4101-P	A6H-4101-PM	A6H-4102	A6H-4102-P	A6H-4102-PM
	5	—	—	—	—	—	—
	6	A6H-6101	A6H-6101-P	A6H-6101-PM	A6H-6102	A6H-6102-P	A6H-6102-PM
	7	—	—	—	—	—	—
	8	A6H-8101	A6H-8101-P	A6H-8101-PM	A6H-8102	A6H-8102-P	A6H-8102-PM
	9	—	—	—	—	—	—
	10	A6H-0101	A6H-0101-P	A6H-0101-PM	A6H-0102	A6H-0102-P	A6H-0102-PM
Durability		1,000 operations min.					
Washing		Not possible			Possible		
Degree of protection		IEC IP40					
Ambient operating temperature		-20 to +70°C					
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)					



Mounting		Surface mounting					
Model		A6HF			A6S-H		
Terminal pitch		1.27mm (Half pitch)			2.54mm (Standard pitch)		
Appearance							
Features		Slide DIP switches with a height of 2.3mm and half pitch.			Standard surface mounting slide DIP switches. Washable, with seal tape available.		
Actuator types		Flat actuator with seal tape			Flat actuator		
Packaging		Tube	Embossed taping standard reel (2,000 pcs)	Embossed taping small reel (500 pcs)	Tube	Embossed taping standard reel (900 pcs)	Embossed taping small reel (400 pcs)
Contact material		Gold plated					
Ratings(resistive load)		25mA 24VDC / 10µA (minimum current) at 3.5VDC			25mA 24VDC / 10µA (minimum current) at 3.5VDC		
Contact resistance(initial values)		200mΩ max.			200mΩ max.		
No. of poles	1	—	—	—	A6S-1101-H	A6S-1101-PH	—
	2	A6HF-2102	A6HF-2102-P	A6HF-2102-PM	A6S-2101-H	A6S-2101-PH	—
	3	—	—	—	A6S-3101-H	A6S-3101-PH	A6S-3101-PMH
	4	A6HF-4102	A6HF-4102-P	A6HF-4102-PM	A6S-4101-H	A6S-4101-PH	A6S-4101-PMH
	5	—	—	—	A6S-5101-H	A6S-5101-PH	—
	6	A6HF-6102	A6HF-6102-P	A6HF-6102-PM	A6S-6101-H	A6S-6101-PH	A6S-6101-PMH
	7	—	—	—	A6S-7101-H	A6S-7101-PH	—
	8	A6HF-8102	A6HF-8102-P	A6HF-8102-PM	A6S-8101-H	A6S-8101-PH	A6S-8101-PMH
	9	—	—	—	A6S-9101-H	—	—
	10	A6HF-0102	A6HF-0102-P	A6HF-0102-PM	A6S-0101-H	—	A6S-0101-PMH
Durability		1,000 operations min.			1,000 operations min.		
Washing		Possible			Not possible		
Degree of protection		IEC IP40			IEC IP40		
Ambient operating temperature		-30 to +85°C			-20 to +70°C		
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)			35 to 95%RH (for +5 to +35°C)		

Note: Default actuator setting is OFF for Slide DIP Switches and Piano DIP Switches.  
Be sure to read the Safety precautions common to all DIP Switches for correct use.

# Slide DIP Switches

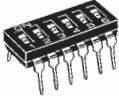
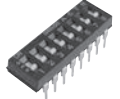
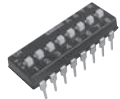
 The products with this mark are also available in package reels of 100 pcs.

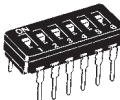
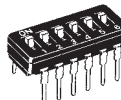


Mounting		Surface mounting					
Model		A6S-H					
Terminal pitch		2.54mm (Standard pitch)					
Appearance							
Features		Standard surface mounting slide DIP switches. Washable, with seal tape available.					
Actuator types		Flat actuator with seal tape			Raised actuator		
Packaging		Tube	Embossed taping standard reel (800/900 pcs)	Embossed taping small reel (400 pcs)	Tube	Embossed taping standard reel (700/800 pcs)	Embossed taping small reel (400 pcs)
Contact material		Gold plated					
Ratings(resistive load)		25mA 24VDC / 10µA (minimum current) at 3.5VDC					
Contact resistance(initial values)		200mΩ max.					
No. of poles	1	A6S-1102-H	A6S-1102-PH	—	A6S-1104-H	A6S-1104-PH	—
	2	A6S-2102-H	A6S-2102-PH	A6S-2102-PMH	A6S-2104-H	A6S-2104-PH	—
	3	A6S-3102-H	A6S-3102-PH	—	A6S-3104-H	A6S-3104-PH	—
	4	A6S-4102-H	A6S-4102-PH	A6S-4102-PMH	A6S-4104-H	A6S-4104-PH	A6S-4104-PMH
	5	A6S-5102-H	A6S-5102-PH	—	A6S-5104-H	A6S-5104-PH	—
	6	A6S-6102-H	A6S-6102-PH	A6S-6102-PMH	A6S-6104-H	A6S-6104-PH	A6S-6104-PMH
	7	A6S-7102-H	A6S-7102-PH	—	A6S-7104-H	A6S-7104-PH	—
	8	A6S-8102-H	A6S-8102-PH	A6S-8102-PMH	A6S-8104-H	A6S-8104-PH	A6S-8104-PMH
	9	A6S-9102-H	A6S-9102-PH	—	A6S-9104-H	A6S-9104-PH	—
	10	A6S-0102-H	A6S-0102-PH	A6S-0102-PMH	A6S-0104-H	A6S-0104-PH	A6S-0104-PMH
Durability		1,000 operations min.					
Washing		Possible			Not possible		
Degree of protection		IEC IP40					
Ambient operating temperature		-20 to +70°C					
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)					

Mounting		Surface mounting					
Model		A6SN					
Terminal pitch		2.54mm (Standard pitch)					
Appearance							
Features		Surface mounting slide DIP switch with high contact reliability. Washable, even without seal tape available.					
Actuator types		Flat actuator			Raised actuator		
Packaging		Tube	Embossed taping standard reel (750 pcs)		Tube	Embossed taping standard reel (700 pcs)	
			Without seal tape	With seal tape			
Contact material		Gold plated					
Ratings(resistive load)		25mA 24VDC / 10µA (minimum current) at 3.5VDC					
Contact resistance(initial values)		200mΩ max.					
No. of poles	1	A6SN-1101	—	—	A6SN-1104	—	—
	2	A6SN-2101	A6SN-2101-P	A6SN-2102-P	A6SN-2104	A6SN-2104-P	A6SN-2104-P
	3	A6SN-3101	A6SN-3101-P	A6SN-3102-P	A6SN-3104	A6SN-3104-P	A6SN-3104-P
	4	A6SN-4101	A6SN-4101-P	A6SN-4102-P	A6SN-4104	A6SN-4104-P	A6SN-4104-P
	5	A6SN-5101	A6SN-5101-P	A6SN-5102-P	A6SN-5104	A6SN-5104-P	A6SN-5104-P
	6	A6SN-6101	A6SN-6101-P	A6SN-6102-P	A6SN-6104	A6SN-6104-P	A6SN-6104-P
	7	A6SN-7101	A6SN-7101-P	A6SN-7102-P	A6SN-7104	A6SN-7104-P	A6SN-7104-P
	8	A6SN-8101	A6SN-8101-P	A6SN-8102-P	A6SN-8104	A6SN-8104-P	A6SN-8104-P
	9	A6SN-9101	A6SN-9101-P	A6SN-9102-P	A6SN-9104	A6SN-9104-P	A6SN-9104-P
	10	A6SN-0101	A6SN-0101-P	A6SN-0102-P	A6SN-0104	A6SN-0104-P	A6SN-0104-P
Durability		1,000 operations min.					
Washing		Possible					
Degree of protection		IEC IP40					
Ambient operating temperature		-30 to +85°C					
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)					

Note: Default actuator setting is OFF for Slide DIP Switches and Piano DIP Switches.  
Be sure to read the Safety precautions common to all DIP Switches for correct use.

# Slide DIP Switches

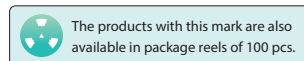
Mounting		Through-hole mounting					
Model		A6T			A6TN		
Terminal pitch		2.54mm (Standard pitch)			2.54mm (Standard pitch)		
Appearance							
Features		Standard through-hole mounting slide DIP switch. Washable, with seal tape available.			Through-hole mounting slide DIP switch with high contact reliability. Washable, even without seal tape available.		
Actuator types		Flat actuator	Flat actuator with seal tape	Raised actuator	Flat actuator	Raised actuator	
Packaging		Tube			Tube		
Contact material		Gold plated			Gold plated		
Ratings(resistive load)		25mA 24VDC / 10µA (minimum current) at 3.5VDC			25mA 24VDC / 10µA (minimum current) at 3.5VDC		
Contact resistance(initial values)		200mΩ max.			200mΩ max.		
No. of poles	1	A6T-1101	A6T-1102	A6T-1104	A6TN-1101	A6TN-1104	
	2	A6T-2101	A6T-2102	A6T-2104	A6TN-2101	A6TN-2104	
	3	A6T-3101	A6T-3102	A6T-3104	A6TN-3101	A6TN-3104	
	4	A6T-4101	A6T-4102	A6T-4104	A6TN-4101	A6TN-4104	
	5	A6T-5101	A6T-5102	A6T-5104	A6TN-5101	A6TN-5104	
	6	A6T-6101	A6T-6102	A6T-6104	A6TN-6101	A6TN-6104	
	7	A6T-7101	A6T-7102	A6T-7104	A6TN-7101	A6TN-7104	
	8	A6T-8101	A6T-8102	A6T-8104	A6TN-8101	A6TN-8104	
	9	A6T-9101	A6T-9102	A6T-9104	A6TN-9101	A6TN-9104	
	10	A6T-0101	A6T-0102	A6T-0104	A6TN-0101	A6TN-0104	
Durability		1,000 operations min.			1,000 operations min.		
Washing		Not possible	Possible	Not possible	Possible		
Degree of protection		IEC IP40			IEC IP40		
Ambient operating temperature		-20 to +70°C			-30 to +85°C		
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)			35 to 95%RH (for +5 to +35°C)		




Mounting		Through-hole mounting					
Model		A6D			A6E-N		
Terminal pitch		2.54mm (Standard pitch)			2.54mm (Standard pitch)		
Appearance							
Features		Through-hole mounting slide DIP switch with high environmental resistance by sealed construction.			Box type through-hole mounting slide DIP switches.		
Actuator types		Flat actuator	Raised actuator	Flat actuator	Raised actuator		
Packaging		Tube			Tube		
Contact material		Gold plated			Gold plated		
Ratings(resistive load)		30mA 30VDC / 10µA (minimum current) at 3.5VDC			25mA 24VDC / 10µA (minimum current) at 3.5VDC		
Contact resistance(initial values)		100mΩ max.			200mΩ max.		
No. of poles	1	—	—	—	—		
	2	A6D-2100	A6D-2103	A6E-2101-N	A6E-2104-N		
	3	A6D-3100	A6D-3103	A6E-3101-N	A6E-3104-N		
	4	A6D-4100	A6D-4103	A6E-4101-N	A6E-4104-N		
	5	A6D-5100	A6D-5103	A6E-5101-N	A6E-5104-N		
	6	A6D-6100	A6D-6103	A6E-6101-N	A6E-6104-N		
	7	A6D-7100	A6D-7103	A6E-7101-N	A6E-7104-N		
	8	A6D-8100	A6D-8103	A6E-8101-N	A6E-8104-N		
	9	A6D-9100	A6D-9103	A6E-9101-N	A6E-9104-N		
	10	A6D-0100	A6D-0103	A6E-0101-N	A6E-0104-N		
Durability		2,000 operations min.			1,000 operations min.		
Washing		Possible			Not possible		
Degree of protection		Internally sealed (IEC IP64 equivalency)			IEC IP40		
Ambient operating temperature		-20 to +70°C			-20 to +70°C		
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)			35 to 95%RH (for +5 to +35°C)		

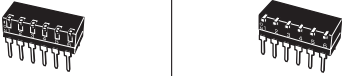

Note: Default actuator setting is OFF for Slide DIP Switches and Piano DIP Switches.  
Be sure to read the Safety precautions common to all DIP Switches for correct use.



# Piano DIP Switches

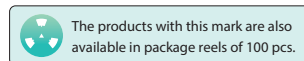


Mounting		Surface mounting							
Model		A6HR			A6SR				
Terminal pitch		1.27mm (Half pitch)			2.54mm (Standard pitch)				
Appearance									
Features		Miniature piano DIP switch with half pitch terminals.			Piano DIP switch with surface mounting terminals.				
Actuator types		Long actuator			Short actuator		Long actuator		
Packaging		Tube	Embossed taping standard reel (1000 pcs)	Embossed taping small reel (500 pcs)	Tube	Embossed taping standard reel	Tube	Embossed taping standard reel	
Contact material		Gold plated			Gold plated				
Ratings(resistive load)		25mA 24VDC / 10µA (minimum current) at 3.5VDC			25mA 24VDC / 10µA (minimum current) at 3.5VDC				
Contact resistance(initial values)		200mΩ max.			200mΩ max.				
No. of poles	1	—	—	—	—	—	—	—	
	2	A6HR-2104	A6HR-2104-P	A6HR-2104-PM	A6SR-2101	A6SR-2101-P	A6SR-2104	A6SR-2104-P	
	3	—	—	—	—	—	—	—	
	4	A6HR-4104	A6HR-4104-P	A6HR-4104-PM	A6SR-4101	A6SR-4101-P	A6SR-4104	A6SR-4104-P	
	5	—	—	—	—	—	—	—	
	6	A6HR-6104	A6HR-6104-P	A6HR-6104-PM	A6SR-6101	A6SR-6101-P	A6SR-6104	A6SR-6104-P	
	7	—	—	—	—	—	—	—	
	8	A6HR-8104	A6HR-8104-P	A6HR-8104-PM	A6SR-8101	A6SR-8101-P	A6SR-8104	A6SR-8104-P	
	9	—	—	—	—	—	—	—	
	10	A6HR-0104	A6HR-0104-P	A6HR-0104-PM	A6SR-0101	A6SR-0101-P	A6SR-0104	A6SR-0104-P	
Durability		1,000 operations min.			1,000 operations min.				
Washing		Not possible			Not possible				
Degree of protection		IEC IP40			IEC IP40				
Ambient operating temperature		-30 to +85°C			-20 to +70°C				
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)			35 to 95%RH (for +5 to +35°C)				

Mounting		Through-hole mounting					
Model		A6TR		A6DR	A6FR		
Terminal pitch		2.54mm (Standard pitch)		2.54mm (Standard pitch)	2.54mm (Standard pitch)		
Appearance							
Features		Low profile piano DIP switch with through-hole terminals.		Through-hole mounting piano DIP switch with high environmental resistance by sealed construction.	Box type through-hole mounting piano DIP switch.		
Actuator types		Short actuator	Long actuator	Long actuator	Short actuator	Long actuator	
Packaging		Tube		Box	Tube		
Contact material		Gold plated		Gold plated	Gold plated		
Ratings(resistive load)		25mA 24VDC / 10µA (minimum current) at 3.5VDC		30mA 30VDC / 10µA (minimum current) at 3.5VDC	25mA 24VDC / 10µA (minimum current) at 3.5VDC		
Contact resistance(initial values)		200mΩ max.		100mΩ max.	200mΩ max.		
No. of poles	1	—	—	—	—	—	
	2	A6TR-2101	A6TR-2104	A6DR-2100	A6FR-2101	A6FR-2104	
	3	—	—	—	A6FR-3101	A6FR-3104	
	4	A6TR-4101	A6TR-4104	A6DR-4100	A6FR-4101	A6FR-4104	
	5	—	—	—	A6FR-5101	A6FR-5104	
	6	A6TR-6101	A6TR-6104	A6DR-6100	A6FR-6101	A6FR-6104	
	7	—	—	—	A6FR-7101	A6FR-7104	
	8	A6TR-8101	A6TR-8104	A6DR-8100	A6FR-8101	A6FR-8104	
	9	—	—	—	A6FR-9101	A6FR-9104	
	10	A6TR-0101	A6TR-0104	A6DR-0100	A6FR-0101	A6FR-0104	
Durability		1,000 operations min.		2,000 operations min.	1,000 operations min.		
Washing		Not possible		Possible	Not possible		
Degree of protection		IEC IP40		Internally sealed (IEC IP64 equivalency)	IEC IP40		
Ambient operating temperature		-20 to +70°C		-20 to +70°C	-20 to +70°C		
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)		35 to 95%RH (for +5 to +35°C)	35 to 95%RH (for +5 to +35°C)		

Note: Default actuator setting is OFF for Slide DIP Switches and Piano DIP Switches.  
Be sure to read the Safety precautions common to all DIP Switches for correct use.

# Rotary DIP Switches

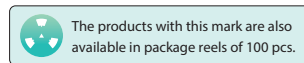


Mounting		Surface mounting						
Model		A6KS						
Terminal pitch		7.2x7.2mm						
Appearance								
Features		Top actuated miniature(7.2x7.2mm) rotary DIP switch with surface mounting terminals.						
Actuator types		Tube		Embossed taping standard reel				
Packaging		Gold plated						
Contact material		25mA 24VDC / 10µA (minimum current) at 3.5VDC						
Ratings(resistive load)		200mΩ max.						
Position		10	16	10	16			
Types	Flat	Real code	Top actuated	4x1Terminals	—	—	—	—
				3x3Terminals	A6KS-102RF	A6KS-162RF	A6KS-102RF-P	A6KS-162RF-P
				5x2Terminals	A6KS-104RF	A6KS-164RF	A6KS-104RF-P	A6KS-164RF-P
			Side actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	—	—
				5x2Terminals	—	—	—	—
	Extended actuator	Real code	Top actuated	4x1Terminals	—	—	—	—
				3x3Terminals	A6KS-102RS	A6KS-162RS	A6KS-102RS-P	A6KS-162RS-P
				5x2Terminals	A6KS-104RS	A6KS-164RS	A6KS-104RS-P	A6KS-164RS-P
			Side actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	—	—
				5x2Terminals	—	—	—	—
Durability		20,000 steps min.						
Washing		Not possible						
Degree of protection		IEC IP60						
Ambient operating temperature		-30 to +80°C						
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)						

Mounting		Surface mounting						
Model		A6KSV						
Terminal pitch		7.2x7.2mm						
Appearance								
Features		Side actuated miniature(7.2x7.2mm) rotary DIP switch with surface mounting terminals.						
Actuator types		Tube		Embossed taping standard reel				
Packaging		Gold plated						
Contact material		25mA 24VDC / 10µA (minimum current) at 3.5VDC						
Ratings(resistive load)		200mΩ max.						
Position		10	16	10	16			
Types	Flat	Real code	Top actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	—	—
				5x2Terminals	—	—	—	—
			Side actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	—	—
				5x2Terminals	A6KSV-104RF	A6KSV-164RF	A6KSV-104RF-P	A6KSV-164RF-P
	Extended actuator	Real code	Top actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	—	—
				5x2Terminals	—	—	—	—
			Side actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	—	—
				5x2Terminals	A6KSV-104RS	A6KSV-164RS	A6KSV-104RS-P	A6KSV-164RS-P
Durability		20,000 steps min.						
Washing		Not possible						
Degree of protection		IEC IP60						
Ambient operating temperature		-30 to +80°C						
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)						

Note:Default rotor setting is 0 for Rotary DIP Switches.  
Be sure to read the Safety precautions common to all DIP Switches for correct use.

# Rotary DIP Switches



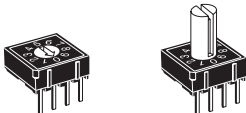
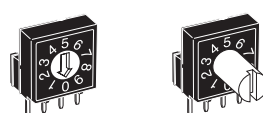
Mounting		Surface mounting						
Model		A6RS						
Terminal pitch		9.8x9.9mm						
Appearance								
Features		Surface mounting rotary DIP switch.						
Actuator types		Tube		Embossed taping standard reel				
Packaging		Gold plated						
Contact material		25mA 24VDC / 10µA (minimum current) at 3.5VDC						
Ratings (resistive load)		200mΩ max.						
Position		10	16	10	16			
Types	Flat	Real code	Top actuated	4x1Terminals	A6RS-101RF	A6RS-161RF	A6RS-101RF-P	A6RS-161RF-P
				3x3Terminals	A6RS-102RF	A6RS-162RF	A6RS-102RF-P	A6RS-162RF-P
				5x2Terminals	—	—	—	—
			Side actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	—	—
				5x2Terminals	—	—	—	—
	Extended actuator	Real code	Top actuated	4x1Terminals	A6RS-101RS	A6RS-161RS	A6RS-101RS-P	A6RS-161RS-P
				3x3Terminals	A6RS-102RS	A6RS-162RS	A6RS-102RS-P	A6RS-162RS-P
				5x2Terminals	—	—	—	—
			Side actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	—	—
				5x2Terminals	—	—	—	—
Durability		5,000 steps min.						
Washing		Not possible						
Degree of protection		IEC IP60						
Ambient operating temperature		-25 to +80°C						
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)						

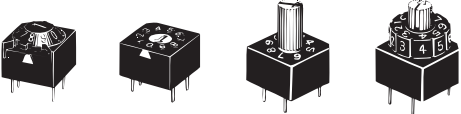
Mounting		Through-hole mounting						
Model		A6K		A6KV				
Terminal pitch		7.2x7.2mm						
Appearance								
Features		Miniature (7.2x7.2mm) rotary DIP switch with through-hole terminals.						
Actuator types		Tube						
Packaging		Gold plated						
Contact material		25mA 24VDC / 10µA (minimum current) at 3.5VDC						
Ratings (resistive load)		200mΩ max.						
Position		10	16	10	16			
Types	Flat	Real code	Top actuated	4x1Terminals	—	—	—	—
				3x3Terminals	A6K-102RF	A6K-162RF	—	—
				5x2Terminals	A6K-104RF	A6K-164RF	—	—
			Side actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	A6KV-102RF	A6KV-162RF
				5x2Terminals	—	—	A6KV-104RF	A6KV-164RF
	Extended actuator	Real code	Top actuated	4x1Terminals	—	—	—	—
				3x3Terminals	A6K-102RS	A6K-162RS	—	—
				5x2Terminals	A6K-104RS	A6K-164RS	—	—
			Side actuated	4x1Terminals	—	—	—	—
				3x3Terminals	—	—	A6KV-102RS	A6KV-162RS
				5x2Terminals	—	—	A6KV-104RS	A6KV-164RS
Durability		20,000 steps min.						
Washing		Not possible						
Degree of protection		IEC IP60						
Ambient operating temperature		-30 to +80°C						
Ambient operating humidity		35 to 95%RH (for +5 to +35°C)						

Note: Default rotor setting is 0 for Rotary DIP Switches.

Be sure to read the Safety precautions common to all DIP Switches for correct use.


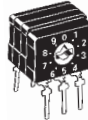
# Rotary DIP Switches

Mounting				Through-hole mounting				
Model				A6R		A6RV		
Terminal pitch				9.8x9.9mm				
Appearance								
Features				Through-hole mounting rotary DIP switch.				
Actuator types				Tube				
Packaging				Gold plated				
Contact material				25mA 24VDC / 10µA (minimum current) at 3.5VDC				
Ratings (resistive load)				200mΩ max.				
Position				10		16		
Types	Flat	Real code	Top actuated	4x1Terminals	A6R-101RF	A6R-161RF	—	—
				3x3Terminals	A6R-102RF	A6R-162RF	—	—
				5x2Terminals	—	—	—	—
			Side actuated	4x1Terminals	—	—	A6RV-101RF	A6RV-161RF
				3x3Terminals	—	—	A6RV-102RF	A6RV-162RF
				5x2Terminals	—	—	—	—
	Extended actuator	Real code	Top actuated	4x1Terminals	A6R-101RS	A6R-161RS	—	—
				3x3Terminals	A6R-102RS	A6R-162RS	—	—
				5x2Terminals	—	—	—	—
			Side actuated	4x1Terminals	—	—	A6RV-101RS	A6RV-161RS
				3x3Terminals	—	—	A6RV-102RS	A6RV-162RS
				5x2Terminals	—	—	—	—
Durability				5,000 steps min.				
Washing				Not possible				
Degree of protection				IEC IP60				
Ambient operating temperature				-25 to +80°C				
Ambient operating humidity				35 to 95%RH (for +5 to +35°C)				

Mounting				Through-hole mounting				
Model				A6A				
Terminal pitch				10x10mm				
Appearance								
Features				Sealed rotary DIP switch with various selections for code setting.				
Actuator types				Box				
Packaging				Gold plated				
Contact material				0.1A 28VDC / 1mA (minimum current) at 5VDC				
Ratings (resistive load)				200mΩ max.				
Position				10		16		
Types	Cone	Real code	A6A-10R	A6A-16R				
			Complementary code	A6A-10C	A6A-16C			
	Flat	Real code		A6A-10RF	A6A-16RF			
			Complementary code	A6A-10CF	A6A-16CF			
	Extended actuator	Real code		A6A-10RS	A6A-16RS			
			Complementary code	A6A-10CS	A6A-16CS			
	Wheel	Real code		A6A-10RW	A6A-16RW			
			Complementary code	A6A-10CW	A6A-16CW			
	Durability				2,000 steps min.			
	Washing				Possible			
Degree of protection				Internally sealed (IEC IP64 equivalency)				
Ambient operating temperature				-10 to +70°C				
Ambient operating humidity				45 to 85%RH (for +5 to +35°C)				

Note: Default rotor setting is 0 for Rotary DIP Switches.  
Be sure to read the Safety precautions common to all DIP Switches for correct use.





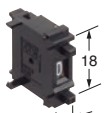






## Rotary DIP Switches

Mounting				Through-hole mounting			
Model				A6C		A6CV	
Terminal pitch				9x6.6mm		9x7.1mm	
Appearance							
Features				Internally sealed DIL-IC top actuated type DIP switch.		Internally sealed DIL-IC side actuated type rotary DIP switch.	
Actuator types				Tube		Box	
Packaging				Gold plated		Gold plated	
Contact material				0.1A 30VDC / 10μA (minimum current) at 3.5VDC		0.1A 30VDC / 10μA (minimum current) at 3.5VDC	
Ratings (resistive load)				200mΩ max.		200mΩ max.	
Position				10		16	
Types	Flat	Real code	Top actuated	A6C-10R(N)		A6C-16R(N)	
			Side actuated	—		—	
				A6CV-10R		A6CV-16R	
Durability				2,000 steps min.		2,000 steps min.	
Washing				Possible		Possible	
Degree of protection				Internally sealed (IEC IP64 equivalency)		Internally sealed (IEC IP64 equivalency)	
Ambient operating temperature				-20 to +70°C		-20 to +70°C	
Ambient operating humidity				35 to 95%RH (for +5 to +35°C)		35 to 95%RH (for +5 to +35°C)	

Note: Default rotor setting is 0 for Rotary DIP Switches.

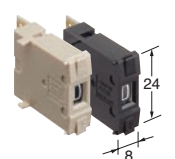
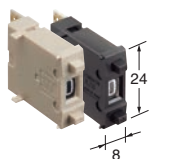

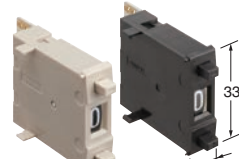

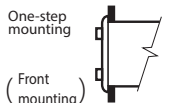
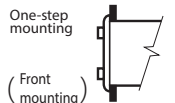




Be sure to read the Safety precautions common to all DIP Switches for correct use.

# Thumbwheel Switches Line up

Category		Push Operation										
Model		A7DP-2		A7D-2		A7D-1		A7CN-L2		A7CN-2		A7CN-1
Shape (mm)	Push-operated Switches							Locking Switches				
		(Character height: 3.2mm)		(Character height: 3.2mm)		(Character height: 3.2mm)		(Character height: 3.4mm)		(Character height: 3.4mm)		(Character height: 3.4mm)
Features		<ul style="list-style-type: none"> <li>• For DC circuits (3.3 to 30VDC)</li> <li>• Saves space</li> <li>• Can be manufactured with stoppers</li> </ul>						<ul style="list-style-type: none"> <li>• 3.3 to 28VDC</li> <li>• For building into small machines</li> <li>• Switching current: 1mA to 0.1A</li> </ul>				
Installation method		One-step mounting Front mounting (PCB Terminals) 			Screw mounting (Back mounting) 			One-step mounting (Front mounting) 			Screw mounting (Back mounting) 	
Terminals		PCB Terminals 						PCB Terminals 				
Dust resistance		Yes (IP50)						Yes (IP50)				
Case color		Light gray	Black	Light gray	Black	Light gray	Black	Light gray	Black	Light gray	Black	Black
Switch units according to output codes	03 (decimal code)	—		—		—		—		—		—
	06 (binary code decimal)	A7DP-206	A7DP-206-1	A7D-206	A7D-206-1	A7D-106	A7D-106-1	A7CN-L206	A7CN-L206-1	A7CN-206	A7CN-206-1	A7CN-106-1
	07 (binary coded decimal, with component-adding provision)	—		—		—		—		—		—
	19 (decimal code, with component-adding provision)	—		—		—		—		—		—
	54 (binary coded hexadecimal)	—		—		—		—		—		—
	55 (binary coded hexadecimal, with component-adding provision)	—		—		—		—		—		—
End caps		A7D-2M	A7D-2M-1	A7D-2M	A7D-2M-1	A7D-1M	A7D-1M-1	A7CN-2M	A7CN-2M-1	A7CN-2M	A7CN-2M-1	A7CN-1M-1
Spare unit		A7D-2PA	A7D-2PA-1	A7D-2PA	A7D-2PA-1	A7D-1PA	A7D-1PA-1	A7CN-2PA	A7CN-2PA-1	A7CN-2PA	A7CN-2PA-1	A7CN-1PA-1
Connector	Solder terminals	—						—				
	PCB terminals	—						—				

Note: Only basic specifications are provided in the table. Always refer to the specified pages for detailed specifications and to precautions before attempting to use the product.

# Thumbwheel Switches Line up

Category		Push Operation										Rotary Operation
Model		A7BL		A7BS		A7BS-20□-S		A7PS		A7PH		A7MD
Shape (mm)	Locking Switches	 (Character height: 4.8mm)		 (Character heights: Decimal: 4.8mm, Hexadecimal: 3.2mm)		 (Character height: 4.8mm)		Long-life Switches		 (Character heights: Decimal: 6.8mm, Hexadecimal: 4.0mm)		 (Character height: 2.8mm)
	Features	<ul style="list-style-type: none"> <li>For medium-size devices</li> <li>Can be manufactured with stoppers</li> </ul>		<ul style="list-style-type: none"> <li>For medium-size devices</li> <li>Hexadecimal models available</li> <li>Can be manufactured with stoppers</li> </ul>		<ul style="list-style-type: none"> <li>For medium-size devices</li> </ul>		<ul style="list-style-type: none"> <li>Mechanical durability: 100,000 operations min</li> <li>For medium-size and large devices</li> <li>50VAC or 3.3 to 28VDC</li> <li>Can be manufactured with stoppers</li> </ul>		<ul style="list-style-type: none"> <li>Mechanical durability: 2,000,000 operations min</li> <li>For medium and large devices</li> <li>125VAC or 3.3 to 28VDC</li> <li>Can be manufactured with stoppers</li> </ul>		<ul style="list-style-type: none"> <li>For PCBs in small devices</li> </ul>
Installation method												
Terminals												
Dust resistance	Yes (IP50)						Yes (IP50)				Yes (simple dust resistance)	
Case color	Light gray	Black	Light gray	Black	Light gray	Black	Light gray	Black	Light gray	Black	Black	
Switch units according to output codes	03 (decimal code)	—		—		—		A7PS-203	A7PS-203-1	A7PH-203	A7PH-203-1	—
	06 (binary code decimal)	A7BL-206	A7BL-206-1	A7BS-206	A7BS-206-1	A7BS-206-S	A7BS-206-S-1	A7PS-206	A7PS-206-1	A7PH-206	A7PH-206-1	A7MD-106-P-09
	07 (binary coded decimal, with component-adding provision)	A7BL-207	A7BL-207-1	A7BS-207	A7BS-207-1	A7BS-207-S	A7BS-207-S-1	A7PS-207	A7PS-207-1	A7PH-207	A7PH-207-1	—
	19 (decimal code, with component-adding provision)	—		—		—		A7PS-219	A7PS-219-1	—		—
	54 (binary coded hexadecimal)	—		A7BS-254	A7BS-254-1	—		A7PS-254	A7PS-254-1	A7PH-254	A7PH-254-1	—
55 (binary coded hexadecimal, with component-adding provision)	—		A7BS-255	A7BS-255-1	—		A7PS-255	A7PS-255-1	—		—	
End caps	A7B-M	A7B-M-1	A7B-M	A7B-M-1	A7B-M	A7B-M-1	A7P-M	A7P-M-1	A7P-M	A7P-M-1	A7MD-1M	
Spare unit	A7B-PA	A7B-PA-1	A7B-PA	A7B-PA-1	A7B-PA	A7B-PA-1	A7P-PA	A7P-PA-1	A7P-PA	A7P-PA-1	A7MD-PA	
Connector	Solder terminals	A7B-C						NRT-C/NRT-CN				—
	PCB terminals	A7B-CP						NRT-CP				—

Note 1: The A7BS can be manufactured in PCB-mounting models.

Note 2: Only basic specifications are provided in the table. Always refer to the specified pages for detailed specifications and to precautions before attempting to use the product.

Please check each region's Terms & Conditions by region website.

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