

Outline

The COB 60 series is a push button switch for indirect operation via electro-magnetic switches. It is small, light, and economical.

Button packing is included inside the case, built-in structure.

It is possible to manufacture types other than the standard of cable bushing and character boards, etc. The attached cable bushing of COB64 and COB66 is supposed to be used for vinyl cable.

The standard case is made with high impact ABS, and is light and safe with no risk of electrification.

The mechanical interlock is included for safety, so Up/Down and East/West cannot be pressed at the same time.

COB61, COB 62, COB 63 have type attached with power on/off unit which is convenient for opening/closing of the main circuit and switch on/off of the light (COB61UNB, COB62UNB, COB63UNB). The installing position of power on/off unit is at the uppermost.

Using twin contact, we also have available a type built in with a switch unit that can correspond to a minute load (COB61W, COB 62W, COB 63W, COB 64W, COB 65W). The on/off switch is not twin contact. The contact reliability of twin contact is confirmed and proven usable without problems through the test using the circuit condition of DC 12V 10mA.

Basic type list

Type name	COB 61 COB 61W COB 61UNB	COB 62 COB 62W COB 62UNB	COB 63 COB 63W COB 63UNB
Appearance			
No. of buttons	2 (1 pair)	4 (2 pairs)	6 (3 pairs)
Button packing	Built-in structure		
Prevention of erroneous operation	With mechanical interlock		
Type name	COB 64 COB 64W	COB 66 COB 66W	
Appearance			
No. of buttons	8 (4 pairs)	12 (6 pairs)	
Button packing	Built-in structure		
Prevention of erroneous operation	With mechanical interlock		

General specifications

Specifications

Item	Rating	
Degree of protection	IP65 (JIS C 0920) Electrical Appliance and Material Safety Law  : Rainproof type	
Material/ Color	Case: Shockproof ABS Resin Note / Orange (Munsell 7.5YR7/13 equivalent) Case-tightening screws: Stainless (± screws) Cable bushing: Synthetic rubber / Black	
Vibration proof	Operational Tolerance	10 to 55Hz Displacement: 1.0mm
Shockproof	Durability	500m/s ²
	Operational Tolerance	100m/s ²
Connected terminal	M4 screws (Pressure terminal type)	
Ambient temperature	-15°C to +40°C (must be free of ice or condensation)	
Relative humidity	45 to 85% RH	
Installation position	Must be installed with the cable cable slot uppermost using appropriate cable cabling.	

Rating

Item	Specifications
Voltage used/ Rated operating current	220V AC 2A
(Inductive load AC15)	440V AC 1A
Rated insulation voltage	500V AC
Rated thermal current	5A
Insulation resistance	100 MΩ or more (500 V DC Megger)
Withstand voltage	2500 V AC / minute

Remark : Rating in accordance with the Electrical Appliance and Material Safety Law (250 V AC / 5 A) only is shown on the nameplate.

Compliance standards

Name of standards	
JIS C 8201-5-1	
NECA C4520	
JIS C 0920	
Electrical Appliance and Material Safety Law  (compliant products)	

Overseas standards (Production on demand)

Name of standards	File name
TÜV 	R9750209 (not applicable to COB66)
CCC 	2005010305168698 (not applicable to COB66)

For Indirect Operation of Electrical Machinery

COB 60 series

Product List

No. of buttons	Characteristics	Type name	Included cable bushing (Applicable cable diameter range)	Included markings board	Contact arrangement	General mass (g)
2 (1 pair)	—	COB 61	C125 (ϕ 11.4 to ϕ 12.6)	Up, Down	1NO-1NO	230
	For minute current	COB 61W		To be specified	1NO- Off	
	With On/Off switch unit Note	COB 61UNB				
4 (2 pairs)	—	COB 62	C15 (ϕ 14.3 to ϕ 15.5)	Up, Down, East, West, South, North	1NO-1NO-1NO-1NO	340
	For minute current	COB 62W		To be specified	1NO- Off- 1NO- 1NO	
	With On/Off switch unit Note	COB 62UNB				
6 (3 pairs)	—	COB 63	C18 (ϕ 17.2 to ϕ 18.4)	Up, Down, East, West, South, North	1NO-1NO-1NO-1NO- 1NO-1NO	430
	For minute current	COB 63W		To be specified	1NO- Off- 1NO- 1NO- 1NO- 1NO	
	With On/Off switch unit Note	COB 63UNB				
8 (4 pairs)	With On/Off switch unit Note	COB 64	C17 (ϕ 15.7 to ϕ 17.1)	On, Off, Up, Down, East, West, South, North	1NO- Off- 1NO- 1NO- 1NO- 1NO- 1NO- 1NO	550
	For minute current	COB 64W				
12 (6 pairs)	With On/Off switch unit Note	COB 66	C18 (ϕ 17.2 to ϕ 18.4)	On, Off, Up, Down, East, West, South, North, Forward, Backward, Left, Right	1NO- Off- 1NO- 1NO- 1NO- 1NO- 1NO- 1NO- 1NO- 1NO- 1NO- 1NO	770
	For minute current	COB 66W				

Note : Unit type name : UNB CH10

Option

Cable bushing

It is dangerous to use the standard cable bushing included with this product with inappropriate cabling, as rainwater may easily enter the switch. Please purchase the appropriate cable bushing.

Cable bushing type name	Applicable cable diameter range
C7	ϕ 6.8 to ϕ 7.9
C8	ϕ 7.7 to ϕ 8.8
C9	ϕ 8.9 to ϕ 10.0
C10	ϕ 10.0 to ϕ 11.0
C12	ϕ 10.6 to ϕ 11.8
C125	ϕ 11.4 to ϕ 12.6
C13	ϕ 12.3 to ϕ 13.5
C14	ϕ 12.7 to ϕ 14.1
C15	ϕ 14.3 to ϕ 15.5
C16	ϕ 15.4 to ϕ 16.6
C17	ϕ 15.7 to ϕ 17.1
C18	ϕ 17.2 to ϕ 18.4
C19	ϕ 18.4 to ϕ 19.6

Cable bushing type name	Applicable cable diameter range	Packing (waterproof area)	Bush (protection area)
COB A1	ϕ 7.5 to ϕ 10.5	CC-A1	CB-A
COB A2	ϕ 10.3 to ϕ 13.5	CC-A2	
COB B1	ϕ 13.3 to ϕ 16.5	CC-B1	CB-B
COB B2	ϕ 16.3 to ϕ 19.5	CC-B2	

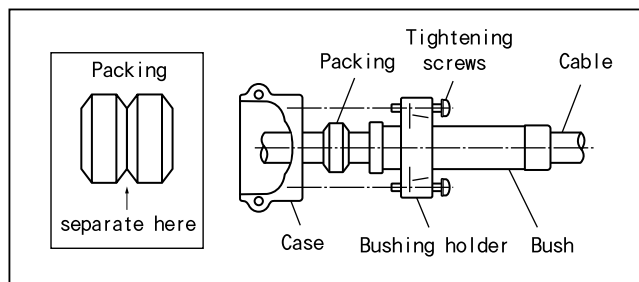
• Installation method for COB A1, A2, B1, B2 cable bushing

The cable is fed through the bushing holder, bushing, and packing in that order, and the tightening screw used to secure the bushing holder firmly to the case. Two packings are prepared as a set. Check the cable range displayed on the packing, and separate off the applicable one.

In terms of C7 to C19 cable bushing, the bush and packing are integrated.

Reference :

When inserting into the bushing, it is recommended to lubricate the cable and cable slot with wet soap to ease insertion. Do not use lubricating oil, as this may damage the bushing.

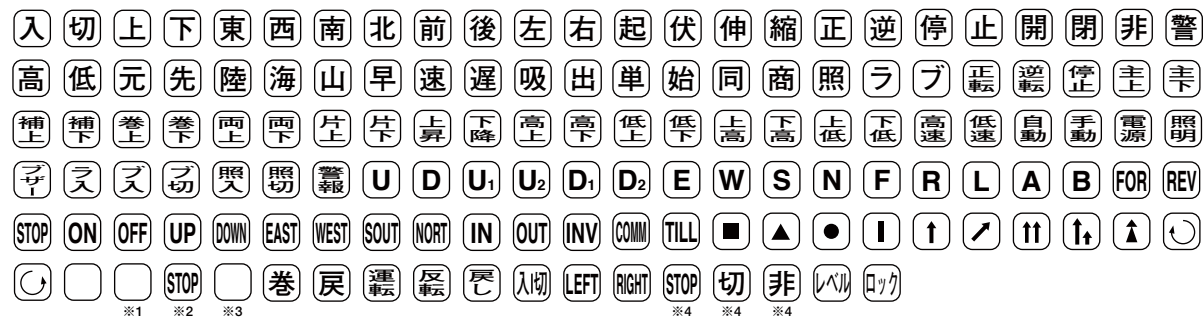


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Button Characters

An extensive range of markings boards is available in addition to the markings board included. Characters other than the following can also be produced. Please contact us for further details.



※1 Plain red ※2 Red characters ※3 For engraved characters ※4 Black character on red background

Diagram of internal connections

COB 61, COB 61W	COB 62, COB 62W	COB 63, COB 63W	COB 64, COB 64W	COB 66, COB 66W
Connection cable Note : 1.25 mm ² , 3-core	Connection cable Note : 1.25 mm ² , 5-core	Connection cable Note : 1.25 mm ² , 7-core	Connection cable Note : 1.25 mm ² , 9-core	Connection cable Note : 1.25 mm ² , 13-core

Note : If a different cable diameter is used, please purchase an appropriate cable bushing.

Dimensions (Unit: mm)

COB 61, COB 61W, COB61UNB	COB 62, COB 62W, COB62UNB	COB 63, COB 63W, COB63UNB	COB 64, COB 64W	COB 66, COB 66W