



MR series Control switch

# LED Control switch



# CONTENTS

## Aluminum guard Flush(Ø25,Ø30), Extended(Ø22)

Push button switch	6
Illuminated push button switch	6
Pilot light	7
Selector switch	7
Illuminated selector switch	8
Key selector switch	9
Emergency stop switch	10
Illuminated emergency stop switch	11
Electronic buzzer	12

## Plastic guard Flush(Ø25), Extended(Ø22)

Push button switch	14
Illuminated push button switch	14
Pilot light	15
Selector switch	15
Illuminated selector switch	16
Emergency stop switch	17
Illuminated emergency stop switch	18
Electronic buzzer	19

## Products specification

Suffix code	20
Specification	20
Actuator panel installation sample	20
Panel cutout	20
Contact part composition	21
Selector / Key selector contact operation	21
Accessories	21

# MR SERIES

## Aluminum guard

Flush(Ø25,Ø30), Extended(Ø22)



# PUSH BUTTON SWITCH

## Aluminum guard



Model	Code	Description
MRF-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Push button switch
Actuator	A	Flush (Installing hole: Ø30)
	N	Flush (Installing hole: Ø25)
	R	Extended (Installing hole: Ø22)
Operation function	M	Momentary
	A	Alternate
Contact composition	1	1a1b
	2	2a2b
Cap (LED color)	R	R(Red), G(Green), Y(Yellow), A(Blue), W(White)

### MRF-A Flush (Ø30)



### MRF-N Flush (Ø25)



### MRF-R Extended (Ø22)



# ILLUMINATED PUSH BUTTON SWITCH

## Aluminum guard



Model	Code	Description
MRX-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Illuminated push button switch
Actuator	A	Flush (Installing hole: Ø30)
	N	Flush (Installing hole: Ø25)
	R	Extended (Installing hole: Ø22)
Operation function	M	Momentary
	A	Alternate
Contact composition	1	1a1b
	2	2a2b
Rated input voltage	A0	100 – 240 V AC
	A3	380 V AC
	D0	12 – 24 V DC/AC
Cap (LED color)	R	R(Red), G(Green), Y(Yellow), A(Blue), W(White)

### MRX-A Flush (Ø30)



### MRX-N Flush (Ø25)



### MRX-R Extended (Ø22)



# PILOT LAMP

## Aluminum guard



Model	Code	Description	
MRP-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Pilot lamp	
Actuator	A	Flush (Installing hole:Ø30)	Aluminum guard
	N	Flush (Installing hole:Ø25)	
	R	Extended (Installing hole:Ø22)	
Rated input voltage	A0	100 – 240 V AC	LED (Condenser voltage dropping type)
	A3	380 V AC	
	D0	12 – 24 V DC/AC	LED (Resistance voltage dropping type)
Cap (LED color)	R	R(Red), G(Green), Y(Yellow), A(Blue), W(White)	

MRP-A Flush (Ø30)



MRP-N Flush (Ø25)



MRP-R Extended (Ø22)



# SELECTOR SWITCH

## Aluminum guard



Model	Code	Description	
MRS-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Selector switch	
Actuator	A	Flush (Installing hole:Ø30)	Aluminum guard
	N	Flush (Installing hole:Ø25)	
	R	Extended (Installing hole:Ø22)	
Operation function	2A	2 positions alternate operation	–
	2R	2 positions momentary operation	
	3A	3 positions alternate operation	–
	3R	3 positions left and right side momentary operation	
Contact composition	1	1a1b	Refer to contact operation (3 positions : Only 2a2b contact available)
	2	2a2b	
Actuator color (cap color)		Black (solid)	

MRS-A Flush (Ø30)



MRS-N Flush (Ø25)



MRS-R Extended (Ø22)



# ILLUMINATED SELECTOR SWITCH

## Aluminum guard



Model	Code	Description
MRT-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Illuminated selector switch
Actuator	A	Flush (Installing hole: Ø30)
	N	Flush (Installing hole: Ø25)
	R	Extended (Installing hole: Ø22)
Operation function	2A	2 positions alternate operation
	2R	2 positions momentary operation
	3A	3 positions alternate operation
	3R	3 positions left and right side momentary operation
Contact composition	1	1a1b
	2	2a2b
Power supply voltage	A0	100-240 V AC
	A3	380 V AC
	D0	12-24 V DC/AC
Cap (LED color)	R	R(Red), G(Green), Y(Yellow), A(Blue), W(White)

Aluminum guard

Refer to contact operation  
(3 positions : Only 2a2b contact available)

MRT-A Flush (Ø30)



MRT-N Flush (Ø25)



MRT-R Extended (Ø22)



MRT-A3 Flush (Ø30)



MRT-N3 Flush (Ø25)



MRT-R3 Extended (Ø22)



# KEY SELECTOR SWITCH

## Aluminum guard



Model	Code	Description		
MRK-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Key selector switch		
Actuator	A	Flush (Installing hole: Ø30)		Aluminum guard
	N	Flush (Installing hole: Ø25)		
	R	Extended (Installing hole: Ø22)		
Operation function	2A	2 positions alternate operation	—	Refer to contact operation (3 positions : Only 2a2b contact available)
	2R	2 positions momentary operation	↻	
	3A	3 positions alternate operation	—	
	3R	3 positions left and right side momentary operation	↻ ↻ ↻	
Contact composition	1	1a1b		
	2	2a2b		
Key removing position (Key selecting switch)	L	Left	↻	In case of 2 positions, exclude the middle key removing position
	R	Right	↻	
	C	Middle	↑	
	D	Left and right	↻ ↻	
	E	Front	↻ ↑ ↻	
Actuator color (cap color)	Aluminum (Plating a matt chrome)			

### MRK-A Flush (Ø30)



### MRK-N Flush (Ø25)





### MRK-R Extended (Ø22)



# EMERGENCY STOP SWITCH

## Aluminum guard



Model	Code	Description
MRE-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Emergency stop switch
Actuator	A	Flush (Installing hole: Ø30)
	N	Flush (Installing hole: Ø25)
	R	Extended (Installing hole: Ø22)
Operation function	M	Momentary 
	R	Push lock turn reset 
Contact composition	1	1a1b
	2	2a2b
Cap (LED color)	R	R(Red), G(Green) ※Push lock turn reset : only R(Red)

MRE-AM Flush (Ø30)



MRE-AR Flush (Ø30)



MRE-NM Flush (Ø25)



MRE-NR Flush (Ø25)



MRE-RM Extended (Ø22)



MRE-RR Extended (Ø22)







# ILLUMINATED EMERGENCY STOP SWITCH

## Aluminum guard



Model	Code	Description
MRA-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Illuminated emergency stop switch
Actuator	A	Flush (Installing hole: Ø30)
	N	Flush (Installing hole: Ø25)
	R	Extended (Installing hole: Ø22)
Operation function	M	Momentary 
	R	Push lock turn reset 
Contact composition	1	1a1b
	2	2a2b
Power supply voltage	A0	100 – 240 V AC
	A3	380 V AC
	D0	12 – 24 V DC/AC
Cap (LED color)	R	R(Red), G(Green) ※Push lock turn reset : only R(Red)

■ MRA-AM Flush (Ø30)



■ MRA-AR Flush (Ø30)



■ MRA-NM Flush (Ø25)



■ MRA-NR Flush (Ø25)



■ MRA-RM Extended (Ø22)



■ MRA-RR Extended (Ø22)



# ELECTRONIC BUZZER

## Aluminum guard



Model	Code	Description
MRB-	<input type="checkbox"/> <input type="checkbox"/>	Electronic buzzer
Actuator	A	Flush (Installing hole: Ø30)
	N	Flush (Installing hole: Ø25)
	R	Extended (Installing hole: Ø22)
Rated input voltage	A0	100 – 240 V AC Condenser voltage dropping type
	D0	12 – 24 V DC/AC Resistance voltage dropping type

■ MRB-A Flush (Ø30)



■ MRB-N Flush (Ø25)



■ MRB-R Extended (Ø22)



# MR SERIES

## Plastic guard

Flush(Ø25), Extended(Ø22)



# PUSH BUTTON SWITCH

## Plastic guard



Model	Code	Description
MRF--	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Push button switch
Actuator	K	Flush (Installing hole: Ø25)
	T	Extended (Installing hole: Ø22)
	W	Extended (Installing hole: Ø22)
Operation function	M	Momentary
	A	Alternate
Contact composition	1	1a1b
	2	2a2b
Cap color	R	R(Red), G(Green), Y(Yellow), A(Blue), W(White)

MRF-K Flush (Ø25)



MRF-T Extended (Ø22)



MRF-W Extended (Ø22)



# ILLUMINATED PUSH BUTTON SWITCH

## Plastic guard



Model	Code	Description
MRX--	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Illuminated Push button switch
Actuator	K	Flush (Installing hole: Ø25)
	T	Extended (Installing hole: Ø22)
	W	Extended (Installing hole: Ø22)
Operation function	M	Momentary
	A	Alternate
Contact composition	1	1a1b
	2	2a2b
Rated input voltage	A0	100 – 240 V AC
	A3	380 V AC
	D0	12 – 24 V DC/AC
Cap (LED color)	R	R(Red), G(Green), Y(Yellow), A(Blue), W(White)

MRX-K Flush (Ø25)



MRX-T Extended (Ø22)



MRX-W Extended (Ø22)



# PILOT LAMP

## Plastic guard



Model	Code	Description
MRP-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Pilot lamp
Actuator	K	Flush (Installing hole: Ø25)
	T	Extended (Installing hole: Ø22)
Rated input voltage	A0	100 – 240 V AC
	A3	380 V AC
	D0	12 – 24 V DC/AC
Cap (LED color)	R	R(Red), G(Green), Y(Yellow), A(Blue), W(White)

### MRP-K Flush (Ø25)



### MRP-T Extended (Ø22)



# SELECTOR SWITCH

## Plastic guard



Model	Code	Description
MRS-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Selector switch
Actuator	K	Flush (Installing hole: Ø25)
	T	Extended (Installing hole: Ø22)
Operation function	2A	2 positions alternate operation
	2R	2 positions momentary operation
	3A	3 positions alternate operation
	3R	3 positions left and right side momentary operation
Contact composition	1	1a1b
	2	2a2b
Actuator color (cap color)		Black (solid)

Refer to contact operation  
(3 positions : Only 2a2b contact available)

### MRS-K Flush (Ø25)



### MRS-T Extended (Ø22)



# ILLUMINATED SELECTOR SWITCH

## Plastic guard



Model	Code	Description
MRT-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Illuminated selector switch
Actuator	K	Flush (Installing hole: Ø25)
	T	Extended (Installing hole: Ø22)
Operation function	2A	2 positions alternate operation
	2R	2 positions momentary operation
	3A	3 positions alternate operation
	3R	3 positions left and right side momentary operation
Contact composition	1	1a1b
	2	2a2b
Power supply voltage	A0	100-240 V AC
	A3	380 V AC
	D0	12-24 V DC/AC
Cap (LED color)	R	R(Red), G(Green), Y(Yellow), A(Blue), W(White)

Plastic guard

Refer to contact operation  
(3 positions : Only 2a2b contact available)

MRT-K Flush (Ø25)



MRT-T Extended (Ø22)



MRT-K3 Flush (Ø25)





MRT-T3 Extended (Ø22)



# EMERGENCY STOP SWITCH

## Plastic guard



Model	Code	Description
MRE-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Emergency stop switch
Actuator	K	Flush (Installing hole: $\varnothing 25$ )
	T	Extended (Installing hole: $\varnothing 22$ )
Operation function	M	Momentary 
	R	Push lock turn reset 
Contact composition	1	1a1b
	2	2a2b
Cap (LED color)	R	R(Red), G(Green) ※Push lock turn reset : only R(Red)

MRE-KM Flush ( $\varnothing 25$ )



MRE-KR Flush ( $\varnothing 25$ )



MRE-TM Extended ( $\varnothing 22$ )





MRE-TR Extended ( $\varnothing 22$ )



# ILLUMINATED EMERGENCY STOP SWITCH

## Plastic guard



Model	Code	Description
MRA-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Illuminated emergency stop switch
Actuator	K	Flush (Installing hole: Ø25)
	T	Extended (Installing hole: Ø22)
Operation function	M	Momentary 
	R	Push lock turn reset 
Contact composition	1	1a1b
	2	2a2b
Power supply voltage	A0	100 – 240 V AC
	A3	380 V AC
	D0	12 – 24 V DC/AC
Cap (LED color)	R	R(Red), G(Green) ※Push lock turn reset : only R(Red)

### MRA-KM Flush (Ø25)



### MRA-KR Flush (Ø25)



### MRA-TM Extended (Ø22)



### MRA-TR Extended (Ø22)





# ELECTRONIC BUZZER

## Plastic guard



Model	Code	Description	
MRB-	<input type="checkbox"/> <input type="checkbox"/>	Electronic buzzer	
Actuator	K	Flush (Installing hole: Ø25)	Plastic guard
	T	Extended (Installing hole: Ø22)	
Rated input voltage	A0	100 – 240 V AC	Condenser voltage dropping type
	D0	12 – 24 V DC/AC	Resistance voltage dropping type

### ■ MRB-K Flush (Ø25)



### ■ MRB-T Extended (Ø22)



## ■ Suffix code

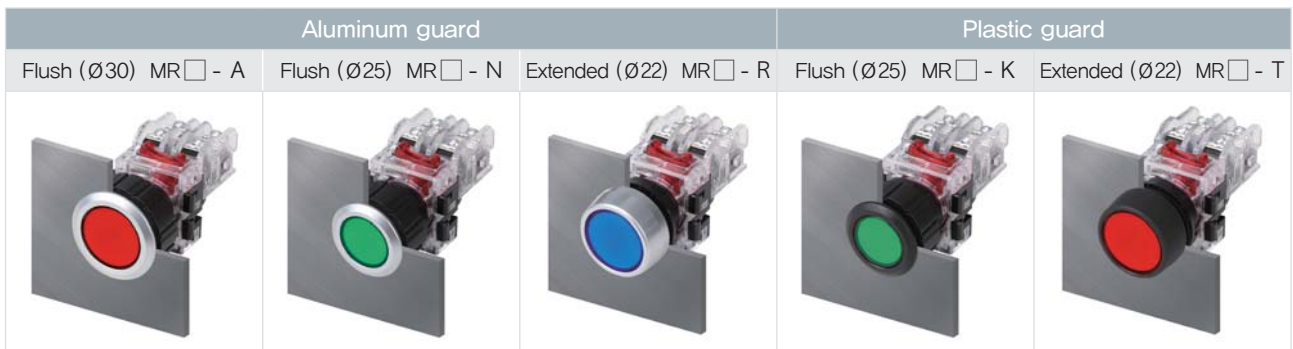
Model	Code	Description
MRF -	□	Push button switch
MRX -		Illuminated push button switch
MRP -		Pilot light
MRS -		Selector switch
MRT -		Illuminated selector switch
MRK -		Key selector switch
MRE -		Emergency stop switch
MRA -		Illuminated emergency stop switch
MRB -		Electronic buzzer
Actuator	A	Ø30 Flush
	N	Ø25 Flush
	R	Ø22 Extended
	K	Ø25 Flush
	T	Ø22 Extended

※ Please refer to the above suffix code and check out an operation function, contact composition, color actuator, rated input voltage, etc.

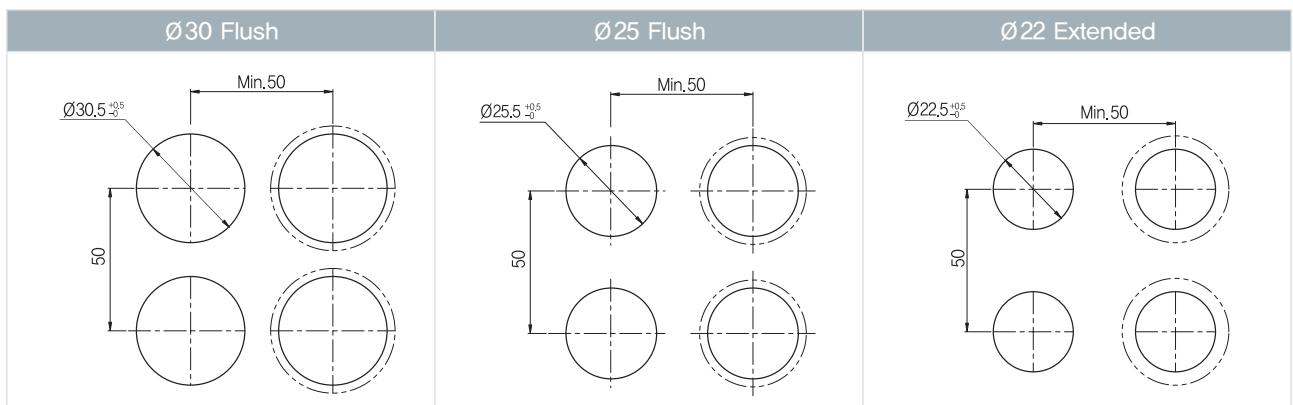
## ■ Specification

Contact composition		1a1b
Contact action		Snap-action
Installing panel thickness		7.0 mm (when excluded the additional accessories)
Material	Contact material	AgSnO <sub>2</sub>
	Contact body material	Polycarbonate (P.C)
Mechanical characteristic	Fixed torque	Installing nut : 1.96 N · m max, Installing nut : 0.78 N · m max
	Operating power	6.47 N (operation part + 1a1b contact)
	Operating distance	5 mm ±0.2
	Reflection time	max 3 ms
	Durability of actuator	Button: min 500 thousand times, Selector switch: min 200 thousand times
Electrical characteristic	Dielectric strength	2,000 V AC 1 min
	Contact resistance	max 50 MΩ (Initial setting)
	Insulation resistance	min 100 MΩ 500 V DC
	Rated current	6 A 250 V AC
	Min load current	5 mA 24 V DC, 10 mA 110 V DC
	Min load current	200 thousand times
Power supply voltage	Power supply voltage	100 – 240 V AC (ED condenser voltage dropping type)
		380 V AC (LED condenser voltage dropping type)
		12 – 24 V DC/AC (LED resistance voltage dropping type)
Buzzer volume		Approx. 90 dB
Environment condition	Ambient temperature	-20 ~ 55 °C
	Ambient humidity	35 ~ 85 % RH
	Storage temperature	-40 ~ 85 °C
	Shock resistance	300 % pulse cycle 11 ms
	Vibration resistance	100 % 10 – 55 Hz, amplitude 0.75 mm (within 1 ms)

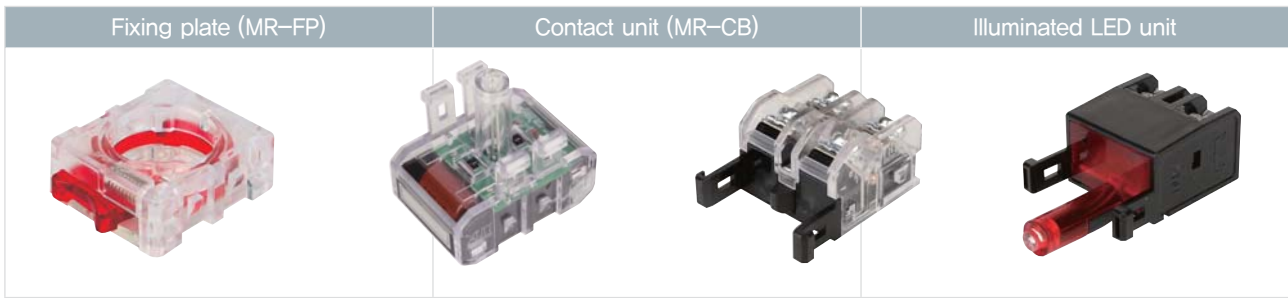
## ■ Actuator panel installation example



## ■ Panel cutout (Unit : mm)



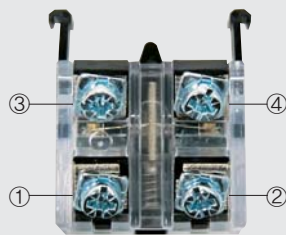
## Contact part composition



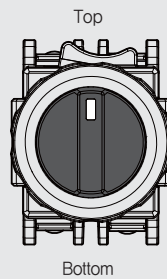
## Selector / Key selector contact operation

In case of 3 positions selector, please refer to the contact operation diagram.

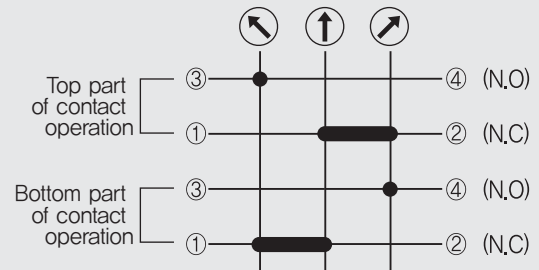
※ When installing to the contact unit



Contact unit (MR-CB)



Selector switch



※ The position from the front of actuator part

## Accessories

Kinds	Appearance	Model	Reference
Contact unit		MR-CB	Hook fixing contact unit which is composed of 1a1b, is assembled to fixing plate.
		MR-CBC	When air-conditioning and refrigerating by slow-action contact (1a1b) and driving an industrial machine's motor, it can be used as START signal and STOP signal in relay's self-hold circuit.
Flush aluminum guard		MR-AGA	Aluminum guard A type panel cutout $\varnothing 30$
		MR-AGN	Aluminum guard N type panel cutout $\varnothing 25$
Extended aluminum guard		MR-AGR	Aluminum guard R type panel cutout $\varnothing 22$
Fixing plate		MR-FP	Connect to actuator, contact unit and lamp unit.
3 positions of illuminated selector unit		MR-3SLA0□	100 – 240 V AC
		MR-3SLA3□	380 V AC
		MR-3SLD0□	12 – 24 V DC/AC
LED Illuminated unit		MR-LBA0□	100 – 240 V AC
		MR-LBA3□	380 V AC
		MR-LBD0□	12 – 24 V DC/AC
Protective cover		MR-AC	Protective cover is installed in opposite side when using only 1 LED illuminated unit or contact unit.

Bright and durable due to use of LED light

# Control switch

## MR series



※ Information in this catalog may change without prior notice for upgrade purpose.

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