



MR series Control switch

# LED Control switch



- Snap-action contact unit
- Bright and durable due to use of LED light
- Aluminum guard / Plastic guard
- Assembling type (actuator and contact part)

Flush aluminum guard (MR□ - A)



Ø30

Flush aluminum guard (MR□ - N)



Ø25

Extended aluminum guard (MR□ - R)



Ø22

Flush plastic guard (MR□ - K)



Ø25

Extended plastic guard (MR□ - T)



Ø22

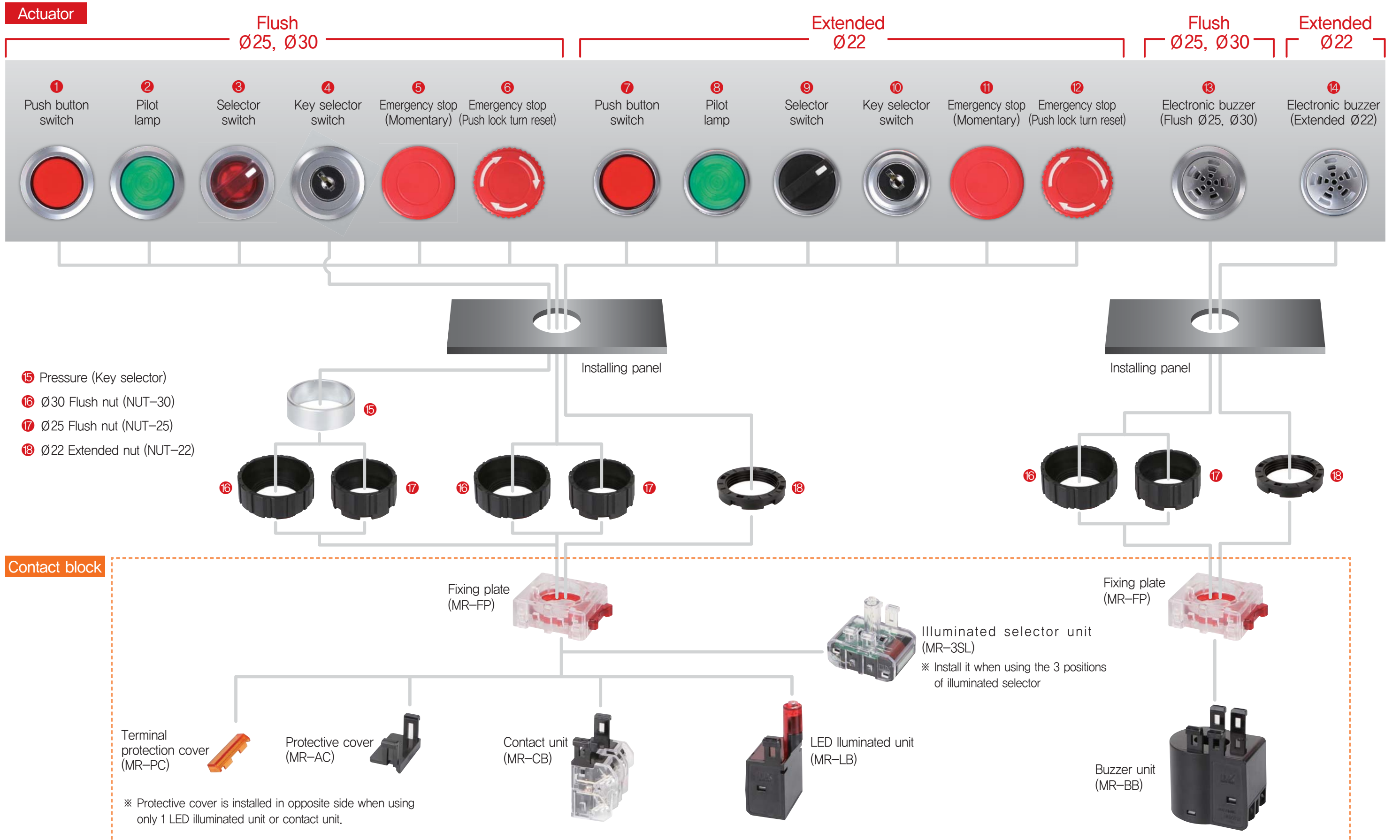
*Best Switch*  
**MR** series  
Control switch



# Products composition

Flush : Ø25, Ø30 / Extended : Ø22

# MR series



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# 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)
	N	Flush (Installing hole:Ø25)
	R	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-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)	
	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)	Aluminum guard
	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)

### 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

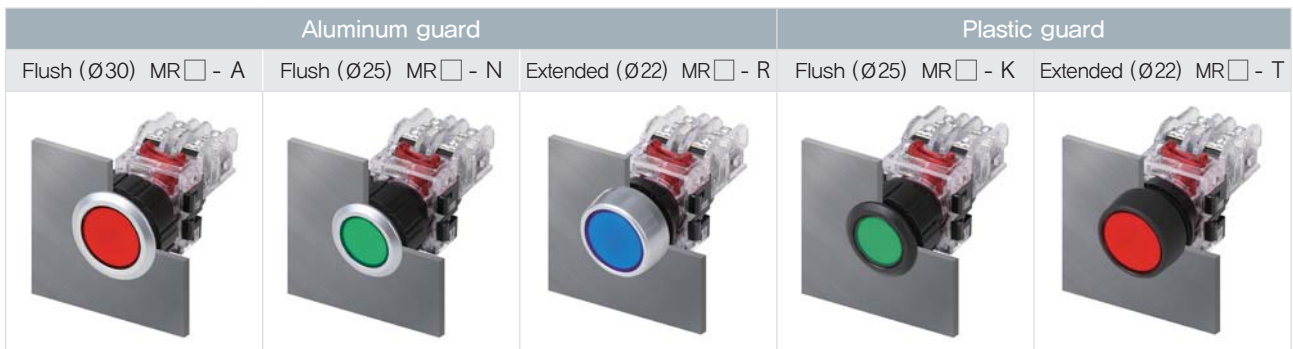
Model	Code	Description
MRF -	□	Push button switch
MRX -		Illuminated push button switch
MRP -		Pilot light
MRS -		Selector switch
MRT -		Illuminated selector switch
MRK -		Key selector switch
MRE -		Emergency stop switch
MRA -		Illuminated emergency stop switch
MRB -		Electronic buzzer
Actuator	A	Ø30 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.

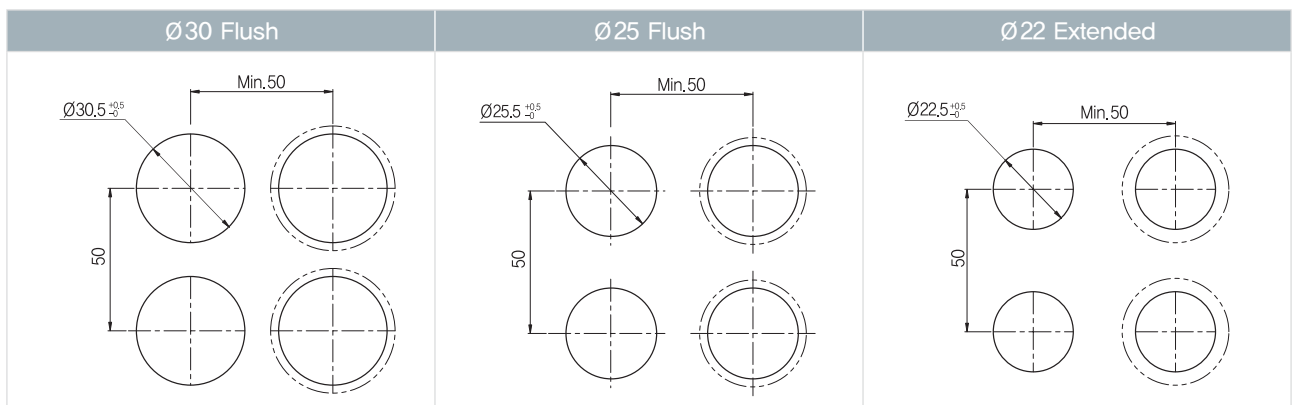
## ■ Specification

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

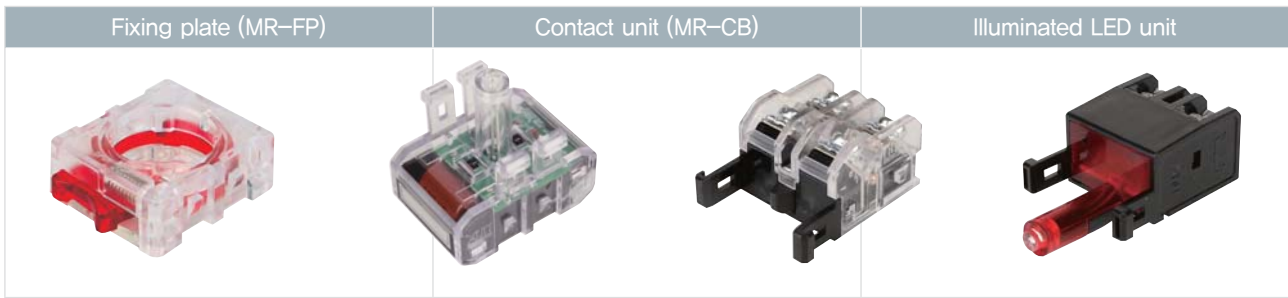


## ■ Panel cutout (Unit : mm)





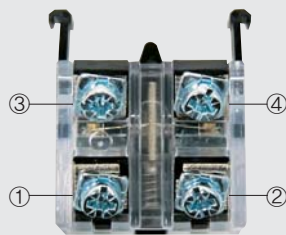
## Contact part composition



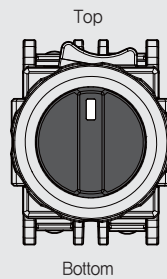
## Selector / Key selector contact operation

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

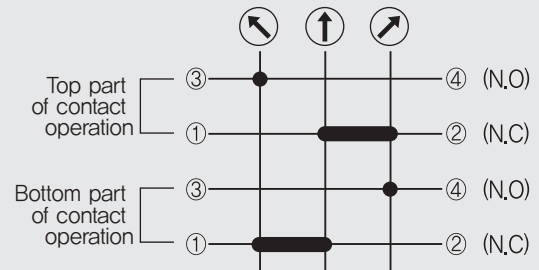
※ When installing to the contact unit



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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