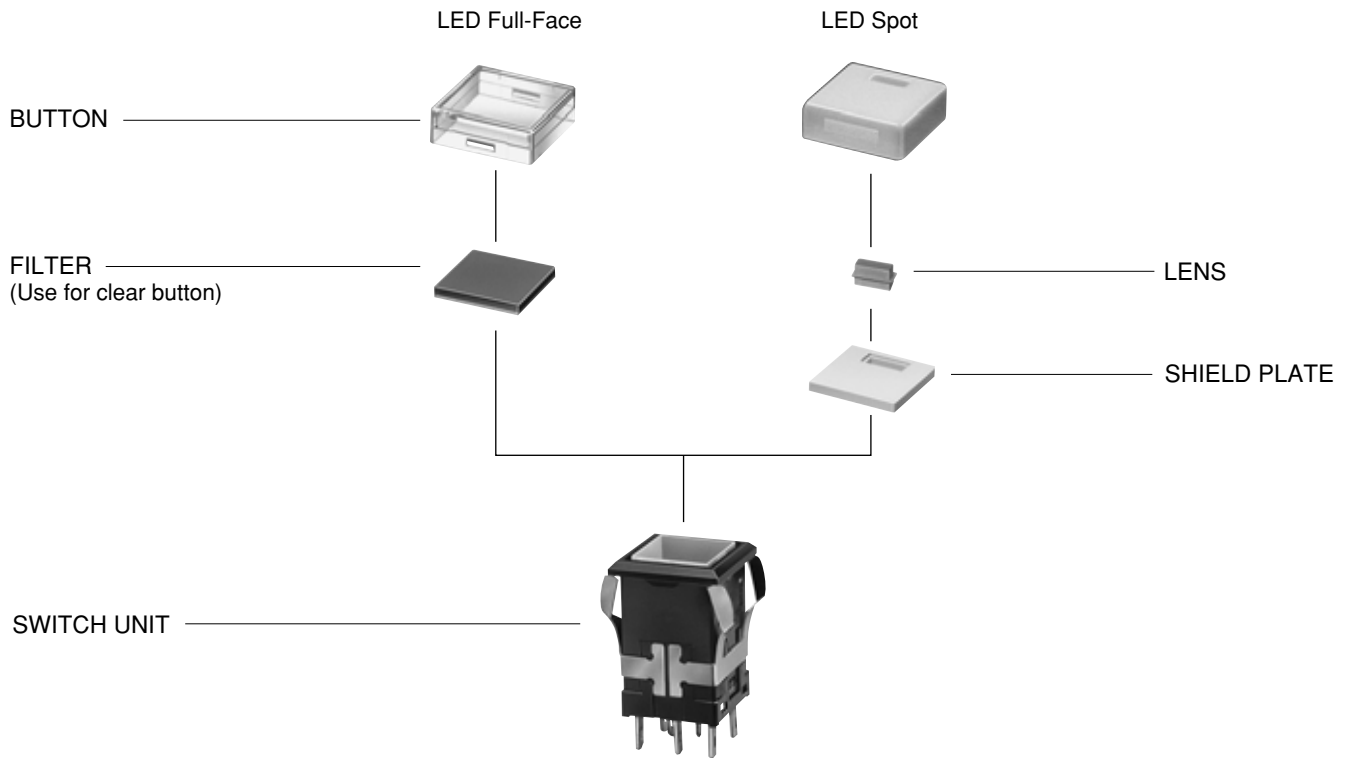


STRUCTURE


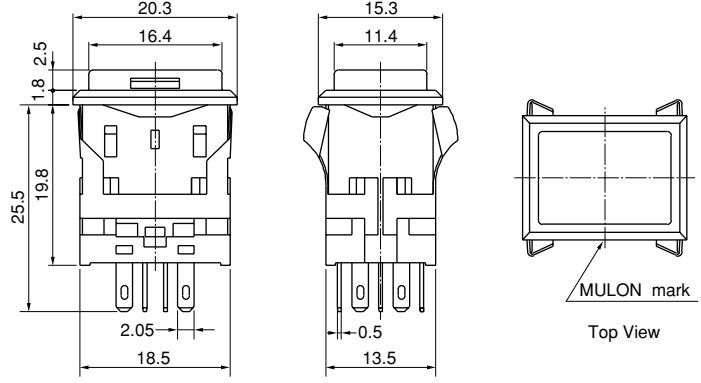
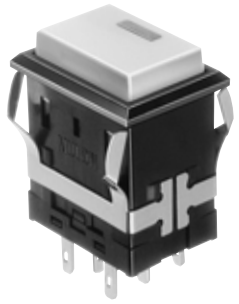
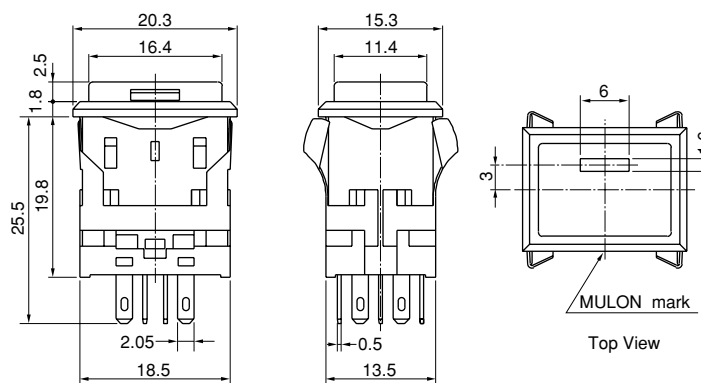


DIMENSIONS

<p>11.4mm Square Button (Full-Face)</p>				<p>MULON mark</p> <p>Top View</p>
<p>11.4mm Square Button (Spot)</p>				<p>MULON mark</p> <p>Top View</p>

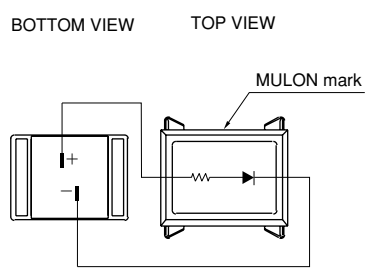
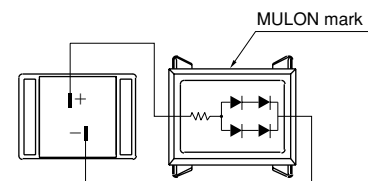
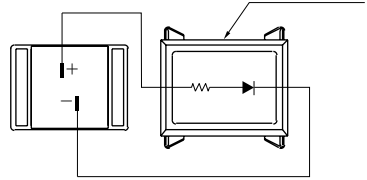
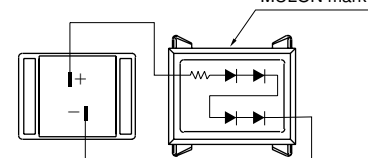
Tolerance : $\pm 0.4\text{mm}$

DIMENSIONS

<p>11.4×16.4mm Rect. Button(Full-Face)</p> 	 <p>Dimensions: 20.3, 16.4, 1.8, 2.5, 25.5, 19.8, 2.05, 18.5, 15.3, 11.4, 13.5, 0.5, MULON mark, Top View</p>
<p>11.4×16.4mm Rect. Button(Spot)</p> 	 <p>Dimensions: 20.3, 16.4, 1.8, 2.5, 25.5, 19.8, 2.05, 18.5, 15.3, 11.4, 13.5, 0.5, 6, 1.6, 3, MULON mark, Top View</p>

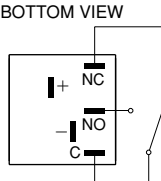
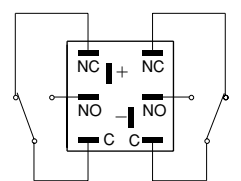
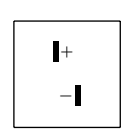
INTERNAL CONNECTION ARRANGEMENTS

● LED (Square, Rect.)

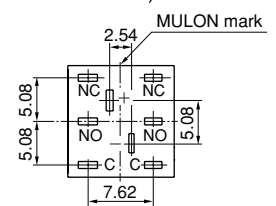
<p>LED (Full-Face)</p> <p>5 V</p> <p>12 V · 24 V</p>	<p>1 PC. LED</p> <p>BOTTOM VIEW TOP VIEW</p>  <p>MULON mark</p>	<p>4 PCS. LED</p>  <p>MULON mark</p>
	<p>BOTTOM VIEW TOP VIEW</p>  <p>MULON mark</p>	<p>BOTTOM VIEW TOP VIEW</p>  <p>MULON mark</p>

TERMINALS

● TERMINALS LAYOUT (Square, Rectangular)

<p>STDP</p> <p>BOTTOM VIEW</p> 	<p>DTDP</p> 	<p>INDICATOR</p> 
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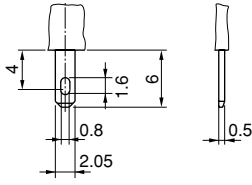
● TERMINALS DIMENSIONS (BOTTOM VIEW)



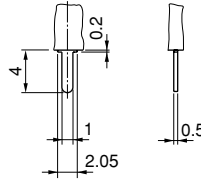
Tolerance : ±0.4mm

TERMINAL SHAPE

● TERMINAL SHAPE

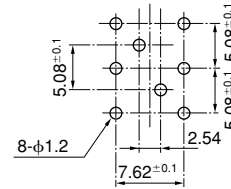


Soldering Terminal



PCB Terminal

● PCB HOLE DIMENSIONS (BOTTOM VIEW)



LED RATINGS

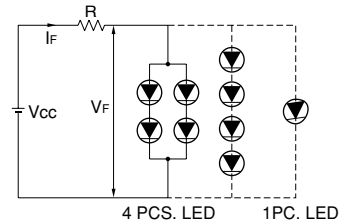
● LED RATINGS

ITEM	4 PCS. LED				1 PCS. LED	
	DC5V(SERIES PARALLEL)		DC12, 24V (ALL SERIES)		DC5, 12, 24V	
	Red, Yellow	Green	Red, Yellow	Green	Red, Yellow	Green
Max. operating current I_{FM} (mA)	40	40	20	20	30	30
DC reverse voltage V_R (V)	10	10	20	20	10	10
Forward voltage V_F (V)	4.2	4.2	8.4	8.4	2	2
Recommended operating current I_F (mA)	7	25	4	13	12	20

※ In case of non-resistor type, suitable external current limiting resistors must be installed as shown by the table and formula.

$$R = \frac{V_{CC} - V_F}{I_F}$$

V_{CC} : Supply Voltage
 V_F : Forward Voltage
 I_F : Forward Current



PANEL LAYOUT / PANEL CUT DIMENSIONS

● 11.4mm Square Button

Panel thickness: 1mm~3.2mm

		Panel Layout	Panel Cut Dimensions
Without Barriers	Independent		
	Serial (Horizontal) ※1		
	Serial (Vertical) ※2		

n : number of switches

PANEL LAYOUT/PANEL CUT DIMENSIONS

● 11.4mm Square Button

Panel thickness : 1mm~3.2mm

Panel thickness for Guard Cover use : 1mm~2.5mm

		Panel Layout	Panel Cut Dimensions
With Barriers	Independent		
	Serial (Horizontal)		
	Serial (Vertical)		
With Guard Covers	Independent		
	Serial (Horizontal)		

● 11.4×16.4 Rect. Button

		Panel Layout	Panel Cut Dimensions
Without Barriers	Independent		
	Serial (Horizontal)		

PANEL LAYOUT / PANEL CUT DIMENSIONS

● 11.4mm×16.4mm Rectangular Button

		Panel Layout	Panel Cut Dimensions
Without Barriers	Independent		
	Serial (Vert.)		
With Barriers	Independent		
	Serial (Horiz.)		
	Independent		
	Serial (Vert.)		
With Guard Covers	Independent		
	Serial (Horiz.)		

n : number of switches

Panel thickness : 1mm~3.2mm

Panel thickness for Guard Cover use : 1mm~2.5mm

Tolerance : ±0.4mm

PANEL LAYOUT / PANEL CUT DIMENSIONS

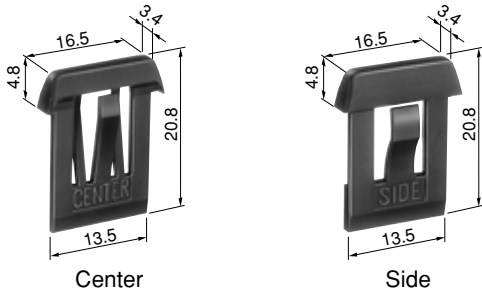
Without Barriers	With Barriers
<p>In case of block mounting, leave space between arrays as a figure.</p>	<p>In case of block mounting, leave space between arrays as a figure.</p>

ACCESSORIES

BARRIERS

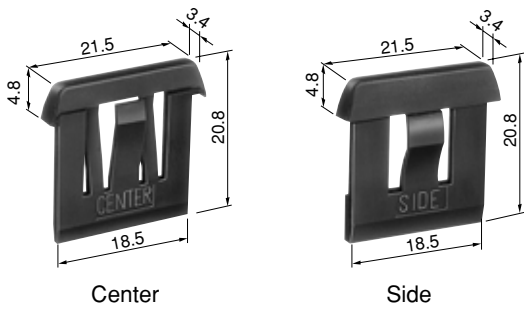
In case of mounting switches in series, barriers can be used to prevent inadvertent pushing neighbor switches.

● Short Barrier



PART NO.		
Color	Short Center Barrier	Short Side Barrier
Black	FH-592-K	FH-593-K
Gray	FH-592-G	FH-593-G

● Long Barrier (For Rectangular, Longer Side)



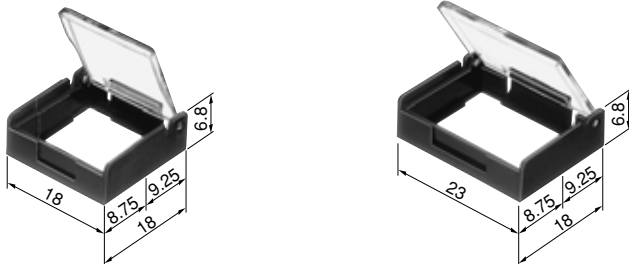
PART NO.		
Color	Long Center Barrier	Long Side Barrier
Black	FH-594-K	FH-595-K
Gray	FH-594-G	FH-595-G

GUARD COVER

Guard Cover prevents inadvertent and unintentional operations. (cannot be used with barriers.)

● 11.4mm Square Button

● 11.4×16.4mm Rect. Button



PART NO.		
Sq.	Black	FH-596-K
	Gray	FH-596-G
Rect.	Black	FH-597-K
	Gray	FH-597-G

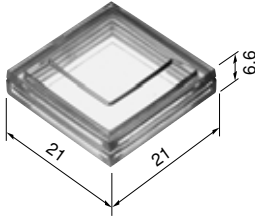
※ The cover to be opened 90° and stopped.

Tolerance : ±0.4mm

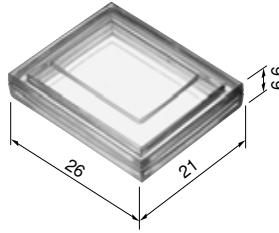
ACCESSORIES

Dust-Proof Cover

● 11.4mm Square Button

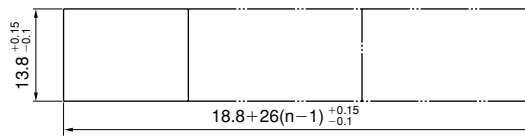
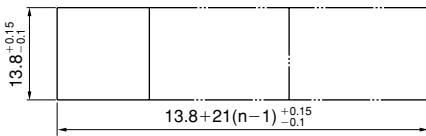


● 11.4×16.4mm Rectangular Button



PART NO.	
Square	Rectangular
FH-598	FH-599

● Panel Cut Dimensions for Dust-Proof Cover use.

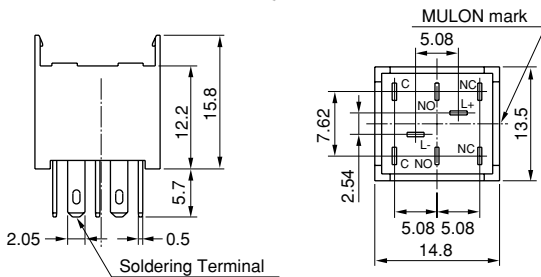


Panel Thickness : 1~2.5mm

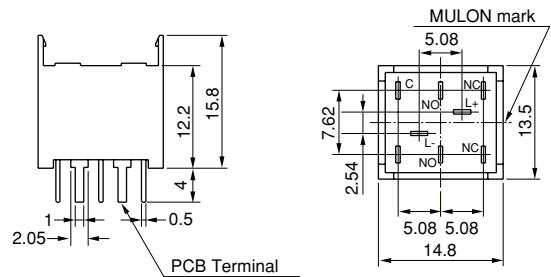
SOCKET

For easy maintenance. (Can be used for both square and rectangular)

● Soldering Terminal Socket



● PCB Terminal Socket

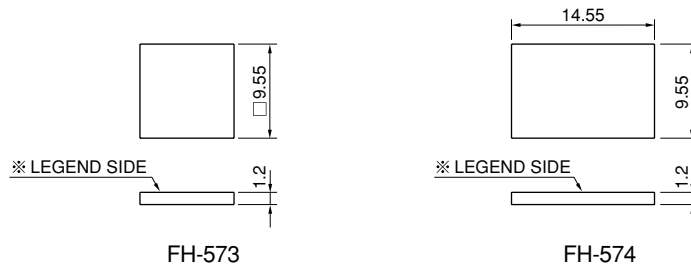


※ Switch Unit Terminal should be Soldering Type for both sockets.

PART NO	
Soldering Terminal Socket	PCB Terminal Socket
FH-0735	FH-0736

Tolerance : ±0.4mm

FILTER DIMENSIONS

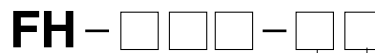


Tolerance : ±0.4mm

REPLACEMENT PARTS

Please order buttons and filters as replacement parts as follow.

LED Full-Face



● **BUTTON SHAPE**

573	11.4mm Square Button
574	11.4×16.4mm Rect. Button

● **BUTTON COLOR**

R	Red
LG	Green
※ Y	Yellow
M	Milk White
C	Clear
K	Black
×	Without Button

● **FILTER COLOR**

1	Red
L2	Green
※ 3	Yellow
4	Milk White
0	Without Filter

LED SPOT



● **BUTTON SHAPE**

575	11.4mm Square Button
576	11.4×16.4mm Rect. Button

● **BUTTON COLOR**

R	Red
G	Green
※ Y	Yellow
W	White
B	Blue
K	Black
×	Without Button

● **LED COLOR**

1	Red
2	Green
※ 3	Yellow
4	Milk White
0	Without LED

ORDERING CODE

LED Full-Face



● OPERATION

M	Momentary
A	Alternate
L	Indicator

● CONTACT

0	Indicator
1	SPDT · Silver (Gold-Plated)
2	DPDT · Silver (Gold-Plated)
3	SPDT · W/E Alloy #1Crossbar
4	DPDT · W/E Alloy #1Crossbar

● BUTTON SHAPE

S	11.4mm Square Button
W	11.4×16.4mm Rect. Button

● Supply Voltage to LED ※ 1

1	5V Built-in Resistor (1 PC. LED)
2	12V Built-in Resistor (1 PC. LED)
3	24V Built-in Resistor (1 PC. LED)
4	Non-Resistor (1 PC./4 PCS. LED, All Series)
5	Non-Resistor (4 PCS. LED, Series Pararell)
6	5V Built-in Resistor (4 PCS. LED)
7	12V Built-in Resistor (4 PCS. LED)
8	24V Built-in Resistor (4 PCS. LED)
×	Without LED

● LED COLOR

40	Red (1 PC. LED)
50	Green (1 PC. LED)
※ 60	Yellow (1 PC. LED)
70	Red (4 PCS. LED)
80	Green (4 PCS. LED)
※ 90	Yellow (4 PCS. LED)
X	Without LED

● BUTTON COLOR

R	Red
G	Green
※ Y	Yellow
M	Milk White
C	Clear
X	Without Button

● HOUSING COLOR

B	Black
G	Grey

● MOUNTING ※ 2

1	For Vertical Mtg.
2	For Horizontal Mtg.

● TERMINAL

S	Soldering
C	PCB

● FILTER COLOR

1	Red
2	Green
※ 3	Yellow
4	Milk White
★ X	Without Filter

★ Generally, in case of using color button, filters are not necessary.

※ "Yellow" color for LED/ Button/Filter is actually "Orange Yellow".

※1) Please be noted that 1 PC. LED type is darker than 4 PCS type.

※2) Snap-spring metal plates come out Left/Right direction for Vertical Mounting, and Top/Bottom direction for Horizontal Mounting to avoid interfering mutually. Therefore, in case of independent use, it does not matter. (select 2 Horizontal ordinary)

LED SPOT



● OPERATION

M	Momentary
A	Alternate
L	Indicator

● CONTACT

0	Indicator
1	SPDT · Silver (Gold-Plated)
2	DPDT · Silver (Gold-Plated)
3	SPDT · W/E Alloy #1Crossbar
4	DPDT · W/E Alloy #1Crossbar

● BUTTON SHAPE

P	11.4mm Square Button
L	11.4×16.4mm Rect. Button

● Supply Voltage to LED ※ 1

1	5V Built-in Resistor (1 PC. LED)
2	12V Built-in Resistor (1 PC. LED)
3	24V Built-in Resistor (1 PC. LED)
4	Non-Resistor (1 PC./4 PCS. LED, All Series)
5	Non-Resistor (4 PCS. LED, Series Pararell)
6	5V Built-in Resistor (4 PCS. LED)
7	12V Built-in Resistor (4 PCS. LED)
8	24V Built-in Resistor (4 PCS. LED)
×	Without LED

● LED COLOR

40	Red (1 PC. LED)
50	Green (1 PC. LED)
※ 60	Yellow (1 PC. LED)
70	Red (4 PCS. LED)
80	Green (4 PCS. LED)
※ 90	Yellow (4 PCS. LED)
X	Without LED

● BUTTON COLOR

R	Red
G	Green
※ Y	Yellow
W	White
B	Blue
K	Black
×	Without Button

● HOUSING COLOR

B	Black
G	Grey

● MOUNTING ※ 2

1	For Vertical Mtg.
2	For Horizontal Mtg.

● TERMINAL

S	Soldering
C	PCB

● FILTER COLOR

1	Red
2	Green
※ 3	Yellow
4	Milk White

※ "Yellow" color for LED/Button/ Filter is actually "Orange Yellow".

※1) Please be noted that 1 PC. LED type is darker than 4 PCS type.
 ※2) Snap-spring metal plates come out Left/Right direction for Vertical Mounting, and Top/Bottom direction for Horizontal Mounting to avoid interfering mutually. Therefore, in case of independent use, it does not matter. (select 2 Horizontal ordinary)