BUMPER SWITCH®
Contact detection function and cushioning (impact absorption) performance

【 Bumper switch configulation 】

- Jacket
- Cushioning material
- Actuator plate
- Elastic spacer
- Mounting screw
- Lead wire
- Base plate
- Tape switch

【 Actuating force measurement method 】
Load
φ50

The sensor for detecting contact and collision, which also has excellent cushioning performance
Flexibly meets a wide variety of needs concerning the incorporation of a wire breakage detection circuit, as well as such factors as sensitivity, size, and shape.

* Contact and collision detection sensor
* Can be custom-made according to the desired size, shape, and operating load, etc.
* Uses shock-absorbing material with excellent cushioning performance.
* Can detect a broken wire when combined with an FSC controller.

■Basic specifications

Rated voltage	5 – 24 V AC/DC
Rated current	0.01 – 0.3 A (resistive load)
Insulating resistance	10 MΩ min (250 VDC)
Dielectric strength between electrodes	250 VDC for 1 minute
Operating temperature range	0 – 50°C

A bumper switch is a custom-made item, so be sure to provide details on the desired specifications using a drawing.

Specifications	Standard	Options		
Jacket	Synthetic leather	Synthetic leather	Splash	Lastan (heat resistant)	Aluminum leather
Jacket color	Black	Specified color	Black	Gray	Metallic luster
How the jacket is stitched together	Single layer with the ends stitched	Piping around the edges (in your specified color), stitching		
Shock absorbing material	Urethane foam			
Base plate	Plywood 12 mm thick Max length 2,400 mm	Steel plate, aluminum plate, stainless steel plate		
Mounting screws	M8 l=30mm	To be specified by the customer		
Actuating force	20 – 100 N (Differs according to size and application)			
Wire type	VFF (vinyl flat cord)	4-wire type		
Lead wire	2-core 0.3 mm2 Red & black × 2 500mm	To be specified by the customer		
Length of lead wire	To be specified by the customer			
Option		Please consult us regarding clean room specifications and water resistance for your specific application needs.		

Reference drawing
(It is necessary to specify the dimensions.)

2–R
D±3
Standard length: 30
B   E   B

F   C
A
15
H±2
A
L±2.5

C and B are reference dimensions.
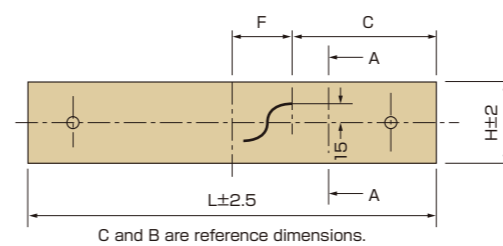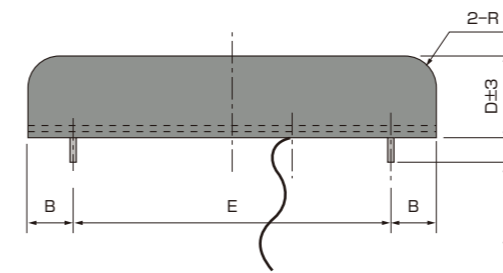
Dimensions and shape of sensor body. Insert the dimensions in [ ].Items marked * must be filled in.

L: Length	∗【 】mm	
D: Depth	∗【 】mm	
H: Height	∗【 】mm	
R: Corner radius （R≦D−25）	∗2−R【 】	
B: Mounting screw position	∗【 】mm	
E: Pitch between mounting screws	∗【 】mm	
○: When specifying mounting screws	【 】−M【 】Length【 】	
C: Lead outlet position	∗【 】mm	
Δ: When specifying lead wire length	【 】mm	

Specify the number of lead outlet positions.

Circle one.	* 1 location 2 locations
When specifying 2 lead outlet positions	Pitch between lead wires 【 】mm

The minimum value of the H dimension and the D dimension is 50 mm.

Min 25   h
Min 25   h1   h2

A-A cross-section (Standard type)   A-A cross-section (type I)   A-A cross-section (type II)
Specify the h dimension.

〈U-shaped〉   〈V-shaped〉

(For details, please contact us.)