

# D2X

Detection Switch

## A Switch with Crimp-type Connectors that Greatly Reduces Wiring Work

- Clip-on wiring via crimp-type connectors.
- Snap-fit attachment for easy installation.
- Operation possible from either side to enable mounting in either direction.

RoHS Compliant



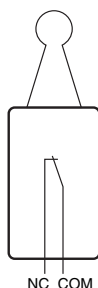
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X

### List of Models

Mode
D2X-C

### Contact Form

- SPST-NC



### Contact Specifications

Contact	Specification	Slide
	Material	Gold plated
Minimum applicable load (reference value) *		5 VDC 1 mA

\* Please refer to "●Using Micro Loads" in "Precautions" for more information on the minimum applicable load.

### Ratings

Rated voltage	Resistive load
30 VDC	0.1 A

Note. The above rating values apply under the following test conditions.

- (1) Ambient temperature: 20±2°C
- (2) Ambient humidity: 65±5%
- (3) Operating frequency: 30 operations/min

### Characteristics

Permissible operating speed		0.1 mm to 100 mm/s
Permissible operating frequency	Mechanical	60 operations/min
	Electrical	30 operations/min
Insulation resistance		100 MΩ min. (at 250 VDC with insulation tester)
Contact resistance (initial value)		200 mΩ max.
Dielectric strength	Between terminals of the same polarity	250 VAC 50/60 Hz for 1 min
	Between current-carrying metal parts and ground	250 VAC 50/60 Hz for 1 min
Vibration resistance	Malfunction	10 to 55 Hz, 1.5 mm double amplitude
Shock resistance	Destruction	500 m/s <sup>2</sup> (approx. 50G) max.
	Malfunction	300 m/s <sup>2</sup> (approx. 30G) max.
Durability *	Mechanical	1,000,000 operations min. (60 operations/min)
	Electrical	50,000 operations min. (30 operations/min)
Degree of protection		IEC IP00
Ambient operating temperature		-10°C to +70°C (at ambient humidity of 60% max.) (with no icing or condensation)
Ambient operating humidity		45% to 85% (for +5°C to +35°C)
Weight		Approx. 1 g

Note. The data given above are initial values.

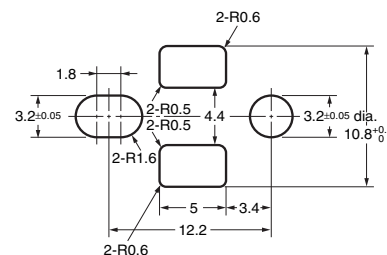
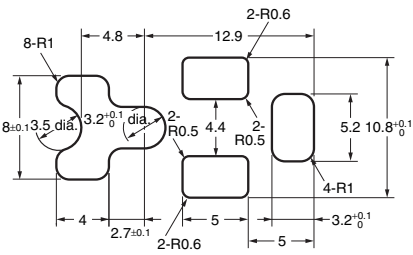
\* For testing conditions, consult your OMRON sales representative.

## Mounting Holes (Unit: mm)

Refer to the following diagram for mounting hole dimensions, and make sure that the burr is placed to backside of Mounting Plate.

When thickness of the plate (t) is 1.6 mm.

When thickness of the plate (t) is 1.2 mm.

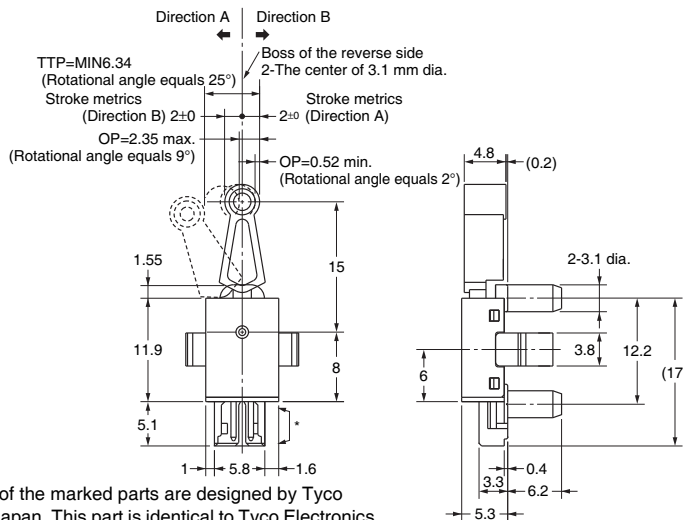
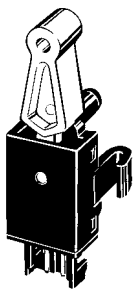


Note 1. Allowable deviation from the center is  $\pm 0.07$  mm.

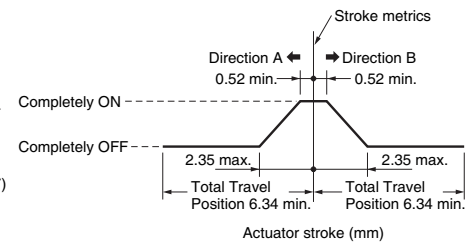
Note 2. Unless otherwise specified, a tolerance of  $\pm 0.1$  mm applies to all dimensions.

## Dimensions (Unit: mm) and Operating Characteristics

### D2X-C



Operating Force	OF Max.	0.49 N {50 gf}
Releasing Force	RF Min.	0.02 N {2 gf}
Operating Position	OP	0.52 to 2.35 mm
Total Travel Position	TTP Min.	6.34 mm



\* Dimensions of the marked parts are designed by Tyco Electronics Japan. This part is identical to Tyco Electronics Japan's CT connectors (dipole type) in size.

Note 1. Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

Note 2. The operating characteristics are for cases where the actuator operates in the A (←) direction or B (→) direction.

## Precautions

★ Please refer to "Basic Switches Common Precautions" for correct use.

### Correct Use

#### ● Terminal Connection

Do not use the Switch with Connector mounted and weight load applied to the Connector and lead wire, otherwise it may rattle or may result in connection failure.

## Wiring Connector

• Use the CT Connector made by Tyco Electronics Japan for wiring.

[Crimp-style connector housing: 179228-2, Crimp-style connector contact: 179227-4]

• The above connectors are not sold by OMRON.

Contact the offices mentioned in the right for more information on the connectors.

**Tyco Electronics Corporation, TE Connectivity Ltd.**

■ For products and technical support, contact the

Web: <http://www.te.com/support-center/>

- Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
- Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

**Note: Do not use this document to operate the Unit.**