

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# www.cotorelay.com CM15S/CM15

## Overmolded DYAD

#### **DESCRIPTION**

Coto's Molded DYAD dry reed switch is ideally suited for small signal switching applications. This switch has sputtered ruthenium contacts and an extraordinary seal strength achieved by a patented laser sealed glass. In low level dry switching environments, this switch typically provides > 1 billion operations. It has hermetically sealed contacts and offers a wide range of available magnetic sensitivities. In addition, the molding process provides a solid plastic outer shell. This plastic shell provides superior mechanical strength, eliminates concerns over handling glass switches, and provides an ideal solution for high speed, automated assembly environments.



#### **FEATURES**

- Small size
- SMT-compatible
- ·Easily formed leads
- ·Sputtered ruthenium contacts
- ·Hermetically sealed contacts
- •Fast switching speed up to 500Hz
- •Wide range of available magnetic sensitivities
- ·Superior mechanical strength
- Enhanced for better auto placement
- •RoHS Compliant



#### **APPLICATIONS**

- Security
- -proximity sensors
- -smoke alarms
- Automotive
- -level sensor
- -lamp current sensor
- Relays

### **SPECIFICATIONS**

All parameters are at 25°C unless otherwise stated

Parameters	Conditions	Min	Тур	Max	Units
Contact Ratings Operate ampere turns range Release ampere turns range Switching Voltage Switching Current Carry Current Contact Rating Life Expectancy  Static Contact Resistance Contact Material	Full Blade Tolerance = +/-1.5 NI Full Blade Tolerance = +/-1.5 NI Max DC/PeakAC Resistive Max DC/PeakAC Resistive Max DC/PeakAC Resistive Max DC/PeakAC Resistive 1V, 10mA Signal Level 10V, 10mA Low Level 50V, 100mA Telecom Load 100V, 100mA Rated Loads 50mV, 10mA <sup>1</sup>	10 5	1000 500 2 2 80 Ru	30 30 200 0.5 1.5 10	NI NI VDC Amps Amps VA x106 Ops x106 Ops x106 Ops x106 Ops mOhms
Switch Specifications Insulation Resistance <sup>2</sup> Capacitance Dielectric Strength <sup>4</sup> Operate Time, including bounce Release Time	100V, 25°C, 40% RH Across Open Contacts Between Contacts At nominal coil voltage, 10Hz Square Wave Zener-Diode Suppression <sup>3</sup>	10 <sup>9</sup> 250	10 <sup>11</sup> 0.3 300	0.5	Ohms pF VDC/Peak AC ms
Enviromental Ratings Storage Temperature Operating Temperature Soldering Temperature Vibration Ressitance Shock Resistance Shock Resistance-survivability	5Hz - 200Hz 11+/-1ms, sine wave 11+/-1ms, sine wave	-40 -40		+125 +125 +240 20 30 500	°C °C °C Gs Gs Gs

<sup>&</sup>lt;sup>1</sup> Contact resistance measured with 4 terminal method, 1.1" between test leads

<sup>&</sup>lt;sup>2</sup> >10<sup>12</sup> ohms is available upon request

<sup>&</sup>lt;sup>3</sup> A 24V zener in series with a diode across the coil

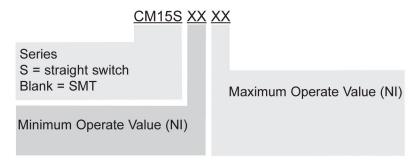
<sup>&</sup>lt;sup>4</sup> 15 ampere turn minumum



Overmolded DYAD

#### **ORDERING INFORMATION**

A complete part number is represented by the digits below



#### Surface Mount

Refer to operating characteristics table for a complete part number.

#### **Overmolded DYAD**

Part #	Operate Range (NI) <sup>1</sup>
CM15S1015	10 to 15
CM15S1020	10 to 20
CM15S1030	10 to 30
CM15S1520	15 to 20
CM15S1525	15 to 25
CM15S2025	20 to 25

<sup>&</sup>lt;sup>1</sup> Tolerance = +/-1.5NI

#### **Overmolded DYAD Surface Mount**

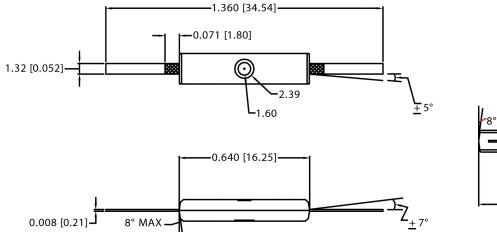
Part #	Operate Range (NI) <sup>1,2,3</sup>		
CM15-2024	10 to 15		
CM15-2259	10 to 20		
CM15-2282	10 to 30		
CM15-2025	15 to 20		
CM15-2249	15 to 25		
CM15-2026	20 to 25		

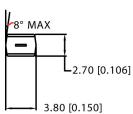
- <sup>1</sup> Tolerance = +/-1.5NI
- <sup>2</sup> Full Blade Sensitivity

#### **MECHANICAL DIMENSIONS**

#### Dimensions in inches (mm)

#### Overmolded DYAD





<sup>&</sup>lt;sup>3</sup> Surface Mount switches are packaged 3,000 parts per reel



#### **MECHANICAL DIMENSIONS**

Dimensions in inches (mm)

#### Overmolded DYAD SMT

