

# Standex-Meder Electronics

Custom Engineered Solutions for Tomorrow



# Reed Switch Basics Part IV

Product Training

# Introduction

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- How a Reed Switch Sensing Application works
- How a Reed Switch is used with a Permanent Magnet

# Reed Switch Sensing Application

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- The magnetic sensitivity of a Reed Switch is measured in AT (ampere turns) and is used to define its Pull-In (open) and Drop-Out (closure) points.
- The Reed Switch sensitivity produces a distinct pattern known as its field of magnetic sensitivity.
- The field of magnetic sensitivity will vary depending on the orientation and direction of the permanent magnet which is critical to the sensing application.

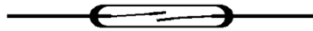
# Pull-In / Drop-out



Magnet



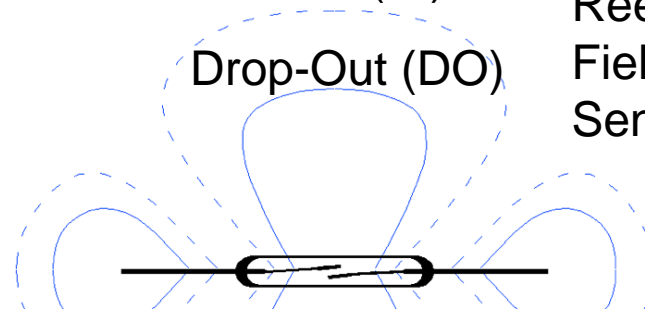
Reed Switch



Pull-In (PI)

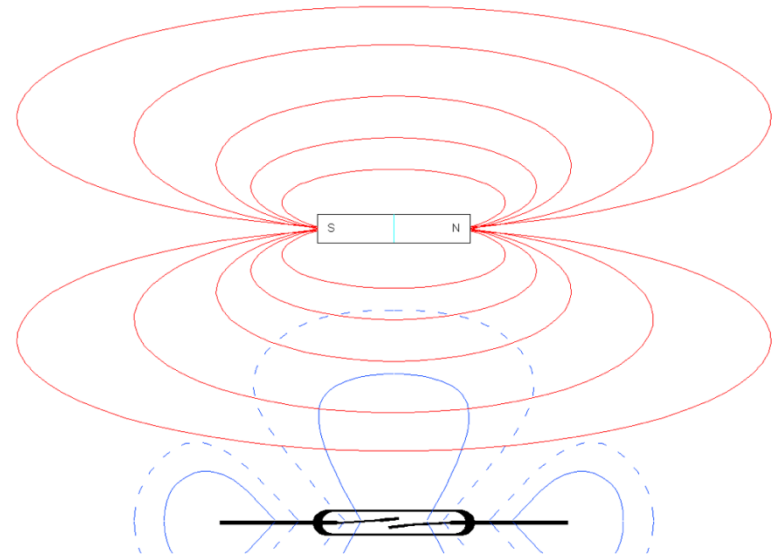
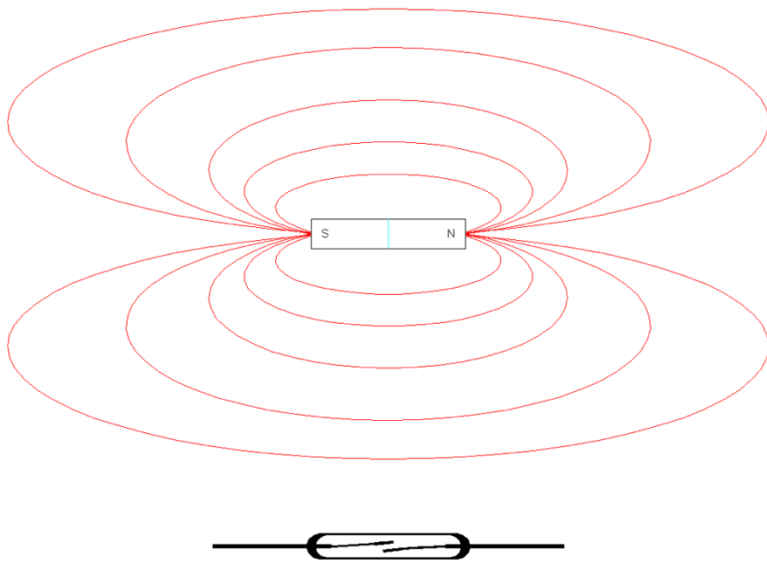
Drop-Out (DO)

Reed Switch  
Field of Magnetic  
Sensitivity

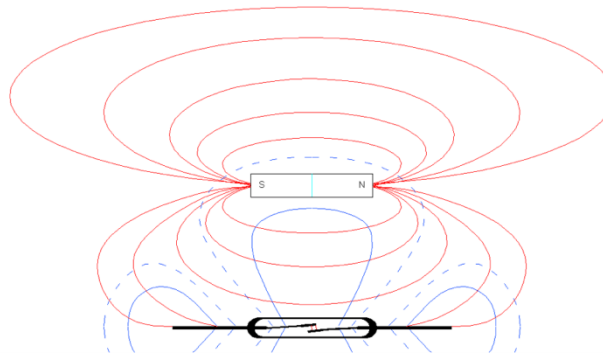
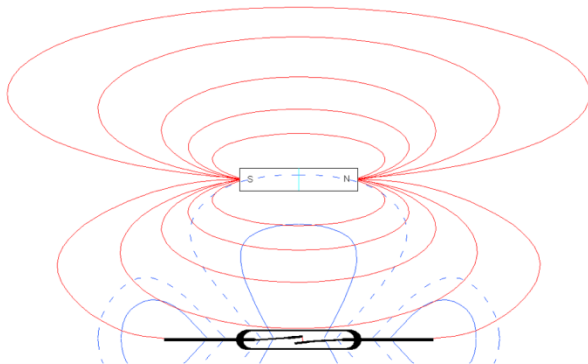
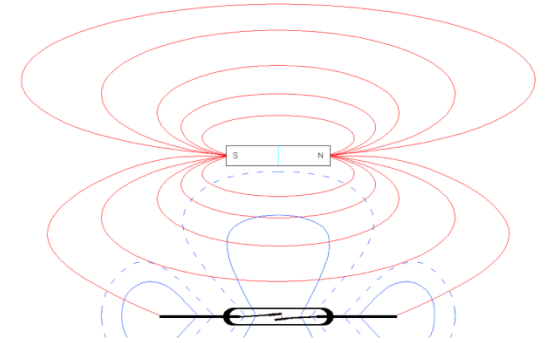
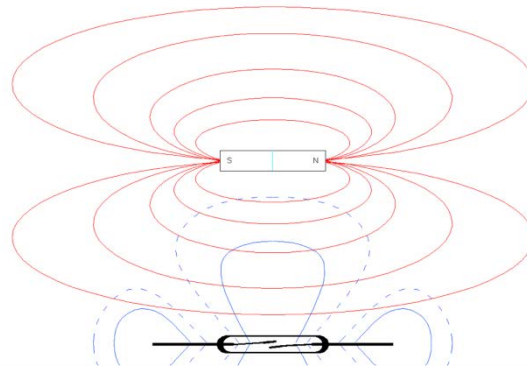
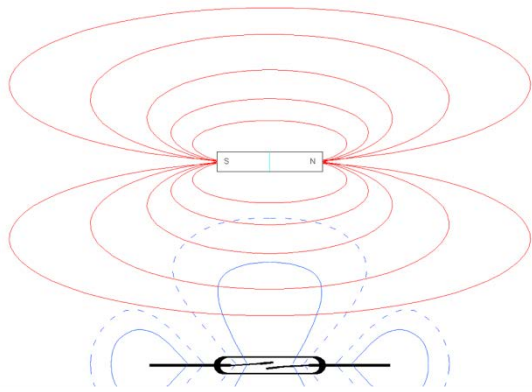


# Pull-In / Drop-out

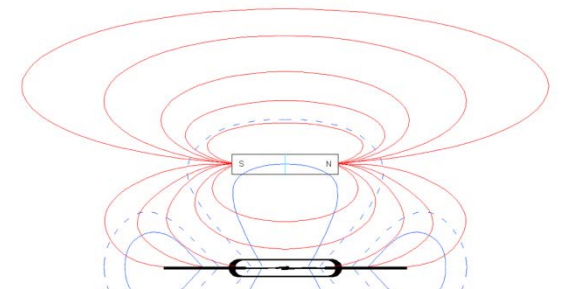
## Lines of Magnetic Flux



# Pull-In / Drop-out

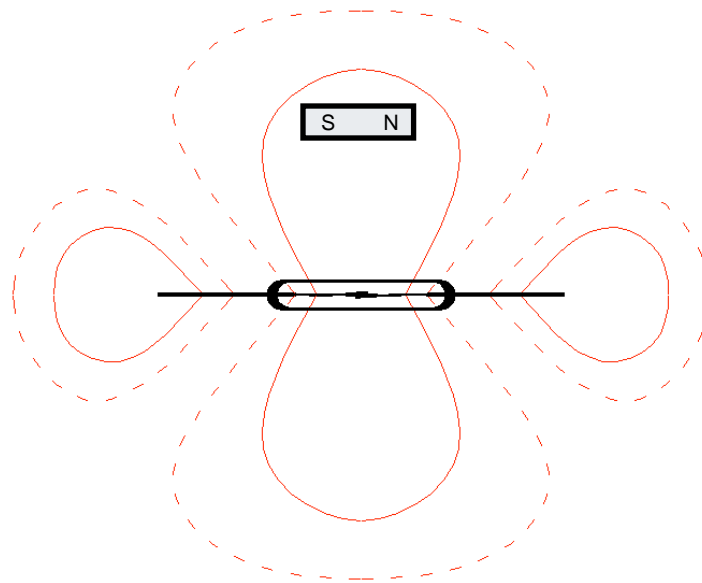


Pull-In Point (switch closure)



# How a Reed Switch is used with a Permanent Magnet

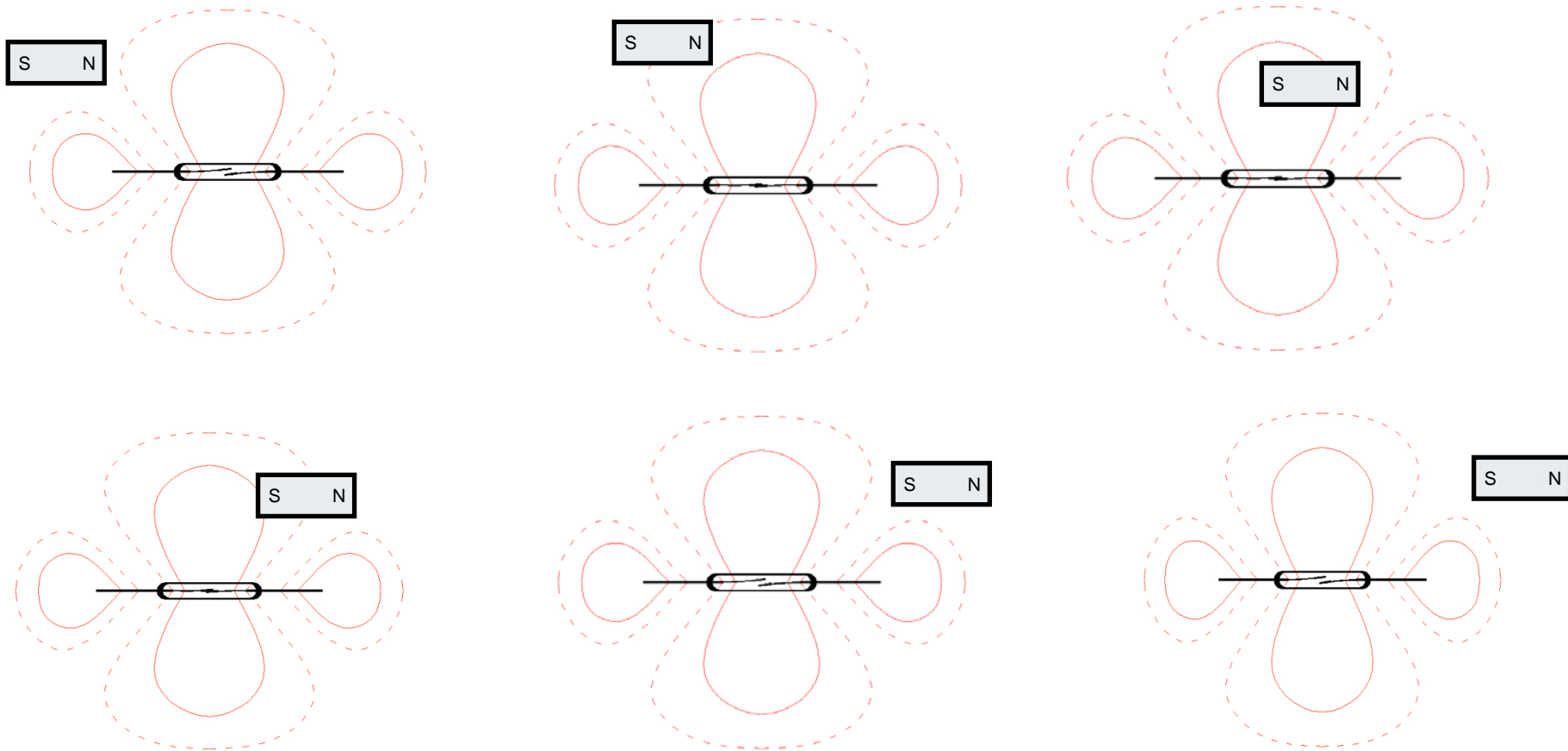
## Areas of Pull-In and Drop-Out with Parallel Magnet Orientation





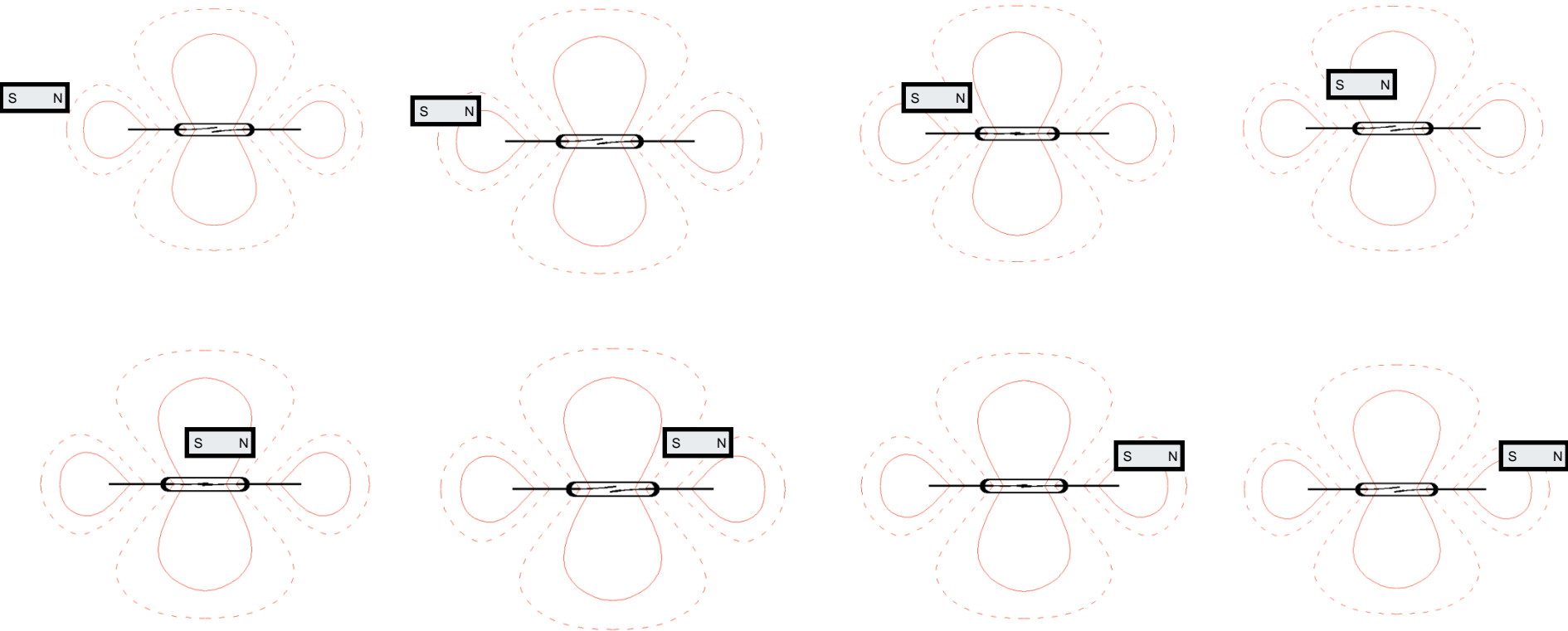
# How a Reed Switch is used with a Permanent Magnet

- Pull-In and Drop-Out with Parallel Movement for one open and closure



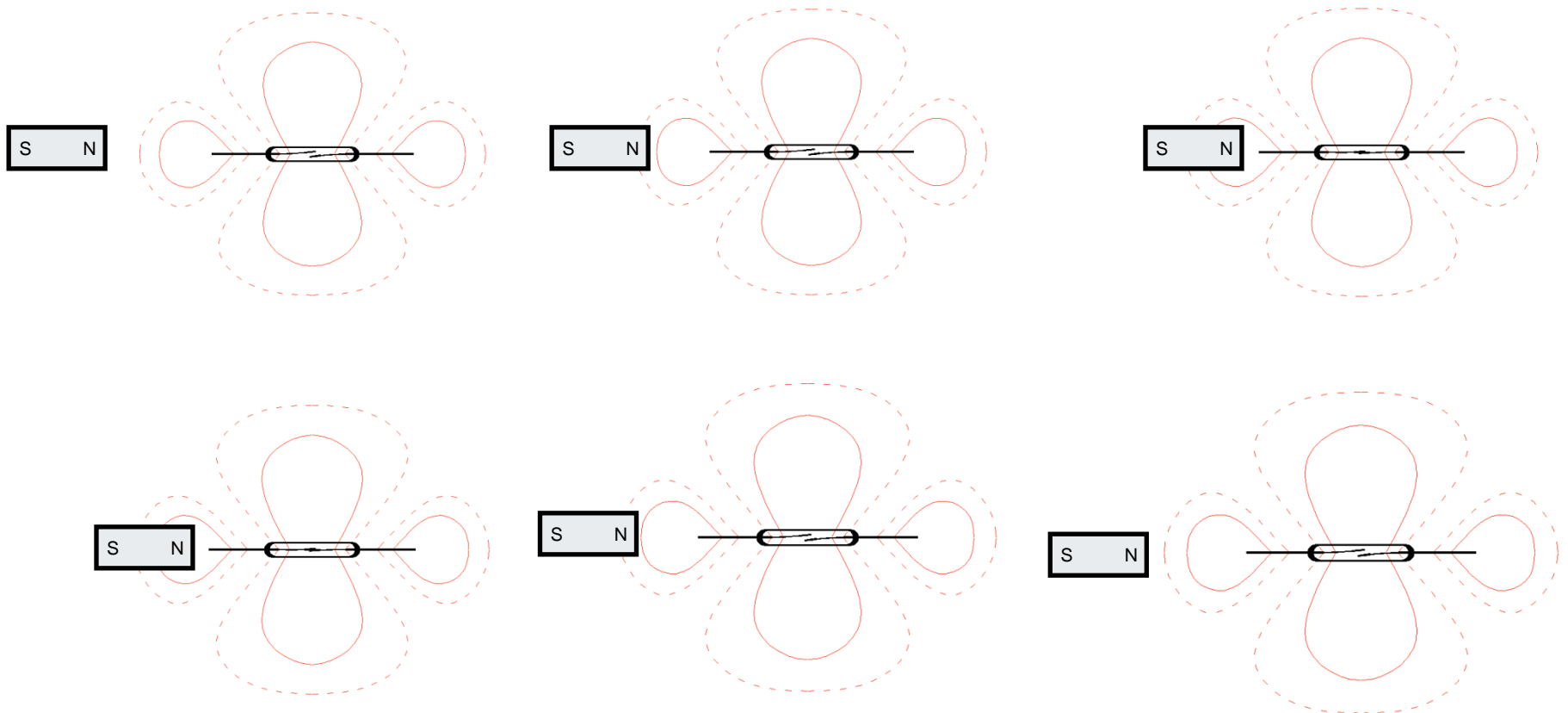
# How a Reed Switch is used with a Permanent Magnet

- Pull-In and Drop-Out with Parallel Movement for multiple openings and closures



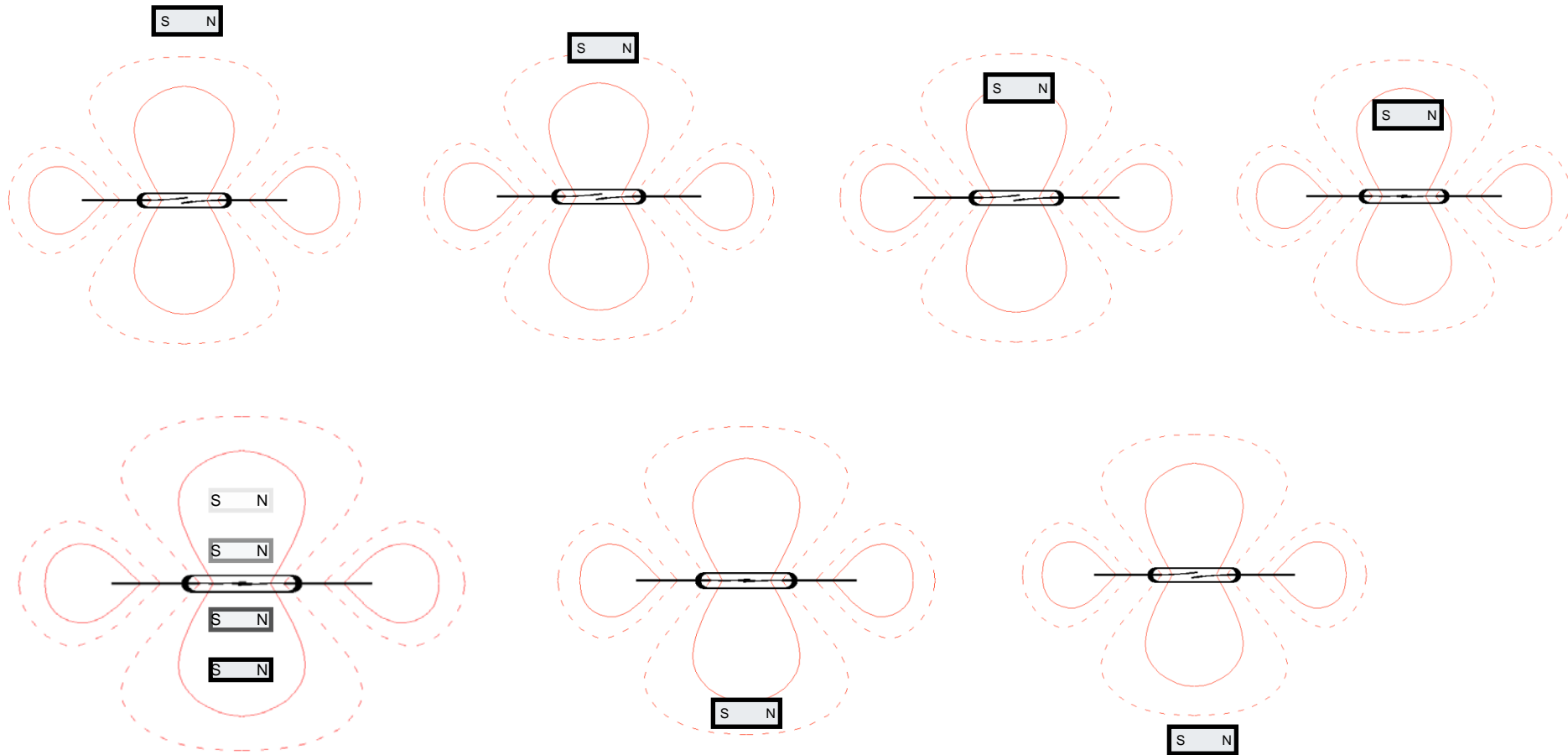
# How a Reed Switch is used with a Permanent Magnet

- Pull-In and Drop-Out with Parallel Movement for one open and closure



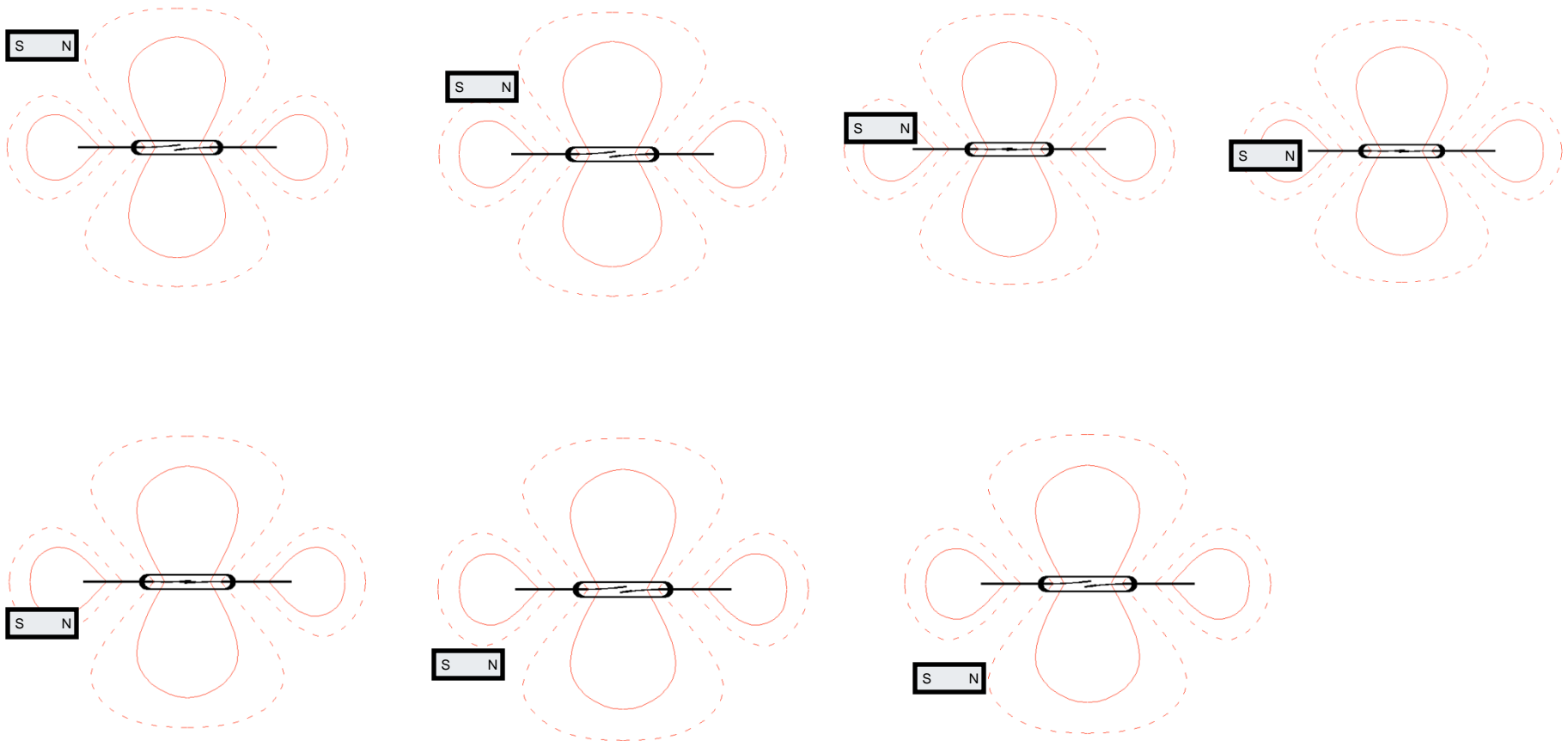
# How a Reed Switch is used with a Permanent Magnet

- Pull-In and Drop-Out with Perpendicular Movement at the center of the switch



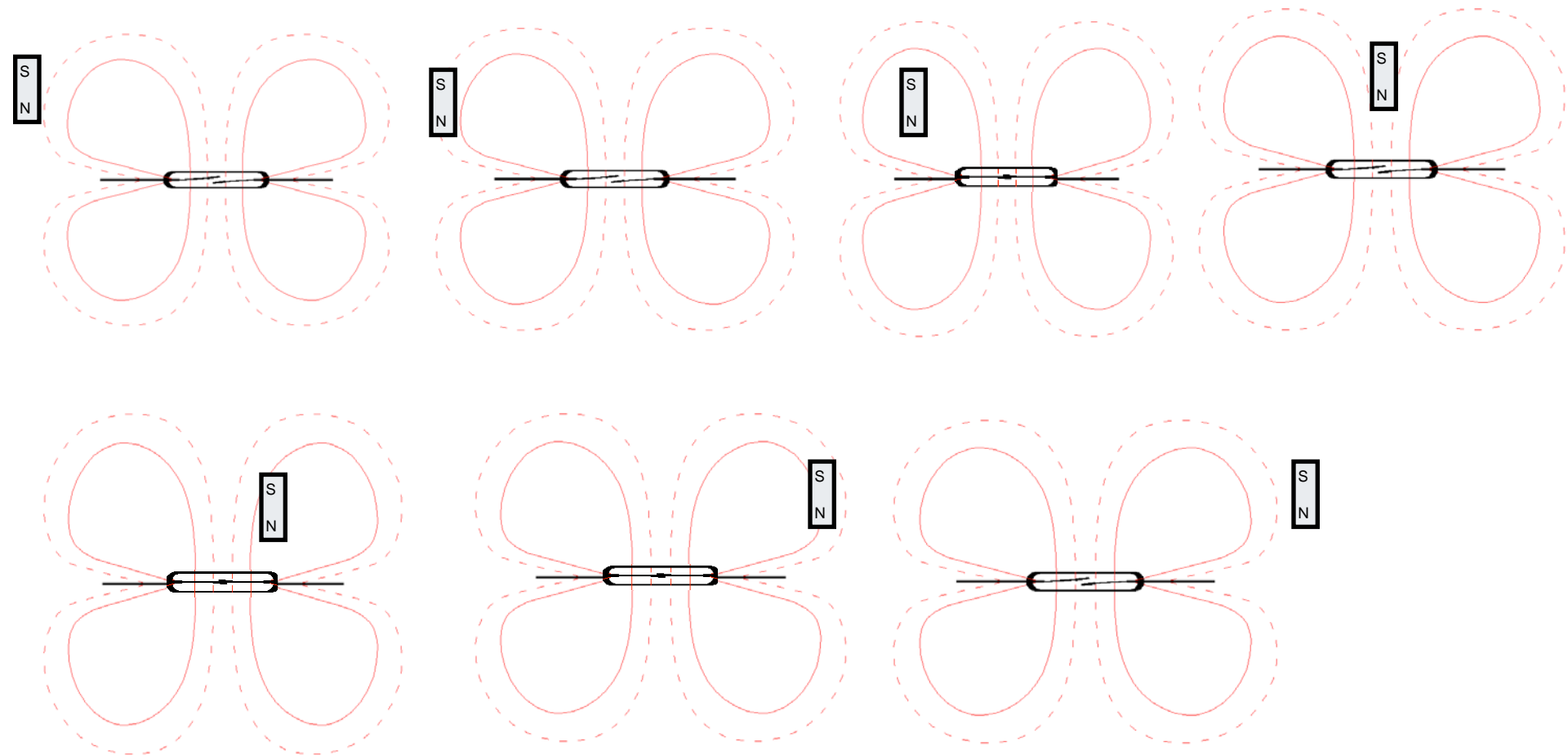
# How a Reed Switch is used with a Permanent Magnet

- Pull-In and Drop-Out with Perpendicular Movement at end of the switch



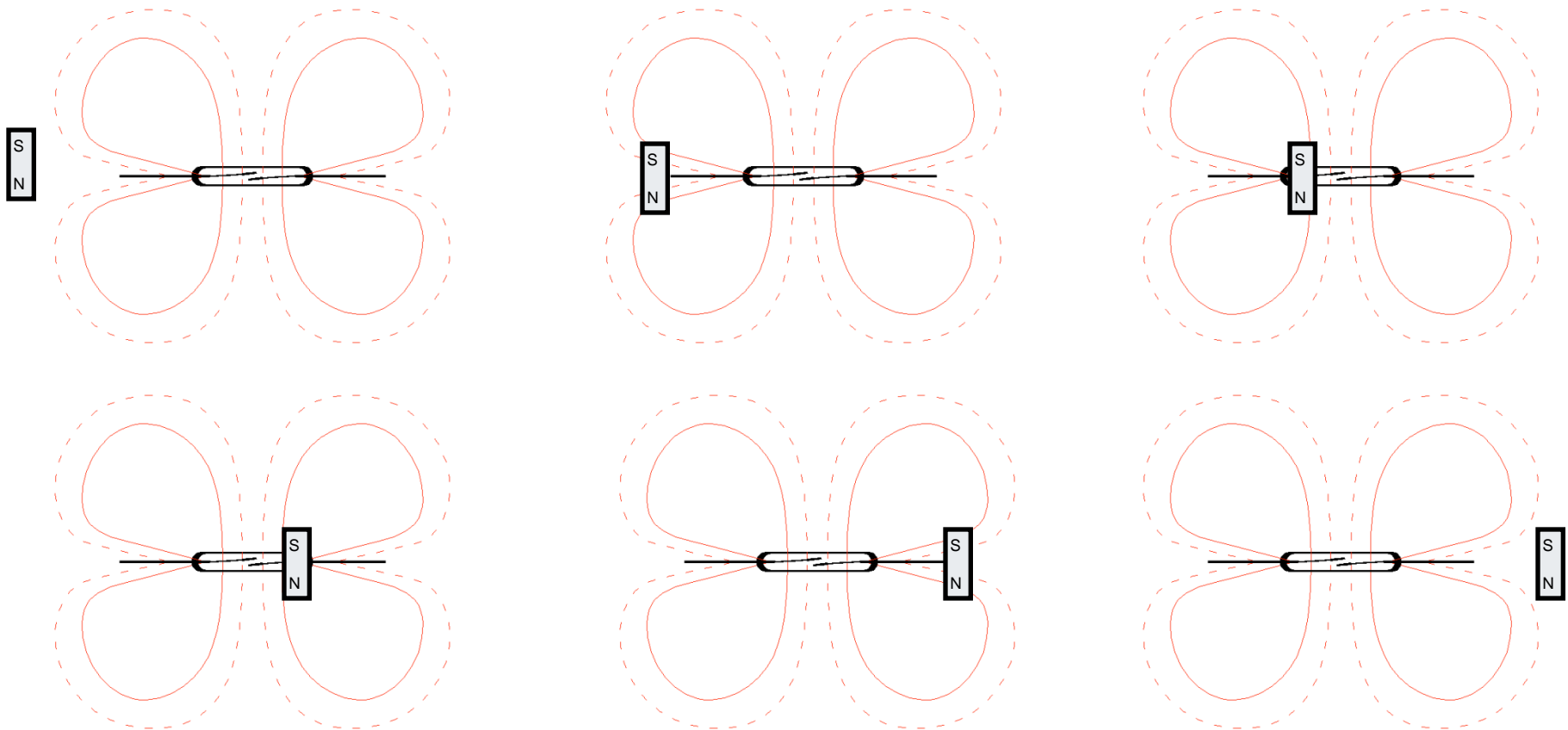
# How a Reed Switch is used with a Permanent Magnet

- Pull-In and Drop-Out with Parallel Movement for multiple openings and closures



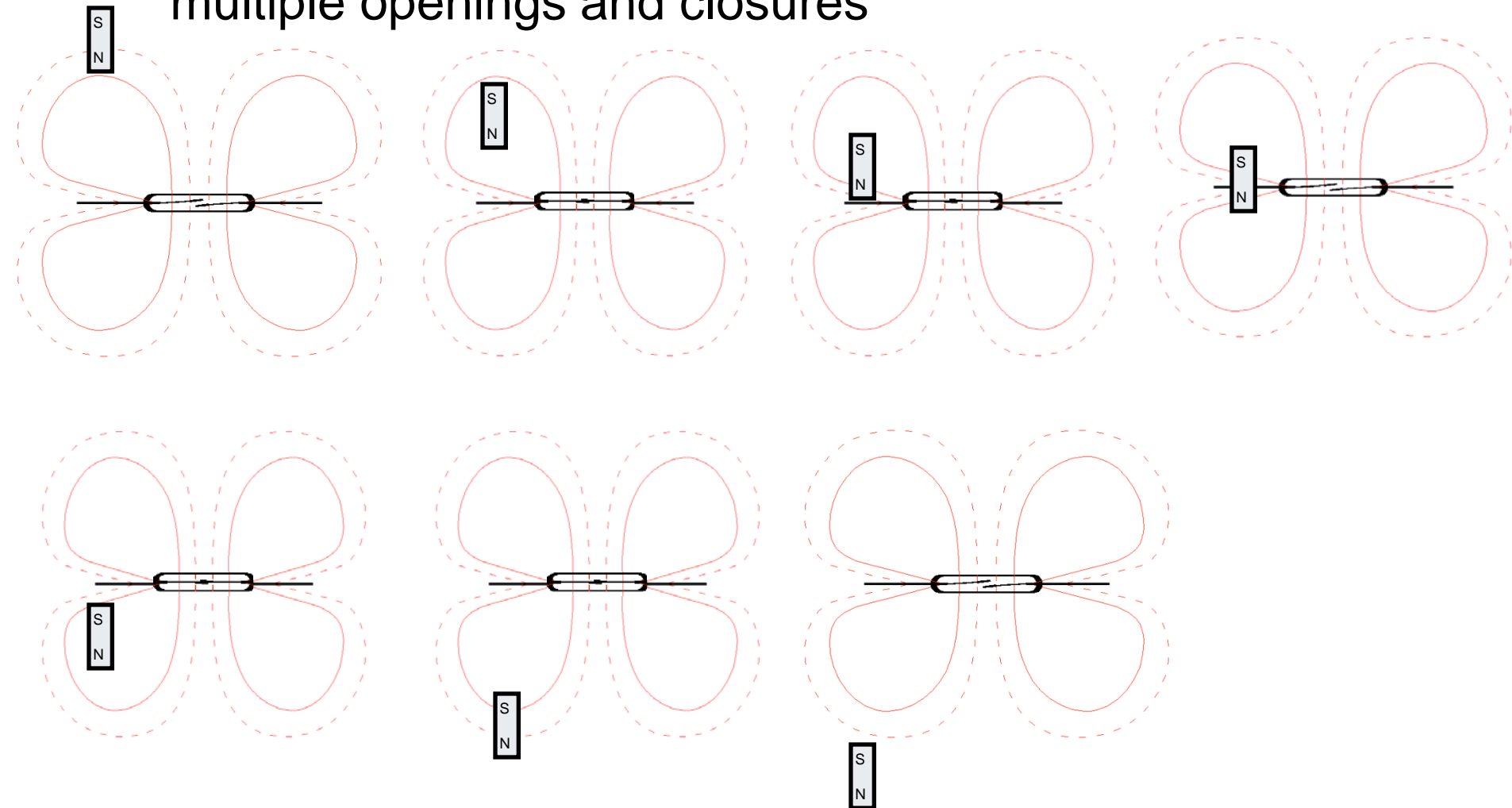
# How a Reed Switch is used with a Permanent Magnet

- Pull-In and Drop-Out with Parallel Movement for no closure



# How a Reed Switch is used with a Permanent Magnet

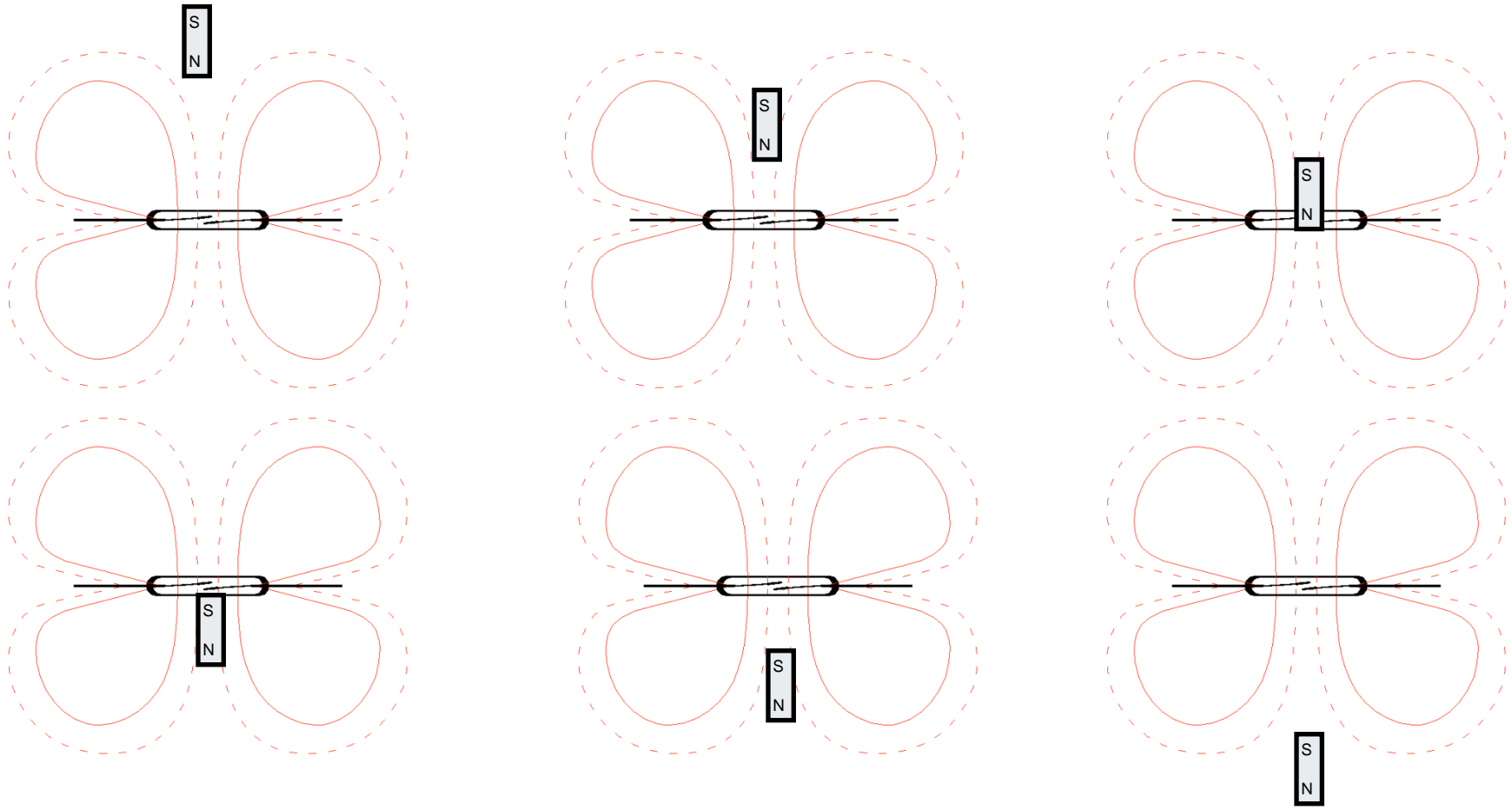
- Pull-In and Drop-Out with Perpendicular Movement for multiple openings and closures





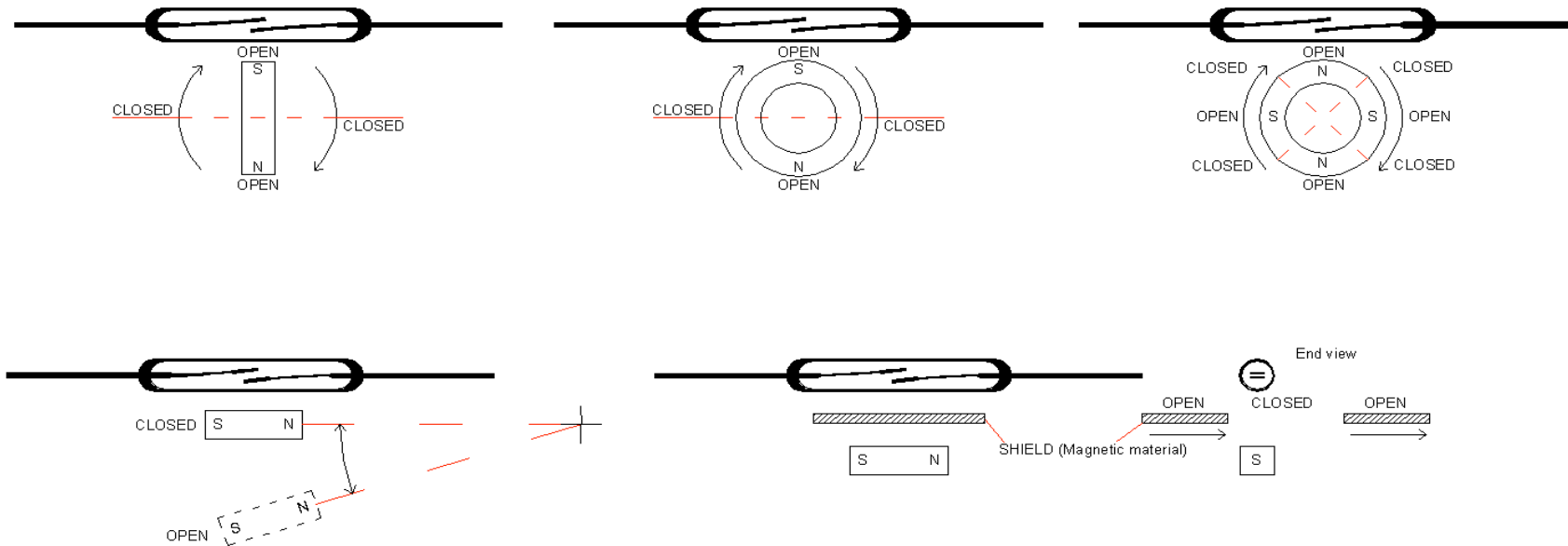
# How a Reed Switch is used with a Permanent Magnet

- Pull-In and Drop-Out with Perpendicular movement for NO closure



# How a Reed Switch is used with a Permanent Magnet

- Various means of activation



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