

# Magnetic Actuator

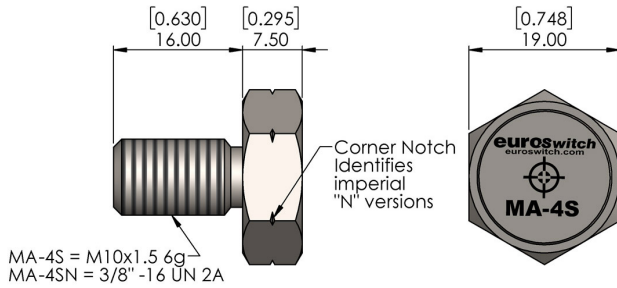
# MA-4S / MA-4SN

## For extended sensing with ES Series Proximity Switches

The Euroswitch ES Series proximity switches use a "Hermetically Sealed Reed Element". Reed switches are electromechanical devices that detect the position of a magnetic field; therefore, they require an external magnetic actuator to operate. Detailed below are our standard range of magnets designed to give solutions to a multitude of applications.



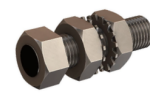
New improved design from Feb 2024  
Refer to factory bulletin for changes.



MAXIMUM TIGHTENING TORQUE = 100Nm / 73 lb ft

	MA-4S	MA-4SN
Body Material	316L Stainless Steel	316L Stainless Steel
Dimensions	19mm A/F x 23.5mm	¾" A/F x 0.87"
Thread	M10x1.5 x 16mm	3/8"-16 x 0.63"

## Magnetic Actuator Combinations



Switch Model	MA-4S Sensing Range	Alternative Magnets	MA-1S Sensing Range	MA-2S Sensing Range	MA-3S Sensing Range	MA-7S / MA-7SN Sensing Range	MA-8S / MA-8N Sensing Range	MA-9S Sensing Range
ES-0	8.0mm (0.31")		6.0mm (0.24")	3.0mm (0.12")	18.0mm (0.71")	10.0mm (0.39")	8.0mm (0.31")	6.0mm (0.24")
ES-1	8.0mm (0.31")		6.0mm (0.24")	3.0mm (0.12")	18.0mm (0.71")	10.0mm (0.39")	8.0mm (0.31")	6.0mm (0.24")
ES-2	11.0mm (0.43")		10.0mm (0.39")	6.0mm (0.24")	26.0mm (1.02")	13.0mm (0.51")	11.0mm (0.43")	9.0mm (0.35")
ES-3	8.0mm (0.31")		8.0mm (0.31")	N/A	N/A	16.0mm (0.63")	8.0mm (0.31")	8.0mm (0.31")
ES-4	12.0mm (0.47")		12.0mm (0.47")	N/A	N/A	20.0mm (0.79")	12.0mm (0.47")	12.0mm (0.47")
ES-5 & 6	8.0mm (0.31")		8.0mm (0.31")	N/A	N/A	16.0mm (0.63")	8.0mm (0.31")	8.0mm (0.31")
ES-7 & 8	8.0mm (0.31")		8.0mm (0.31")	N/A	N/A	16.0mm (0.63")	8.0mm (0.31")	8.0mm (0.31")
ES-9 & 10	8.0mm (0.31")		8.0mm (0.31")	N/A	N/A	16.0mm (0.63")	8.0mm (0.31")	8.0mm (0.31")
ES-11 & 12	8.0mm (0.31")		8.0mm (0.31")	N/A	N/A	16.0mm (0.63")	8.0mm (0.31")	8.0mm (0.31")
ES-13 & 14	12.0mm (0.47")		12.0mm (0.47")	N/A	N/A	20.0mm (0.79")	12.0mm (0.47")	12.0mm (0.47")
ES-15 & 16	12.0mm (0.47")		12.0mm (0.47")	N/A	N/A	20.0mm (0.79")	12.0mm (0.47")	12.0mm (0.47")

For detailed information please visit, [www.euroswitch.com](http://www.euroswitch.com).

## Operating Principles

To obtain the best results possible in your application, certain consideration should be observed.

Here are the two most typical examples of how the target would approach the ES Series Sensor.

