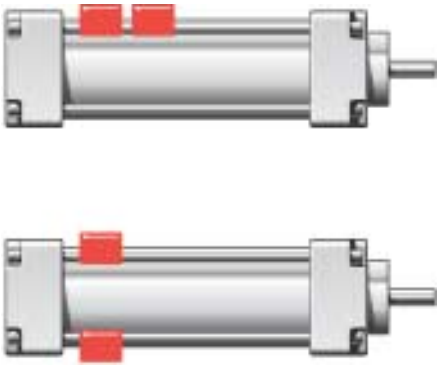
Mounting distances

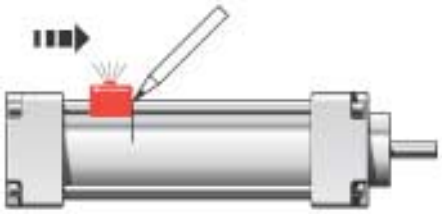
The response travel of a magnetic field sensitive sensor is virtually independent of the field strength of typical piston magnets. Still the sensor does not exhibit false switching. When using more than one of the magnetic field switches, the BMF sensors can be mounted directly next to or beside each other.



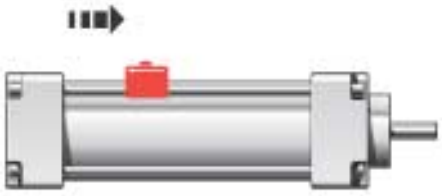
Adjustment and installation

1. Set piston to end of travel.

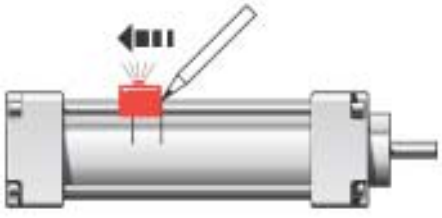
2. Slide sensor (with power on) until the output turns on (LED on). Mark front edge of sensor on cylinder.



3. Continue to slide the sensor until the output is off (LED off).



4. Slide sensor back to 2nd turn-on point. Mark front edge of sensor on cylinder.



5. Fasten sensor down with front edge is between the two marked points.

Response distances

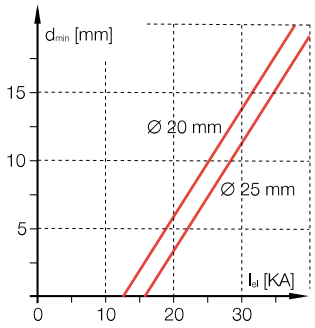
Ø cylinder	BMF 303	BMF 305/BMF 21/BMF 10E	BMF 307	BMF 32	BMF 32...W...
32 mm	10.0 mm	3.6 mm	9.7 mm	4.2 mm	7.2 mm
40 mm	9.1 mm	4.1 mm	10.1 mm	5.1 mm	5.1 mm
50 mm	13.0 mm	4.8 mm	12.4 mm	5.3 mm	6.5 mm
63 mm	12.4 mm	4.9 mm	11.9 mm	5.4 mm	9.4 mm
80 mm	13.0 mm	5.1 mm	12.6 mm	5.7 mm	8.5 mm
100 mm	13.1 mm	5.9 mm	13.3 mm	5.8 mm	8.8 mm
Hysteresis	1...2 mm	0.5...1 mm	0.5...1 mm	1...1.5 mm	1.5...2 mm

The indicated values represent measured guidelines.

Differences may arise due to different types of pistons and magnets.

Using in AC welding environments

The BMF 305M/32M-..-**W**-.. magnetic field sensors can be operated in external fields up to a field strength of E_{max} = 200 kA/m.
This limit is often exceeded in the direct vicinity of high current lines, e. g. welding equipment. The sensor should therefore be mounted at a distance d_{min} from such lines, as shown in the diagram below showing the relationship between current and conductor diameter.



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