



# Technical Bulletins

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## Test Procedures For Magnetic Reed Switches

Bimba has two general types of MRS switches currently available. The MRS-.087 and MRS-.027 are the lower power type and can be used with either alternating current or direct current (AC or DC). The MRS-1.5 and MRS-1.5-S are the higher power type and can be used on alternating current (AC) only. The recommended testing procedure for each type is as follows:

### 1) Low Power Switches (MRS-.027 and MRS-.087)

These AC/DC switches are best checked for proper operation with an ohmmeter. The unactuated switch will show an open circuit or infinite ohms. Closing the switch with the piston magnet will show a closed circuit of zero ohms. DO NOT use an external magnet as magnets with a higher gauss level may damage the switch. DO NOT use an incandescent light bulb as a continuity test of these switches. Incandescent bulbs, including flashlight bulbs, exhibit a high in-rush current that can momentarily exceed the switch rating and permanently damage the switch.

### 2) High Power Switches (MRS-1.5 and MRS-1.5-S)

These switches incorporate a triac as a solid state switching element. They will operate only with alternating current (AC), and the only valid test for proper switch operation is with AC current. Any test with direct current (batteries) will give a false reading. Since these units are intended for high power circuits, reliable operation cannot be guaranteed at currents below 100 milliamps. A convenient and recommended test circuit will utilize a 25 to 50 watt light bulb and 110 volt AC current. Connect the circuit such that the reed switch operates the light bulb. Close the switch using the piston magnet and check the light bulb to verify proper switch operation. DO NOT use an external magnet as magnets with a higher gauss level may damage the switch.

The information presented is in Bimba's best engineering opinion and should be used for reference only. Recommendations derived should be verified under actual operating conditions. Bimba reserves the right to change specifications without prior notice.

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