

Air-Wave Switches

Applications

- **Commercial Sectional Doors**
- **Rolling Doors**

About the Air-Wave Switches...

AW-10, 12 and 14 are Miller Edge air wave switches. After being compressed through a hose or extrusion, the switch activates when a wave of air acts upon the diaphragm. This contact converts the positive or negative pressure wave respectively into an electrical contact. The contact is of short duration, due to the fact that the overpressure escapes through a valve opening.

The AW14-RF switch contains a wireless feature, where the transmitter is embedded within the switch enclosure. There is no need to hardwire coil cords or retracting reels, which saves installation time and improves visual aesthetics. The AW14-RF switch kit includes the receiver which is wired to the motor controls. Each transmitter/receiver pair is capable of 4 billion coding combinations, negating the possibility of crosstalk with an adjacent door.

FEATURES:

- Air switch works on doors up to 60' in length
- RF version operates at distance up to 100' depending on conditions
- Normally Open or Normally Closed Operation
- Adjustable Sensitivity
- Release valve for pressure and temperature compensation
- Simple Installation
- Can be used with standard pneumatic hose and Miller Edge extrusion

TECHNICAL SPECIFICATIONS: AIR SWITCHES

| | |
|---------------------------|--|
| Max. Contact Load: | .5A/220VAC; 1A/48VDC |
| Max. Switch Freq: | 25/second |
| Max. Pneumatic Load: | 2,000mm (78.7") water column |
| Sensitivity: | 2mm to 500mm (.078" to 19.7") water column |
| Ambient Temp. Range: | 49°F (-45°C) to +180°F (82°C) AW14-RF: +14°F (-10°C) to 158°F (+70°C) |
| Electrical Configuration: | 2-wire, N.O. (Optional N.C.) |
| Terminal Configuration: | .187" Q.C. Tabs |
| Diaphragm: | Silicone |
| Contact Material: | Silver Plated |
| Mechanical Life: | Min. 2 million operations |
| Electrical Life: | 1 million operations, dependent on contact load |

TECHNICAL SPECIFICATIONS: RECEIVER

| | |
|----------------------|-----------------------------|
| Operating Frequency: | 915 MHz |
| Power Requirements: | 10 to 40 VDC / 10 to 30 VAC |
| Dimensions: | 4" L x 3" W x 1" H |



AW-10 Air-Wave Switch



AW-12 Switch in NEMA 4x Enclosure

NEMA Rating: 4x
Enclosure Material: Polycarbonate
Tubing: Silicone, 1 Ft. x 3/32" I.D.
Pneumatic Connection: Barbed Coupler 3/32" I.D.



AW-14 : AW-10 Switch in a Molded Enclosure

Enclosure Material: ABS
Tubing: Silicone, 1 Ft. x 3/32" I.D.
Pneumatic Connection: Barbed Coupler 3/32" I.D.

Models # AW10, AW12, AW14, AW14-RF

Part Numbers:

AW-10: Air wave switch only

AW-14: AW-10 switch in ABS Enclosure

AW-12A: AW-10 switch in Nema 4x Polycarbonate Enclosure

AW14-RF: AW-14 with transmitter embedded

MRF-01: Receiver only

AW14-RFK10: AW14RF + MRF-01

| GENERAL DATA | | | |
|--------------|--------------|---------------|----------------|
| | AW10 | AW12 | AW14 / AW14-RF |
| Height: | 1.25" (32mm) | 2.25" (57mm) | 1.70" (43mm) |
| Width: | 1.20" (30mm) | 2.55" (65mm) | 1.95" (49mm) |
| Length: | 1.73" (44mm) | 4.25" (108mm) | 3.29" (83mm) |
| Weight: | .5 oz. | 4.5 oz. | 4.5 oz |

Air-Wave Edge Kits- Wired:

(Include switch, end plug, 1/2" hose)

| Model # | Hose Length | Coil Cord 12' |
|--------------|-------------|---------------|
| AW12K500-12 | 12' | None |
| AW12K500-12C | 12' | Included |
| AW12K500-18 | 18' | None |
| AW12K500-18C | 18' | Included |
| AW12K500-24 | 24' | None |
| AW12K500-24C | 24' | Included |
| AW14K500-12 | 12' | None |
| AW14K500-12C | 12' | Included |
| AW14K500-18 | 18' | None |
| AW14K500-18C | 18' | Included |
| AW14K500-24 | 24' | None |
| AW14K500-24C | 24' | Included |

Air-Wave Edge Kits- Wireless:

(Include switch w/ transmitter embedded, receiver, end plug, 1/2" hose)

| Model # | Hose Length | Coil Cord |
|----------------|-------------|-----------|
| AW14K500-12-RF | 12' | None |
| AW14K500-18-RF | 18' | None |
| AW14K500-24-RF | 24' | None |



AW14-RF : AW-10 Switch complete with a transmitter in a Molded Enclosure



MRF-01 Receiver

Sensitivity Settings and Adjustments:

The AW-10, 12, and 14 air-wave switches are designed with the capability to adjust the sensitivity to fit your design needs.

Normally Open Contact:

To increase sensitivity, turn setting screw clockwise.

Normally Closed Contact:

To increase sensitivity, turn setting screw counter-clockwise.

Warranty

We will replace within one year of shipment from our factory, any AW10, 12, 14 or 14RF subject to normal use which is found to have defective materials or workmanship, as determined solely by our factory representative. Replacements will be shipped to you freight collect. This warranty is void where evidence of misuse or abuse is present.



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