

# 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:

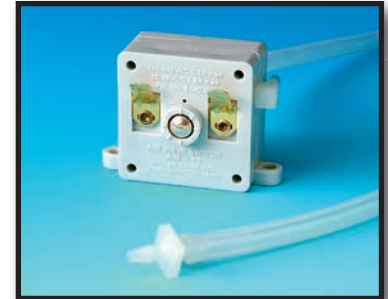
- Air switch works on doors up to 60' in length
- RF version operates at distance up to 100' depending on conditions
- Normally Open or Normally Closed Operation
- Adjustable Sensitivity
- Release valve for pressure and temperature compensation
- Simple Installation
- Can be used with standard pneumatic 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
<b>Height:</b>	1.25" (32mm)	2.25" (57mm)	1.70" (43mm)
<b>Width:</b>	1.20" (30mm)	2.55" (65mm)	1.95" (49mm)
<b>Length:</b>	1.73" (44mm)	4.25" (108mm)	3.29" (83mm)
<b>Weight:</b>	.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.