



# AFS

## Differential Pressure Switches (Metal)

The AFS Series Differential Pressure Switches are general purpose proving switches designed for both HVAC and Energy Management applications. These pressure switches can be used to sense positive, negative, or differential air pressures when used in conjunction with an A/SPT or A/VPT Series sampling tube. The plated housing contains a diaphragm, calibration spring and single snap-acting contact closure with either a manual or automatic reset switch depending on the model. The enclosure cover contains a 1/2" conduit knockout and guards against accidental contact with the live switch terminal screws as well as the set point adjusting screw.

**Applications:** Monitoring Filter Blockage, Proof of Flow, Prove Excessive or Insufficient Flow, Alarms and Control

The AFS Series is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, [workaci.com](http://workaci.com).

### PRODUCT SPECIFICATIONS

|                                            |                                                                                                                                                                                                                                                                |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Input Pressure Range:</b>               | <b>AFS-222:</b> 0.05 +/- 0.02" to 12" wc   <b>AFS-262:</b> 0.05 +/- 0.02" to 2.0" wc   <b>AFS-460:</b> 0.40 +/- 0.06" to 12.0" wc                                                                                                                              |
| <b>Set Point Range:</b>                    | <b>AFS-222:</b> 0.05 +/- 0.02" to 12.0" wc   <b>AFS-262:</b> 0.07" to 2.0" wc   <b>AFS-460:</b> 0.40 +/- 0.06" to 12" wc                                                                                                                                       |
| <b>Field Adjustable "Operate" Range:</b>   | <b>AFS-222:</b> 0.07 to 12.0" wc   <b>AFS-262:</b> 0.07" to 2" wc   <b>AFS-460:</b> 0.46" to 12" wc                                                                                                                                                            |
| <b>Field Adjustable "Release" Range:</b>   | <b>AFS-222:</b> 0.04 to 11.2" wc   <b>AFS-262:</b> 0.04" to 1.9" wc   <b>AFS-460:</b> 0.46" w.c. to 11.2" w.c.                                                                                                                                                 |
| <b>Approximate Switching Differential:</b> | Progressive, increasing from 0.02 +/- 0.01" wc @ minimum set point to 0.8" wc @ maximum set point                                                                                                                                                              |
| <b>Contact (Load) Rating:</b>              | <b>AFS-222/AFS-262:</b> 300 VA pilot duty @ 115 to 277 VAC, 60 Hz; 15A non-inductive to 277 VAC, 60 Hz<br><b>AFS-460:</b> 15A @ 125, 250, or 277 VAC / 1/2A @ 125 VDC, 1/4A @ 250 VDC / 1/4 hp @ 125 VAC, 1/2 hp @ 250 VDC<br><b>AFS-460-137:</b> 8A @ 250 VAC |
| <b>Contact Arrangement:</b>                | <b>AFS-222/AFS-262:</b> SPDT w/ Automatic Reset   <b>AFS-460:</b> SPST-NC w/ Manual Reset   <b>AFS-460-137:</b> DPDP w/ Manual Reset                                                                                                                           |
| <b>Measured Media:</b>                     | <b>AFS-222/AFS-262:</b> Air or combustion by-products that will not degrade silicone   <b>AFS-460:</b> Air                                                                                                                                                     |
| <b>Maximum Pressure:</b>                   | 0.5 PSI (0.03 Bar)                                                                                                                                                                                                                                             |
| <b>Life Expectancy:</b>                    | <b>AFS-222/AFS-262:</b> 100,000 cycles minimum @ 1/2 psi (0.03 Bar) max pressure / cycle & max load<br><b>AFS-460:</b> 6,000 cycles minimum @ 1/2 psi (0.03 Bar) max pressure / cycle & max load                                                               |
| <b>Operating Temperature Range:</b>        | -40 to 180°F (-40 to 82°C)                                                                                                                                                                                                                                     |
| <b>Operating Humidity Range:</b>           | 10 to 95% RH, non-condensing                                                                                                                                                                                                                                   |
| <b>Mounting Direction:</b>                 | Any vertical plane                                                                                                                                                                                                                                             |
| <b>Enclosure Material:</b>                 | Galvanized Steel                                                                                                                                                                                                                                               |
| <b>Sample Line Connections:</b>            | Accepts 1/4" OD rigid or semi-rigid metallic tubing using integral compression fitting, ferrule and nut   <b>"-112 Option":</b> Includes two barbed fittings that accepts 1/4" flexible plastic tubing                                                         |
| <b>Electrical Connections:</b>             | Screw type terminal with cup washers                                                                                                                                                                                                                           |
| <b>Conduit Opening:</b>                    | Accepts 1/2" Conduit (7/8" (22.3 mm) opening)                                                                                                                                                                                                                  |
| <b>Dimensions (H x W x D):</b>             | 6.25" x 4.46" x 3.18" (158.8 mm x 113.3 mm x 80.8 mm)                                                                                                                                                                                                          |
| <b>Weight:</b>                             | 1.2 lbs (0.544 kg)                                                                                                                                                                                                                                             |
| <b>Agency Approvals:</b>                   | UL, CUL, FM, CSA, CE, ISO 9001: 2008                                                                                                                                                                                                                           |





## DIMENSIONAL DRAWING

|                          |                         |                        |
|--------------------------|-------------------------|------------------------|
| <p><b>AFS [222]</b></p>  |                         |                        |
| <p><b>AFS [262]</b></p>  |                         |                        |
| <p><b>AFS [460]</b></p>  |                         |                        |
| <p><b>Front View</b></p> | <p><b>Side View</b></p> | <p><b>Top View</b></p> |

## STANDARD ORDERING

Model # Example: **AFS-222 -OR- 101788**

| Model #            | Item # | Pressure Range   | Contact Style | Reset Style | Compression Fitting | Barbed Fitting |
|--------------------|--------|------------------|---------------|-------------|---------------------|----------------|
| <b>AFS-222</b>     | 101788 | 0.05 to 12.0" wc | SPDT          | Auto        | ⊙                   |                |
| <b>AFS-222-112</b> | 108816 | 0.05 to 12.0" wc | SPDT          | Auto        |                     | ⊙              |
| <b>AFS-262</b>     | 101789 | 0.05 to 2.0" wc  | SPDT          | Auto        | ⊙                   |                |
| <b>AFS-262-112</b> | 118041 | 0.05 to 2.0" wc  | SPDT          | Auto        |                     | ⊙              |
| <b>AFS-460</b>     | 101791 | 0.40 to 12.0" wc | SPST-N/C      | Manual      | ⊙                   |                |
| <b>AFS-460-112</b> | 129657 | 0.40 to 12.0" wc | SPST-N/C      | Manual      |                     | ⊙              |
| <b>AFS-460-137</b> | 105782 | 0.60 to 12.0" wc | DPDT          | Manual      | ⊙                   |                |