# Rugged and Precise Pressure, Vacuum & Differential Pressure Switches



## DIETZ D1 ULTRA-SENSITIVE DIFFERENTIAL SWITCH

Rugged, simple construction
Adjustable actuation as low as 0.7" $H_20$
Withstands pressure overloads without damage or calibration change
High current electrical ratings



## DIETZ 103B VANE TYPE AIRFLOW SWITCH

Guards against damage from blower failure or air passage obstruction
Simple construction, easy installation
500 fpm to 2,500 fpm
Reliable for over 300,000 actuations
Moisture / fungus resistant coating available



## DIETZ 170D / 171D ULTRA-LOW DIFFERENTIAL PRESSURE SWITCH

Pressure ranges from 0.05” to 40” H20
High electrical rating
Wide temperature range
Shock and vibration resistant (170D)
Chemical resistant epoxy finish
Long life diaphragm



## DIETZ 161P LOW AIR PRESSURE SWITCH

High precision in a rugged steel housing
Adjustable pressure ranges from 0.25-15psi
Easy-mount ¼" NPT male pressure connection
Electrical Rating up to 15Amp, 125-480V AC
SPDT snap action micro switch



## DIETZ 200 SERIES PRESSURE & VACUUM SWITCH

Rugged, simple construction
Adjustable Pressure Ranges from 4 -5000psi
Vacuum Pressure Range from 5-30” Hg
High current electrical ratings
Life in excess 1,000,000 cycles
High proof pressure.

DIETZ
est. 1947

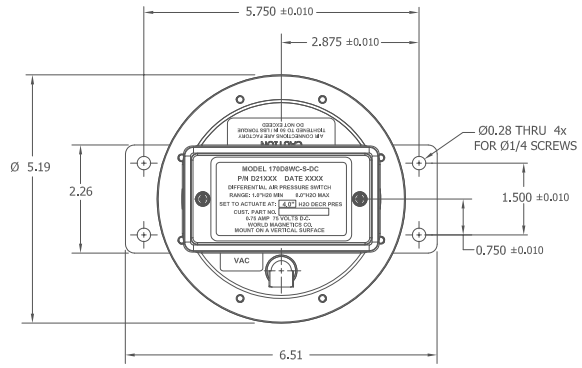
# 171D/170D Ultra Low Differential Pressure Switch

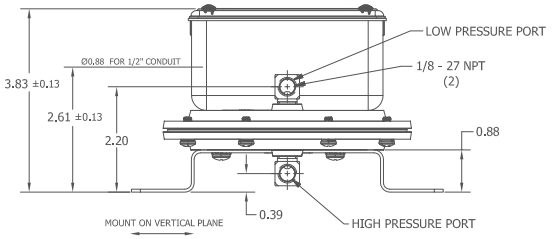


Made in USA

## FEATURES / BENEFITS

- Rugged design for use in harsh environments
- Pressure ranges from 0.05"–40" $H_20$ (0.12–100 mbar)
- Shock and vibration resistance (MIL-S-901-D & MIL-STD-167-1)
- Chemical resitant epoxy finish available
- Suitable for high voltage/current applications




## SPECIFICATIONS



### MECHANICAL

| | |
|---|---|
| Set Point Ranges | 0.05"–40" $H_20$ (see below) (0.12–100 mbar) |
| Dead Band | Consult Factory |
| Proof Pressure | Up to 25 psi (dependant on model) Up to 1724 mbar |
| Mechanical Life | 1,000,000 Cycles |
| Temperature Range | -30–160° F (-34–71°C) |

### PHYSICAL

| | |
|---|---|
| Housing Material | Zinc Die Cast, Steel & Aluminum Stamping |
| Diaphragm | 0.008" Nitrile/Nylon Cloth (model 170) or 0.005" Silicone PE Cloth (model 171) |
| Pressure Port | 1/8–27 NPT Female |
| Electrical Connection | Screw Terminals |
| Weight | 2.875 lbs (1.3 kg) |

### ELECTRICAL

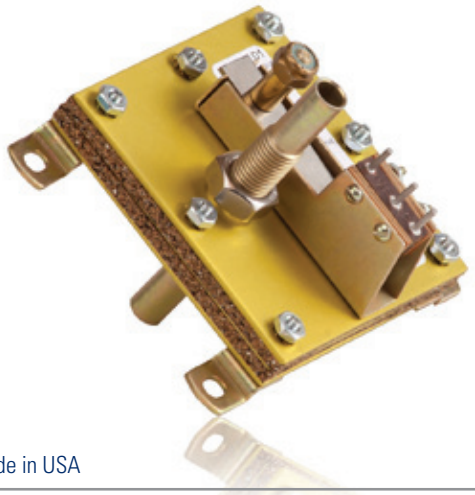
| | |
|---|---|
| Switch Type | SPDT Snap Action |
| Current Rating | See Below |

| Model Number | – | Part Number | – | Operating Range | – | Switch Current |
|---|---|---|---|---|---|---|
| 170D8W-S | – | D21530 | – | 1.0–8.0" $H_20$ (2.5–20 mbar) | – | 10 Amp 125 VAC |
| 170D8W | – | D21531 | – | 2.0–8.0" $H_20$ (5.0–20 mbar) | – | 15 Amp 125 VAC |
| 170D20W | – | D21532 | – | 2.0–20" $H_20$ (5.0–50 mbar) | – | 15 Amp 125 VAC |
| 170D40W | – | D21533 | – | 2.0–40" $H_20$ (5.0–100 mbar) | – | 15 Amp 125 VAC |
| 171D8WC-S | – | D21540 | – | 0.05–8.0" $H_20$ (0.12–20 mbar) | – | 10 Amp 125 VAC |
| 171D8WC | – | D21541 | – | 0.15–8.0" $H_20$ (0.37–20 mbar) | – | 15 Amp 125 VAC |
| 170D8W-S-DC | – | D21564 | – | 1.0–8.0" $H_20$ (2.5–20 mbar) | – | 0.75 Amp 75 VDC |
| 170D8W-DC | – | D21536 | – | 2.0–8.0" $H_20$ (5.0–20 mbar) | – | 0.75 Amp 75 VDC |
| 170D20W-DC | – | D21537 | – | 2.0–20" $H_20$ (5.0–50 mbar) | – | 0.75 Amp 75 VDC |
| 170D40W-DC | – | D21538 | – | 2.0–40" $H_20$ (5.0–100 mbar) | – | 0.75 Amp 75 VDC |
| 171D8-WC-DC | – | D21542 | – | 0.15–8.0" $H_20$ (0.37–20 mbar) | – | 0.75 Amp 75 VDC |

171D/170D SERIES

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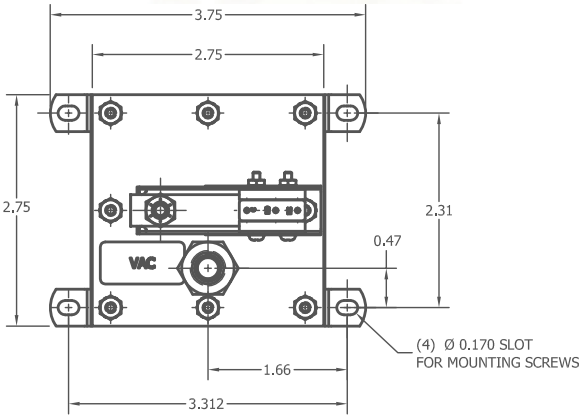
# D-1 Differential Pressure Switch

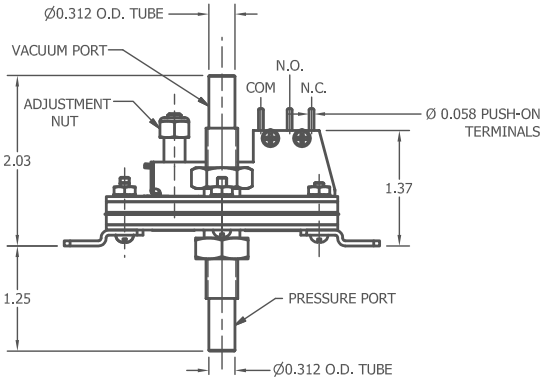


Made in USA

## FEATURES / BENEFITS

- Rugged flat-plate construction in accordance with MIL-A-8625, Type 1, Class 2 specification
- Adjustable pressure range from 0.7–7" $H_20$
- Single pole double throw switch action
- High proof pressure
- Reliable mechanical life




## SPECIFICATIONS



| | |
|---|---|
| **MECHANICAL** | |
| Set Point Ranges | 0.7–7.0" $H_20$ |
| Dead Band | Approximately 50% of Set Point |
| Proof Pressure | 30" $H_20$ |
| Mechanical Life | 1,000,000 Cycles |
| Temperature Range | +40–150° F |
| **PHYSICAL** | |
| Housing Material | Anodized Aluminum |
| Diaphragm | Silicone Coated Fabric |
| Pressure Port | 0.312 +/- .005 O.D. Tube |
| Electrical Connection | 0.058 Push-on Terminals |
| Weight | 0.32 lbs |
| **ELECTRICAL** | |
| Switch Type | SPDT Snap Action |
| Current Rating | 4 A 250 VAC / 5 A 28 VDC |

| Model Number | – | Part Number | – | Pressure Range |
|---|---|---|---|---|
| D1 | – | D21543 | – | 0.7–7.0" $H_20$ |

D-1 SERIES


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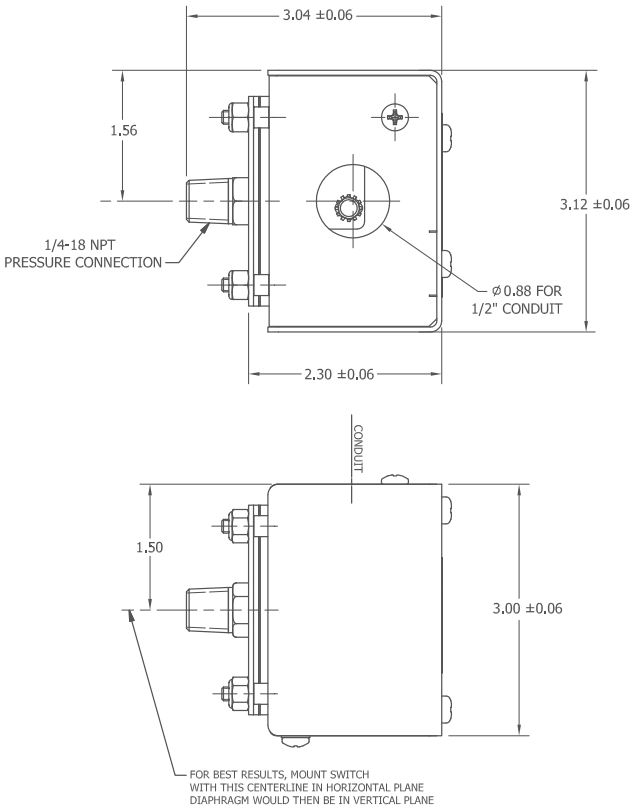
# 161P Low Pressure Switch



Made in USA

## FEATURES / BENEFITS

- Rugged steel housing for use in harsh environments
- Adjustable pressure range from 0.25–15 psi
- Single pole double throw switch action
- Electrical rating up to 10 Amp, 125–480 VAC
- Reliable mechanical life




## SPECIFICATIONS



| | |
|---|---|
| **MECHANICAL** | |
| Set Point Ranges | 0.25–15 psi (see below) |
| Dead Band | See Below |
| Proof Pressure | Up to 35 psi (dependant on range) |
| Mechanical Life | 1,000,000 Cycles |
| Temperature Range | +40–125° F |
| **PHYSICAL** | |
| Housing Material | Steel |
| Diaphragm | 0.017 Thick Nitrile / Nylon Coated Fabric |
| Pressure Port | 1/4–18 NPT Male |
| Electrical Connection | Screw Terminals |
| Weight | 1.75 lbs |
| **ELECTRICAL** | |
| Switch Type | SPDT Snap Action |
| Current Rating | 10 A 125-480 VAC |

| Model Number | – | Part Number | – | Range | – | Deadband |
|---|---|---|---|---|---|---|
| 161P1.0 | – | D21545 | – | 0.25–1.00 psi | – | 0.004–0.1 psi |
| 161P1.3 | – | D21546 | – | 0.25–1.30 psi | – | 0.004–0.1 psi |
| 161P5 | – | D21547 | – | 0.25–5.00 psi | – | 0.009–0.25 psi |
| 161P10 | – | D21548 | – | 0.50–10.00 psi | – | 0.018–0.50 psi |
| 161P15 | – | D21549 | – | 0.75–15.00 psi | – | 0.027–0.75 psi |

161P SERIES

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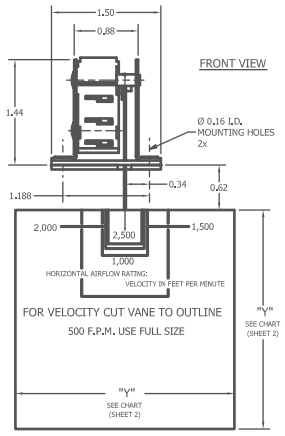
# 103B Vane Airflow Switch

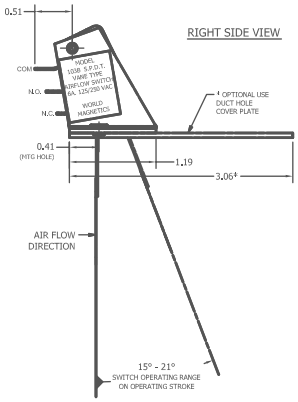



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## FEATURES / BENEFITS

- Vane-operated switch for airflow detection
- Airflow ranges from 500–2500 ft per min (2.5–12.7 m/s)
- Easy Installation—mounts directly onto duct
- Gold contacts option for low-current applications
- Moisture & fungus resistance models available




## SPECIFICATIONS



### MECHANICAL

| | |
|---|---|
| Airflow ranges | 500–2,500 ft per minute (2.5–12.7 m/s) |
| Switch Operating Range | 15°–20° of Operating Stroke |
| Release Airflow | Max 20% of Airflow Actuation Point (depending on orientation) |
| Mechanical Life | 1,000,000 Cycles |
| Temperature Range | +40–125° F (4.4–51.7°C) |

### PHYSICAL

| | |
|---|---|
| Housing Material | Plastic Dust Cover and Aluminum Mounting Bracket |
| Vane Material | Stainless Steel |
| Vane Dimensions | See Drawing |
| Electrical Connection | 0.205" x 0.031" Terminals |
| Weight | 0.04 lbs (0.018 kg) |

### ELECTRICAL

| | |
|---|---|
| Switch Type | SPDT Snap Action |
| Current Rating | 5 A 125/250 VAC |

| Model Number | – | Part Number | – | Airflow Range | | |
|---|---|---|---|---|---|---|
| 103B | – | D21560 | – | 500–2,500 ft per minute (2.5–12.7 m/s) | | |
| 103B-MF | – | D21561 | – | 500–2,500 ft per minute (2.5–12.7 m/s) | – | * Mildew Resistant* |

103B SERIES

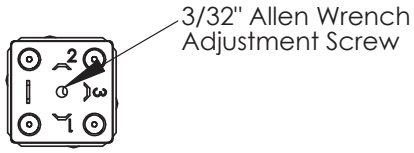
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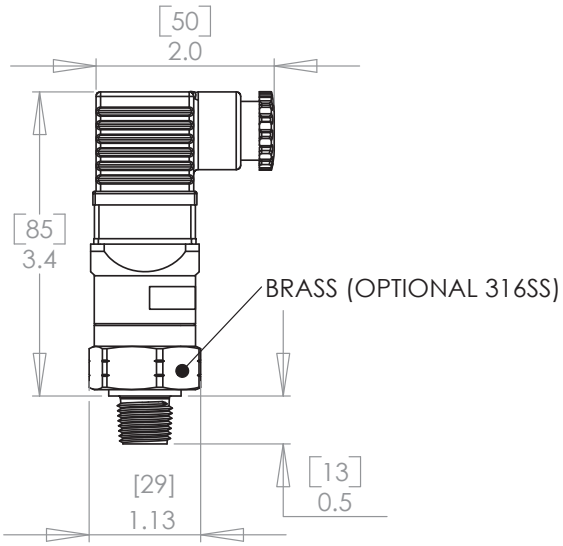
# 200P Pressure Switch



## FEATURES / BENEFITS

- Rugged compact brass housing
- Adjustable pressure ranges from 3–150 psi
- SPDT Switch (up to 5 Amp)
- IP 65 Environmental protection
- Mechanical life in excess of 1,000,000 cycles




## SPECIFICATIONS



| | |
|---|---|
| **MECHANICAL** | |
| Set Point Ranges | 3–150 psi |
| Repeatability | +/- 2% FS |
| Maximum Overpressure | 350 psi |
| Mechanical Life | 1,000,000 Cycles |
| Temperature range | -20–180° F |
| **PHYSICAL** | |
| Housing Material | Brass |
| Diaphragm | Nitrile (other options available on request) |
| Pressure Port | 1/4" NPT Male |
| Environmental Protection | IP 65 |
| Electrical Connection | Din 43650 A |
| Weight | 0.26 lbs |
| **ELECTRICAL** | |
| Switch Type | SPDT Snap Action |
| Current Rating | 5 A 12/24 VDC - 125 VAC<br>3 A 250 VAC |

| Model Number | – | Part Number | – | Adjustment Range | – | Average Differential |
|---|---|---|---|---|---|---|
| 200P-1-4M-C-HC | – | D30000 | – | 3–7 psi | – | 0.5–1.2 psi |
| 200P-2-4M-C-HC | – | D30001 | – | 5–30 psi | – | 1–2.5 psi |
| 200P-3-4M-C-HC | – | D30002 | – | 25–150 psi | – | 2–10 psi |

200P SERIES

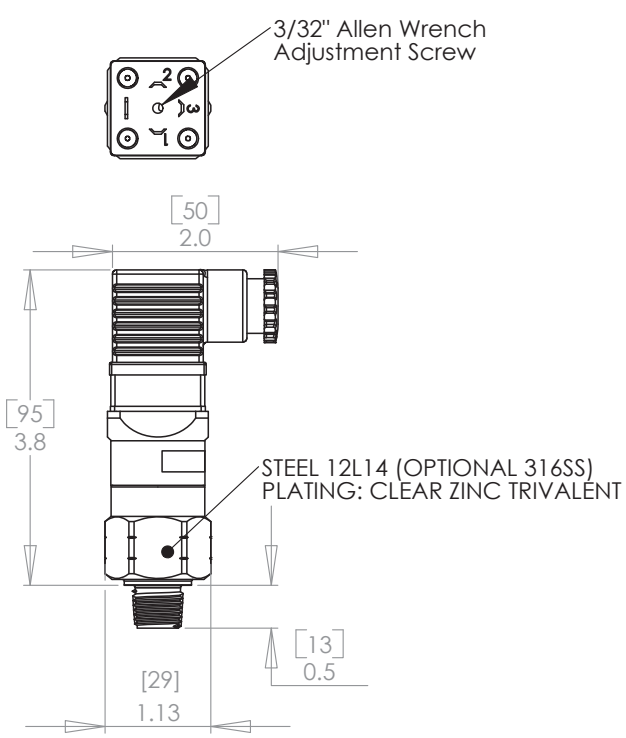
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# 210HP High Pressure Switch



## FEATURES / BENEFITS

- Adjustable pressure ranges up to 5000 psi
- Suitable for high proof pressures (9000 psi)
- Robust zinc plated housing sealed to IP 65
- Industry standard Din 43650 A electrical connection
- Mechanical life in excess of 1,000,000 cycles




## SPECIFICATIONS



| | |
|---|---|
| **MECHANICAL** | |
| Set Point Ranges | 30–5000 psi |
| Repeatability | +/- 2% FS |
| Maximum Overpressure | 9000 psi |
| Mechanical Life | 1,000,000 Cycles |
| Temperature range | -20–180° F |
| **PHYSICAL** | |
| Housing Material | Zinc Plated Steel |
| Diaphragm | Nitrile (other options available on request) |
| Pressure Port | 1/4" NPT Male |
| Environmental Protection | IP 65 |
| Electrical Connection | Din 43650 A |
| Weight | 0.41 lbs |
| **ELECTRICAL** | |
| Switch Type | SPDT Snap Action |
| Current Rating | 5 A 12/24 VDC - 125 VAC<br>3 A 250 VAC |

| Model Number | – | Part Number | – | Adjustment Range | – | Average Differential |
|---|---|---|---|---|---|---|
| 210HP-4-4M-C-HC | – | D31000 | – | 30–120 psi | – | 9–20 psi |
| 210HP-5-4M-C-HC | – | D31001 | – | 75–300 psi | – | 12–36 psi |
| 210HP-6-4M-C-HC | – | D31002 | – | 300–1200 psi | – | 69–80 psi |
| 210HP-7-4M-C-HC | – | D31003 | – | 1000–3000 psi | – | 180–360 psi |
| 210HP-8-4M-C-HC | – | D31004 | – | 2000–5000 psi | – | 200–400 psi |

210HP SERIES

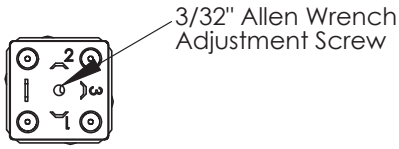
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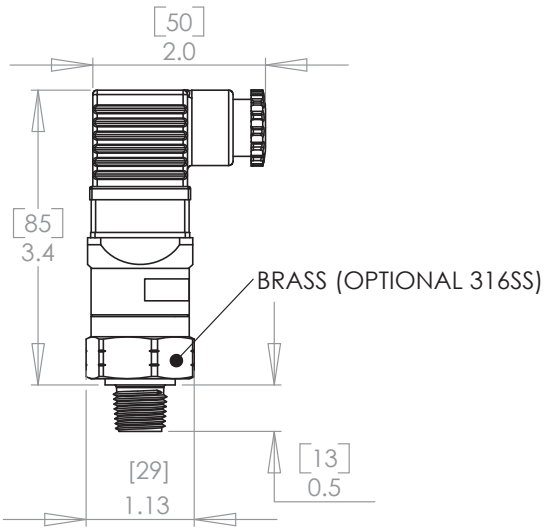
# 220V Vacuum Switch



## FEATURES / BENEFITS

- Rugged brass construction
- Vacuum pressure range from 5–30" Hg
- Withstands positive pressure up to 350 psi
- 5 Amp SPDT snap action microswitch
- IP 65 Environmental protection




## SPECIFICATIONS



| MECHANICAL | |
|---|---|
| Set Point Ranges | 5–30" Hg |
| Repeatability | +/- 2% FS |
| Maximum Overpressure | 350 psi |
| Mechanical Life | 1,000,000 Cycles |
| Temperature Range | -20–180° F |

| PHYSICAL | |
|---|---|
| Housing Material | Brass |
| Diaphragm | Nitrile (other options available on request) |
| Pressure Port | 1/4" NPT Male |
| Environmental Protection | IP 65 |
| Electrical Connection | Din 43650 A |
| Weight | 0.26 lbs |

| ELECTRICAL | |
|---|---|
| Switch Type | SPDT Snap Action |
| Current Rating | 5 A 12/24 VDC - 125 VAC<br>3 A 250 VAC |

| Model Number | – | Part Number | – | Adjustment Range | – | Average Differential |
|---|---|---|---|---|---|---|
| 220V-0-4M-C-HC | – | D32000 | – | 5–30" Hg | – | 2–4" Hg |

220V SERIES

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