

Rugged Switches for Heavy Industry & Extreme Environments



DIETZ D1 ULTRA-SENSITIVE DIFFERENTIAL SWITCH

Rugged, simple construction
Adjustable actuation as low as 0.7" H20
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, even at low set point
Wide temperature range, robust design suitable for outdoor installation
Shock and vibration resistant (170D/171D)
Chemical resistant epoxy finish
Long life diaphragm



DIETZ 161P LOW AIR PRESSURE SWITCH

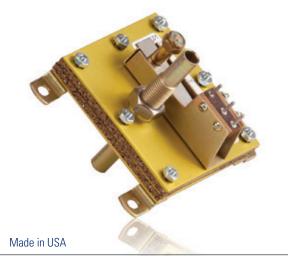
High precision in a rugged steel housing Adjustable pressure ranges from 0.25-15psi Easy-mount ¼" NPT male pressure connection Electrical rating up to 15Amp, 125-480V AC SPDT snap action micro switch UL MH6012



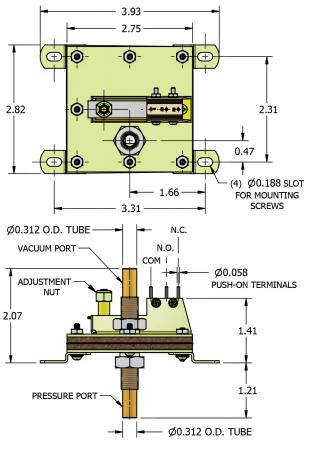
DIETZ 200 SERIES PRESSURE & VACUUM SWITCH

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





- Rugged flat-plate construction in accordance with MIL-A-8625,
 Type 1, Class 2 specification
- Adjustable pressure range from 0.7-7" H₂0 (1.74-17.4 mbar)
- Single pole double throw switch action
- High proof pressure
- · Reliable mechanical life



SPECIFICATIONS

| MECHANICAL | |
|-------------------|--|
| Set Point Ranges | 0.7–7.0" H ₂ 0 (1.74–17.4 mbar) |
| Dead Band | Approximately 50% of Set Point |
| Proof Pressure | 30" H ₂ 0 (75 mbar) |
| Mechanical Life | 1,000,000 Cycles |
| Temperature Range | +40-150° F (4.4-65.6°C) |
| | |



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 (0.14 kg) |

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" H₂0 (1.74–17.4 mbar)

D-1 SERIES



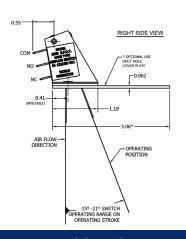
Made in USA



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

1.50 FRONT VIEW 0.88 FRONT VIEW 0.016 I.D. 0.016 I.D. 0.016 I.D. 0.016 I.D. 0.016 I.D. 1.175 O.52 2.000 1.500 T.D. 1.



SPECIFICATIONS

| MECHANICAL | |
|------------------------|---|
| Airflow ranges | 500–2,500 ft per minute (2.5–12.7 m/s) |
| Switch Operating Range | 15°–21° 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 |

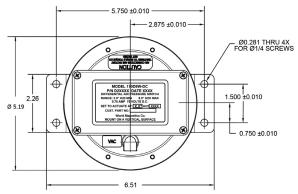
| Mo | odel Number | - | Part Number | - | Airflow Range | | | |
|----|-------------|---|-------------|-----------|----------------------------------|---|---------------------|--|
| | 103B | - | D21560 | - 500-2, | 500 ft per minute (2.5–12.7 m/s) | | | |
| | 103B-MF | _ | D21561 | - 500-2.5 | 500 ft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

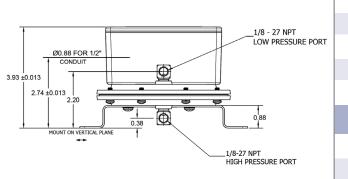
103B SERIES





- Rugged design for use in harsh environments
- Pressure ranges from 0.05"-40" H₂0 (0.12-100 mbar)
- Shock and vibration resistance (MIL-S-901-D & MIL-STD-167-1)
- Chemical resistant epoxy finish available
- Suitable for high voltage/current applications





MECHANICAL Set Point Ranges 0.05"-40" H₂0 (see below) (0.12-100 mbar) Dead Band Consult Factory Proof Pressure Up to 40" H₂0 (dependant on model) Up to 100 mbar Mechanical Life 1,000,000 Cycles Temperature Range -30-160° F (-34-71°C)

| Housing Material | Zinc Die Cast, Aluminum Electrical Box |
|-----------------------|--|
| 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 | 2.510 lbs (1.14 kg) |

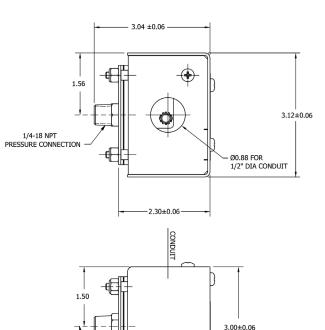
| ELECTRICAL | |
|----------------|-----------------|
| Switch Type | SPDT Snap Actio |
| Current Rating | See Below |

| Model Number | - | Part Number | - | Operating Range | - | Deadband - | | Switch Current |
|--------------|---|-------------|-----|---|---|--|---|-----------------|
| 170D8W-S | - | D21530 | - | 1.0-8.0" H ₂ 0 (2.5-20 mbar) | - | 0-10% of set point (10% at top end of range) | - | 10 Amp 125 VAC |
| 170D8W | - | D21531 | - | 2.0-8.0" H ₂ 0 (5.0-20 mbar) | _ | 0-10% of set point (10% at top end of range) | _ | 15 Amp 125 VAC |
| 170D20W | - | D21532 | - | 2.0–20" H ₂ 0 (5.0–50 mbar) | - | 0-10% of set point (10% at top end of range) | _ | 15 Amp 125 VAC |
| 170D40W | _ | D21533 | - | 2.0–40" H ₂ 0 (5.0–100 mbar) | _ | 0-10% of set point (10% at top end of range) | _ | 15 Amp 125 VAC |
| 171D8WC-S | _ | D21540 | - | 0.05–8.0" H ₂ 0 (0.12–20 mbar) | _ | 0-25% of set point (25% at top end of range) | _ | 10 Amp 125 VAC |
| 171D8WC | - | D21541 | - | 0.15–8.0" H ₂ 0 (0.37–20 mbar) | - | 0-25% of set point (25% at top end of range) | - | 15 Amp 125 VAC |
| 170D8W-S-DC | _ | D21564 | _ | 1.0–8.0" H ₂ 0 (2.5–20 mbar) | _ | 0-10% of set point (10% at top end of range) | _ | 0.75 Amp 75 VDC |
| 170D8W-DC | _ | D21536 | - | 2.0–8.0" H ₂ 0 (5.0–20 mbar) | _ | 0-10% of set point (10% at top end of range) | _ | 0.75 Amp 75 VDC |
| 170D20W-DC | - | D21537 | _ | 2.0–20" H ₂ 0 (5.0–50 mbar) | - | 0-10% of set point (10% at top end of range) | _ | 0.75 Amp 75 VDC |
| 170D40W-DC | - | D21538 | _ / | 2.0–40" H ₂ 0 (5.0–100 mbar) | _ | 0-10% of set point (10% at top end of range) | - | 0.75 Amp 75 VDC |
| 171D8WC-S-DC | - | D21542 | _ | 0.15–8.0" H ₂ 0 (0.37–20 mbar) | - | 0-25% of set point (25% at top end of range) | - | 0.75 Amp 75 VDC |





- Rugged steel housing for use in harsh environments
- Adjustable pressure range from 0.25-15 psi (17.2-1034 mbar)
- Single pole double throw switch action
- Electrical rating up to 15 Amp, 125–480 VAC
- Reliable mechanical life
- UL MH6012



- FOR BEST RESULTS MOUNT SWITCH WITH THIS CENTERLINE IN HORIZONTAL PLANE DIAPHRAGM WOULD THEN BE IN VERTICAL PLANE

SPECIFICATIONS

| MECHANICAL | |
|-------------------|--|
| Set Point Ranges | 0.25–15 psi (see below) (17.2–1034 mbar) |
| Dead Band | See Below |
| Proof Pressure | Up to 35 psi (dependant on range) Up to 2413 mbar |
| Mechanical Life | 1,000,000 Cycles |
| Temperature Range | +40-125° F (4.4-51.7°C) |



PHYSICAL

| Housing Material | Steel |
|-----------------------|---|
| Diaphragm | 0.017 Thick Nitrile / Nylon Coated Fabric |
| Pressure Point | 1/4–18 NPT Male |
| Electrical Connection | Screw Terminals |
| Weight | 1.75 lbs (0.79 kg) |

ELECTRICAL

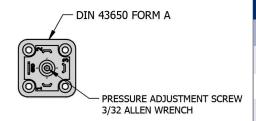
| Switch Type | SPDT Snap Action |
|----------------|-----------------------|
| Current Rating | Up to 15A 125-480 VAC |

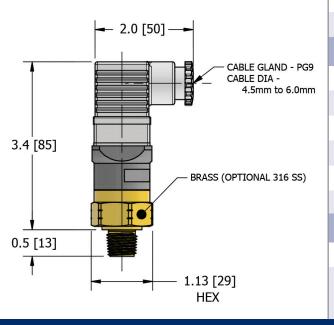
| | Model Number | - | Part Number | - | Range | - | Deadband | |
|----|--------------|---|-------------|---|----------------------------|--------|--------------------------------|--|
| | 161P1.0 | - | D21545 | - | 0.25-1.00 psi (17.2-69 mba | ar) – | 0.004–0.1 psi (0.3–6.9 mbar) | |
| | 161P1.3 | - | D21546 | - | 0.25-1.30 psi (17.2-90 mba | ar) – | 0.004-0.1 psi (0.3-6.9 mbar) | |
| | 161P5 | - | D21547 | - | 0.25-5.00 psi (17.2-345 mb | oar) – | 0.009-0.25 psi (0.6-17.2 mbar) | |
| | 161P10 | - | D21548 | - | 0.50-10.00 psi (34-689 mb | ar) – | 0.018–0.50 psi (1.2–34 mbar) | |
| | 161P15 | - | D21549 | - | 0.75–15.00 psi (52–1034 mb | oar) – | 0.027–0.75 psi (1.8–52 mbar) | |
| 16 | | | SEI | | IES | | | |





- Rugged compact brass housing
- Adjustable pressure ranges from 3-150 psi (0.2-10.3 bar)
- 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 (0.2–10.3 bar) |
| Repeatability | +/- 2% FS |
| Maximum Overpressure | 350 psi (24 bar) |
| Mechanical Life | 1,000,000 Cycles |
| Temperature range | -20–180° F (-29–82°C) |
| | |



PHYSICAL

| Housing Material | Brass, Optional: Stainless Steel-may extend delivery time |
|--------------------------|---|
| 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 (0.12 kg) |

ELECTRICAL

| Switch Type | SPDT Snap Action |
|----------------|--|
| Current Rating | 5 A 12/24 VDC - 125 VAC 3 A 250 VAC Optional: 10 A or Gold Contacts—may extend delivery time |

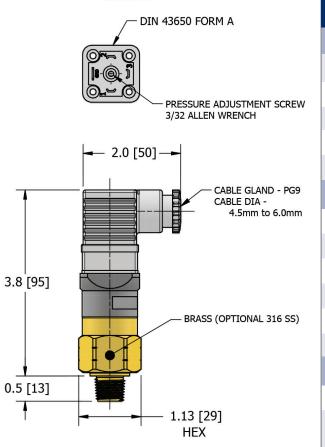
| Model Number | - | Part Number | - | Adjustment Range | - | Average Differential |
|----------------|---|-------------|---|---------------------------|---|-----------------------------|
| 200P-1-4M-C-HC | _ | D30000 | _ | 3-7 psi (0.2-0.48 bar) | - | 0.5-1.2 psi (0.03-0.08 bar) |
| 200P-2-4M-C-HC | - | D30001 | _ | 5-30 psi (0.34-2.1 bar) | - | 1-2.5 psi (0.07-0.17 bar) |
| 200P-3-4M-C-HC | - | D30002 | - | 25-150 psi (1.7-10.3 bar) | - | 2-10 psi (0.14-0.69 bar) |

200P SERIES





- Adjustable pressure ranges up to 5000 psi / 345 bar
- Suitable for high proof pressures (9000 psi / 620 bar)
- Robust zinc plated steel 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 (2.1–345 bar) |
| Repeatability | +/- 2% FS |
| Maximum Overpressure | 9000 psi (620 bar) |
| Mechanical Life | 1,000,000 Cycles |
| Temperature range | -20-180° F (-29-82°C) |
| | |



PHYSICAL

| Housing Material | Zinc Plated Steel, Optional: Stainless Steel-may extend delivery time |
|--------------------------|---|
| Diaphragm | Nitrile (other options available on request) |
| Pressure Port | 1/4" NPT Male |
| Environmental Protection | IP 65 |
| Electrical Connection | Din 43650 A |
| Weight | 0.37 lbs (0.17 kg) |

ELECTRICAL

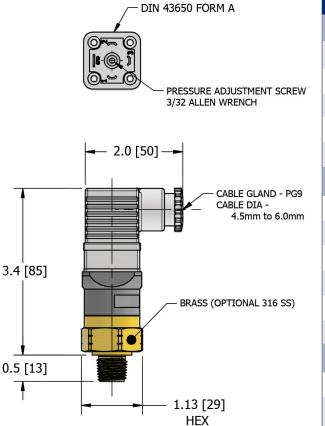
| Switch Type | SPDT Snap Action |
|----------------|--|
| Current Rating | 5 A 12/24 VDC - 125 VAC 3 A 250 VAC Optional: 10 A or Gold Contacts—may extend delivery time |

| | Model Number | - | Part Number | - | Adjustment Range | - | Average Differential |
|----|-----------------|---|-------------|---|-----------------------------|---|-------------------------------|
| | 210HP-4-4M-C-HC | - | D31000 | - | 30-120 psi (2.1-8.3 bar) | - | 9–20 psi (0.62–1.38 bar) |
| | 210HP-5-4M-C-HC | - | D31001 | - | 75–300 psi (5.2–20.7 bar) | - | 12-36 psi (0.83-2.48 bar) |
| | 210HP-6-4M-C-HC | - | D31002 | - | 300-1200 psi (20.7-83 bar) | _ | 69–80 psi (4.76–5.52 bar) |
| | 210HP-7-4M-C-HC | - | D31003 | - | 1000–3000 psi (69–207 bar) | _ | 180–360 psi (12.41–24.82 bar) |
| | 210HP-8-4M-C-HC | - | D31004 | - | 2000-5000 psi (138-345 bar) | _ | 200–400 psi (13.79–27.58 bar) |
| 21 | 0H | P | 5 | E | RIE | 5 | |





- Rugged brass construction
- Vacuum pressure range from 5-30" Hg (0.17-1.02 bar)
- Withstands positive pressure up to 350 psi / 24.1 bar
- 5 Amp SPDT snap action microswitch
- IP 65 Environmental protection



SPECIFICATIONS

| MECHANICAL | |
|----------------------|--------------------------|
| Set Point Ranges | 5–30" Hg (0.17–1.02 bar) |
| Repeatability | +/- 2% FS |
| Maximum Overpressure | 350 psi (24.1 bar) |
| Mechanical Life | 1,000,000 Cycles |
| Temperature Range | -20–180° F (-29–82°C) |
| | |



PHYSICAL

| ional: Stainless Steel-may extend delivery time |
|---|
| ner options available on request) |
| Male |
| |
| A |
| .12 kg) |
| |

ELECTRICAL

| Switch Type | SPDT Snap Action |
|----------------|--|
| Current Rating | 5 A 12/24 VDC - 125 VAC 3 A 250 VAC Optional: 10 A or Gold Contacts—may extend delivery time |

| Model Number | _ | Part Number | _ | Adjustment Range | _ | Average Differential |
|----------------|---|-------------|---|--------------------------|---|--------------------------|
| 220V-0-4M-C-HC | _ | D32000 | _ | 5–30" Hg (0.17–1.02 bar) | _ | 2-4" Hg (0.07-0.135 bar) |

220V SERIES