

Pressure

Compact Switch

Series 96201, 96211, 96221

Features

- ▶ Compact size
- ▶ Low & high pressures including vacuum
- ▶ Extremely versatile
- ▶ Optional DIN and conduit connectors
- ▶ NEMA 1 & 4; IP65
- ▶ Single pole double throw snap action switching
- ▶ Factory preset or field adjustable

Applications

- ▶ Pump & compressor monitoring
- ▶ Air proving in HVAC systems
- ▶ Engine monitoring
- ▶ Machine tools
- ▶ Hydraulic power units
- ▶ Mobile hydraulics
- ▶ Medical equipment
- ▶ Irrigation systems
- ▶ General industrial applications



General Specifications*

| | |
|--|--|
| Accuracy: | ± 2% of full range |
| Switch: Type: | SPDT snap action; single circuit |
| Rating: | 5 Amp @ 125/250 VAC (Class BB microswitch - standard) 10 Amp @ 125/250 VAC (Class CC microswitch) 5 Amp @ 30 VDC (Class BB and CC microswitches) (No agency) |
| Wetted Parts: Process Fitting: | Brass (standard); 416 stainless steel (optional) |
| O-Ring Seals & Diaphragms: | Buna-N (standard) |
| Piston (96201 models): | Stainless steel; Teflon back-up ring |
| Electrical Connection: | 12" free leads, #18 AWG (Standard) |
| Enclosure Ratings: | NEMA 1 (plastic - standard) NEMA 4 (when ordered with -T4 or -T5 options) IP65 (when ordered with T2 DIN connection option) |
| Pressure Connection: | 1/4" NPT male (standard) |
| Approvals: UL: | UL recognized component (UR); With optional conduit connector (-T4 or -T5 option) becomes UL listed. UL File No. E42816. |
| CSA: | CSA #LR22355 |

| | |
|--|--|
| Temperature Range: Series 96201: | -40° to +165°F (-40° to +74°C) |
| Series 96211: | -20° to +165°F (-29° to +74°C) |
| Series 96221: | 0° to +165°F (-18° to +74°C) |
| Adjustment Capability: | Models L96201, L96211 and L96221 are factory set and permanently locked. Models 96201, 96211, and 96221 are field adjustable via an external adjustment sleeve. |
| Pressure Setpoint Adjustment: | Secure hex body with open-end wrench; hand turn adjustment sleeve: Clockwise (counterclockwise for vacuum models) to increase. Counterclockwise (clockwise for vacuum models) to decrease set point. |
| Shipping Weight: | Approximate 0.95 lbs. |

Wiring Code

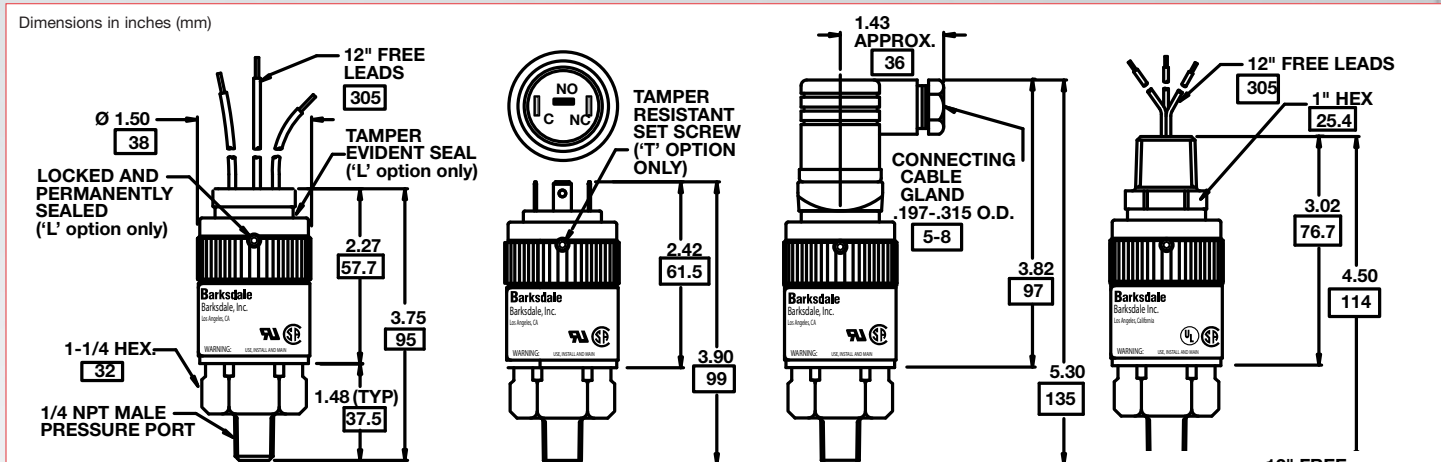
| LEAD | PRESSURE | | VACUUM | |
|-----------------|----------|-----|--------|-----|
| | COLOR | PIN | COLOR | PIN |
| NORMALLY CLOSED | BLUE | 2 | RED | 3 |
| COMMON | PURPLE | 1 | PURPLE | 1 |
| NORMALLY OPEN | RED | 3 | BLUE | 2 |

* See product configurator for additional options.

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Technical Drawings



Product Configurator

Example: **96211-BB3 SS -T5 -V**

Prefix

- L⁵ Factory set and permanently locked (optional)
- T Tamper resistant setscrew (optional)

Base Model

| | Adjustable Range | | | | Approx. Deadband (Actuation Value) psi (bar) | Proof Pressure psi (bar) | |
|-----------|--|------------|------------------------|------------|--|--------------------------------|----------------------------|
| | Decreasing - psi (bar) | | Increasing - psi (bar) | | | | |
| | Min. | Max. | Min. | Max. | | | |
| 96221-BB1 | 1" Hg | 28" Hg | 6" Hg | 30" Hg | .5 - 8" Hg | 30 (2)" Hg | Vacuum |
| 96211-BB1 | 2.5 (.2) | 12.8 (.9) | 3 (.2) | 15 (1) | .3 - 3 (.02 - .21) | 1000 (68) | Low Pressure Diaphragms |
| 96211-BB2 | 5 (.3) | 31 (2) | 6 (.4) | 35 (2.4) | .5 - 6 (.03 - .41) | 1000 (68) | |
| 96211-BB3 | 8.5 (.6) | 44 (3) | 10 (.6) | 50 (3.4) | .5 - 8 (.03 - .55) | 1000 (68) | |
| 96211-BB4 | 22.5 (1.5) | 112 (8) | 25 (1.8) | 125 (8.5) | 1 - 15 (.07 - 1.03) | 1000 (68) | |
| 96211-BB5 | 70 (5) | 220 (15) | 80 (5.5) | 250 (17) | 5 - 40 (.34 - 2.76) | 1000 (68) | |
| 96211-BB6 | 110 (7) | 440 (30) | 130 (9) | 500 (34) | 10 - 75 (.69 - 5.17) | 1000 (68) | |
| 96201-BB1 | 190 (13) | 450 (31) | 250 (17) | 600 (41) | 30-150 (2.07 - 10.35) | 7000 (476) | High Pressure Piston |
| 96201-BB2 | 360 (24) | 1450 (105) | 430 (29) | 1700 (116) | 40-400 (2.76 - 27.59) | 7000 (476) | |
| 96201-BB3 | 1450 (105) | 3900 (265) | 1650 (112) | 4400 (300) | 100-750 (6.90 - 51.72) | 7000 (476) | |
| 96201-BB4 | 3650 (248) | 6700 (456) | 4000 (272) | 7500 (510) | 200-1000 (13.79-68.96) | 12000 (816) | |
| 96201-BB5 | 300 (20) | 2500 (170) | 380 (26) | 3000 (200) | 80-500 (5.52-34.48) | 7000 (476) | |
| -CC | 10A @ 125/250VAC Limit Switch (replace -BB with -CC) | | | | | | |

Fitting Option

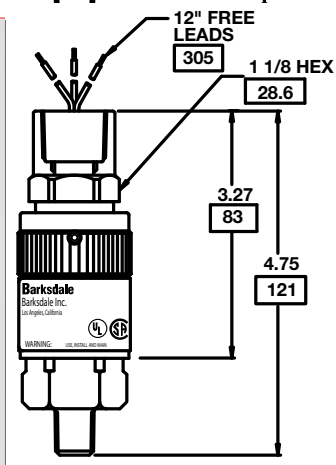
| | |
|-----------------|--|
| Blank | Brass (Standard) |
| SS ¹ | Stainless steel (Not available with vacuum or 96201-BB4 models) |

Electrical Connectors

| | |
|-------|---|
| Blank | 12" free leads (standard) |
| -T1 | 1/4" male spade terminals |
| -T2 | DIN Connector, 43650A |
| -T4 | 1/2" NPT male conduit connector with free leads |
| -T5 | 1/2" NPT female conduit connector with free leads |

NOTES:

- Not available with 96221-BB1 or 96201-BB4 base models
- Minimum quantities may apply
- Only available with -T5 electrical connection
- Not available with DIN connector (-T2 option)
- Requires selection of factory preset -SXXX option.



Options

| | |
|--------------------|--|
| -Z1 | Cleaned for oxygen service |
| -Z12 | Gold contact limit switch, 1 A, 125 VAC |
| -Z17 | DIN 43650 base only (no mating plug) |
| -Z24 | Unshielded cable, #18 AWG PVC (No agency) |
| -P1 | 7/16-20 SAE pressure Fitting with O-ring |
| -JXXX ³ | SJO cable, #18 AWG (XXX = inches) (available only with T5 connector) |
| -WXXX ⁴ | Extra wire length (XXX = inches) |
| -SXXX | Factory preset (consult factory) |

Diaphragm/O-ring Material²

| | |
|-------|--------------------------|
| Blank | Buna-N (standard) |
| -E | Ethylene propylene (EPR) |
| -N | Neoprene (No agency) |
| -V | Viton® |