



Pressure Switches



Applications

- Process control & automation
- Pumps & compressors
- Hydraulic systems
- Pneumatic systems
- Engine monitoring
- Presses
- Machine tools



AchieVe pressure switches are designed for the toughest applications, where conventional pressure switch designs often don't measure up. These cost-effective switches have a brass body with sealed Buna-N **diaphragm** actuator or a direct acting hardened-steel **piston** with a Buna-N O-ring. Design pressure ranges from **2 to 3000 psig**.

The rugged brass construction provides uncompromising protection and long life in difficult environments. The robust design is resistant to vibration and shock, providing reliable operation over a wide operating temperature range.

Available with an **1/8 or 1/4 inch NPT male** process connection. Provided with a high-quality snap-acting SPDT, mechanically-operated switch output. Choose your electrical connection options from a 9.4mm DIN socket, an M12 4-pin quick disconnect, an integral 4-conductor wire lead, or spade terminals (S18-1C series).

Features

- Compact size
- High-quality brass enclosure
- A Buna-N diaphragm or hardened-steel piston and Buna-N O-ring
- Pressure ranges from 3 to 120 psig (S18-1C series); 2 to 3000 psig (LPPS series)
- Tamper-resistant field adjustment (LPPS series)
- M12 4-pin, 9.4mm DIN, wire lead or 1/4" spade electrical connections
- 1/4 or 1/8 inch NPT male process connection
- Wide operating temperature range
- Precision snap-acting SPDT, 3 Amp mechanically operated switch
- NEMA 4 and 13 available
- cURus, CE and RoHS compliant
- 1-year warranty



| Pressure Switches | | | | | |
|-------------------|--|--------------------|-----------------------------|---------|---------|
| Part Number | Description | Process Connection | Electrical Connection | Pcs/Pkg | Price |
| LPPS18-1C-D10A | AchieVe mechanical pressure switch, 3–10 psig set point, 1–2 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 5ft 18 AWG cable. | 1/8in male NPT | 5ft 18 AWG cable | 1 | \$49.00 |
| LPPS18-1C-D10D | AchieVe mechanical pressure switch, 3–10 psig set point, 1–2 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 9.4mm DIN style wiring plug. | 1/8in male NPT | 9.4mm DIN-style wiring plug | 1 | \$56.00 |
| LPPS18-1C-D10H | AchieVe mechanical pressure switch, 3–10 psig set point, 1–2 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 4-pin M12 quick-disconnect. | 1/8in male NPT | 4-pin M12 quick-disconnect | 1 | \$56.00 |
| LPPS18-1C-D120A | AchieVe mechanical pressure switch, 20–120 psig set point, 12–24 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 5ft 18 AWG cable. | 1/8in male NPT | 5ft 18 AWG cable | 1 | \$49.00 |
| LPPS18-1C-D120D | AchieVe mechanical pressure switch, 20–120 psig set point, 12–24 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 9.4mm DIN style wiring plug. | 1/8in male NPT | 9.4mm DIN-style wiring plug | 1 | \$56.00 |
| LPPS18-1C-D120H | AchieVe mechanical pressure switch, 20–120 psig set point, 12–24 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 4-pin M12 quick-disconnect. | 1/8in male NPT | 4-pin M12 quick-disconnect | 1 | \$56.00 |
| LPPS18-1C-D30A | AchieVe mechanical pressure switch, 6–30 psig set point, 3–6 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 5ft 18 AWG cable. | 1/8in male NPT | 5ft 18 AWG cable | 1 | \$49.00 |
| LPPS18-1C-D30D | AchieVe mechanical pressure switch, 6–30 psig set point, 3–6 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 9.4mm DIN style wiring plug. | 1/8in male NPT | 9.4mm DIN-style wiring plug | 1 | \$56.00 |
| LPPS18-1C-D30H | AchieVe mechanical pressure switch, 6–30 psig set point, 3–6 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/8in male NPT process connection, 4-pin M12 quick-disconnect. | 1/8in male NPT | 4-pin M12 quick-disconnect | 1 | \$56.00 |



Pressure Switches

| Pressure Switches | | | | | |
|-------------------------|---|--------------------|---------------------------------|---------|---------|
| Part Number | Description | Process Connection | Electrical Connection | Pcs/Pkg | Price |
| LPPS25-1C-D10A | AchieVe mechanical pressure switch, 3–10 psig set point, 1–2 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 5ft 18 AWG cable. | 1/4in male NPT | 5ft 18 AWG cable | 1 | \$49.00 |
| LPPS25-1C-D10D | AchieVe mechanical pressure switch, 3–10 psig set point, 1–2 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 9.4mm DIN style wiring plug. | 1/4in male NPT | 9.4mm DIN-style wiring plug | 1 | \$56.00 |
| LPPS25-1C-D10H | AchieVe mechanical pressure switch, 3–10 psig set point, 1–2 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 4-pin M12 quick-disconnect. | 1/4in male NPT | 4-pin M12 quick-disconnect | 1 | \$56.00 |
| LPPS25-1C-D120A | AchieVe mechanical pressure switch, 20–120 psig set point, 12–24 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 5ft 18 AWG cable. | 1/4in male NPT | 5ft 18 AWG cable | 1 | \$49.00 |
| LPPS25-1C-D120D | AchieVe mechanical pressure switch, 20–120 psig set point, 12–24 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 9.4mm DIN style wiring plug. | 1/4in male NPT | 9.4mm DIN-style wiring plug | 1 | \$56.00 |
| LPPS25-1C-D120H | AchieVe mechanical pressure switch, 20–120 psig set point, 12–24 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 4-pin M12 quick-disconnect. | 1/4in male NPT | 4-pin M12 quick-disconnect | 1 | \$56.00 |
| LPPS25-1C-D30A | AchieVe mechanical pressure switch, 6–30 psig set point, 3–6 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 5ft 18 AWG cable. | 1/4in male NPT | 5ft 18 AWG cable | 1 | \$49.00 |
| LPPS25-1C-D30D | AchieVe mechanical pressure switch, 6–30 psig set point, 3–6 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 9.4mm DIN style wiring plug. | 1/4in male NPT | 9.4mm DIN-style wiring plug | 1 | \$56.00 |
| LPPS25-1C-D30H | AchieVe mechanical pressure switch, 6–30 psig set point, 3–6 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 5A, 1/4in male NPT process connection, 4-pin M12 quick-disconnect. | 1/4in male NPT | 4-pin M12 quick-disconnect | 1 | \$56.00 |
| LPPS25-1C-P1000A | AchieVe mechanical pressure switch, 250–1000 psig set point, 100–200 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 5ft 18 AWG cable. | 1/4in male NPT | 5ft 18 AWG cable | 1 | \$52.00 |
| LPPS25-1C-P1000D | AchieVe mechanical pressure switch, 250–1000 psig set point, 100–200 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 9.4mm DIN style wiring plug. | 1/4in male NPT | 9.4mm DIN-style wiring plug | 1 | \$57.00 |
| LPPS25-1C-P1000H | AchieVe mechanical pressure switch, 250–1000 psig set point, 100–200 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 4-pin M12 quick-disconnect. | 1/4in male NPT | 4-pin M12 quick-disconnect | 1 | \$59.00 |
| LPPS25-1C-P3000A | AchieVe mechanical pressure switch, 750–3000 psig set point, 300–600 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 5ft 18 AWG cable. | 1/4in male NPT | 5ft 18 AWG cable | 1 | \$52.00 |
| LPPS25-1C-P3000D | AchieVe mechanical pressure switch, 750–3000 psig set point, 300–600 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 9.4mm DIN style wiring plug. | 1/4in male NPT | 9.4mm DIN-style wiring plug | 1 | \$57.00 |
| LPPS25-1C-P3000H | AchieVe mechanical pressure switch, 750–3000 psig set point, 300–600 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 4-pin M12 quick-disconnect. | 1/4in male NPT | 4-pin M12 quick-disconnect | 1 | \$59.00 |
| LPPS25-1C-P400A | AchieVe mechanical pressure switch, 100–400 psig set point, 40–80 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 5ft 18 AWG cable. | 1/4in male NPT | 5ft 18 AWG cable | 1 | \$52.00 |
| LPPS25-1C-P400D | AchieVe mechanical pressure switch, 100–400 psig set point, 40–80 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 9.4mm DIN style wiring plug. | 1/4in male NPT | 9.4mm DIN-style wiring plug | 1 | \$57.00 |
| LPPS25-1C-P400H | AchieVe mechanical pressure switch, 100–400 psig set point, 40–80 psig deadband range, hardened steel sensing element, Buna-N O-ring seal(s), SPDT 5A, 1/4in male NPT process connection, 4-pin M12 quick-disconnect. | 1/4in male NPT | 4-pin M12 quick-disconnect | 1 | \$59.00 |
| S18-1C-10 | AchieVe mechanical pressure switch, 2–10 psig set point, 1–2 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 10A, 1/8in male NPT process connection, 1/4in (6.4mm) spade terminals. | 1/8in male NPT | 1 / 4in (6.4mm) spade terminals | 1 | \$33.00 |
| S18-1C-30 | AchieVe mechanical pressure switch, 6–30 psig set point, 3–6 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 10A, 1/8in male NPT process connection, 1/4in (6.4mm) spade terminals. | 1/8in male NPT | 1 / 4in (6.4mm) spade terminals | 1 | \$33.00 |
| S18-1C-120 | AchieVe mechanical pressure switch, 20–120 psig set point, 12–24 psig deadband range, Buna-N sensing element, Buna-N seal(s), SPDT 10A, 1/8in male NPT process connection, 1/4in (6.4mm) spade terminals. | 1/8in male NPT | 1 / 4in (6.4mm) spade terminals | 1 | \$33.00 |



Pressure Switches

LPPS Series

| AchieVe Pressure Switch General Specifications | |
|--|---|
| Setpoint | Field-adjustable (factory default 50% of full scale) |
| Setpoint Repeatability | ±1 psi or 5% of range |
| Differential | 10–20% |
| Temperature Range | -29 to +104 °C [-20 to +220 °F] |
| Wetted Material | ≤120 psi Brass, Buna-N; >120 psi Brass, Buna-N, hardened steel |
| Piston Actuator | Hardened steel with Buna-N O-ring, 100 to 3000 psig |
| Diaphragm Material | Buna-N |
| Mechanical Life Diaphragm Design | > 1,000,000 operations typical |
| Enclosure Material | Brass |
| Enclosure Rating | NEMA 4, 13 |
| Pressure Connection | 1/8 or 1/4 inch NPT male |
| Electrical Output | SPDT 3A @ 125 VAC, 2A @ 30VDC resistive |
| Electrical Termination | 9.4mm DIN, M12 4-pin, or pigtail |
| Agency Approvals | cURus, CE, RoHS |

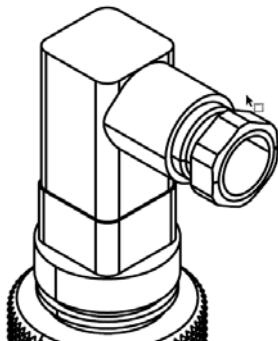
| AchieVe Pressure Switch Performance Characteristics | | | | |
|---|------------------------|--------------|---------------|--|
| Part Number | Setpoint Adjustability | | | Switch (SPDT) |
| | psig | bar | kPa | Amp Rating |
| LPPS18-1C-D10A | 3–10 | 0.21–0.69 | 20.68–68.95 | 3A @ 125 VAC; 2A @ 30VDC (resistive) |
| LPPS18-1C-D30A | 6–30 | 0.41–2.07 | 41.37–206.85 | |
| LPPS18-1C-D120A | 20–120 | 1.38–8.28 | 137.9–827.4 | |
| LPPS18-1C-D10H | 3–10 | 0.21–0.69 | 20.68–68.95 | |
| LPPS18-1C-D30H | 6–30 | 0.41–2.07 | 41.37–206.85 | |
| LPPS18-1C-D120H | 20–120 | 1.38–8.28 | 137.9–827.4 | |
| LPPS18-1C-D10D | 3–10 | 0.21–0.69 | 20.68–68.95 | |
| LPPS18-1C-D30D | 6–30 | 0.41–2.07 | 41.37–206.85 | |
| LPPS18-1C-D120D | 20–120 | 1.38–8.28 | 137.9–827.4 | |
| LPPS25-1C-D10A | 3–10 | 0.21–0.69 | 20.68–68.95 | |
| LPPS25-1C-D30A | 6–30 | 0.41–2.07 | 41.37–206.85 | |
| LPPS25-1C-D120A | 20–120 | 1.38–8.28 | 137.9–827.4 | |
| LPPS25-1C-P400A | 100–400 | 6.90–27.59 | 689.5–2758 | |
| LPPS25-1C-P1000A | 250–1000 | 17.24–68.97 | 1723.75–6895 | |
| LPPS25-1C-P3000A | 750–3000 | 51.72–206.90 | 5171.25–20685 | |
| LPPS25-1C-D10H | 3–10 | 0.21–0.69 | 20.68–68.95 | |
| LPPS25-1C-D30H | 6–30 | 0.41–2.07 | 41.37–206.85 | |
| LPPS25-1C-D120H | 20–120 | 1.38–8.28 | 137.9–827.4 | |
| LPPS25-1C-P400H | 100–400 | 6.90–27.59 | 689.5–2758 | |
| LPPS25-1C-P1000H | 250–1000 | 17.24–68.97 | 1723.75–6895 | |
| LPPS25-1C-P3000H | 750–3000 | 51.72–206.90 | 5171.25–20685 | |
| LPPS25-1C-D10D | 3–10 | 0.21–0.69 | 20.68–68.95 | |
| LPPS25-1C-D30D | 6–30 | 0.41–2.07 | 41.37–206.85 | |
| LPPS25-1C-D120D | 20–120 | 1.38–8.28 | 137.9–827.4 | |
| LPPS25-1C-P400D | 100–400 | 6.90–27.59 | 689.5–2758 | |
| LPPS25-1C-P1000D | 250–1000 | 17.24–68.97 | 1723.75–6895 | |
| LPPS25-1C-P3000D | 750–3000 | 51.72–206.90 | 5171.25–20685 | |



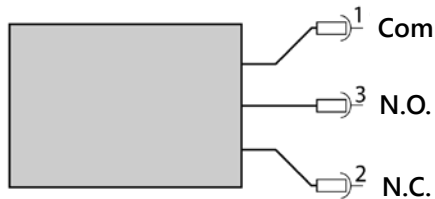
Pressure Switches

LPPS Series

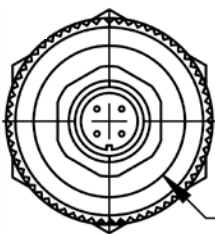
Electrical Connections



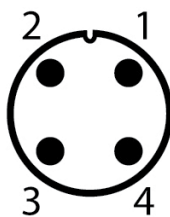
9.4mm DIN Connector



| Pin | LPPS Models (ending in D) |
|-----|---------------------------|
| 1 | Common |
| 2 | N.C. |
| 3 | N.O. |



M12 Connector



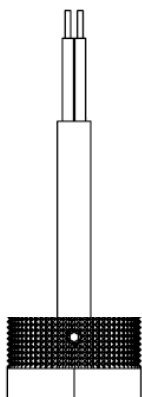
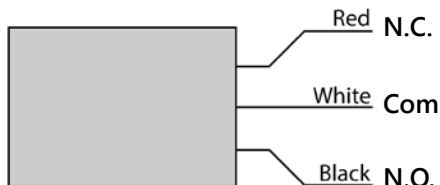
M12 4-Pin

| Pin | LPPS Models (ending in H) | |
|-----|---------------------------|------|
| 1 | Brown | COM |
| 2 | White | - |
| 3 | Blue | N.O. |
| 4 | Black | N.C. |

Note: Wiring colors are based on AutomationDirect cable, p/n CD12L-XX and CD12M-XXX 4-pin cable. (cables not included)

With integral cable

| Wire Color | LPPS Models (ending in A) |
|------------|---------------------------|
| White | COM |
| Black | N.O. |
| Red | N.C. |
| Green | Not Used |





Pressure Switches

S18-1C Series

| AchieVe Pressure Switch General Specifications | |
|--|--|
| Setpoint | Field-adjustable (factory default 50% of full scale) |
| Setpoint Repeatability | ±5% of range above 100 psig and ±1 psi for 100 psig and below (Additional setpoint shift of ±2% of range per 40 °F from initial setpoint set at 70 °F typical) |
| Temperature Range | -29 to +104 °C [-20 to +220 °F] |
| Wetted Material | Brass, Buna-N |
| Diaphragm Material | Buna-N |
| Mechanical Life Diaphragm Design | > 1,000,000 operations typical |
| Pressure Connection | 1/8" NPT Male |
| Electrical Output | 10A @ 125/240 VAC, 5A @ 30 VDC |
| Electrical Termination | 1/4 inch spade connectors |
| Agency Approvals | cURus, CE, RoHS |

AchieVe Pressure Switch Performance Characteristics

| Part Number | Setpoint Adjustability | | | Setpoint Repeatability |
|-------------------|------------------------|-----------|--------------|------------------------|
| | psig | bar | kPa | |
| S18-1C-10 | 2-10 | 0.21-0.69 | 20.68-68.95 | 1 psi or 5% |
| S18-1C-30 | 6-30 | 0.41-2.07 | 41.37-206.85 | |
| S18-1C-120 | 20-120 | 1.38-8.28 | 137.9-827.4 | |

Electrical Connections

