

29PS Manual Reset Pressure Switch

Features

- Manual reset
- Single-pole single-throw switch, normally closed
- Factory calibrated pressure setpoints from 200 to 750 psig (14 to 52 bar)
- Snap-acting, trip-free mechanism
- Tamper-resistant

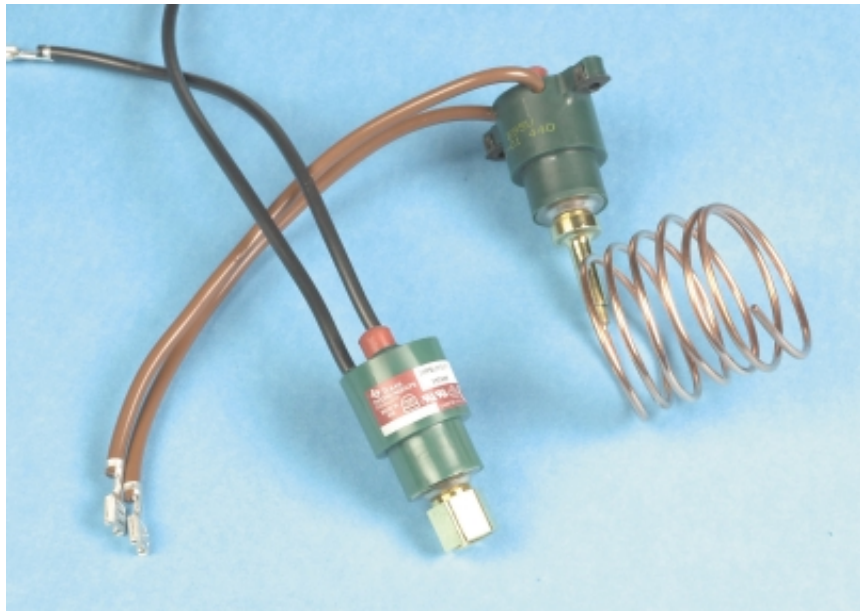
Applications

The Model 29PS pressure switch is primarily applied as an upper limit control on unitary and central air conditioning systems, heat pumps, roof top units, and refrigeration systems. This hermetic pressure switch employs a trip-free manual reset function, providing high reliability in an environmentally sealed, low-cost package.

Operation

The 29PS utilizes a snap-acting stainless steel Klixon[®] disc that reverses its curvature when pressurized above a customer-specified actuation pressure. When the disc snaps, it opens a set of electrical contacts by means of a transfer pin. Resetting of the switch must be accomplished manually by pressing the integrated reset button.

The unique latching mechanism in the 29PS design assures safe electrical cutout even if the reset button is held fully depressed. This “trip-free” design prevents the consumer from restarting the equipment until the line pressure has dropped below the release setpoint. Without this trip-free mechanism, the equipment could be restarted by simply holding the reset button in the depressed position, while an overpressure condition remains.



Two typical configurations for the 29PS Pressure Switch.

Product Features

The welded, hermetic sensor of the 29PS provides increased reliability and maintenance-free operation for the lifetime of the switch. The actuation and release pressures of the disc are factory calibrated, simplifying installation and helping make the 29PS tamper-resistant.

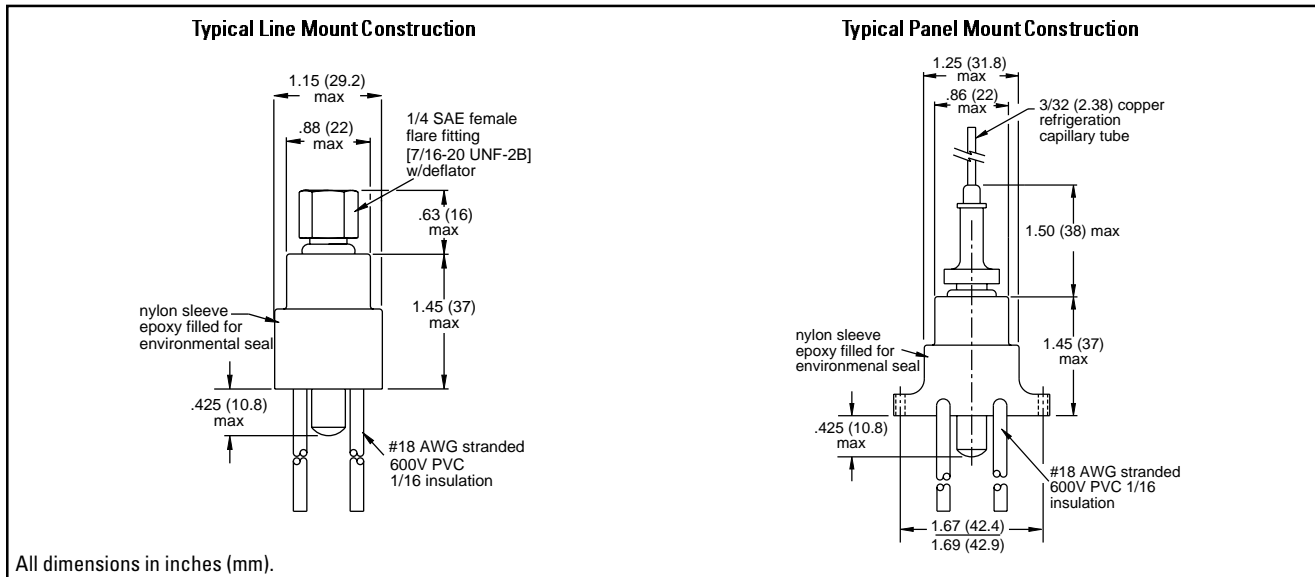
The epoxy potting and rubber boot provide an environmental seal for the switch mechanism, protecting it from dust, oil and moisture. The 29PS is built into a vibration resistant package.

Its small, compact size coupled with a wide variety of threaded

and brazed pressure connections allows the 29PS to be mounted wherever is most convenient for the application, inside a control box or out in the elements. Panel-mount devices are typically provided with capillary tubes that allow convenient access to the reset button. A variety of line-mount fittings are available to simplify installation. Many different lead termination options are available, for maximum flexibility.

The 29PS is a derivative of the Texas Instruments 20PS pressure switch, long recognized as an industry-standard control device.

Typical Dimensional Drawings



Design Specifications

Operating Pressure:	200 to 750 psig (14 to 52 bar)
Pressure Differential & Tolerance:	For actuation pressures of 200-350 psig (14-24 bar), tolerance is ± 10 psig (± 0.7 bar), 60-75% is standard differential; 351-500 psig (24-34.5 bar), ± 10 psig (± 0.7 bar), 65-80% differential; 501-750 psig (34.5-52 bar), ± 15 psig (1 bar), 70-80% differential; Differential = (release setpoint/actuation setpoint) x 100.
Proof Pressure:	600 psig (41 bar) for actuation pressures up to 400 psig (28 bar); 800 psig (55 bar) for higher actuation pressures
Burst Pressure:	5000 psig (345 bar)
Standard Port Fittings:	1/4" SAE female flare with deflator; 1/4" male NPT; 1/8" male NPT; 1/4" male SAE; 24" and 36" capillary tubes, straight or bulbed ends
Electrical Configuration:	Single-pole single-throw normally closed at atmospheric pressure
Electrical Ratings:	Pilot duty, 375 VA at 120 VAC; 5.8 RLA, 34.8 LRA at 120 VAC; 2.9 RLA, 15.0 LRA at 240 VAC
Dielectric Strength:	750 Vrms across open contacts; 1554 Vrms to ground
Life at Rated Current:	10,000 cycles
Leads:	#18 AWG stranded 600V PVC, 4/64" insulation with 1/2" strip standard; 6" and 12" lengths standard, other lengths available in 6" increments; special terminals available on request
Ambient Temperature:	-20°F to 150°F (-29°C to 66°C)
Fluid Temperature:	-65°F to 275°F (-54°C to 135°C)
Agency Approvals:	UL Recognized File No. SA995; U.S Category SDFY2; Canada Category SDFY8; DIN Registered; VDE Approved

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