

P100 Series Encapsulated Pressure Control

Application

The P100 series are encapsulated, nonadjustable, single-pole, single-throw, direct mount pressure controls typically used for low and high pressure cutouts. Applications include:

- Computer Room Air Conditioning
- Commercial Refrigeration Fixtures
- Refrigeration/Air Conditioning Condensers
- Ice Machines
- Food Service Equipment

P100 series controls are available in both automatic and manual reset models. The automatic reset models are available in OPEN HIGH and OPEN LOW configurations. The manual reset controls are available in an OPEN HIGH configuration for high limit applications.

Certain P100 models are supplied as pressure limiting devices for use in refrigeration and air conditioning applications.

P100 models, other than those specified as pressure limiting devices, are designed for use only as operating controls. Where an operating control failure would result in personal injury and/or loss of property, it is the responsibility of the installer to add devices (safety, limit controls) or systems (alarm, supervisory systems) that protect against, or warn of, control failure.

All installations should conform to local building codes.

Features

- Compact size and light weight allow for direct mounting.
- Use with all non-corrosive refrigerants.



Fig. 1 -- P100 Pressure Controls, automatic reset (top), manual reset (center) and automatic reset with 1/4 in. male quick-connects (bottom).

- 1/4 in. female flare fitting with built-in Schrader type depressor is standard.
- Encapsulated switch, dust tight.
- Trip-free manual reset (manual reset models)--contacts cannot be overridden by continued depression of the reset button.

Specifications

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| Type Number | P100AA | Contacts Open Low |
| | P100AC | Contacts Open Low, Conduit Cover |
| | P100CA | Contacts Open High |
| | P100CC | Contacts Open High, Conduit Cover |
| | P100DA | Contacts Open High, Manual Reset |
| | P100DC | Contacts Open High, Manual Reset With Conduit Cover |
| Short Term Overpressure | 20 to 100 PSIG (138 to 690 kPa) | 250 PSIG (1724 kPa) |
| | 100 to 500 PSIG (690 to 3448 kPa) | 600 PSIG (4137 kPa) |
| Burst Pressure | | 3500 PSIG (24133 kPa) |
| Design Life | Auto Reset | 100,000 Cycles |
| | Manual Reset | 6,000 Cycles |
| Temperature | Ambient | -20 to 150°F (-29 to 66°C) |
| | Refrigerant | -65 to 275°F (-54 to 135°C) |
| Vibration | | 15 G's Maximum |
| Range and Differential | | See Pressure Range Table |
| Set Point Tolerances | | From ± 3 to ± 25 PSI (± 21 to ± 172 kPa) See Pressure Range Table |

General Description

Auto Reset Models

The preset, snap-acting disc utilized in the P100 reverses its shape when pressurized to the selected actuation pressure setting. When the disc snaps, it drives a set of electrical contacts open or closed. When the pressure falls to the deactuation pressure setting, the snap-acting disc and electrical contacts reset to their preset positions.