

P74 Series

# Differential Pressure Control

## Description

Series P74 measures the pressure difference between two sources: supply lines and return lines. A change in differential pressure will reposition the switching mechanism to cause corrective action of the supplementary control equipment.

## Features

- field-proven Pennswitch with a completely enclosed contact mechanism
- pressure differential setting is easily changed without removing the cover

## Applications

- differential pressure sensing on chillers or water-cooled condensers
- lube oil failure cutout for refrigeration compressors (same as the P28, but does not incorporate time delay)
- positioning M100 Series motor-actuated valves (P74JA-2)
- to prove pump operation

## Accessories

All models on this page include a universal mounting bracket.



P74EA-8

## Selection Chart

| Code Number                          | Switch Action                                   | Range Pressure Differential psi (kPa) <sup>1</sup> | Switch Differential                | Pressure Connections               | Bellows Material |                                |
|--------------------------------------|---|--|------------------------------------|------------------------------------|------------------|--------------------------------|
| <b>FOR ALL NON-CORROSIVE LIQUIDS</b> |   |  |                                    |                                    |                  |                                |
| P74AA-1C                             | SPST Closes On Decreases in Pressure Difference | 8 to 70 Adjustable (55 to 483)                     | 8 to 30 Adjustable                 | 36 in. Cap. with 1/4 in. Flare Nut | Stainless Steel  |                                |
| P74BA-1C                             | SPST Opens On Decrease in Pressure Difference   |  |                                    |                                    |                  |                                |
| P74EA-8C                             | SPDT (Snap-Acting)                              | 2 to 26 Adjustable (14 to 207)                     | 3.5 Fixed                          | 36 in. Cap. with 1/4 in. Flare Nut | Brass            |                                |
| P74EA-10C                            |   |  |                                    |                                    |                  | 8 to 60 Adjustable (55 to 414) |
| P74FA-1C                             |   | 2 to 26 Adjustable (14 to 207)                     | 36 in. Cap. with 1/4 in. Flare Nut |                                    |                  |                                |
| P74FA-5C                             |   |  |                                    | 1/4 in. FNPT                       |                  |                                |
| P74FA-10C                            |   |  |                                    |                                    |                  |                                |
| P74JA-2C                             | SPDT (Floating)                                 | 8 to 60 Adjustable (55 to 414)                     | 2.5 Fixed                          | 1/4 in. Male Flare                 |                  |                                |

1. Maximum continuous pressure to low pressure bellows - 180 psig (1241 kPa)

## Technical Specifications

### Electrical Ratings

| Motor Ratings                   | 120 V   | 208 V | 240 V | 277 V |
|---------------------------------|---|-------|-------|-------|
| <b>P74AA, P74BA - 1 Phase</b>   |   |       |       |       |
| AC Full Load A                  | 20.0  | 18.7  | 17.0  | —     |
| AC Locked Rotor A               | 120.0   | 112.2 | 102.0 | —     |
| AC Non-Inductive A              | 22.0  | 22.0  | 22.0  | —     |
| Pilot Duty                      | 125 VA, 120 to 600 VAC; 57.5 VA, 120 to 300 VDC |       |       |       |
| <b>P74EA</b>                    |   |       |       |       |
| AC Full Load A                  | 16.0  | 9.2   | 8.0   | —     |
| AC Locked Rotor A               | 96.0  | 55.2  | 48.0  | —     |
| AC Non-Inductive A              | 16.0  | 16.0  | 16.0  | 16.0  |
| Pilot Duty                      | 125 VA, 120 to 600 VAC                          |       |       |       |
| <b>P74FA</b>                    |   |       |       |       |
| AC Full Load A                  | 6.0   | 3.4   | 3.0   | —     |
| AC Locked Rotor A               | 36.0  | 20.4  | 18.0  | —     |
| AC Non-Inductive A              | 10.0  | 10.0  | 10.0  | 10.0  |
| Pilot Duty                      | 125 VA, 120 to 277 VAC                          |       |       |       |
| <b>P74JA</b>                    |   |       |       |       |
| 1 Amp; 24 VAC Class 2; 50/60 Hz |   |       |       |       |