



# P100 Series Encapsulated Pressure Switches

## Description

P100 Series switches are encapsulated, nonadjustable, single-pole, single-throw (SPST), direct-mount switches for use with non-corrosive refrigerants. The switches are available with automatic reset in both open low and open high configurations and manual reset with open high action.

Refer to the *P100 Series Encapsulated Pressure Controls Product Bulletin (LIT-121485)* for important product application information.

## Features

- compact size and light weight allow for direct mounting
- trip-free manual reset (manual reset models); contacts cannot be overridden by continued depression of the reset button

- use with all non-corrosive refrigerants
- encapsulated switch, dust tight
- 1/4 in. Internal flare fitting with built-in Schrader type depressor is standard
- electrical connections are made to 48 in. leads

## Applications

- low limit, high limit, and fan cycling control in commercial refrigeration
- ice machines
- food service equipment

## Repair Information

If the P100 Series Encapsulated Pressure Switches fails to operate within its specifications, replace the unit. For a replacement switch, contact the nearest Johnson Controls® representative.



**P100 Series Encapsulated Pressure Switch**

## Technical Specifications

### Standard Duty Electrical Contact Ratings

Switch Action-Model Numbers	SPST-P100AA, AC, AG, AJ, CA, CC, CG, CJ, DA, and DC		SPST-P100AP, CP	
	120V	240V	120V	240V
Motor Ratings				
AC Full Load Ampere	5.8	2.9	6.0	6.0
AC Locked Rotor Ampere	34.8	15.0	36.0	36.0
Non-Inductive Ampere	-	-	-	-
Inductive Ampere	-	-	-	-
Pilot Duty	375 VA		375 VA	

### Heavy Duty Electrical Contact Ratings

Switch Action-Model Numbers	SPST-P100AE and CE				SPDT-P100EE			
	120V		240V		120V		240V	
Contact Type	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.
AC Full Load Ampere	13.0	13.0	10.0	10.0	5.8	13.0	2.9	10.0
AC Locked Rotor Ampere	65.0	60.0	45.0	45.0	34.8	60.0	17.4	45.0
Non-Inductive Ampere	13.0	25.0	10.0	25.0	10.0	25.0	5.0	25.0
Inductive Ampere	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Pilot Duty	278 VA	125 VA	278 VA	125 VA	278 VA	125 VA	278 VA	125 VA



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## P100 Series Encapsulated Pressure Switches (Continued)

Product Code Number		Setpoints - psig (kPa)		Replaces:									
		Opens	Closes	Ranco®	Robertshaw®	Saginomiya	Danfoss®	Klixon®	Supco	Wilspec	International Refrigeration Products	Gemline	
P100AC-1C <sup>2</sup>		5 (34)	20 (138)	MPL-7001	-	ACB-2UA318W	-	PS80-K2-F0305-020-005	SLP0520	HR201A020005D	SLP0520	-	
P100AP-354C		5 (34)	30 (207)	-	3100-002	-	-	-	SLP0530	-	-	-	
P100AP-15C		10 (69)	25 (172)	HR00011A1R702	3100-050	ACB-2UA97W	061F7523	PS80-K2-F0307-025-005	SLP1025	HR201A025010D	SLP1025	-	
P100AP-201C		10 (69)	32 (221)	MPL-7011	3100-050	ACB-2UA101	-	-	SLP1032	-	SLP1032	-	
P100AC-2C <sup>2</sup>		15 (103)	30 (207)	MPL-7002	-	-	-	-	-	-	-	-	
P100AP-356C		20 (138)	45 (310)	-	3100-003	ACB-2UA40W	-	-	SLP2045	-	-	-	
P100AP-12C		25 (172)	50 (345)	-	-	ACB-2UA143	-	PS80-K2-F0316-050-005	SLP2550	HR201A050025D	SLP2550	-	
P100AP-9C		25 (172)	80 (551)	MPL-7003	3101-003	-	-	PS80-K2-F0325-080-005	SLP2580	HR201A080025D	SLP2580	-	
P100AP-105C		30 (207)	60 (413)	-	3100-004	ACB-2UA94	-	-	-	-	SLP3560	-	
P100AP-2C		35 (241)	60 (414)	MPL-7004	3100-004	-	-	-	SLP3560	-	SLP3560	-	
P100AP-10C		40 (276)	60 (413)	HR00011A1R704	-	-	-	-	-	-	-	-	
P100AP-357C		40 (276)	80 (551)	-	3100-052	ACB-2UA354W	-	PS80-K2-F0326-080-005	SLP4080	HR201A080040D	SLP4080	-	
P100AP-361C		50 (345)	90 (620)	-	-	-	-	PS80-KS-F0328-090-005	SLP5090	HR201A090050D	SLP5090	-	
P100AP-358C		75 (517)	100 (689)	-	-	ACB-2UA441W	-	-	-	-	SLP75100	-	
P100AP-351C <sup>1</sup>		75 (517)	120 (827)	-	-	-	-	-	SFC75120	-	-	-	
P100AP-352C <sup>1</sup>		110 (758)	170 (1,171)	-	-	-	-	-	SFC110170	-	-	-	
P100AP-353C <sup>1</sup>		126 (868)	264 (1,819)	-	-	-	-	-	SFC125265	-	-	-	
P100AP-3C <sup>1</sup>		150 (1,034)	225 (1,551)	MPF-7008	-	ACB-2UA685W	-	-	SFC150225	-	-	-	
P100AP-359C <sup>1</sup>		165 (1,137)	215 (1,481)	-	3100-215	ACB-2UA48W	-	-	-	-	-	-	
P100AP-4C <sup>1</sup>		170 (1,172)	250 (1,724)	-	-	ACB-2UA631W	-	-	SFC170250	-	-	-	
P100AP-362C <sup>1</sup>		195 (1,344)	240 (1,654)	-	3100-080	-	-	-	-	-	-	-	
P100AP-200C <sup>1</sup>		195 (1,344)	275 (1,895)	-	-	-	-	-	-	-	-	-	

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products. © 2015 Johnson Controls, Inc. [www.johnsoncontrols.com](http://www.johnsoncontrols.com)



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## P100 Series Encapsulated Pressure Switches (Continued)

Replaces:													
Product Code Number	Switch Action	Setpoints - psig (kPa)		Ranco®	Robertshaw®	Saginomiya	Danfoss®	Klixon®	Supco	Wilspec	International Refrigeration Products	Gemline	
		Opens	Closes										
P100AP-354C <sup>1</sup>	Open on Pressure Drop	210 (1,447)	275 (1,895)	-	-	ACB-2UA319W	-	-	SFC210275	-	SFC210275	-	
P100EE-79C		300 (2,068)	370 (2,551)	-	-	-	-	-	-	-	-	-	
P100AP-332C <sup>1</sup>	Open on Pressure Rise	300 (2,068)	400 (2,758)	MPF7010	-	ACB-2UA627W	061F7514	-	SFC300400	-	-	-	
P100CP-157C		225 (1,550)	150 (1,034)	-	-	-	-	-	-	-	-	-	
P100CP-158C		250 (1,723)	150 (1,034)	-	-	-	-	PS80-K1-0336-250-150	SHP250150	HR202A250150D	SHP250150	-	
P100CP-159C		270 (1,860)	200 (1,378)	-	-	-	-	-	-	-	-	-	
P100CC-9C <sup>2</sup>		275 (1,896)	175 (1,207)	-	3100-112	ACB-2UB724W	-	-	-	-	-	-	
P100CP-91C		300 (2,067)	200 (1,378)	-	-	ACB-2UB723W	-	-	PS80-K1-0341-300-200	-	HR202A300200D	SHP300200	-
P100CP-166C		325 (2,239)	225 (1,550)	-	-	-	061F6080	-	PS80-K1-0346-320-230	SHP325225	HR202A325230D	-	-
P100CP-140C		350 (2,412)	245 (1,688)	-	3100-150	ACB-2UB273W	061F3212	-	PS80-K1-0348-350-245	-	HR202A350245D	SHP350250	-
P100CP-160C		375 (2,584)	275 (1,895)	-	-	ACB-2UB191	061F7509	-	-	-	-	SHP375265	-
P100CP-161C		400 (2,756)	200 (1,378)	-	3100-152	-	-	-	PS80-K1-0357-400-200	SHP400200	HR202A400200D	SHP400200	-
P100CP-162C	400 (2,756)	280 (1,929)	-	-	-	-	-	PS80-K1-0358-400-280	SHP400280	HR202A400280D	SHP400280	-	
P100EE-78C	400 (2,756)	300 (2,068)	-	-	-	-	-	-	-	-	-	-	
P100CP-1C	400 (2,758)	300 (2,068)	MPH-7107	3100-151	ACB-2UB35	061FS14	-	PS80-K1-0359-400-300	SHP400300	HR202A400300D	SHP400300	PC 151	
P100CP-156C	410 (2,825)	290 (1,998)	-	-	-	-	-	-	-	-	-	-	
P100CP-163C	425 (2,928)	300 (2,067)	-	-	-	-	-	PS80-K1-0360-425-300	SHP425300	HR202A425300D	SHP425300	-	
P100CP-2C	425 (2,930)	325 (2,241)	MPH-7106	3100-100	ACB-2UB282W	-	-	-	SHP425325	-	-	PC 100	
P100CP-164C	450 (3,101)	250 (1,723)	-	-	-	-	-	PS80-K1-0363-450-250	SHP450250	HR202A450250D	SHP450250	-	
P100CP-38C	500 (3,447)	325 (2,241)	-	-	-	-	-	-	-	-	-	-	
P100CP-165C	600 (4,134)	475 (3,273)	HR000011B1R704	-	-	-	061F7517	-	SHP600475	-	-	-	
P100CP-85C	665 (4,585)	565 (3,895)	-	-	-	-	-	-	SHP665565	-	-	-	

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## P100 Series Encapsulated Pressure Switches (Continued)

**Selection Chart (Part 3 of 3)**

Product Code Number	Switch Action	Setpoints - psig (kPa)		Replaces:									
		Opens	Closes	Ranco®	Robertshaw®	Saginomiya	Danfoss®	Klixon®	Supco	Wilspec	International Refrigeration Products	Gemline	
P100DA-35C	Open on Pressure Rise	350 (2,413)	Lockout Manual Reset	-	-	ACBPC45M	-	-	-	-	-	-	-
P100DC-3C <sup>3</sup>		375 (2,586)	Lockout Manual Reset	-	-	-	-	-	-	-	SMR375	-	-
P100DA-1C		410 (2,827)	Lockout Manual Reset	-	3100-103	ACBPB115M	-	29FSL012-24	SMR410	HM202A410000D	SMR410	PC 103	-
P100DA-100C		415 (2,859)	Lockout Manual Reset	-	3100-103	-	-	29PSL004-1	-	HM202A415000D	SMR410	-	-
P100DA-101C		440 (3,032)	Lockout Manual Reset	-	-	-	-	-	SMR440	-	SMR440	-	-
P100DA-2C		475 (3,275)	Lockout Manual Reset	-	3100-106	-	-	-	-	HM202A475000D	-	-	-
P100DA-86C		575 (3,964)	Lockout Manual Reset	-	-	-	-	-	SMR575	-	-	-	-
P100DA-81C		630 (4,343)	Lockout Manual Reset	-	-	-	-	-	SMR630	-	-	-	-

1. Models are designed for condenser fan cycling.
2. Includes conduit clamp for 3/8 in. flexible metal conduit.
3. Includes conduit box with opening for 1/2 in. conduit connector.