



P100 Series Encapsulated Pressure Switches

Catalog Page

LIT-1927275

2019-08-06

Description

P100 Series switches are encapsulated, nonadjustable, single-pole, single-throw (SPST) and single-pole, double-throw (SPDT), 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 is available with open high action.

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

Figure 1: P100 series encapsulated pressure switch



Features

- Compact size and light weight for direct mounting
- Trip-free manual reset on manual reset models; contacts cannot be overridden by continued depression of the reset button
- Use with all non-corrosive refrigerants
- Dust tight encapsulated switch
- 1/4 in. internal flare fitting with built-in Schrader type depressor is standard
- Electrical connections are made to 48 in. (122 cm) leads

Applications

- Low limit, high limit, and fan cycling control in commercial refrigeration and air-conditioning
- Ice machines
- Food service equipment

P100 Series Encapsulated Pressure Switches technical specifications

Table 1: Standard duty electrical contact ratings

Switch action-model numbers	SPST-P100AA, AC, AG, AJ, CA, CC, CG, CJ, DA, and DC		SPST-P100AP, CP	
	120 V	240 V	120 V	240 V
Motor ratings	120 V	240 V	120 V	240 V
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	

Table 2: Heavy duty electrical contact ratings

Switch action-model numbers	SPST-P100AE and CE				SPDT-P100EE			
	120 V		240 V		120 V		240 V	
Motor ratings	120 V		240 V		120 V		240 V	
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

Repair information

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

Selection charts

The following table provides information about products with a switch action that open on a pressure drop.

Table 3: Selection Chart

Product code number	Setpoints - psig (kPa)		Replaces:								
	Opens	Closes	Ranco®	Robert-shaw®	Saginomiya	Danfoss®	Klixon®	Supco	Wilspec	International Refrigeration Products	Gemline
P100AC-1C ¹	5 (34)	20 (138)	MPL-7001	—	ACB-2UA318W	—	PS80-K2-F0305-020-005	SLP0520	HR201A020005D	SLP0520	—
P100AP-355C	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 ¹	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 ²	75 (517)	120 (827)	—	—	—	—	—	SFC75120	—	—	—
P100AP-352C ²	110 (758)	170 (1,171)	—	—	—	—	—	SFC110170	—	—	—
P100AP-353C ²	126 (868)	264 (1,819)	—	—	—	—	—	SFC125265	—	—	—
P100AP-3C ²	150 (1,034)	225 (1,551)	MPF-7008	—	ACB-2UA685W	—	—	SFC150225	—	—	—
P100AP-359C ²	165 (1,137)	215 (1,481)	—	3100-215	ACB-2UA48W	—	—	—	—	—	—
P100AP-4C ²	170 (1,172)	250 (1,724)	—	—	ACB-2UA631W	—	—	SFC170250	—	—	—
P100AP-362C ²	195 (1,344)	240 (1,654)	—	3100-080	—	—	—	—	—	—	—
P100AP-200C ²	195 (1,344)	275 (1,895)	—	—	—	—	—	—	—	—	—
P100AP-354C ²	210 (1,447)	275 (1,895)	—	—	ACB-2UA319W	—	—	SFC210275	—	SFC210275	—
P100EE-79C	300 (2,068)	370 (2,551)	—	—	—	—	—	—	—	—	—
P100AP-332C ²	300 (2,068)	400 (2,758)	MPF7010	—	ACB-2UA627W	061F7514	—	SFC300400	—	—	—

1 Includes conduit clamp for 3/8 in. flexible metal conduit.

2 Models are designed for condenser fan cycling.

The following table provides information about products with a switch action that open on a pressure rise.

Table 4: Selection chart

Product code number	Setpoints - psig (kPa)		Replaces:								
	Opens	Closes	Ranco®	Robert-shaw®	Saginomiya	Danfoss®	Klixon®	Supco	Wilspec	International Refrigeration Products	Gemline
P100CP-157C	225 (1,550)	150 (1,034)	—	—	—	—	—	—	—	—	—

Table 4: Selection chart

Product code number	Setpoints - psig (kPa)		Replaces:								
	Opens	Closes	Ranco®	Robert-shaw®	Saginomiya	Danfoss®	Klixon®	Supco	Wilspec	International Refrigeration Products	Gemline
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 ¹	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	061F514	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-7108	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)	HR00011B1R704	—	—	061F7517	—	SHP600475	—	—	—
P100CP-85C	665 (4,585)	565 (3,895)	—	—	—	—	—	SHP665565	—	—	—
P100DA-35C	350 (2,413)	Lockout Manual Reset	—	—	ACBPC45M	—	—	—	—	—	—
P100DC-3C ²	375 (2,586)	Lockout Manual Reset	—	—	—	—	—	—	—	SMR375	—
P100DA-1C	410 (2,827)	Lockout Manual Reset	—	3100-103	ACBPB115M	—	29PSL012-24	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 Includes conduit clamp for 3/8 in. flexible metal conduit.

2 Includes conduit box with opening for 1/2 in. conduit connector.

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Patents

Patents: <http://jciapat.com>