9012G and 9016G
Industrial pressure and vacuum switches
9012G pressure switches

Interpreting the catalog number (excluding 9016GVG)

Use this table for interpretation only. Some combinations are not available.

Designation				Catalog number							
				9012G	A	R		2	2		
Classification	Pressure Switch			**9012G**							
	Vacuum Switch			**9016G**							
Actuator Type—Differential Type	Single-Stage Machine Tool	Diaphragm, Low Pressure—Adjustable			**A**						
		Diaphragm, High Pressure—Adjustable			**B**						
		Piston—Adjustable			**C**						
		Diaphragm, Low Pressure—Fixed			**D**						
		Diaphragm, High Pressure—Fixed			**E**						
		Piston—Fixed			**F**						
	Differential-Pressure	Diaphragm, Low Pressure—Adjustable			**G**						
		Diaphragm, High Pressure—Adjustable			**H**						
		Piston— Adjustable			**J**						
	Dual-Stage	Diaphragm, Low Pressure—Adjustable			**K**						
		Diaphragm, High Pressure—Adjustable			**L**						
		Piston—Adjustable			**M**						
	Single-Stage Industrial	Diaphragm, Low Pressure—Adjustable			**N**						
		Diaphragm, High Pressure—Adjustable			**P**						
		Piston—Adjustable			**Q**						
		Diaphragm, Low Pressure—Fixed			**R**						
		Diaphragm, High Pressure—Fixed			**S**						
		Piston—Fixed			**T**						
Enclosure, NEMA Type	1					**G**					
	Open					**O**					
	7, 9					**R**					
	4, 4X, 13					**W**					
Threads	1/4"-18 NPTF						**blank**				
	Metric						**M**				
Contacts	Single-pole, double-throw							**blank**			
	Double-pole, double-throw							**2**			
Pressure Range (psi)	Diaphragm	Single or Dual Stage, Low Pressure	0.2–10						**1**		
			1–40						**2**		
			1.5–75						**4**		
			3–150						**5**		
			5–250						**6**		
		Single or Dual Stage, High Pressure	13–425						**1**		
			20–675						**2**		
		Differential-Pressure, Low Pressure	0–75						**1**		
			0–175						**4**		
		Differential-Pressure, High Pressure	0–500						**1**		
	Piston	Single or Dual Stage	20–1000						**1**		
			90–2900						**2**		
			170–5600						**3**		
			270–9000						**4**		
		Differential-Pressure	0–5000						**1**		
Vacuum (inHg)	Diaphragm	Single Stage, Low Pressure	0–28						**1**		
			0–25						**2**		
Options	Factory modifications and accessories										See tables on pages 8/91, 8/93 and 99.

9012G machine tool pressure switches for single-stage operation
Pressure range (psi)—Contacts change on decreasing pressure

Actuator	Switch style	Range (psi)	Fixed differential	Adjustable differential	Pressure code
Diaphragm	Single or Dual Stage, Low Pressure	0.2–10	0.6±0.1	0.6–2	**1**
		1–40	1.6±0.4	1.6–8	**2**
		1.5–75	3.0±0.5	3.5–15	**4**
		3–150	6.0±0.8	6.0–30.0	**5**
		5–250	10.0±1.5	10.0–49	**6**
	Single or Dual Stage, High Pressure	13–425	16±3.5	16–90	**1**
		20–675	27±5	27–130	**2**
	Differential-Pressure, Low Pressure	0–75	0.25±10	0.25–10	**1**
		0–175	—	0.5–36	**4**
	Differential-Pressure, High Pressure	0–500	—	3–175	**1**
Piston	Single or Dual Stage	20–1000	89±18	89–200	**1**
		90–2900	255±30	255–560	**2**
		170–5600	578±110	578–1260	**3**
		270–9000	788±140	788–1900	**4**
	Differential-Pressure	0–5000	—	15–825	**1**

The 9012G single-stage pressure switches are control-circuit rated devices. These switches are used in pneumatic or hydraulic systems on a wide variety of machine and process applications to protect the equipment. They either control or monitor the system pressure.

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Modifications, Renewal Parts, and Accessories

9012G Machine Tool Factory Modifications (Forms)

Modification		Applies to		Form
Lock on rising pressure, manual reset only		Available on GDW, GDWM, GEW, GEWM, GFW, GFWM only		E3
120 Vac or Vdc neon pilot light		Available on all GAW–GMW and GAWM–GFWM	clear lens	G17
			red lens	G18
24 Vdc only LED		For pilot light conversion kits: See 9998PC306–308	clear lens	G21
			red lens	G22
24 Vdc LED pilot light with green lens		Class 9012 GAW–GMW and GAWM–GFWM, or Class 9016 GAW		G23
SPDT snap switch rated 1.1 A at 125 Vdc (minimum differential doubles)		Available on GAR–GFR, GAW–GJW, and GAWM–GFWM		H3
Prewired 5-pin male receptacle: Brad Harrison #41310 or interchangeable Crouse-Hinds receptacle at our convenience. For use with Brad Harrison female portable plug #41306, 41307, 41308 or equal		Available on GAW–GJW single pole devices only. **See wiring diagrams on page 8/90.**		H10 or H11
Micro connector, 4-pin, for 24 Vdc pilot light (see diagram on page 8/90)		G•W (single pole only), except GAW2 and Form B2.		H17
External range adjustment with range scale window	With knob	GAW–GFW, GAWM–GFWM, and GKW–GMW		K
	Slotted for screwdriver	GAW–GFW, GAWM–GFWM, and GKW–GMW		K1
Pg 13.5 conduit thread and 1/4"-19 BSP pressure connection		GAW–GFW and GKW–GMW		M12
#316 stainless steel flange	Standard nitrile diaphragm	GAR, GBR, GDR, GER, GAW, GBW, GDW, GEW, GGW, GHW, GAWM, GBWM, GDWM, GEWM, GKW, GLW, except Types 1 and 21		Q1
	Ethylene propylene diaphragm	Available on all GGW, GHW except GGW-1, 21. Available on all GAR, GBR, GDR, GER, GAW, GBW, GDW, GEW, GAWM, GBWM, GDWM, GEWM, GKW, GLW, except Types 1 and 21		Q3
	Viton® fluorocarbon diaphragm	GAR, GAW, GBR, GBW, GDR, GDW, GER, GEW, GGW, GHW, GAWM, GBWM, GDWM, GEWM, GKW, GLW, except Types 1 and 21		Q4
Range scale window (standard with Forms K and K1)		GAW–GMW, GAWM–GFWM		V1
Special factory setting specified (If indicating only one special setting, specify whether this setting is on increasing or decreasing pressure.)		All 9012G		Y1
Pressure connection Not available in combination with Forms Q1, Q3, Q4	1/4"-18 NPT external thread	GAR, GAW, GDR, GDW, GGW, GKW		Z
	1/2"-14 NPT external thread, 1/4"-18 NPTF internal thread	GAR, GAW, GDR, GDW, GGW, GKW		Z16
	7/16"-20 UNF-2B internal thread	GAR–GFR; GAW–GMW		Z18

9012G Pressure Switches, Factory Modifications (Forms) for Renewal Parts Kits, Class 9998

For suffixes for renewal parts kits, see the table below.

Modification		Applies to Parts Kit Type	Form
SPDT snap switch rated 1.1 A at 125 Vdc (minimum differential doubles)		PC313	H3
#316 stainless steel flange	Standard nitrile diaphragm	PC177–179, PC268, 269	Q1
		PC265–267	
	Ethylene propylene diaphragm	PC177–178, PC268, 269	Q3
		PC266, 267	
	Viton® fluorocarbon diaphragm	PC177–178, PC268, 269	Q4
		PC265–267	
Pressure connection	1/4"-18 NPT external thread	PC265–269	Z
	1/2"-14 NPT external thread, 1/4"-18 NPTF internal thread	PC265–269	Z16
	7/16"-20 UNF-2B internal thread	PC177, 178, PC265–273	Z18

Renewal Parts Kits, Class 9998, for Class 9012 and 9016 Devices

Description	Equipment To Be Serviced	Parts Kit Type
Actuator assembly	9012GA, GD, GG, GK, GN, GR 5, 25, 55 Series C only	PC268 *(1)*
	9012GA, GD, GG, GK, GN, GR 6, 26, 36, 46, 56 Series C only	PC269 *(1)*
	9012GB, GE, GH1, 21, 31, 41, 51; GL, GP, GS1	PC177 *(1)*
	9012GB, GE, GH2, 22, 32, 42, 52; GL, GP, GS2	PC178 *(1)*
Diaphragm assembly	9012GA, GD, GN, GR1, 21 Series C only	PC265 *(1)*
	9012GA, GD, GG, GK, GN, GR 2, 3, 22, 52 Series C only	PC266 *(1)*
	9012GA, GD, GG, GK, GN, GR4, 24, 54 Series C only	PC267 *(1)*
	9016 GAW-1, 21	PC233
Gasket kit	Contains all replaceable gaskets for all 9012 Open, NEMA 1, 4, 4X, 13	PC184
Pilot light	9012, 9016G Forms G7, G8, G9, G10, G21, G22; 24 Volts DC	PC305
Piston assembly	9012GC, GF, GJ, GQ, GT1, 21, 31, 41, 51 Series C only	PC270 *(1)*
	9012GC, GF, GJ, GQ, GT2, 22, 32, 42, 52 Series C only	PC271 *(1)*
	9012GC, GF, GQ, GT4, 24, 34, 44, 54 Series C only	PC273 *(1)*
Snap switch	SPDT, for 9012GA, GB, GC, GD, GE, GF, GG, GH, GJ Single Pole; Except Forms E2, E3, E4, H3: Series C only	PC313 *(1)*
	DPDT, 9012GA, GB, GC, GD, GE, GF, GG, GH, GJ Double Pole; Except Forms E2, E3, H6, H7: Series C only	PC314 *(1)*

(1) If one of these **Form** designations appears on the pressure switch nameplate, the 9998 PC number must be completed by adding that same **Form suffix** from the table above, and the Form price added to the kit price.

Accessories

Class 9049 Accessories for 9012G Pressure Switches

Description	Type
Stainless steel surge reducer for use on oils, coolants, and hydraulic fluids (not recommended for air or water)	A26S