

Pressure controls series PS1 / PS2

Features

- Adjustable pressure setpoint
- Automatic and manual reset versions
- Flare and solder pressure connections
- Chatter-resistant (bounce-free) contacts
- High operational current, locked rotor max. 144 A (LRA)
- Standard SPDT with same operational current rating for both contacts
- Dual pressure control with independent SPDT switches (single pole double throw) for high and low pressure side
- Locking plate and mounting screws included



Standards

- per Low Voltage Directive
- per PED Directive. TÜV appr. versions only
- Underwriter Laboratories (File Nr. E85974)

Options (minimum order quantity 100 pieces)

- Convertible reset to reduce stock
- Other types of pressure connections upon agreement
- Factory set to customer specification

Selection table single pressure controls PS1

Type	Part No.	Adjustment Range		Lowest Setpoint (bar)	Factory Setting (bar)	Leakage Test Pressure (bar)	Pressure Connection
		Upper Setpoint (bar)	Differential (bar)				
Low Pressure Controls							
PS1-A3A	4 370 700	-0.5 ... 7	0.5 ... 5	-0.9	3.5 / 4.5	24	7/16"-20 UNF
PS1-A3U	4 712 201						solder tube 6 mm
PS1-A3X	4 713 430						solder tube 1/4"
PS1-R3A	4 350 100	-0.5 ... 7	External reset approx. 1 bar above setpoint	-0.9	3.5	24	7/16"-20 UNF
High Pressure Controls							
PS1-A5A	4 350 500	6 ... 31	2 ... 15	3	16 / 20	35	7/16"-20 UNF
PS1-A5L	4 715 136						cap./solder tube 1/4"
PS1-A5U	4 713 325						solder tube 6 mm
PS1-A5X	4 713 434						solder tube 1/4"
PS1-R5A	4 350 700	6 ... 31	Ext. manual reset approx. 3 bar below setpoint	-	20	35	7/16"-20 UNF

Selection table single pressure controls PS1 TÜV (EN 12263)

Type	Part No.	Adjustment Range		Lowest Setpoint (bar)	Factory Setting (bar)	Leakage Test Pressure (bar)	Pressure Connection
		Upper Setpoint (bar)	Differential (bar)				
Pressure Limiter for Low Pressure Protection PSL - Automatic Reset							
PS1-W3A	4 368 300	-0.5 ... 7	0.5 ... 5	-0.9	3.5 / 4.5	24	7/16"-20 UNF
PS1-W3U	4 713 437						solder tube 6 mm
Pressure Cut Out for Low Pressure Protection PZL - External Manual Reset							
PS1-B3A	4 470 400	-0.5 ... 7	Reset Approx. 1 bar Above Setpoint	-0.9	3.5	24	7/16"-20 UNF
PS1-B3U	4 715 141						solder tube 6 mm
Pressure Limiter for High Pressure Protection PSH - Automatic Reset							
PS1-W5A	4 353 200	6 ... 31	2 ... 15	3	16 / 20	35	7/16"-20 UNF
PS1-W5U	4 713 439						solder tube 6 mm
Pressure Cut Out for High Pressure Protection PZH - External Manual Reset							
PS1-B5A	4 353 300	6 ... 31	Reset Approx. 3 bar Below Setpoint	-	20	35	7/16"-20 UNF
PS1-B5U	4 712 332						solder tube 6 mm
Safety Pressure Cut Out for High Pressure Protection PZHH - Internal Manual Reset (with tool)							
PS1-S5A	4 368 400	6 ... 31	Reset Approx. 3 bar Below Setpoint	-	21	35	7/16"-20 UNF
PS1-S5U	4 711 591						solder tube 6 mm

Technical data PS1/PS2/CS1

Type of Contacts	- PS1/CS1: 1 x SPDT contact - PS2: 2 x SPDT contacts
Resistive load (AC1) Inductive load (AC15) Inductive load (DC 13)	24 A / 230 V AC 10 A / 230 V AC 0.1 A / 230 V DC 3 A / 24 V DC 6 A / 12 V DC
Motor rating UL (FLA) Startup / Locked Rotor UL	24 A / 120 / 240 V AC 144 A / 120 / 240 V AC
Medium Compatibility	A1: R448A, R449A, R513A, R450A, R134a, R452A, R23, R410A, R407C, R404A, R507, R124 A2L: R32, R452B, R454B, R454A, R454C, R455A, R1234yf, R1234ze

Protection Acc. EN 60529 / IEC 529	IP 44
Ambient Temperature Range Max. Temperature at Pressure Connection	-50 ... +70°C +70°C
Cable Entry	Grommet PG 16
Locking Device	Blocking Plate
Mounting Screws	M4 / UNC 8-32

Note: For A2L applications please check the Operating Instructions.



Standards and regulations

BGV D4 (VBG20)	Accident prevention regulations for refrigeration plant.
DIN 8901	Heat pumps with fluorocarbon refrigerants. Protection of soil, underground and surface water.
EN 60947-1/ EN 60947-5-1	Specifications for low-voltage switch gear.
EN 378	Refrigerating systems and heat pumps - safety and environmental requirements.
EN 12263	Refrigerating systems and heat pumps - safety switching devices for limiting the pressure requirements and tests.

Selection table for pressure controls

Series	Selection Criteria					
	Design	Number of Contacts (SPDT)	Adjustable	Protection DIN 40050 IEC 529	Rated Operational Current at 230 V AC	
					Inductive Amp. AC 15	Motor Rating UL
PS1 / CS1 (for CO ₂ applications)	Pressure control (single packaging) model	1	yes	IP 44	10 A	24 A
PS2	Dual pressure control (single packaging)	1+1	yes	IP 44	10 A	24 A
PS3	Pressure controls standard types (single packaging)	1	Factory set to fixed values	IP 30 / IP 65	3 A	6 A
	Pressure control special types (100 pieces packaging)	1	Other fixed values acc. to agreed specification	IP 30 / IP 65	3 A	6 A
CS3 (for CO ₂ applications)	Pressure controls standard types (60 pieces packaging)	1	Factory set to fixed values	IP 30 / IP 65	3 A	6 A
	Pressure control special types (60 pieces packaging)	1	Other fixed values acc. to agreed specification	IP 30 / IP 65	3 A	6 A
PS4	Pressure controls standard types (100 pieces packaging)	(SPST)	Factory set to fixed values	IP67 (cable) IP00 (terminals)	6 A	6 A
FD 113	Differential pressure control	1	Yes pressure diff. + time delay	IP 30	3 A / 6 A	-