JOHNSON CONTROLS PENN®

PRODUCT BULLETIN

Series P77

Single Pressure Controls for Refrigeration, Air-conditioning and Heatpump Applications

Introduction

These pressure controls are designed for use in a variety of applications involving refrigeration high or low pressure. Models supplied have a "whole range" design, enabling them to be used with refrigerants R22, R134A, R404A and all other non-corrosive refrigerants which are within the operating range of the control. They may also be used for other high or low pressure applications such as air, water etc. Models which can be used with ammonia as well as controls tested, conforming to DIN 32733, and approved by TÜV are included in the program. DIN (HP) models are also tested and approved according to PED 97/23CE Cat. IV.

Description

The P77 series pressure controls may be used for control functions or limit functions, depending on model number. All models are provided with alarm contacts. All standard models have phosphor bronze bellows and brass pressure connections. Models for use with ammonia are provided with stainless steel bellows and connectors. Devices conforming to DIN 32733 have a double bellows on the high pressure versions. Their IP54 classification means that these pressure controls are suitable for almost all applications.



P77 Single Pressure Control for Refrigeration

Feature and Benefits	
❑ **Generous wiring space**	Easy wiring and maintenance
❑ **Splash-proof enclosure (IP54)**	Can be used for indoor/outdoor applications
❑ **SPDT contacts are provided as standard on single pressure controls.**	Can be wired for alarm functions
❑ **Trip-free manual reset**	Override is not possible in the control function

Type number selection table

Pressure controls for Non-corrosive refrigerants

Family Code	Style 5			Style 30	Range (bar)	Diff. (bar)	Contact function (Figure)	Max. Bellows pressure
	Ind. Pack.	Code***	Bulkpack	Ind. Pack.				
P77AAA	-9300	P77L	-9320	-9400	-0.5 to 7	0.5 to 3	1	22
	-9301				-0.2 to 10	1 to 4.5	1	15
	-9302		-9322		-0.3 to 2	0.4 to 1.5	1	4
	-9350	P77H	-9370	-9450	3 to 30	3 to 12	2	33
	-9351	P77A	-9371	-9451	3.5 to 21	2.1 to 5.5	2	30
P77BCA	-9300		-9320	-9400	-0.5 to 7	Man. res.**	1	22
P77BEA	-9350	P77HR	-9370	-9450	3 to 30	Man. res.*	3	33

*** Only individual package
** Resetable at 0.5 bar above cut-out point
* Resetable at 3 bar below cut-out point

Pressure controls for Non-corrosive refrigerants, built in accordance with DIN 32733 and approved by TÜV Germany

Family Code	Style 5			Style 28	Range (bar)	Diff. (bar)	Contact function (Figure)	Max. Bellows pressure	Approved according to PED 97/23CE Cat. IV
	Ind. Pack.	Code***	Bulkpack	Ind. Pack.					
P77AAW	-9300		-9320	-9800	-0.5 to 7	0.5 to 3	1	20	
	-9350	P77W	-9370	-9850	3 to 30	3.5 to 12	2	33	Yes
P77BCB	-9300		-9320	-9800	-0.5 to 7	Man.res.**	1	20	
P77BEB	-9350	P77B	-9370	-9850	3 to 30	Man. res.*	3	33	Yes
P77BES	-9350	P77S	-9370	-9850	3 to 30	Man. res.*	3	33	Yes

*** Only individual package
** Resetable at 0.5 bar above cut-out point
* Resetable at 3.5 bar below cut-out point

Pressure controls for Ammonia and Non-corrosive refrigerants, built in accordance with DIN 32733 and approved by TÜV Germany

Family Code	Style 15		Range (bar)	Diff. (bar)	Contact function (Figure)	Max. Bellows pressure	Approved according to PED 97/23CE Cat.IV
	Ind. Pack.	Bulkpack					
P77AAW	-9700		-0.5 to 7	0.5 to 3	1	20	
	-9750		3 to 30	3.5 to 12	2	33	Yes
P77BCB	-9700		-0.5 to 7	Man. res.**	1	20	
P77BEB	-9750		3 to 30	Man. res.*	3	33	Yes
P77BES	-9750		3 to 30	Man. res.*	3	33	Yes

** Resetable at 0.5 bar above cut-out point
* Resetable at 3.5 bar below cut-out point

Pressure controls for Ammonia and Non-corrosive refrigerants

Family Code	Style 15		Range (bar)	Diff. (bar)	Contact function (Figure)	Max. Bellows pressure
	Ind. Pack.	Bulkpack				
P77AAA	-9700		-0.5 to 7	0.5 to 3	1	20
	-9750	-9770	3 to 30	3.5 to 12	2	33
P77BCA	-9700		-0.5 to 7	Man. res.**	1	20
P77BEA	-9750		3 to 30	Man. res.*	3	33

** Resetable at 0.5 bar above cut-out point
* Resetable at 3 bar below cut-out point
Note: 100 kPa = 1 bar ≈ 14.5 psi