

Series P48

Pressure Controls for Steam, Air or (hot) Water

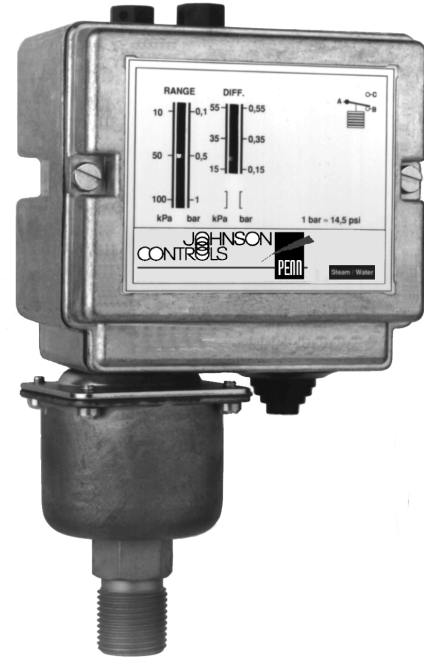
Introduction

The series P48 pressure controls are designed as operating or high/low cut-out control on steam, air or (hot) water applications. Also for non-combustible gases which are not harmful to the materials in contact with these mediums. On steam applications a steam trap is recommended (see Accessories).

Description

The P48 series have been developed for special applications where pressure must be controlled. All models have an adjustable differential depending on the range (see type number selection table). The P48AAA-9110 and P48AAA-9120 has the power element outside the case.

All the models have phosphor bronze bellows and brass pressure connections except the P48AAA-9150. This model has a stainless steel bellows and pressure connection and is provided with a brass adapter 1/4"-18 NPT female to R3/8 male.



P48 Pressure Control for Steam, Air or (hot) Water

Feature and Benefits

<input type="checkbox"/> Generous wiring space provided	Easy wiring and maintenance
<input type="checkbox"/> Splash-proof enclosure (IP54)	Can be used for indoor/outdoor applications
<input type="checkbox"/> SPDT contacts are provided as standard on single pressure control	Can be wired for alarm functions
<input type="checkbox"/> Trip-free manual reset	Override is not possible in the control function.

Note

These controls are designed for use only as operating controls. Where an operating control failure would result in personal injury or loss of property it is the responsibility of the installer to add devices or systems that protect against, or warn of, control failure.

Manual reset models are possible as optional construction for quantities only.

Mounting

Mounting can easily be done with a mounting bracket 271-51 (order separately) or directly on a surface. Mounting holes 4.5 mm diam. and M4 holes are provided.

Adjustment

Adjustment of range and differential can be done by turning the hexagonal range screw and differential screw. These screws can also be locked by a lockplate accessory (KIT023N600) (order separately).

The range scale indicates high switch point (contacts A - B open, A - C closed). Deduct differential to obtain low switch point.

Contact function

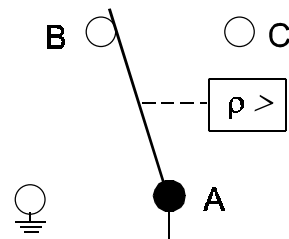


Fig. 1

A - B open on pressure increase.
A - C close simultaneously.

Optional construction note

If your requirements are not in the type number selection table, then please contact your Johnson Controls representative.

Repair and replacement

Repair is not possible. In case of an improperly functioning control, please check with your nearest supplier. When contacting the supplier for a replacement you should state the type/model number of the control. This number can be found on the data plate or cover label.

Type number selection table

Range (bar)	Differential (bar)	Max. bellows pressure (bar)	Order number
0 - 1	0.16 - 0.55	3.5	P48AAA-9110
0.2 - 4	0.25 - 0.80	8	P48AAA-9120
-0.2 - 10	1 - 4.5	15	P48AAA-9130
1 - 16	1.3 - 2.5	25	P48AAA-9140
3 - 30	3 - 12	33	P48AAA-9150

Note: 1 bar = 100 kPa ≈ 14.5 psi

Accessories (order separately)

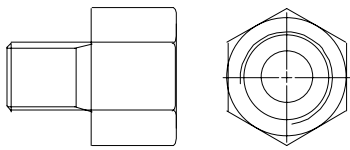


Fig. 2
Brass adapter R3/8 female
to 1/4-18 NPT male
order number
CNR012N001R

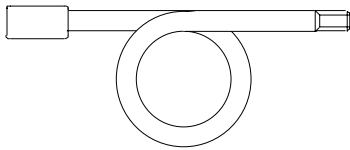


Fig.3
Steam trap 1/4-18 NPT
male/female
order number TGB16A600

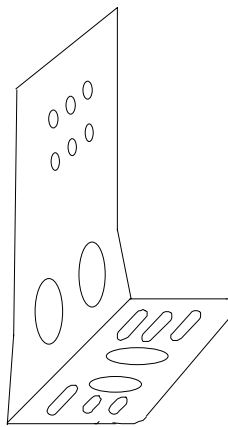


Fig. 4
Mounting bracket
order number 271-51

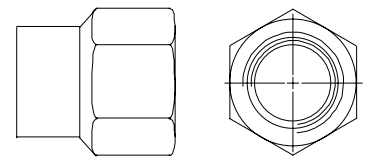


Fig. 5
Brass adapter R3/8 female
to 1/4-18 NPT female
order number
CNR013N001R

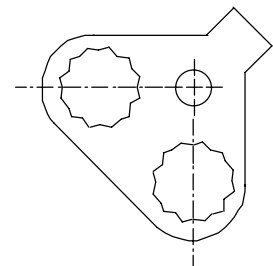


Fig. 6
Locking kit
order number KIT023N600

Power element dimensions (mm)

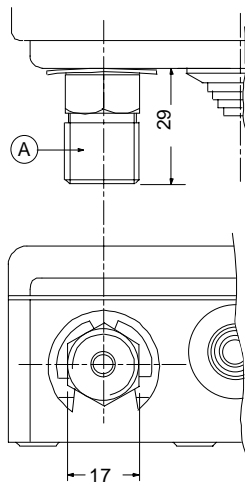


Fig. 7
All ranges except 0 to 1 bar and 0.2 to 4 bar
A. R3/8

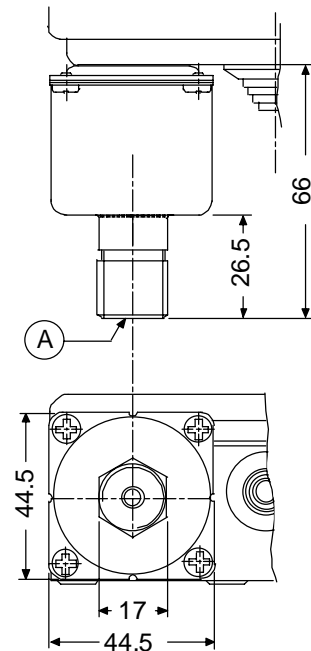
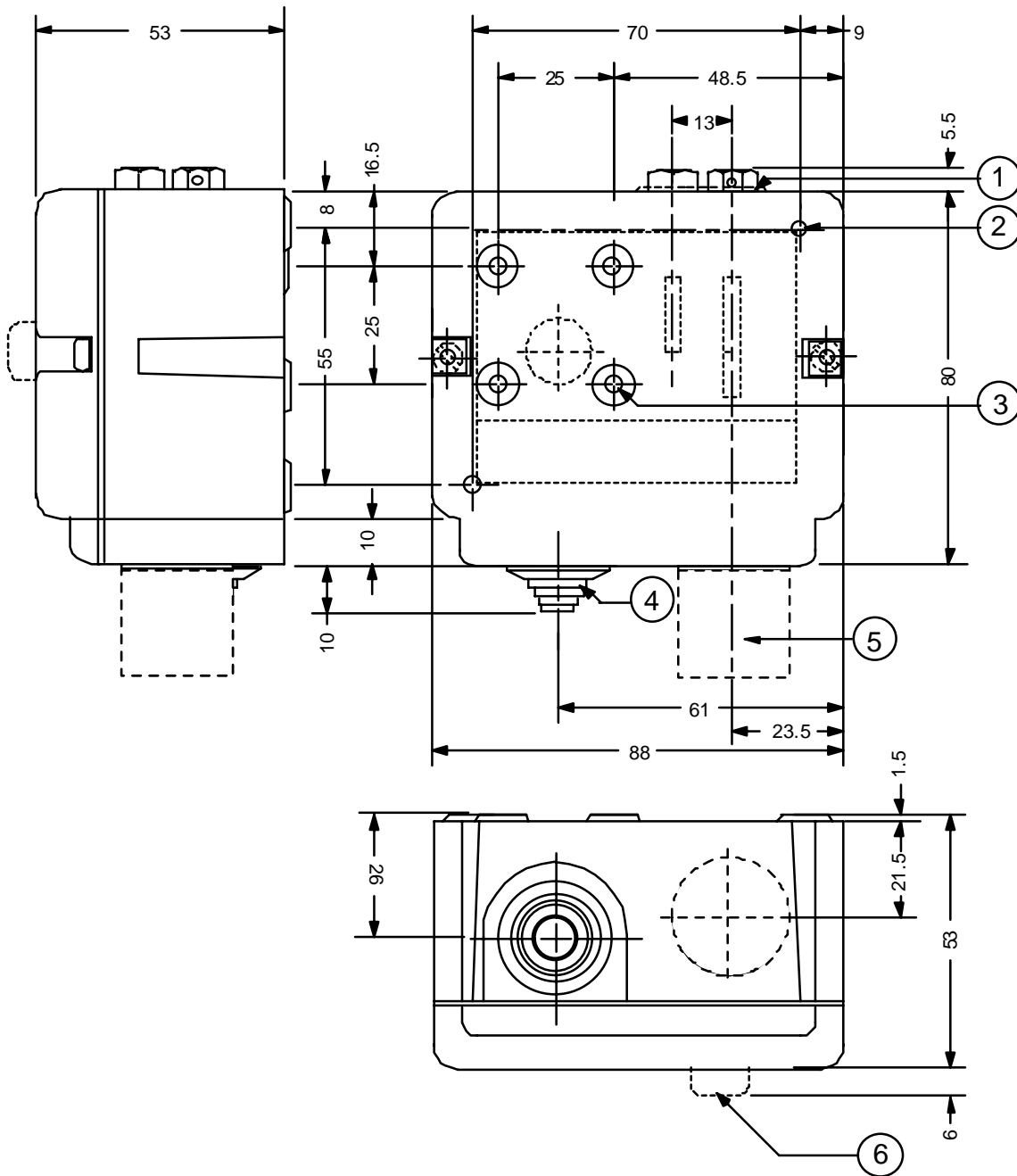


Fig. 8
Ranges 0 to 1 bar and 0.2 to 4 bar
A. R3/8

Dimensions (mm)

1. Lockplate (if applied)
2. Two mounting holes $\varnothing 4.5$
3. Four mounting holes M4 (deep 6 mm)
4. Cable inlet grommet (cable range $\varnothing 5$ to $\varnothing 13$)
5. Power element see fig 1 and 2
6. Reset button (reset models only)

Fig. 9

Notes

Notes

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Specifications

Types, ranges differentials	See type number selection table		
Media	Steam, air, water, non-combustible gases		
Max. medium temperature	+100 °C		
Pressure connector	R 3/8 male*		
Ambient temperature limits	-50 to + 55 °C (+70 °C maximum duration two hours)		
Material	case and cover	Weather-proof aluminium die cast	
	contact unit	Large copper backed silver cadmium (AgCdO) contacts on phosphor bronze conductor leaves	
	bellows	Phosphor bronze**	
Protection	IP54		
Electrical rating	~16(10)A 400 V :: 220 V, 12 W (pilot duty only)		
Packaging	Individual package		
Shipping weights	ind. pack	0.5 kg	
	overpack	12 kg (24 pcs.) for	P48AAA-9110 P48AAA-9120 P48AAA-9150
		20 kg (40 pcs.) for	P48AAA-9130 P48AAA-9140

* Except P48AAA-9150: 1/4"-18 NPT plus adapter to R3/8 male.

** Except P48AAA-9150: stainless steel 316 L.

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office or representative. Johnson Controls shall not be liable for damages resulting from misapplication or misuse of its products.

**JOHNSON
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