



Description

Air differential pressure switch serie PA for monitoring overpressure, vacuum and differential pressure of air or other non-combustible, non-aggressive gases. The switching pressure can be adjusted without a manometer at the adjustment knob with the guide value scale. Various versions are available for this with overlapping adjustment ranges of between 20 and 5000 Pa (0,2 and 50 mbar). Possible fields of application are monitoring air filters and ventilators, industrial cooling-air circuits, flows in ventilation ducts, overheating protection for fan heaters, controlling air and fire-protection flaps, frost protection for heat exchangers.

Technical specifications

Medium	Air, non-combustible and non-aggressive gases
Measurement range	20...300 Pa (0,2...3 mbar), 30...400 Pa (0,3...4 mbar), 50...500 Pa (0,5...5 mbar), 50...700 Pa (0,5...7 mbar), 200...1000 Pa (2...10 mbar), 500...2500 Pa (5...25 mbar), 1000...5000 Pa (10...50 mbar), 100...1000 Pa (1...10 mbar)
Accuracy	±15%, min. ±10 Pa, drift <±15%
Mechanical working life	Over 10 ⁶ switching operations
Electrical rating	Max 1.5 (0.4) A / 250 VAC (low voltage version max. 0,1 A, 24 VDC on request)
Electrical connection	AMP flat plug 6.3 x 0.8 mm, acc. DIN 46244 or push-on screw terminals
Max. operating pressure	10 kPa (100 mbar) for all pressure ranges
Housing material	Switch body made of PA 6.6, cover made of PS
Cable conduit	M16x1,5 connection made of polyamide
Diaphragm material	Silicone, tempered at 200°C, free of gas emissions (NBR optionally)
Housing	approx. Ø 85 x 58 mm, weight 150 g
Protection type	IP54 (IP65 in version G)
Working humidity	0...95% RH, non-condensing
Working temperature	-20...+85°C
Storage temperature	-40...+85°C
Accessories (optionally)	Connection set (PVC-hose 2 m Ø 6 with 2 ABS nippels and 4 screws) and snap-on plastic brackets
Installation	Screw fastening
Installation position	Preferred vertical
Standards	CE-conformity, RoHS, EN1854 class A. Models available on request with UL508, CSA, ATEX approvals.
Optional	multiply packing (45 pcs/cardboard), models with range in mbar, UL / CSA approval (not available for IP65 models), IP65 protection, ATEX directive, low voltage version max. 0,1 A, 24 VDC, NBR diaphragm



Models	Measuring range	Repeatability	Differential*
PA1	20...300 Pa (0,2...3 mbar)	±5%, min. ±5 Pa	10 Pa (0,1 mbar)
PA2	30...400 Pa (0,3...4 mbar)	±5%, min. ±5 Pa	15 Pa (0,15 mbar)
PA3	50...500 Pa (0,5...5 mbar)	±2,5%, min. ±5 Pa	20 Pa (0,2 mbar)
PA4	200...1000 Pa (2...10 mbar)	±1%, min. ±5 Pa	100 Pa (1 mbar)
PA5	500...2500 Pa (5...25 mbar)	±1%	150 Pa (1,5 mbar)
PA6	1000...5000 Pa (10...50 mbar)	±1%	250 Pa (2,5mbar)
PA7	100...1000 Pa (1...10 mbar)	±2,5%, min. ±5 Pa	50 Pa (0,5 mbar)
PA8	50...700 Pa (0,5...7 mbar)	±2,5%, min. ±5 Pa	20 Pa (0,2 mbar)
Accessories:	APA1 Snap-on plastic bracket, L-shaped APA2 Snap-on plastic bracket, S-shaped APA3 PVC-hose 2 m Ø 6 with 2 ABS nippels and 4 screws		

*typically, at beginning of setting range

Switching pressure specifications apply to vertical installation which is also the recommended position with pressure-pipe connections pointing downwards. If the switches are installed horizontally with the tab terminals uppermost, the switching values are approx. 20 Pa higher.

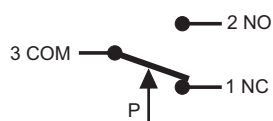


Order matrix

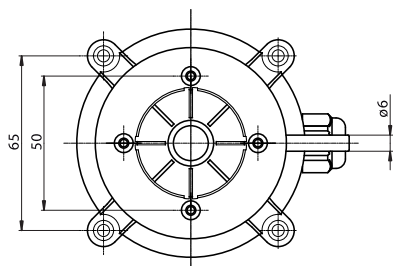
Configurable pressure ranges	20...300 Pa	(0,2...3 mbar)	PA	1						
	30...400 Pa	(0,3...4 mbar)		2						
	50...500 Pa	(0,5...5,0 mbar)		3						
	200...1000 Pa	(2...10 mbar)		4						
	500...2,5 kPa	(5...25 mbar)		5						
	1...5 kPa	(10...50 mbar)		6						
	0,1... 1 kPa	(1... 10 mbar)		7						
	50...700 Pa	(0,5...7,0 mbar)		8						
Unit of measure	Pascal									
	Millibar				B					
Protetion	IP54									
	IP65					G				
Low voltage version	low voltage version max. 0,1 A, 24 VDC						LC			
Approval	Standard									
	UL							UL		
Directive	ATEX (II 2G Ex ia IIB T4 Gb / 2D Ex ia IIIB T135°C Db)*								X	
Packaging	Unit									
	45 pcs packaging									M

* Electrical rating: 2G: max 60 mA / 30 VDC or 100 mA 24 VDC
2D: max 60 mA / 30 VDC 0,6 W

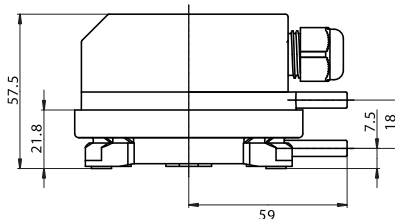
Electrical wirings



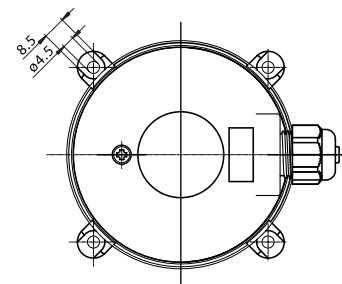
Dimensions (mm)



APA1 Snap-on plastic bracket, L-shaped



APA2 Snap-on plastic bracket, S-shaped



ABS nipple (part of APA3)

