

AT1-ADPS & EDPS

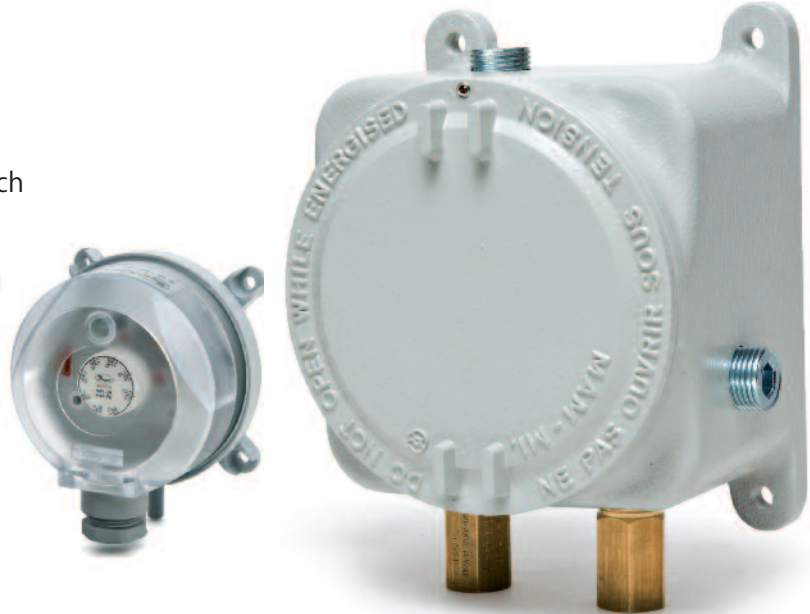
DIFFERENTIAL PRESSURE SWITCH FOR LOW RANGES ATEX/IECEX Exd APPROVED

AT1.ADPS-EDPS
REV.04 - ENG



ADPS & EDPS differential pressure switch now available from Comhas as single instrument ATEX/IECEX approved

Ranges from 20 to 4000 Pa



Agency approvals

Atex:	CE 1370 II 2G Ex d IIC T6 Gb II 2D Ex tb IIIC T85°C Db, -60°C ≤ T _{amb} ≤ +60°C Certificate: BVI 14 ATEX 0072
IECEX:	Ex d IIC T6 Gb Ex tb IIIC T85°C Db Certificate: IECEX EPS 14.0082
Enclosure rating:	IP66 (IP65 with option OPV)

AT1-ADPS specifications

Service:	air and compatible gases and dry gases.	Housing material:	aluminium (stainless steel optional).
Wetted materials ADPS:	Diaphragm material: Silicone Housing material: POM Switch body: PA 6.6 Cover: Polystyrene	Finishing:	texture epoxy coat RAL7038 (only aluminium case).
Wetted materials EDPS:	Diaphragm material: Silicone Housing material: switch body PA 6.6 Cover: Polystyrene Materials UL94 V-0 rated	Pressure connections:	1/8" NPT F brass (stainless steel optional). In presence of acetylene it is necessary to use stainless steel.
Temperature limits:	Pressure switch ADPS/EDPS: from -20 to 85°C Case: -76 to 140°F (-60 to 60°C)*	Electrical connections:	2 x 1/2" NPT F standard (cable gland not included).
Pressure limits:	max operating pressure 10 kPa.	Dimensions:	see drawing below
Switch:	type SPDT.	Weight:	3,2 Kg ab. (blind).
Electrical rating:	max. frequency 6 cycles/min.	CAUTION FOR USE ONLY WITH AIR OR COMPATIBLE GASES! CONTACT FACTORY FOR USE WITH GASES, OTHER THAN AIR AND NITROGEN.	
Electrical wiring:	3 screw type, common, normally open and normally closed.	Important notes for installation:	
Set point adjustment:	hand knob on pressure switch ADPS inside case (de-energise before opening case).	• Cables must be fitted through 1/2" NPT cable gland or ATEX/IECEX conduit (not supplied with instrument). • Make sure after cabling to close tight cover and cable gland, in order to keep IP66 rating (IP65 with option OPV, pressure relief valve). • Open cover only after de-energising instrument. • Attention: check local safety rules and warnings on unit and manual for a correct use of the instrument in hazardous area.	
Installation:	diaphragm in vertical position.		

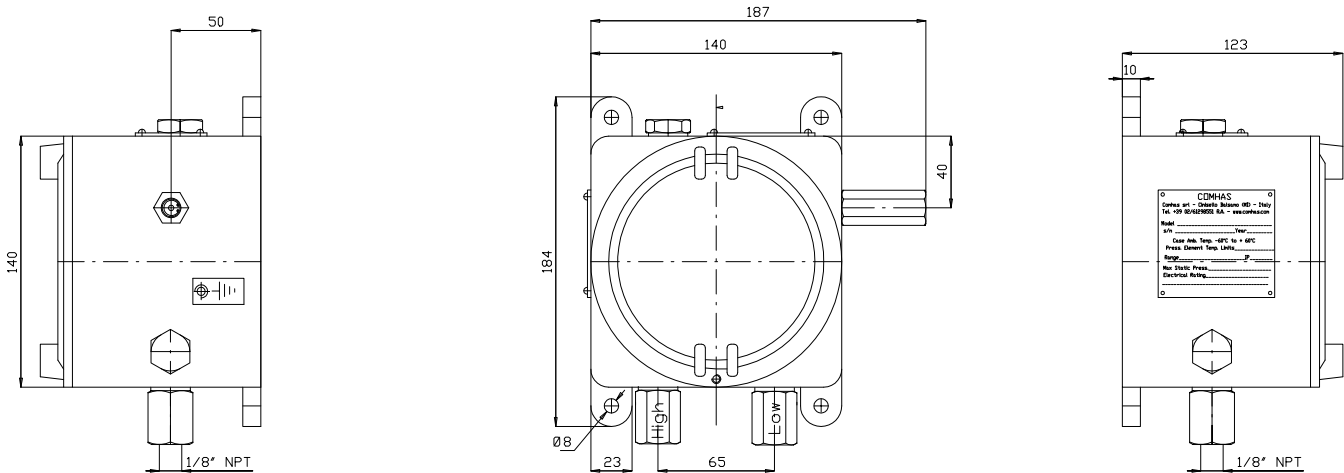
*Operating ambient temperature is defined also according to the options and pressure instrument choosed.

Standard ranges ADPS and EDPS

MODEL	OPERATING RANGES	APPROXIMATE DEADBAND	
		AT MIN SET POINT	AT MAX SET POINT
ADPS-08-2-N	0.08-0.80 Inch W.C. (20-300 Pa)	0.04 inch W.C. (10 Pa)	0.05 inch W.C. (12 Pa)
ADPS-04-2-N	0.12-1.60 Inch W.C. (30-400 Pa)	0.06 inch W.C. (15 Pa)	0.09 inch W.C. (22 Pa)
ADPS-03-2-N	0.20-2.00 Inch W.C. (50-500 Pa)	0.08 Inch W.C. (20 Pa)	0.09 inch W.C. (23 Pa)
ADPS-05-2-N	0.80-4.00 Inch W.C. (200-1000 Pa)	0.4 inch W.C. (100 Pa)	0.5 inch W.C. (130 Pa)
ADPS-06-2-N	2.00-10.00 Inch W.C. (500-2500 Pa)	0.6 inch W.C. (150 Pa)	0.8 inch W.C. (200 Pa)
ADPS-07-2-N	4.00-20.00 Inch W.C. (1000-5000 Pa)	1.0 inch W.C. (250 Pa)	1.4 inch W.C. (350 Pa)

MODEL	OPERATING RANGES	APPROXIMATE DEADBAND	
		AT MIN SET POINT	AT MAX SET POINT
EDPS-08-2-N	0.08-0.80 Inch W.C. (20-300 Pa)	0.04 inch W.C. (10 Pa)	0.05 inch W.C. (12 Pa)
EDPS-04-2-N	0.12-1.60 Inch W.C. (30-400 Pa)	0.06 inch W.C. (15 Pa)	0.09 inch W.C. (22 Pa)
EDPS-03-2-N	0.20-2.00 Inch W.C. (50-500 Pa)	0.08 Inch W.C. (20 Pa)	0.09 inch W.C. (23 Pa)
EDPS-05-2-N	0.80-4.00 Inch W.C. (200-1000 Pa)	0.4 inch W.C. (100 Pa)	0.5 inch W.C. (130 Pa)
EDPS-06-2-N	2.00-10.00 Inch W.C. (500-2500 Pa)	0.6 inch W.C. (150 Pa)	0.8 inch W.C. (200 Pa)
EDPS-07-2-N	4.00-20.00 Inch W.C. (1000-5000 Pa)	1.0 inch W.C. (250 Pa)	1.4 inch W.C. (350 Pa)

Dimensions



Consult factory for different holes layout.

Model configuration ADPS

HOUSING	CODE	AT1	ADPS	-	-	-	-	-	-	-	-	-	-	-
MODEL	ADPS	ADPS	ADPS											
RANGE	0.08 - 1.2 Inch W.C. (20-300 Pa)			08	2	N								
	0.12 - 1.60 Inch W.C. (30-400 Pa)			04	2	N								
	0.20 - 2.00 Inch W.C. (50-500 Pa)			03	2	N								
	0.80 - 4.00 Inch W.C. (200-1000 Pa)			05	2	N								
	2.00 - 10.00 Inch W.C. (500-2500 Pa)			06	2	N								
	4.00 - 20.00 Inch W.C. (1000-5000 Pa)			07	2	N								
HOUSING MATERIAL	Alluminium									A				
	Stainless steel (s.s. connection included)									S				
HOUSING OPTIONS	Blind top cover									B				
	Glass transparent cover									n.a.				
	1/8" NPT F brass pressure port										1			
	1/8" NPT F stainless steel (only for aluminium housing)										2			
	Standard - without overpressure relief valve											X		
	Overpressure relief valve* (material: same as pressure ports)											OPV		
	Stainless steel tag												T2	
OTHER OPTIONS	See "other options" list												

HOUSING	CODE	AT1	EDPS	-	-	-	-	-	-	-	-	-	-	-
MODEL	EDPS	EDPS	EDPS											
RANGE	0.08 - 1.2 Inch W.C. (20-300 Pa)			08	2	N								
	0.12 - 1.60 Inch W.C. (30-400 Pa)			04	2	N								
	0.20 - 2.00 Inch W.C. (50-500 Pa)			03	2	N								
	0.80 - 4.00 Inch W.C. (200-1000 Pa)			05	2	N								
	2.00 - 10.00 Inch W.C. (500-2500 Pa)			06	2	N								
	4.00 - 20.00 Inch W.C. (1000-5000 Pa)			07	2	N								
HOUSING MATERIAL	Alluminium									A				
	Stainless steel (s.s. connection included)									S				
HOUSING OPTIONS	Blind top cover									B				
	Glass transparent cover									n.a.				
	1/8" NPT F brass pressure port										1			
	1/8" NPT F stainless steel (only for aluminium housing)										2			
	Standard - without overpressure relief valve											X		
	Overpressure relief valve* (material: same as pressure ports)											OPV		
	Stainless steel tag												T2	
OTHER OPTIONS	See "other options" list												

* IP65 in case of relief valve installation (OPV). Relief valve is used to keep atmospheric pressure inside the case.
Suggested in case of risk of having static pressure ≥ 19 Bar (static pressure admitted is indicated on tag and it will be anyway always < 19 bar).

OTHER OPTIONS

XXXXX: Layout code for different holes sizes and layout.

Dimensions may change without any advice.