

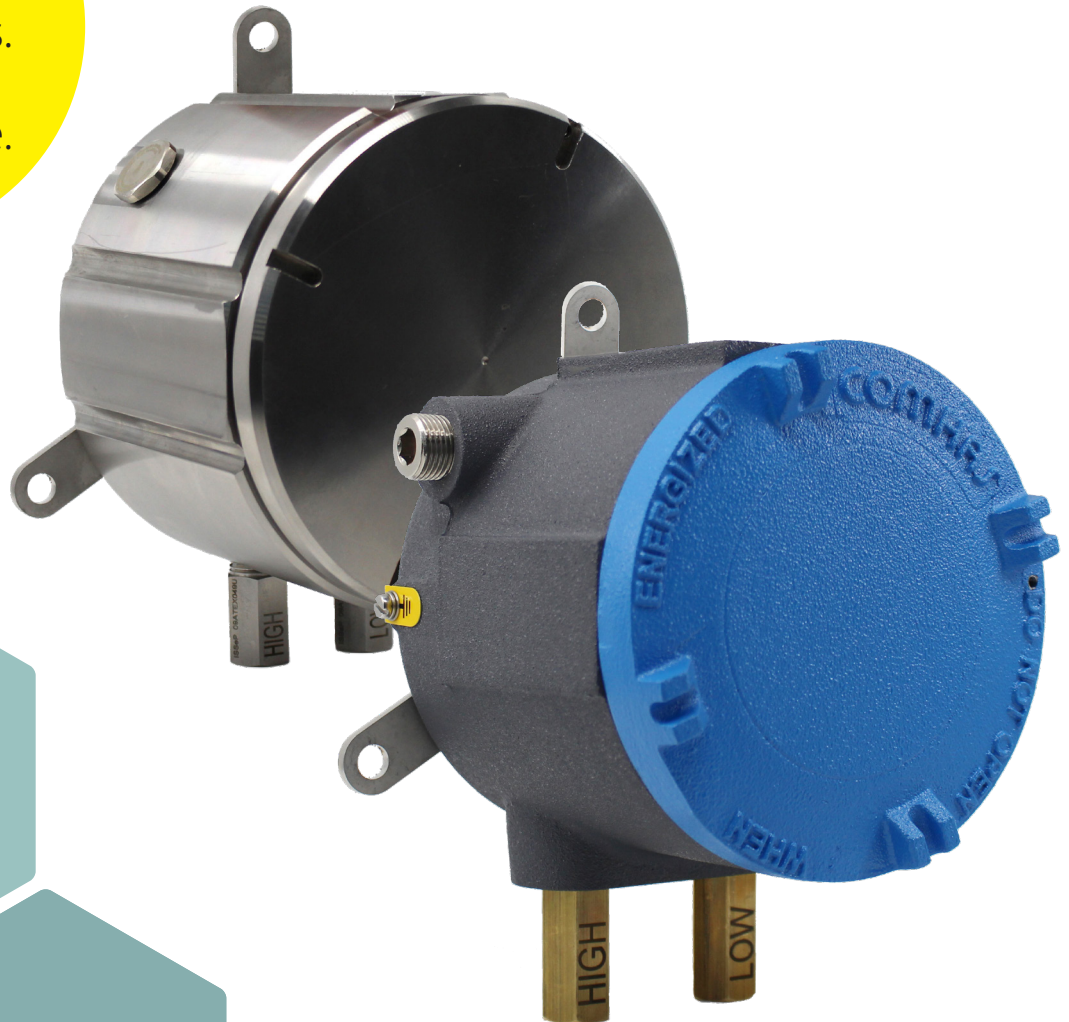
COMHAS

AT-101-ADPS&EDPS AT-102S-ADPS&EDPS

Differential pressure switch for low ranges atex/iecex Exd approved

NEW

Now available with Low DP pressure ports. Improved response time.



ADPS & EDPS differential pressure switch now available from Comhas as single instrument Atex/IECEx approved

Ranges from 20 to 4000 Pa

ATEX

CE 0080

II 2G Ex db IIC T5, T6 Gb -60°C ≤Ta ≤+50°C (T6)
-60°C ≤Ta ≤+60°C (T5)

II 2D Ex tb IIIC T75 °C Db
Certificate: INERIS 21 ATEX 0033 X

IECEx

Ex db IIC T5, T6 Gb -60°C ≤Ta ≤+50°C (T6)
-60°C ≤Ta ≤+60°C (T5)

Ex tb IIIC T75°C Db
Certificate: IECEx INE 21.0064X

SPECIFICATIONS

Service:	air and compatible gases and dry gases. Not suitable for combustible gases.
Wetted materials ADPS:	Diaphragm material: silicone Housing material: POM Switch body: PA 6.6 Cover: polystyrene
Wetted materials EDPS:	Diaphragm material: silicone Housing material: switch body PA 6.6 Cover: polystyrene Materials UL94 V-0 rated
Temperature limits:	Pressure switch ADPS/EDPS: from -20 to 85°C case: -76 to 140°F (-60 to 60°C)* T5 (-60 to 50°C) T6
Pressure limits:	40" H2O - 10 Kpa
Switch:	type SPDT
Electrical rating:	max. frequency 6 cycles/min.
Electrical wiring:	3 screw type, common, normally open and normally closed.
Set point adjustment:	hand knob on pressure switch ADPS inside case (de-energise before opening case).
Installation:	diaphragm in vertical position.
Housing material:	aluminium (stainless steel optional).
Finishing:	Grey - texture epoxy coat RAL7015 (aluminum case) Blue - RAL 5015 (top cover)
Process connections:	1/8" female NPT brass (stainless steel optional).
Electrical connections:	2 x 1/2" NPT F standard (cable gland not included).
Enclosure rating:	IP66
Dimensions:	see drawing below
Weight:	from 4,7 to 15,5 kg
Response time:	higher response time with "STD" pressure ports PLS see table 3

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

IMPORTANT NOTES FOR INSTALLATION:

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 (only without venting 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.

1. Model configuration ADPS

CODE	AT-101			-	ADPS	-								
	AT-102 (only for stainless steel material version)													
Enclosure extension	Enclosure without extension	N												
	Enclosure with extension	n/a												
Case material	Aluminum		A											
	Stainless steel (only AT-102 version)		S											
Dwyer model					ADPS									
Ranges	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				
Cover	Blind										B			
	Glass window										W			
Pressure port / venting valve material	Brass											1		
	Stainless steel											2		
Pressure port/venting valve (check table 2 based on max static pressure)	STD pressure port 1/8" F NPT / no venting valve												VSO	
	LD pressure port 1/8" F NPT / no venting valve												VLO	
Cable entry	1/2" NPT ANSI/ASME B1.20.1													12
Other options	Stainless steel tag													

n/a: NOT AVAILABLE

1. Model configuration EDPS

CODE	AT-101			-	EDPS	-								
	AT-102 (only for stainless steel material version)													
Enclosure extension	Enclosure without extension	N												
	Enclosure with extension	n/a												
Case material	Aluminum		A											
	Stainless steel (only AT-102 version)		S											
Dwyer model					EDPS									
Ranges	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	
Cover	Blind												B	
	Glass window												W	
Pressure port / venting valve material	Brass												1	
	Stainless steel												2	
Pressure port/venting valve (check table 2 based on max static pressure)	STD pressure port 1/8" F NPT / no venting valve													VSO
	LD pressure port 1/8" F NPT / no venting valve													VLO
Cable entry	1/2" NPT ANSI/ASME B1.20.1													12
Other options	Stainless steel tag													

n/a: NOT AVAILABLE

2. Max static pressure admitted - Pressure ports and venting valve configuration

		Simplified scheme of pressure port / breathing device (venting valve)				Maximum pressure value with:	
						only one pressure port connected	both pressure ports connected
Code	V50	PRESSURE PORTS	STD	Enclosure breathing device (venting valve)	None	10 kPa	10 kPa
	VLO		LD		None	10 kPa	10 kPa

3. Time response graphs

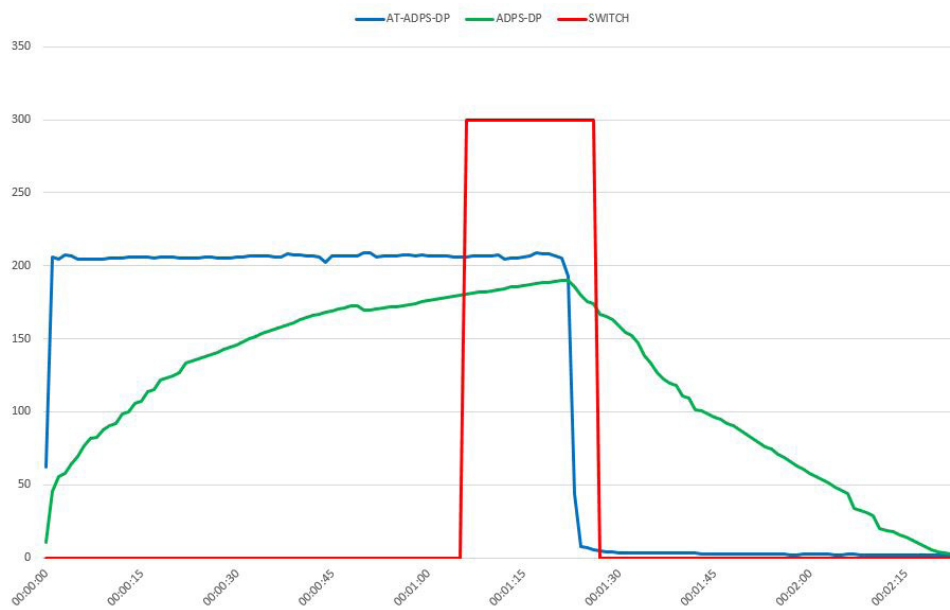
NEW "LD" FLAME ARRESTORS

The use of flame arrestors introduce some time delay in switching of the relay.

Comhas have developed a new Low pressure drop flame arrestor (LD series) that is suggested if requested better response time. Following are some graphs with difference in response time between LD and STD series.

- upstream pressure ports
- downstream pressure ports

ADPS-STD



ADPS-LD



Dimension

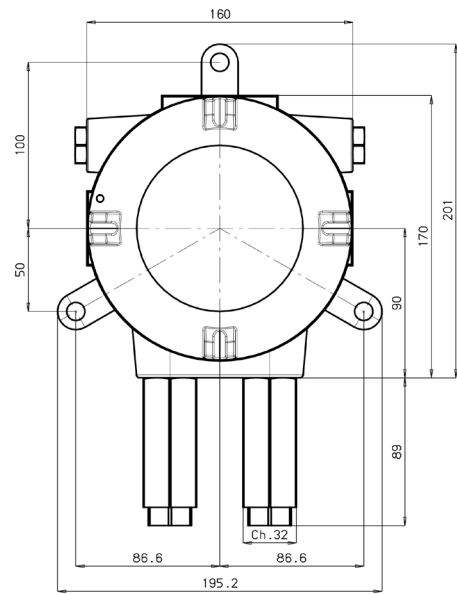
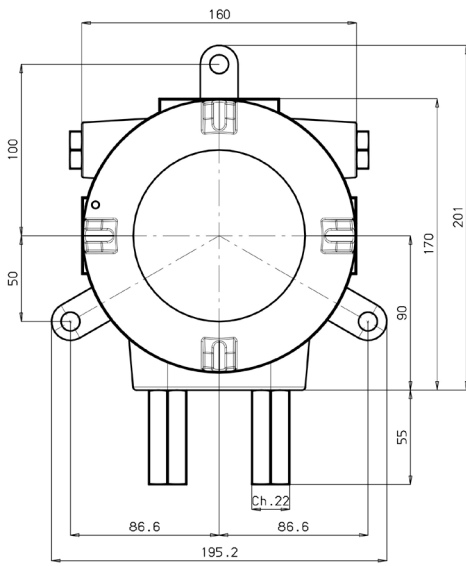
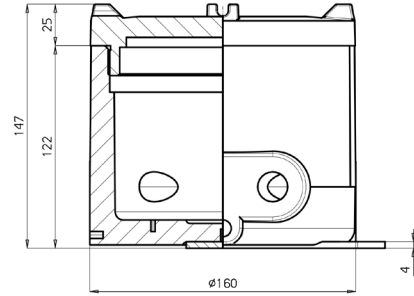
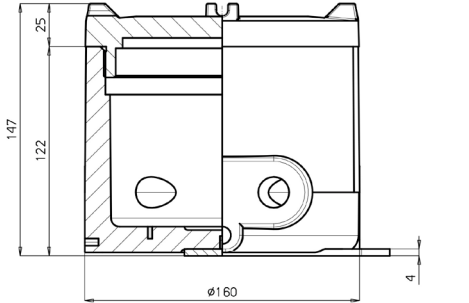
Aluminum case

VS0

STD pressure port/no venting valve

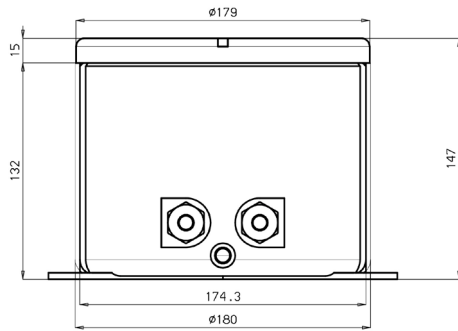
VLO

LD pressure port/no venting valve



Stainless steel case

V50
STD pressure port/no venting valve



VLO
LD pressure port/no venting valve

