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**MEASUREMENT AND CONTROL**

**Data Sheet 40.4200**

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# Pressure and differential pressure switch Type 4ADS-10

## Application

Differential pressure switches 4ADS-10 are used mainly for monitoring air and oil filters in compressor installations. Because of their rugged construction they have numerous additional applications in all areas of process technology where differential pressures have to be monitored. The units can also be used as pressure or vacuum switches by connecting up only one of the pressure connections.

## Type designation

4ADS-10  
4 Pressure instrument  
A surface mounting  
DS pressure and differential  
pressure switch  
.10 housing 100 mm dia.

## Extra Codes

/01 restrictor in pressure duct  
/48 switching points vacuum  
between -50 mbar and  
-0.6 bar  
/49 accuracy  $\pm 2\%$   
switching differential 10%  
of switching point setting  
/50 Protection IP 54

## Ordering example

Pressure and differential pressure switch  
Type 4ADS-10/47/50  
Switching point: 2 bar

## Construction

Two aluminium die-cast housing shells form two independent pressure chambers in conjunction with a separating diaphragm, rivetted pressure plates and springs.

## Operation

A change of pressure in the pressure chambers causes axial movement of a plunger. A single-pole microswitch is operated when a factory-set pressure difference has been reached.

1.93/00073100

## Technical data

**Housing**  
aluminium die-casting GD-AISI8Cu3

**Surface**  
trowalised; painted to special order

**Pressure connection**  
2 female threads  $1/4"$  pipe

**Restrictor in pressure duct**  
sintered disc with restriction hole  
with Code /01

**Diaphragm**  
acrylonitrile-butadiene rubber (NBR)  
resistant to: Diesel fuel, mineral oil, oil-  
bearing air, heating oil, water

**Cable entry**  
Pg11 cable gland

**Electrical connection**  
faston tags 6.3 x 0.8 mm to DIN 46 248/A  
for angle connectors

**Type of contact**  
single-pole changeover microswitch (CSA  
and UL approval)

**Protection**  
normally IP43  
Code /50 IP54

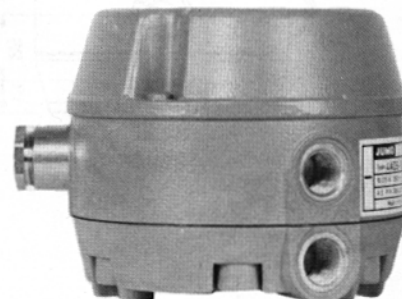
**Mounting**  
by 2 holes M6 x 10 at the back

**Operating position**  
unrestricted

**Switching point**  
permanently set at the factory  
**The exact value of the switching point  
must be specified when ordering.**

**Pressure and differential pressure switch**  
switching points normally from 50 mbar to  
6 bar

**Vacuum switch, Code /48**  
from -50 mbar to -800 mbar.  
overload limit: -1 bar



**Switching point accuracy**  
normally  $\pm 5\%$   
Code /49  $\pm 2\%$

**Switching differential**  
normally 30% of switching point setting  
Code /49: 10% of switching point setting

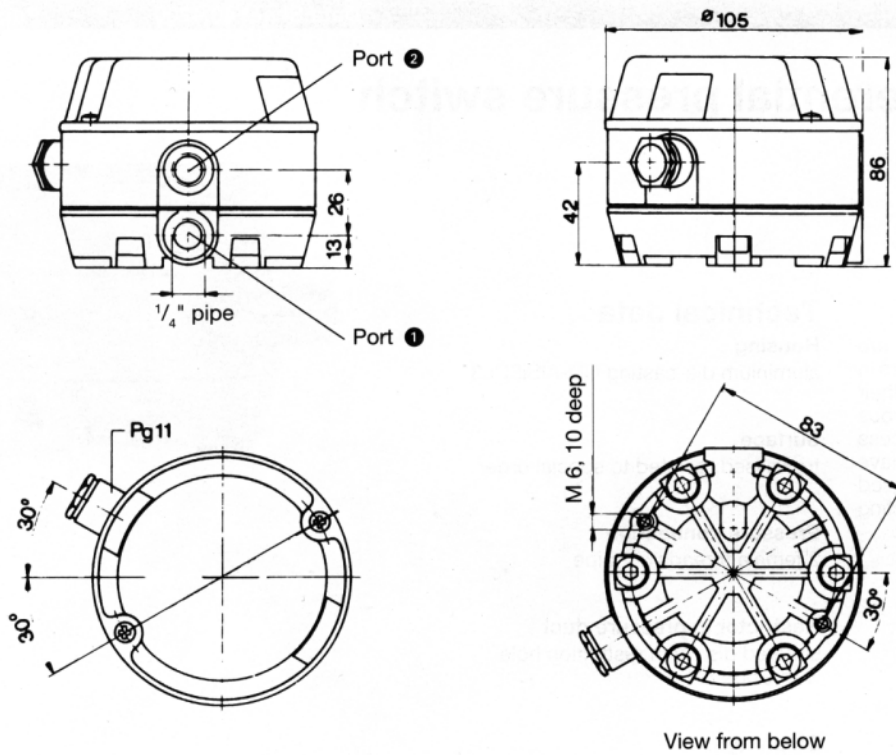
## Static pressure

permitted static pressure (bar)		-0.8	1.5	3	6	10	25	25*
differential pressure range	from to (mbar)	-50 -800	50 100	101 160	161 400	401 800		
	from to (bar)						0.8 2	2* 6*
single-sided overload limit		10 bar						

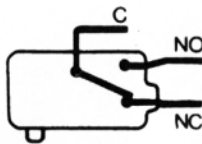
**Contact rating**  
250 V a.c., 10 A, p.f = 1  
250 V d.c., 0.25 A  
125 V d.c., 0.5 A

**Permitted ambient temperature**  
 $+80^{\circ}\text{C}$

### Dimensions



### Circuit diagram



	Connection to
Pressure and differential pressure	positive 1 negative 2
Vacuum /48	1

mm	inch
0.8	0.031
6.3	0.25
13	0.51
26	1.02
42	1.65
83	3.27
86	3.39
106	4.17