

# Electronic Pressure Transducer

## UPA2-DMP331-EX

Electronic pressure transducers for explosion-hazard environments, with internal or flush stainless steel diaphragm, linearity error 0.5% / 0.35 f. s.

### Features

Intrinsically safe II 1G Ex ia IIC T4 Ga  
 Intrinsically safe II 1D Ex ia IIIC T85 °C Da  
 Excellent long term stability  
 Process connection G 1/2" flush diaphragm from 100 mbar

### Measuring ranges

-1... 0 bar, vacuum  
 0... 100 mbar / 0...60 bar

### Applications

Plant and machine engineering  
 Environmental Engineering  
 Energy Industry



### Technical Data

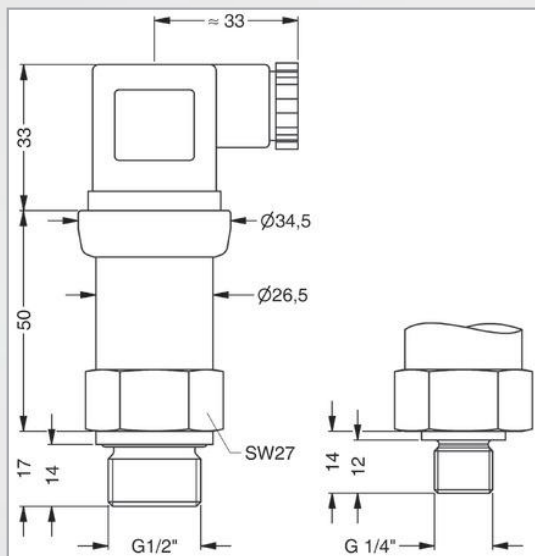
<b>Sensor element:</b>	Piezoresistive silicon measuring cell					
<b>Materials:</b>	Stainless steel, mat. no. 1.4404					
Wetted parts:	Stainless steel, mat. no. 1.4404					
Electronics housing:	Stainless steel, mat. no. 1.4404					
Seals:	FKM, EPDM					
<b>System of protection:</b>	IP67 with PG / IP65 with plug					
<b>Protection class:</b>	III					
<b>Process connection:</b>	G1/4, G1/2 M DIN 3852					
<b>Dimensions:</b>	Ø26,5 x approx. 133 mm (with plug connector)					
<b>Weight:</b>	approx. 200 g					
<b>Measuring ranges [bar]:</b>	-1... 0	0.1	0.16	0.25	0.4	0.6
<b>Overpressure [bar]:</b>	5	0.5	1	1	2	5
<b>Measuring ranges [bar]:</b>	1	1.6	2.5	4	6	
<b>Overpressure [bar]:</b>	5	10	10	20	40	
<b>Measuring ranges [bar]:</b>	10	16	25	40	60	
<b>Overpressure [bar]:</b>	40	80	80	105	105	
<b>Linearity error:</b>	$\leq \pm 0.5\%$ f. s., nominal pressure < 0.4 bar $\leq \pm 0.35\%$ f. s., nominal pressure $\geq 0.4$ bar					

<b>Electrical connection:</b>	Plug 4-pin, DIN EN 175 301-803-A (prev. DIN 43650)
<b>Temperature influence:</b>	$\leq \pm 0.75\%$ f. s. / -1...0 bar, $\geq 0.4$ bar $\leq \pm 1\%$ f. s. / < 0.4 bar
<b>Compensation range:</b>	-20 °C ... + 85 °C / -1 ... 0 bar, $\geq 0.4$ bar 0 °C ... + 70 °C / < 0.4 bar
<b>Max. temperatures for environment:</b>	in zone 0: -20 ... 60 °C with $p_{atm}$ 0.8 bar up to 1.1. bar  in zone 1 or higher: -20 ... 70 °C
<b>Output signals:</b>	4...20 mA (2 wire)
<b>Power supply:</b>	10... 28 V DC, reversed polarity protection (SELV, PELV)
<b>Safety technical max. values:</b>	$U_i = 28 V_{DC}$ , $I_i = 93 mA$ , $P_i = 660 mW$ , $C_i \approx 0 nF$ , $L_i \approx 0 \mu H$ , the supply connections have an inner capacity of max. 27 nF to the housing
<b>Delay:</b>	$\leq 10 ms$
<b>Approval:</b>	IBExU11ATEX1077 X EX: II 1G Ex ia IIC T4 Ga EX: II 1D Ex ia IIIC T85 °C Da -20 °C $\leq T_a \leq +70$ °C

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### Dimensions (mm / inch)



### Electrical Connection

Connection	Current output 4... 20 mA (2-wire)	
	Plug	Cable
+ Supply	1	white
- Supply	2	brown
Shield	ground pin	green/yellow

### Order Code

UPA2-DMP331-EX

Base Model

-1...0  
0.1b  
0.16b  
0.25b  
0.4b  
0.6b  
1.0b  
1.6b  
2.5b  
4.0b  
6.0b  
10b  
16b  
25b  
40b  
60b

Range

-1...0 bar  
0...0,1 bar  
0...0,16 bar  
0...0,25 bar  
0...0,40 bar  
0...0,60 bar  
0...1 bar  
0...1,60 bar  
0...2,5 bar  
0...4,0 bar  
0...6,0 bar  
0...10 bar  
0...16 bar  
0...25 bar  
0...40 bar  
0...60 bar

Output

4...20 mA / 2-wires

Electrical Connection

Plug ISO 4400 (IP65)  
M12x1 4-pin. (IP67)

Process Connection

G1/2" DIN3852  
G1/4" DIN3852

Sealing

F FKM  
E EPDM  
B NBR

420

DIN  
M12

G1/2"  
G1/4"

Order code example:

UPA2-DMP331-EX / 0.1b / 420 / DIN / G1/4" / F