



## Kalinsky Sensor Elektronik GmbH & Co. KG

### Pressure transmitters

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## Datasheet pressure transmitter type DMU

### Description:

The pressure transmitters of the series DMU measures overpressure, vacuum, difference- and absolute pressure and velocity of flow in air and non aggressive gases. The measuring values are directed to a 0-10 V analog output (DMU4) or a 4-20 mA output (DMU2). They are shown on a 3,5-digit LED-Display with a figure height of 12,7 mm. The DMU2 has a 4-20 mA- 2-wire output, that means its no external power supply required. Because of used piezoresistive cells the pressure transmitter reaches high reliability and precision. The enclosure has protection class IP65. It is suitable for wall- mounting installation. The user is warned against overload pressure by a red LED on the front.

The pressure transmitter DMU 4 can be completed by several additional options:

- Switching output with display switching level and LED on the front
- Delay of analog output and delay of switching output of 60 seconds possible
- Power supply 24 VDC, 24 VAC or 230 VAC
- Square root output for measuring velocity of flow



### applications:

- control of airblowers
- supervision of airfilters
- mechanical- and system engineering
- environmental technology
- liquid level control
- ventilating systems
- pressure control in cleanrooms or spray chambers
- medical engineering

### Technical data DMU2, DMU4 (differential pressure):

pressure range [mbar]	pressure range [kPa]	max. overload pressure [mbar]	linearity error max. [± % F.S.]	temperature error max. [± % F.S.] 0-50 °C	long-term-stability [% F.S. per year]	repeat-precision [% F. S.]	time of response output [ms] without damping
0 - 0.5	0 - 0.05	250	0,8	3	3	2	100
0 - 2.5	0 - 0.25	250	0.8	2	2	0.3	10
0 - 5	0 - 0.5	350	0.8	1	1	0.3	10
0 - 10	0 - 1	350	0.8	1	0.5	0.2	10
0 - 25	0 - 2.5	350	0.7	1	0.1	0.1	10
0 - 50	0 - 5	350	0.7	1	0.1	0.1	10
0 - 100	0 - 10	350	0.5	1	0.1	0.1	10
0 - 1000	0 - 100	triple	0.5	1	0.1	0.1	10
0 - 10bar	0 - 1000	x 1.2	0.5	2	0.1	0.1	10

### technical data DMU 2, DMU 4 (absolute pressure):

700-1100	70-110	triple	± 0.9 mbar	2.3 mbar	0.1	0.1	10
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**operation temperature range:** -20 to +50 °C

**hysteresis:** 0,1% (range 0-50 Pa 2 %, range 0-100 Pa 1 %)

**medium:** air and all not aggressive gases

### power supply and output signals DMU2:

$U_{\text{supply}}$  : 15-30 VDC  
analog output: 4-20 mA 2-wire  
burden resistor:  $R_B = 20 \dots 400 \Omega$

### power supply and output signals DMU4:

$U_{\text{supply}}$  : 15-30 VDC or VAC  
analog output: 0-10 V  
load:  $R_L \geq 2 \text{ k}\Omega$

**connections:** electrical: cable glands PG9 / screw clamps for 0,14-1,5 mm<sup>2</sup>  
pneumatical: 2 connections for tubes with 4 mm or 6 mm diameter inside

**option 230 VAC power supply:** 230 VAC +- 10 %

**option 4-20 mA transmitter:** analog output: 4-20 mA  
burden resistor:  $R_b = 20 \dots 100 \Omega$

**option switching output:** loadability: 230 VAC 1A  
switch hysteresis: ca. 2 % v.E.

### option square root output:

DMU 4 can measure and display the velocity of flow if it is completed with a square root output.

Therefor a measuring blend or a Prandtl-tube must be used.

analog output: 0-10 V or 4-20 mA

**weight:** ca. 200 g

**protection class:** IP 65

**drawings:** see page no.3



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Drawing unit: mm

