Linear Pressure Sensors DI/DU 200, DI/DU 201, DI/DU 2000, DI/DU 2001, DI/DU 2001 rel.

DI 200 (left) and DI 2000 (right), DU similar

Piezo or capacitive pressure sensor based on ceramics technology. Available as absolute or relative pressure sensor.

Advantages to the User

- Absolute pressure ranges from 0.1 to 200 mbar or 1 to 2000 mbar
- Relative pressure range from -1000 mbar to +1000 mbar
- Excellent overload characteristic due to the Al_2O_3 ceramics diaphragm
- Highly corrosion resistant
- Independent of the type of gas
- Vibration resistant
- 2-wire pressure sensor (DI)
- 4-wire pressure sensor (DU)
- Supply voltage range
  12 to 30 V DC (DI)
  14.5 to 30 V DC (DU)
- Linear output signal 4 to 20 mA (DI)
- Linear output signal 2 to 10 V (DU)
- Compact design
- Digital zero adjustment possible via pushbutton
- IP 54 rated stainless steel housing (DI/DU 200 und DI/DU 201), IP 54 rated aluminum housing (DI/DU 2000 und DI/DU 2001)
- DN 16 ISO-KF connection with female G 1/4" inside thread

Typical Applications

- Pressure measurements in the rough vacuum range, and for corrosive media (Solar, coating)
- Chemical process engineering
- Vacuum packaging
- Drying processes
- Casting resin technology (degassing of potting compounds)
- Measurement of operating and filling pressure, during the production of lamps
- Filling systems for brake fluids (DI 201/DI 2001)
- Filling systems for refrigerants
- Measurement of pressure relative to atmospheric pressure (DI/DU 2001 rel.)

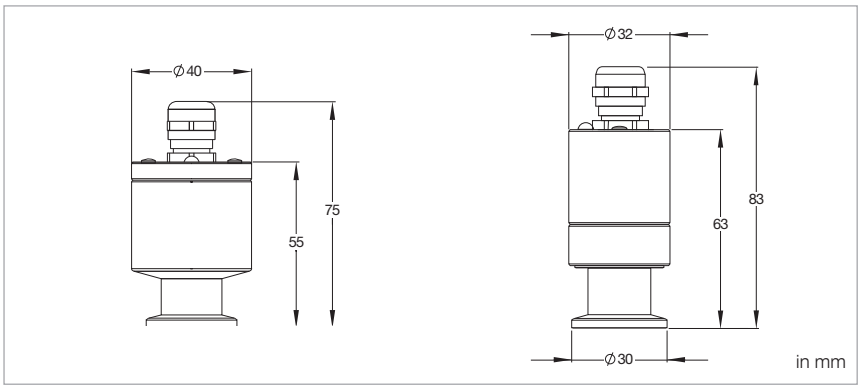
Operating Units for DU sensors

DISPLAY

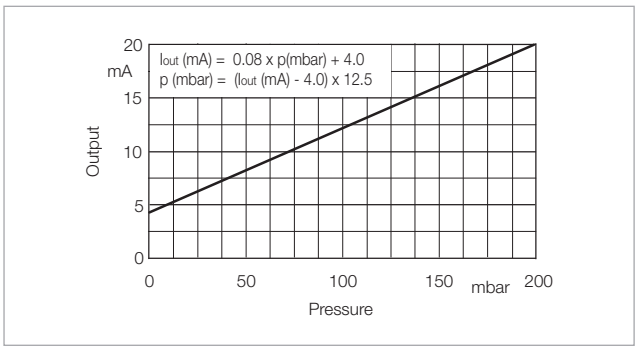
- ONE
- TWO
- THREE

CENTER / GRAPHIX

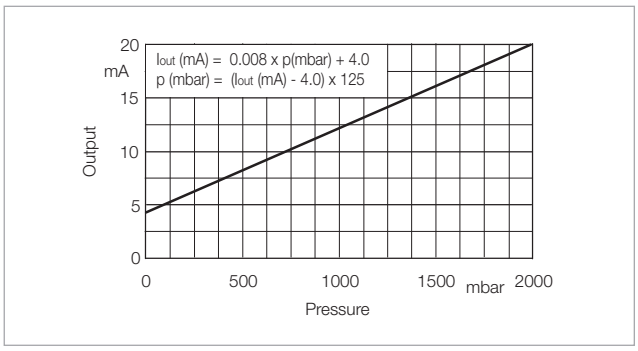
- ONE
- TWO
- THREE



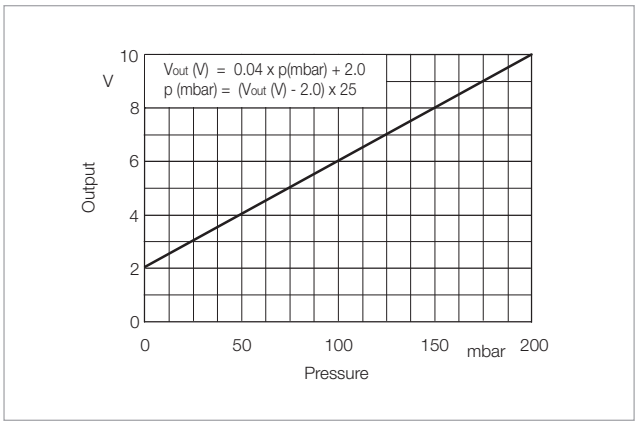
Dimensional drawing for the sensors
DI/DU 200 and DI/DU 201 (left), DI/DU 2000, DI/DU 2001 and DI/DU 2001 rel. (right)



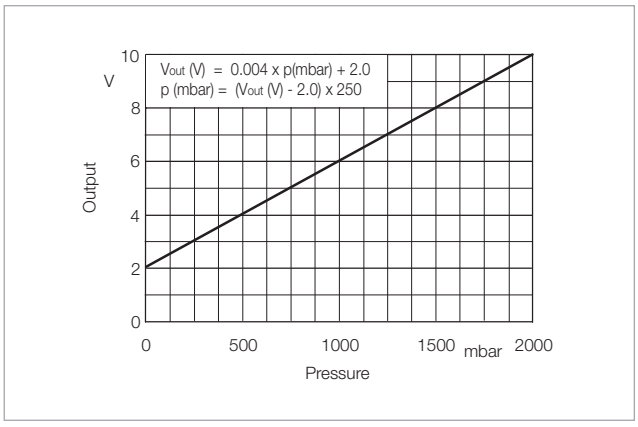
Characteristic of the DI 200 and DI 201 Sensors



Characteristic of the DI 2000 and DI 2001 Sensors



Characteristic of the DU 200 and DU 201 Sensors



Characteristic of the DU 2000 and DU 2001 Sensors

Technical Data

		DI/DU 200	DI/DU 201	DI/DU 2000	DI/DU 2001	DI/DU 2001 rel.
Measurement range	mbar (Torr)	0.1 to 200 (0.075 to 150)	0.1 to 200 (0.075 to 150)	1 to 2000 (0.75 to 1500)	1 to 2000 (0.75 to 1500)	-1000 to +1000 (-750 to +750) relative pressure
Overload range, max. (flange side)	bar	6	6	5	5	5
Nominal temperature range	°C	0 to +60				
Measurement uncertainty [1]	% FS	0.25	0.25	0.25	0.25	0.25 [3]
Repeatability	% FS	0.05				
Temperature error						
Zero drift	% FS/10°K	0.1				
Sensitivity drift	% FS/10°K	0.15				
Measurement principle, gas type independent		Capacitive	Capacitive	Piezoresistive	Piezoresistive	Piezoresistive
Sensing head supply						
DI		Two-wire system				
DU		Four-wire system				
Output signal						
DI	mA	4 to 20				
DU	V	2 to 10				
Supply voltage						
Operating range						
DI	V DC	12 to 30				
DU	V DC	14.5 to 30				
Dead volume	cm^3	3.9	3.9	1.8	1.8	1.8
Vacuum connection	DN	16 ISO-KF				
Electrical connection						
DI		diode plug 7pole, cable 5 m				
DU		plug FCC 68, cable 5 m				
Weight, approx.						
DI	kg (lbs)	0.36 (0.79)	0.36 (0.79)	0.26 (0.57)	0.26 (0.57)	0.26 (0.57)
DU	kg (lbs)	0.34 (0.75)	0.34 (0.75)	0.24 (0.53)	0.24 (0.53)	0.24 (0.53)
Protection class	IP	54				
Materials in contact with the medium		Stainless Steel 1.4305 Al_2O_3 (96 %) Ceramics FPM (FKM)	Stainless Steel 1.4305 Al_2O_3 (96 %) Ceramics EPDM	Stainless Steel 1.4305 Al_2O_3 (96 %) Ceramics FPM (FKM)	Stainless Steel 1.4305 Al_2O_3 (96 %) Ceramics EPDM	Stainless Steel 1.4305 Al_2O_3 (96 %) Ceramics EPDM
Operating units						
DI series		–				
DU series [2]		DISPLAY ONE, TWO, THREE CENTER ONE, TWO, THREE				

[1] Sum of linearity, hysteresis and reproducibility

[2] May possibly require a firmware update

[3] 0.25 % FS in the range of -1000 ... + 200 mbar / 0.5 % FS in the range of > +200 mbar

Ordering Information

	DI/DU 200	DI/DU 201	DI/DU 2000	DI/DU 2001	DI/DU 2001 rel.
	Part No.	**Part No.**	**Part No.**	**Part No.**	**Part No.**
Linear sensor DI complete with 5 m long connection cable and connecting plug (circular connector)	**158 12V01**	**158 14V01**	**158 13V01**	**158 15V01**	**245 000V01**
Extension cable circular connector, 7-pole socket/plug					
10 m			**200 04 112**		
20 m			**200 02 645**		

Ordering Information

	DI/DU 200	DI/DU 201	DI/DU 2000	DI/DU 2001	DI/DU 2001 rel.
	Part No.	**Part No.**	**Part No.**	**Part No.**	**Part No.**
Linear sensor DU complete with 5 m long connection cable and connecting plug (FCC68)	**230500V01**	**230501V01**	**230502V01**	**230503V01**	**230504V01**
Extension cable FCC68, socket/plug					
10 m			**230505V01**		
20 m			**230506V01**		
Operating unit					
GRAPHIX ONE / TWO / THREE	please see chapter “Controller and Operating Units for Active Sensors”				
DISPLAY ONE / TWO / THREE	please see chapter “Controller and Operating Units for Active Sensors”				