

Datasheet | base BDP *flex*

base BDP

Differential Pressure
Transmitter

The simplest way of
precise measurement.



Highlights:

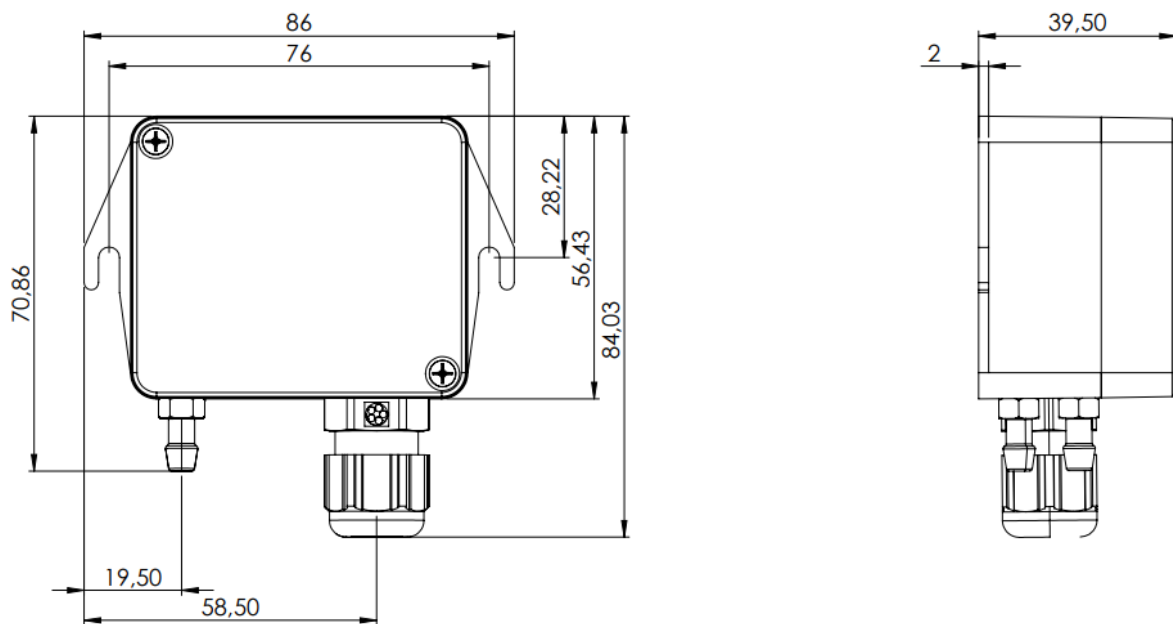
- Differential pressure transmitter for OEM or high-volume applications
- Individual choosable measuring ranges, outputs and units
- Overall accuracy of <1% FS for all available ranges
- Excellent long-term stability of <0.2% FS/year
- Current and voltage output available in parallel
- Display optionally available and retrofittable in the field

Technical Specifications

Measurement data	
Measurement range Selectable via model code	Selectable ranges under "Range": Any range from -20 Pa... 20 Pa to -10.000... 10.000 Pa in 1Pa-steps Choose lower range limit and upper range limit via model code: Example 1: Range: -50... 150 Pa Model Code: 50N150P (N = negative value P = positive value) Example 2: Range: 0... 1000 Pa Model Code: 0P1000P (0 = positive value = P)
Units Selectable via model code	Selectable units under "Display": Pascal [DPA] Millibar [DMB] hektoPascal [DHP] inchWC [DWC]
Overpressure resistance	For ranges < 2500 Pa: 200 hPa For ranges > 2500 Pa: 1000 hPa
Overall accuracy	±1 % FSS (Span between lower and upper range)
Long-term-stability	≤ 0,2% FSS / Year
Temperature drift	≤ 0,06% FSS / K
Time constant	50 ms
Elektrical Data	
Supply voltage	22...27 VAC (50 Hz) / 19...31 VDC Supply influence: <0.05% of the selected measuring range
Output signals Selectable via model code	Current and voltage outputs are available in parallel at Out 1 + 2 Output combinations with the following model codes can be selected: Out 1: 4... 20 mA Out 2: 0... 10 V [010] Out 1: 4... 20 mA Out 2: 2... 10 V [210] Out 1: 4... 20 mA Out 2: 0... 5 V [005] Out 1: 4... 20 mA Out 2: 0... 10 V [420] Out 1: 0... 20 mA Out 2: 0... 10 V [020]
Load resistance	Voltage Output: ≥ 2k Ω Current Output: ≤ 500 Ω
Burden influence	≤0,3% of the selected measuring range
Electrical connector	Push-In-clamps max. 1,5 mm ²

Operating conditions	Rel. Humidity: 0... 95% rF (non-condensing) Temperature: -20°C... 60 °C
Storage conditions	Rel. Humidity: 0... 95% rF (non-condensing) Temperature: -20°C... 80°C
Housing	
Material Housing	Bayblend PC-ABS UL94 V0
Pressure connectors	2 x Ø 6,6 x 10 mm (for flexible tubes Ø 6 mm)
Cable glands	Skintop M16 x 1,5 mm (4,5 - 10 mm)
Protection class	IP65
Display Selectable via model code	LC-Display without backlighting, 4 lines, 10 digits each [D]

Drawing



Model Code

	Example:	BDP	FL	OP1000P	010	X	XX
Produkt line	Base BDP	BDP					
Variant	Flex	FL					
Range	Upper and Lower Limit with an added "P" for positive or "N" for negative pressure. (Note: 0 = Positive = P) Example 1: Range: -50... 150 Pa Model Code: 50N150P Example 2: Range: 0... 1000 Pa Model Code: OP1000P (						
Output signal	Out 1: 4...20 mA Out 2: 0... 10 V	010					
	Out 1: 4... 20 mA Out 2: 2... 10 V	210					
	Out 1: 4... 20 mA Out 2: 0... 5 V	005					
	Out 1: 4... 20 mA Out 2: 0... 10 V	420					
	Out 1: 0... 20 mA Out 2: 0... 10 V	020					
Display	LC-Display with unit Pa	DPA					
	LC-Display with unit mbar	DMB					
	LC-Display with unit hPa	DHP					
	LC-Display with unit inchWC	DWC					
	None	X					
Special variant	-	XX					

Conformity

Excerpt from the EC Declaration of Conformity

We hereby declare under our sole responsibility that the Base product complies with the requirements of the following directives and harmonized standards and thus complies with the provisions:

2014/35/EU	Low-voltage Directive
2014/30/EU	EMC Directive
2011/65/EU	RoHS Directive
EN 61326-1:2013	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements
EN 61000-3-2:2014	Electromagnetic compatibility (EMC) – Part 3-2: Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
EN 61000-3-3:2013	Electromagnetic compatibility (EMC) – Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

The device is marked with the CE mark.