

## ▶ Big performance, small size



**KROHNE**

▶ measure the facts

### **OPTIBAR DP 3050 – The world's most compact differential pressure transmitter for general pressure, level and flow applications**

The OPTIBAR DP 3050 is currently the worldwide most compact differential pressure transmitter on the market. It offers a highly accurate differential pressure measurement for flow and level applications with integrated line pressure measurement and advanced 3D linearisation.

In conjunction with our proven OPTIBAR DS diaphragm seal series, the compact OPTIBAR DP 3050 differential pressure transmitter is suitable for almost all applications with aggressive chemicals or even very high process temperatures. Special materials such as Hastelloy C-276, Inconel, SuperDuplex, tantalum or vacuum-proof PTFE coatings are covered by our standard portfolio.

The optional display and adjustment module offers convenient commissioning and setup. Additional buttons on the converter electronics allow an easy zero point and span adjustment on site. The latest version of HART® 7.5 combined with a precise analogue 4...20 mA output signal guarantees long-term security in operation.



OPTIBAR DP 3050, OPTIBAR DS series with capillary tubes and DN50 flange connection

### Fully welded stainless-steel construction



The fully welded stainless steel construction provides utmost robustness and sturdiness which are as important as an accurate and precise measurement.

### Display and adjustment module



Local indication of the measurement value as well as an easy and effortless configuration of the device are two significant benefits of the integrated display and adjustment module. The module is compatible with all devices from the same series.

### Integrated absolute pressure measurement



Besides the differential pressure sensor, the OPTIBAR DP 3050 also provides an absolute pressure sensor with PN160 pressure rating up to 2321 psi. The sensor offers unprecedented robustness for ever changing process conditions as well as a secondary process variable for monitoring functions.

### Total 3D linearization



For a robust and accurate differential pressure measurement, even under changing process conditions, each OPTIBAR DP 3050 differential pressure transmitter is linearized in 3 dimensions during calibration.

The following values are taken into account in combination (for example):

- Differential pressure from -500 to +500 mbar / -7.25 to +7.25 psi
- Ambient temperature from -40 to +85 °C / -40 to +185 °F
- Static pressure from 0 to 160 bar / 0 to 2321 psi

Since the full specified operating range is covered, an utmost stable and accurate measurement under all process conditions is guaranteed.

### OPTIBAR DS Diaphragm Seals



Some applications require an extended temperature decoupling or special wetted materials for corrosion, adhesion or abrasion protection. An OPTIBAR DS series diaphragm seal provides here an optimal solution, which is carefully sized and fully welded for long lasting performance.

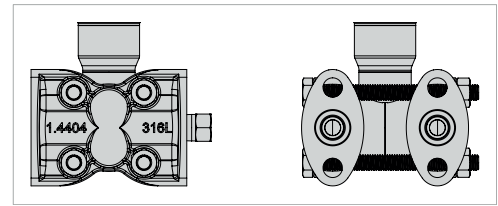


Documentation and more:  
[cmp.krohne.com/pressure/optibar-dp-3050](http://cmp.krohne.com/pressure/optibar-dp-3050)

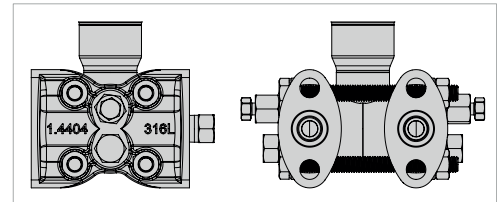
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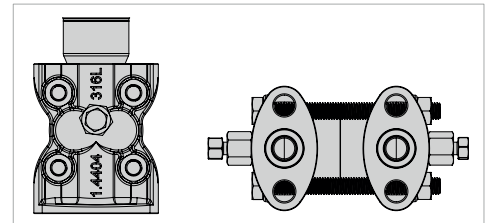
### Process connection variants



1/4NPT-F (IEC 61518A) Process connection with/without ventilation screw on the process axis and 7/16UNF threads for mounting screws



1/4NPT-F (IEC 61518A) process connection with venting plugs on the side and 7/16UNF threads for mounting screws



Vertical 1/4NPT-F (IEC 61518A) process connection with side ventilation screws and 7/16UNF threads for assembly screws

### Technical data of OPTIBAR DP 3050

Performance	
Reference accuracy (of set span)	<±0.1%; <±0.065%
Measuring range	100 mbar/1.45 psi; 500 mbar/7.25 psi; 3 bar/43.5 psi; 16 bar/232.1 psi
Pressure Rating	PN160
Temperature range	
Process	-40...+105°C/-40...+221°F
Ambient	-40...+80°C/-40...+176°F
Material	
Housing	316L
Diaphragm	316L, Hastelloy C-276, 316L + gold
Process flanges	316L, Hastelloy C-276,
Fill fluid	Silicon oil, halocarbon oil
Gaskets	FKM, EPDM, copper
Mounting bracket	316L
Communication	
Output	4...20 mA, HART® 7.5
Approvals	
Ex	ATEX / IECEx Ex ia for gas and dust
Other	Oxygen



[www.krohne.com](http://www.krohne.com)