



DIFFERENTIAL PRESSURE TRANSMITTERS

“All Stainless Steel”



▶ **STAINLESS STEEL HOUSING**

▶ **EASY ADJUSTABLE WITHOUT
TESTPRESSURE BY 1 BUTTON**

▶ **ACCURACY: 0.075%
OPTION: 0.065%**

▶ **TURN DOWN UP TO: 100:1**

▶ **GRAPHIC DISPLAY WITH
BARGRAPH AND BACKLIGHT**

▶ **HART® PROTOCOL (HART® 7)**

▶ **DEVELOPMENT ACCORDING TO SIL2**

▶ **DIAPHRAGM SEALS AVAILABLE**



Description

The DP-4000 is a high-performance differential pressure transmitter with a compact and robust **Stainless steel electronics housing**. The calibration / programming can be done very easy without testpressure by using the **Unique One Touch programming button** together with the **Graphic display with backlight**.

The multilingual graphic display can indicate a number of chosen engineering units including the process temperature as well as the mA output in a bargraph. Damping times can be adjusted and a 4-20 mA current simulation can be performed. For flow measurement a square root function is built-in with adjustable cut off point. The output is 4-20 mA including HART® protocol (HART® 7.0).

ATEX  II1G Ex ia IIC T6 Ga and IECEx approvals are available.



HART® is a registered trademark of the HART Communication Foundation.

Stainless steel electronics housing

Manufactured by:

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Series DP-4000

Specifications

Accuracy	: 0.075% (option: 0.065%)
Ranges	: 0 - 0.145 PSI to 0 - 290 PSI
Turn down	: up to 100:1
Adjustment	: by One pushbutton and local display, without testpressure
Output	: 4-20 mA + HART® Protocol (version 5.0 and 7.0)
Supply	: 12 – 36 Vdc
Electronics housing	: AISI 304 (Option: AISI 316)
Protection	: NEMA 4X / IP66 (option IP68)
Process temperature	: -4°F to + 176°F (Option: 212°F)
Ambiant temperature	: -4°F to 110°F
Material wetted parts	: AISI 316L (option: Hastelloy C)
Material diaphragm	: AISI 316L (option: Hastelloy C, Tantalum or Gold plated)
Material sensor gasket	: Viton/FKM (standard), PTFE or NBR
Process connection	: 1/4 - 18 NPT female
Option	: 1/2" NPTf (by oval flanges)

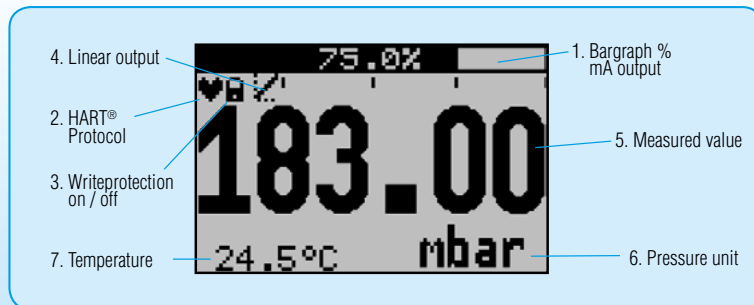
Adjustable points

P101	Zero adjustment (ZERO / 4 mA)
P102	Span adjustment (SPAN / 20 mA)
P103	Cancel mounting position effect
P104	Adjustment pressure unit
P105	Output 4-20 mA* or 20-4 mA
P106	Damping adjustment (0 - 25 sec.)
P107	Language: English*, Dutch, German, French, Russian or Polish
P108	Safety adjustment, Alarm and backlight
P109	Read out on display: Current, pressure unit, temp. or %.
P110	Current simulation (4-20 mA)
P111	Linearisation (various tankshapes)
P112	Burst mode (with option HART®)
P113	Instrument information
P114	Flow / Square root

* = Factory setting

Graphic display with bargraph and backlight

Multilingual: English, Dutch, German, French, Spanish, Russian and Polish



Unique 'One Touch Programming Button'

The series DP-4000 is carried out with a **unique control button**.

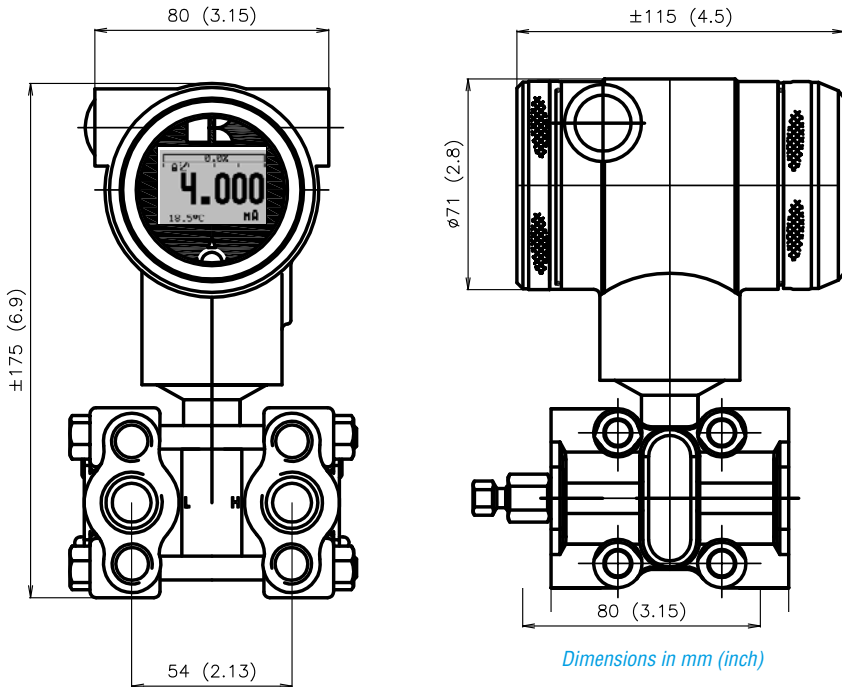
This 'single button' can be used for all programming / calibration functions.



With unique One Touch Programming Button



Series DP-4000



Wetted parts AISI 316L

Including vent valves.

Separate electronics housing:

Series DP-4000 is also available in a separate version.

Type: **DP-4000-Cable(...m)-range-...**

Always specify the cable length, range etc.

DP-Level Measurement in closed tanks:

For DP level measurement in closed pressurized tanks a DP-4000 with separate diaphragm seals is available.

A tank linearization can be programmed very easy.

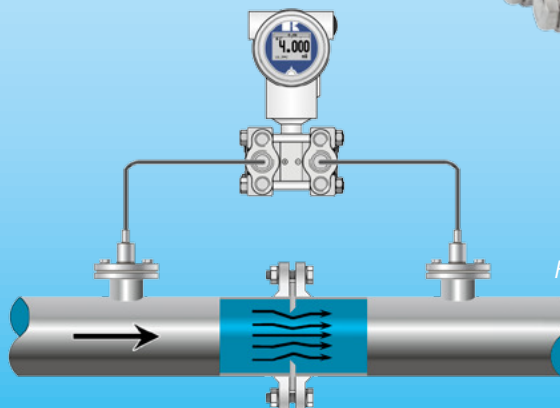
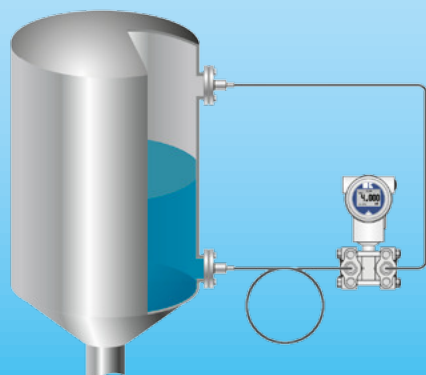
The standard tank shapes are:

- Horizontal tank with flat end or parabolic end
- Vertical tank with a spherical bottom or conical bottom

**For level measurement in open (non-pressurized) tanks please use other Klay Level transmitters, i.e. Series 8000-SAN (0.2%), series 2000-SAN (0.1%) or series 4000-SAN (0.075%).*





DP-4000 with oval flanges (option)



Flow measurement of liquids, gasses or steam with an Orifice plate or Pitot tube.
√(SQUARE ROOT)

Ordering codes Series DP-4000

Series DP-4000				Ordering code: DP-4000-											
ACCURACY CLASS:				↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
0,075 % (standard)				S											
0,065 %				H											
RANGE:	TD	MIN SPAN:	MAX SPAN:												
0.9 PSI	6:1	0.145 PSI	0.9 PSI	A											
6 PSI	40:1	0.145 PSI	6 PSI	B											
30 PSI	100:1	0.3 PSI	30 PSI	C											
300 PSI	100:1	3 PSI	300 PSI	D											
STATIC PRESSURE (MAX.):															
2320 PSI				S											
3625 PSI				H											
DIAPHRAGM MATERIAL / BODY MATERIAL:															
AISI 316 L (standard)		AISI 316L		S											
Hastelloy C 276		AISI 316L		H											
Tantalum		AISI 316L		T											
Gold plated on SST 316L		AISI 316L		G											
FILL FLUID DIAPHRAGM															
Silicone oil (standard)				S											
Fluorinated oil				F											
GASKET (PROCESS / DIAPHRAGM)															
Viton (FKM) (standard)				V											
Teflon (PTFE)				T											
NBR				N											
PROCESS CONNECTION / OVAL FLANGE CONNECTION / VENTING															
1/4 - 18 NPT female		7/16-20 UNF		Incl. vent valves at flange end		S									
ELECTRICAL CONNECTION / CABLE ENTRY															
M20 x 1.5 female thread (standard)				S											
1/2"NPT female thread				N											
PG 11				P											
APPROVALS															
None				S											
Intrinsically safe ATEX  II1G Ex ia IIC T4 Ga (Option: T5 – T6) and IECEx 				Ex											
OPTIONS															
Transparent cover, display functions as local indicator				I											
Degreasing (Silicone oil)				D											
Oxygen cleaning (Fluorinated oil) FKM gasket				Ox											
Electronics housing material AISI 316 (Standard is AISI 304)				G9											
PROFIBUS-PA output (Not available in Ex)				P											

Ordercode standard Model: DP-4000-S-C-S-S-S-V-S-S-S

ACCESSORIES:

- Mounting bracket (AISI 304)
- Oval Flanges (AISI 316L) to get 1/2" NPTf process connection.
- Bolts / nuts in AISI 316 (Standard is AISI 304)
- 3 way manifold (AISI 316L) Type: M3G
- 5 way manifold (AISI 316L) Type: M5G



We reserve the right for technical modifications without prior notice.

