



**Designed and Built in Asheville,  
North Carolina - USA!**  
**Best in Class performance for  
any application!**

## Wahl DP Series Differential Pressure Transducers/Transmitters

The Wahl DP Series Differential Pressure Transducers / Transmitters are extremely reliable, small and lightweight piezoresistive pressure sensors in a compact, rugged, all 304 stainless steel housing and sensor, rated at IP67.

Appropriate for harsh environments, outdoor monitoring or in applications where dust and particulate matter may exist, they utilize silicon sensors resistant to shock, vibration, EMI/RFI and wide temperature variations.

Two ports for the measurement of two different gas or liquid pressures will measure pressure drops across filters and other advanced process diagnostics.

Wahl Transducers offer three accuracy levels, with both the Ultra-High and Standard accuracy options maintaining their guaranteed accuracy at a wide thermal compensation temperature of -20° to 90°C (-4° to 194°F).

**Ultra-High Accuracy** offers an amazing accuracy of 0.05% of Full Scale.

**Standard Accuracy** offers 0.08% accuracy of Full Scale.

**Economy Accuracy** is also available with 0.10% accuracy of Full Scale at ambient (23°C/74°F).

The Wahl DP Series Differential Transducers can also withstand and continue operating at an industry leading expanded temperature down to -40°C and up to 125°C, (-40° to 257°F).

### DP Series Transducer Features:

- Dual ports allow comparable measurements at two points in the system
- Compact All 304 Stainless Steel Housing and Sensor
- Relative Gauge Measurement Ranges
- High Sensitivity – Low Drift
- Excellent Long-Term Stability
- High EMI/RFI Immunity Rating
- Rugged Construction for Shock and Vibration

### DP Series Accuracy Specifications

Accuracy	
<b>Ultra-High Accuracy</b>	0.05% of Full Scale
<b>Standard Accuracy</b>	0.08% of Full Scale
<b>Economy Accuracy*</b>	0.10% of Full Scale
* Industry standard is 0.5%	
Accuracy includes non-linearity, hysteresis non-repeatability.	

Stability	
<b>Ultra-High Accuracy</b>	± 0.10% of Full Scale per year
<b>Standard Accuracy</b>	
<b>Economy Accuracy</b>	

Thermal Effect	
<b>Thermal Compensation</b>	-20° to 90°C (-4° to 194°F)
<b>Ultra-High Accuracy</b>	None
<b>Standard Accuracy</b>	None
<b>Economy Accuracy</b>	± 0.055% FS / K



**DP Series Differential  
Transducer / Transmitter**

**Ideal for all industrial,  
OEM, precision and  
outdoor applications.**

### DP Series Applications

Automation	Machine Building
Chemical Industry	Petrochemical Industry Plant
Compressor Control	Process Engineering
Construction	Pneumatic Systems Control
Food and Beverage Industry	Pump Systems Control
Hydraulic Systems	

Specifications subject to change without notice.

March  
2022

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Pending



## DP Series Differential Pressure Transducers / Transmitters Specifications

### Operating Conditions

Operating Temperature	-40° to 125°C (-40° to 257°F)
Enclosure Protection Class	IP67 / NEMA 4X
Overpressure Limit	2.0 times rated pressure
Burst Limit	3.0 times rated pressure

### Signal Output

Signal Type	
Current (2-Wire)	4-20 mA
Voltage (3-Wire)	0-5 V; 1-5 V; 0-10 V
Radiometric (3-Wire)	0.5-4.5 V
Voltage Supply	
4-20 mA	8-30 VDC
0-5 V	8-30 VDC
1-5 V	8-30 VDC
0-10 V	8-30 VDC
0.5-4.5 V	12-30 VDC
Response Time	
Dynamic Rate	< 1mS <sup>1</sup>

<sup>1</sup> Other Response Time Rates can be requested at time of order.

### Process Connections

ASME	1/2" NPT, Male; 1/4" NPT, Male
ANSI	M20 x 1.5
EN 837	BSPP 1/2" (G1/2), 1/4" (G1/4); BSPT 1/2" (R1/2), 1/4" (R1/2)

### Electrical Connections

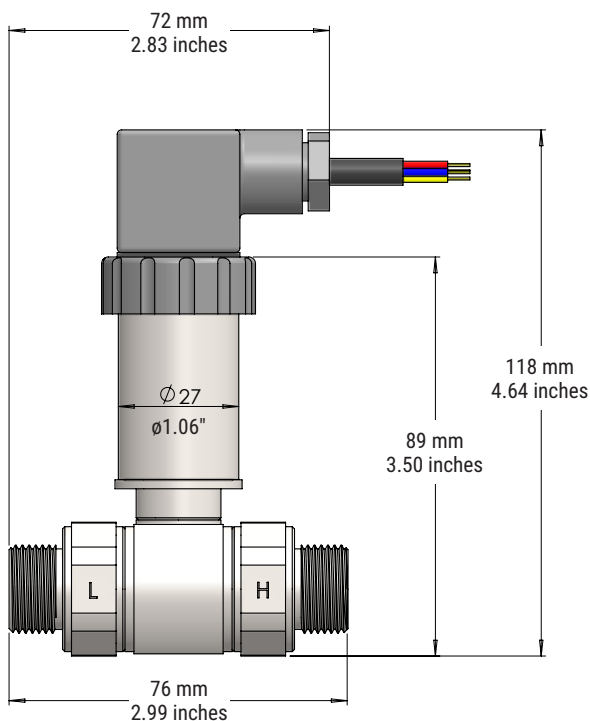
Angular Connector	EN 175301-803A <sup>2</sup> , IP65
Circular Connector	M12, IP67
Cable Outlet	Waterproof Plug, IP68

<sup>2</sup> Previously DIN 43650A

## DP Series Differential Pressure Transducers / Transmitters Dimensional Drawings

**DP Series Differential  
Transducer / Transmitter  
Dimensional Drawing**

*Transducer shown with  
standard EN 175301-803A  
connector.*



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an option not shown here  
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Customer Service.**

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## DP Series Differential Pressure Transducers / Transmitters Ordering Guide

DP Series - Differential Pressure Transducers		
DP	Step 1 - Select: Differential Pressure Transducer	
	Step 2 - Select 1 Pressure Reference	
	G	Relative Gauge
	Step 3 - Select 1 Pressure Range	
	Code	Range
	5#	5 PSI
	15#	15 PSI
	30#	30 PSI
	50#	50 PSI
	100#	100 PSI
	300#	300 PSI
	500#	500 PSI
	*	Custom Range

DP Series - Differential - Select Specifications		
Step 4 - Select 1 Accuracy		
Code	Accuracy	
E	Economy Accuracy	0.10% FS
S	Standard Accuracy	0.08% FS
U	Ultra-High Accuracy	0.05% FS
	Step 5 - Select 1 Process Connection	
	Code	Process Connection
	H	1/2" NPT, Male, Standard
	Q	1/4" NPT, Male
	B	M20 x 1.5, Male
	C	BSPP 1/2" (G 1/2), Male
	D	BSPT 1/2" (R 1/2), Male
	F	BSPP 1/4" (G 1/4), Male
	G	BSPT 1/4" (R 1/4), Male
	*	Custom Process Connection
	Step 6 - Select 1 Signal Output	
	Code	Signal Output
	1	4-20 mA, 2-wire, Standard
	2	0-5 VDC, 3-wire
	3	0-10 VDC, 3-wire
	4	0.5-4.5 VDC, 3-wire
	5	1-5 VDC, 3-wire
	*	Custom Signal Output
	Step 7 - Select 1 Electrical Connection	
	Code	Electrical Connection
	A	EN 175301-803A, Std, IP65
	B	M12, IP67
	D	Waterproof Plug, IP68
	*	Custom Electrical Connection
	Step 8 - Select: Cable Length	
	Code	Cable Length
	003	3 feet, Standard
	004-100	Specify: 004 = 4 feet, etc. up to 100 feet

DP							
Series	Pressure Reference	Pressure Range	Accuracy	Process Connection	Signal Output	Electrical Connection	Cable Length

\* Note: Engineering will assign Ordering Codes for Custom Range, Process Connection, Signal Output or Electrical Connection.

Model # Example:

DPG15#SH2A003: DP Series, Relative Gauge, 15 PSI Range, 0.1%/0.2% Standard Accuracy, 1/2" NPT Process Connection, 0-5 VDC Signal Output, EN 175301-803A Electrical Connection, 3 foot Cable Length.

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