

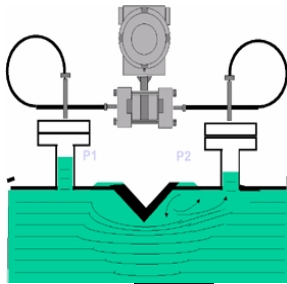


Wedge FLOWMETERS SERIES ALDPWG (Differential Pressure -Wedge meter)

GENERAL

ALDPWG

The Smartmeasurement Differential Pressure Wedge Meters (ALDPWG) represents one of the many DP flow technologies available in our program. The ALDPWG meters consists of a flow body with (see below) wedge "V" shape throttle restriction. This restriction creates a differential pressure between ((P1) before and (P2) after the wedge (P2))-see below which is proportion to the square of the volumetric flow rate. The wedge restriction has no critical surface dimensions, or sharp edges, that will affect measurement accuracy as the result of normally expected wear. The ALDPWG meter is excellent for very low flows or low Reynolds number (Re. < 500), high-viscosity fluids which contains dust or solid particle or applications such as liquid cement, crude oil asphaltic oil, coal-tar oil, wastewater, hard pulp, carbon black solution, asphaltic oil, coal-tar oil, wastewater, hard pulp, carbon black solution, two phase flows, etc. The ALDPWG meter must accompany a Differential Pressure (DP) transmitter to indicate, rate, total etc.. The ALDPWG can be used with our ALDP3051 or ALDP1051 or customer's own DP transmitters.



$$Q = K \sqrt{P_1 - P_2}$$



FEATURES

- Measures Liquids, Gas and Steam
- Bi-directional flow
- Low Reynolds number (<300)
- Minimum upstream and downstream requirements
- Standard sizes 0.5" to 24"(15 ~ DN600 mm)
- ALDP3051 DP Transmitter
- High temperature application with remote mount DP transmitter



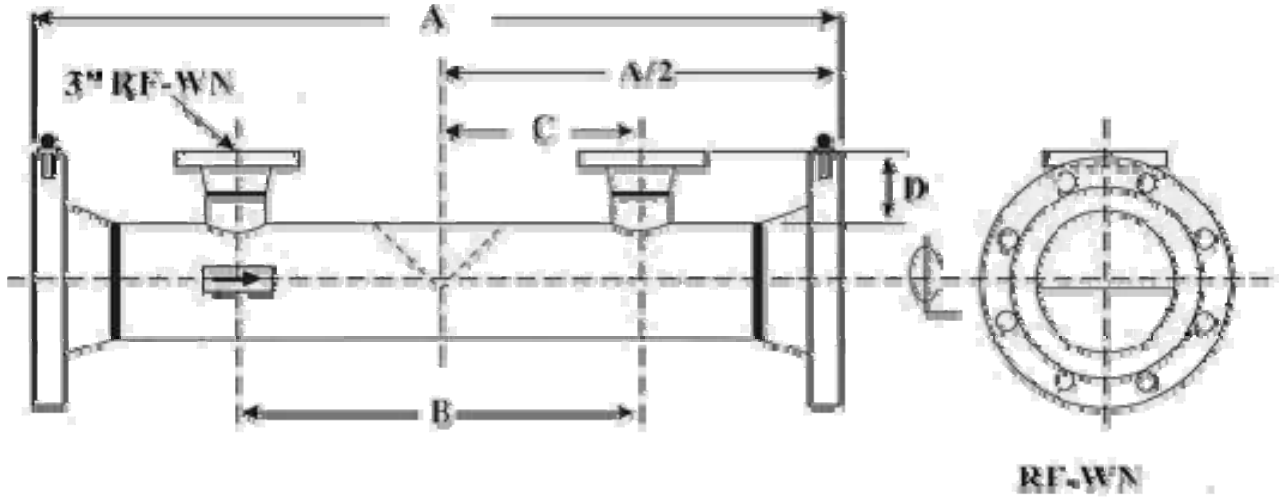
SPECIFICATION -

ALDPWG Flow body

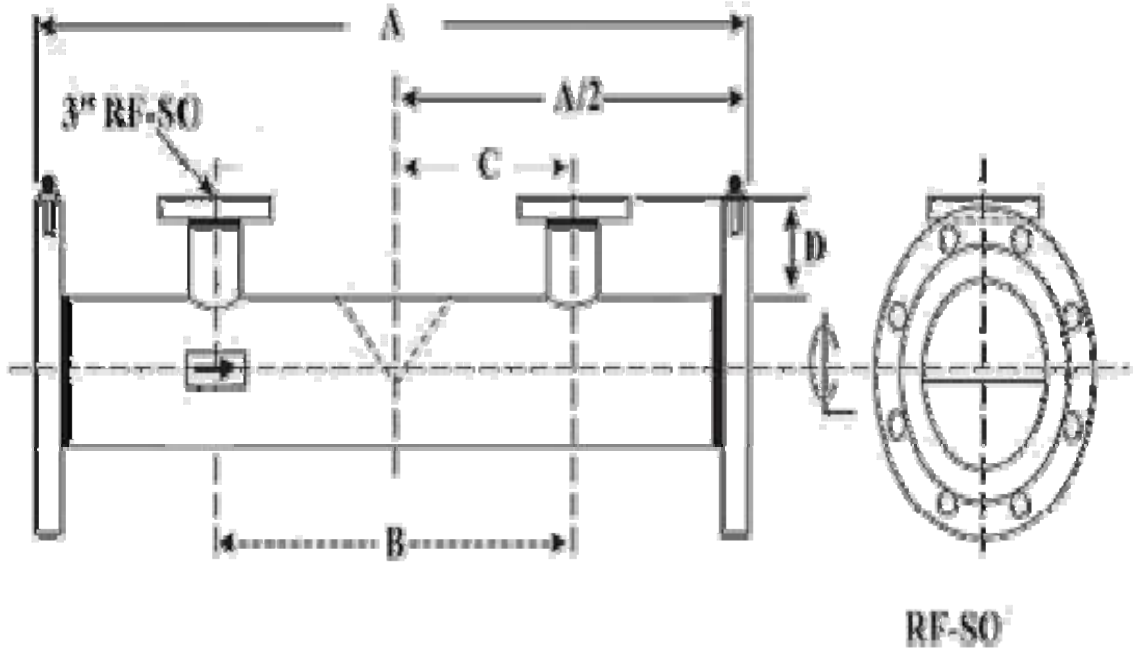
- Line size:DN15 ~ DN600 mm
- Accuracy (calibrated): 1%, 0.5%; (un-calibrated): 3%
- Turn down ratio up to10:1
- Working pressure up to 42.0MPa
- Operating temperature up to 400°C
- Transmitter Connections 3 in. RF flange (SCH 80 I.D.)
- Process connection ANSI and DIN
- Body material: cast Iron, stainless steel, high temperature alloy.
- Wedge: Stainless steel, Monel, Hastelloy C,high temperature alloy .
- Repeatability 0.2%

ALDP3051 Transmitter

- Differential Pressure : 0 ~ 0.16 kPa to 0 ~ 10 Mpa
- Absolute Pressure: max. 0 ~ 25 MPa , min. 0 ~ 20 Kpa
- Relative Pressure: max 0 ~ 40 MPa min 0 ~ 0.16 Kpa
- Output signal: 4 mA ~ 20 mA DC two wire
- Drift: 0.025%FS/year
- Working Voltage : (16.4 ~ 45)V DC,
- Field indication:100% indicating meter, LED, LCD
- Temperature: -40°C ~ 100°C (integral)
- Protection: IP67
- Weight: 3.5 kg (do not include selection)



Diameter (mm)	A (mm)			B (mm)	C (mm)	D (mm)		
	Flange pressure rating					Flange pressure rating		
	150LB	300LB	600LB			150LB	300LB	B
15	530	543	559	292	146	208	214	223
25	530	543	559	292	146	208	214	223
40	530	543	559	292	146	208	214	223
50	546	559	578	292	146	216	222	232
80	622	641	660	311	156	157	167	175
100	902	921	965	381	191	114	125	133
150	1029	1048	1099	457	229	114	125	133
200	1092	1111	1168	521	260	114	125	133
250	1143	1175	1257	597	298	114	125	133
300	1321	1353	1616	673	337	114	125	133
350	1397	1429	1486	711	356	114	125	133
400	1473	1511	1588	775	387	114	125	133
450	1575	1613	1676	851	425	114	125	133
500	1686	1721	1791	940	470	114	125	133
600	1854	1886	1969	1067	533	114	125	133



Diameter (mm)	A (mm)	B (mm)	C (mm)	D (mm)		
				Flange pressure rating		
				150LB	300LB	600LB
15	530	292	146	208	214	223
25	530	292	146	208	214	223
40	530	292	146	208	214	223
50	546	292	146	216	222	232
80	622	311	156	157	167	175
100	762	381	191	114	125	133
150	864	457	229	114	125	133
200	914	521	260	114	125	133
250	965	597	298	114	125	133
300	1118	673	337	114	125	133
350	1168	711	356	114	125	133
400	1245	775	387	114	125	133
450	1321	851	425	114	125	133
500	1422	940	470	114	125	133
600	1575	1067	533	114	125	133

Differential Pressure - Wedge Meter Series ALDPWG

**** Please contact your local SMC application engineer**

Type of liquid	We need the name of your liquid, including operating density and viscosity
Full Scale Flow	We need your maximum and minimum flow rates, units must be Kg/hr, Lb/hr, LPM or gpm, etc..
Line Size	we need to know your pipe size as well connection type (flange, threaded, etc..)
Process Pressure and Temperature	We calibration your mass Flowmeter as close to your application as possible
Pressure drop	Please indicated the maximum pressure drop (see graph below) that your process can withstand
Type of Electronics	Indicate if you want integral, remote panel or remote wall mounted
Power Requirements (for DP)	Specify your power requirements such as 24 VDC or 220 VAC

Model Selection Guide

ALDPWG Series						
Example ALDPWG-F02-111NY						
3" Flange Connection	F				Transmitter Connections	
NPT Connection	N					
Other connections	X					
1/2"(DN15)		05			Process Connection	
1"(DN25)		01				
1-1/2"(DN40)		15				
2"(DN50)		02				
3"(DN80)		03				
4"(DN100)		04				
6"(DN150)		06				
8"(DN200)		08				
10"(DN250)		10				
12"(DN300)		12				
14"(DN350)		14				
16"(DN400)		16				
18"(DN450)		18				
20"(DN500)		20				
24"(DN600)		24				
Carbon Steel (CS)		1			Material of Construction	
304SS		2				
316SS		3				
High temperature alloy		4				
CS			1			Wedge Material
304SS			2			
316SS			3			
Hastelloy C			4			
Monel			5			
other			9			
ANSI150				1	Flange Rating	
ANSI300				2		
ANSI600				3		
PN16				4		
PN25				5		
PN40				6		
PN64				7		
PN100				8		
With Heat Jacket				Y/N	With or Without Heat Jacket	
With DP transmitter				Y/N	With or Without DP transmitter	