

## DP Series Insertion Impeller Meters

DP490 & DP525 are cost effective stainless steel flowmeters for measuring the flow of water, fuels & other low viscosity liquids in pipes sizes 1.5" - 100" (40 - 2500mm).



### ACCURACY: $\pm 1.5\%$ OF READING

#### Body Material:

Stainless Steel

#### Features and Benefits:

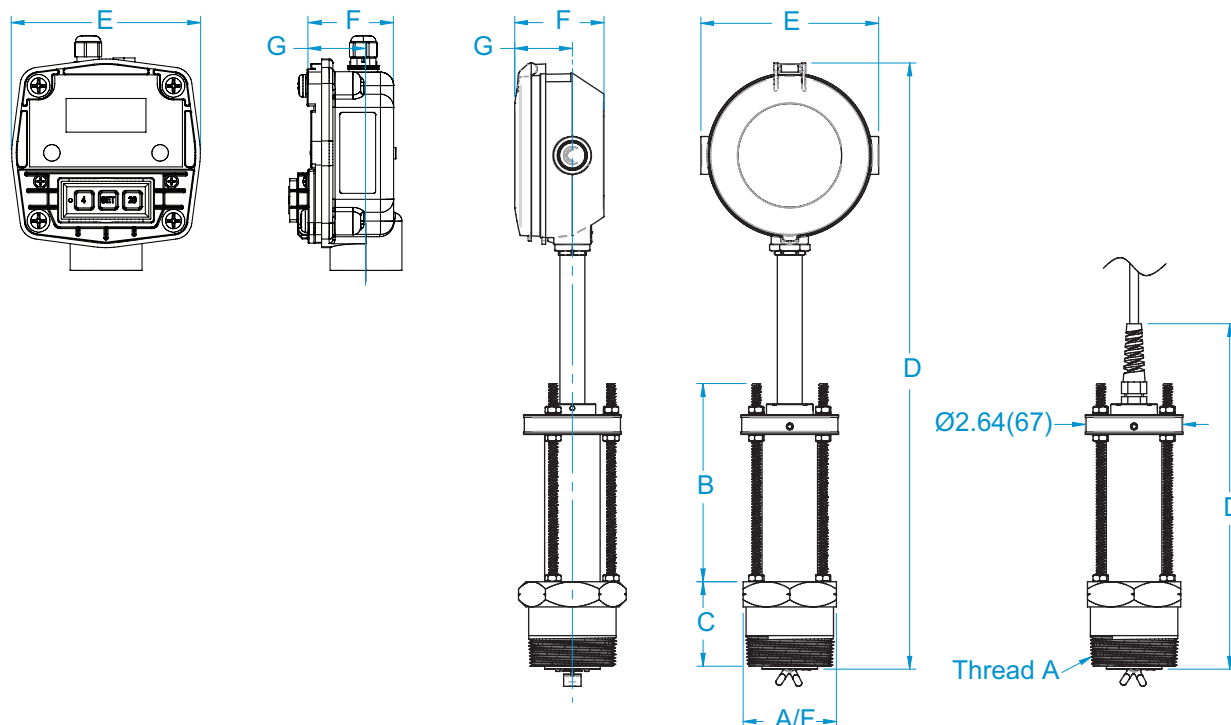
- ✓ IP68 (NEMA6) submersible 316SS construction.
- ✓ Low cost of ownership, wide flow range.
- ✓ Rugged & compact design.
- ✓ Intrinsically safe hazardous area versions.
- ✓ Hot tap installation
- ✓ Integral or remote pre-amplifiers & flow instruments.
- ✓ DP525 version suitable for "hot tap" installation.
- ✓ Quadrature pulse output option and Bi-Directional Flow Measurement
- ✓ Integral 4-20mA output option

### SPECIFICATIONS

Model Prefix:	DP490	DP525
Suit pipe sizes:	1.5" - 36" (40 - 900mm)	2"-100" (50 - 2500mm)
Pipe connection:	1.5" or 2" BSPT or NPT male	2" BSPT or NPT male
Flow range:	4 - 99,600 USGM (0.25 - 6300 litres/sec)	6 - 780,000 USGM (0.4 - 49000 litres/sec)
Flow velocity range:	1 - 33 feet/sec (0.3 - 10 meters/sec)	
Linearity:	typically $\pm 1.5\%$ with well established flow profile	
Temperature range:	For PEEK: -40°F - +300° F (-40° C - +150° C) / For PVDF: 212° F (100° C)	
Maximum pressure:	1160 psig (80 bar)	
Materials	316ss body and rotor shaft, PVDF rotor (PEEK rotor optional)	
Pulse Outputs		
Reed switch:	30Vdc x 200mA (max.), Nom. 0 - 80hz	
Hall effect:	3 wire NPN, 5 - 24 Vdc, 20mA (max.) Nom. 0 - 240hz	
Voltage Pulse	Self generated voltage. Nom. 0 - 240hz	
Non magnetic sensor:	3 wire NPN, 5-24Vdc max., 20mA max. Nom. 0 - 240hz	
Optional outputs:	4-20mA, scaled pulse, quadrature pulse, flow alarms or two stage batch control	
Protection class:	IP68 (NEMA6), integral ancillaries can be supplied I.S. ( intrinsically safe )	
* Reed Switch resolution is 1/3 that of the NPN Hall Effect or Voltage pulse outputs.		

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### DP Insertion Impeller Meter



#### Overall Dimensions

CONFIGURATION	DP490	DP525	All dimensions are inches $\pm .08$ (millimeters $\pm 2\text{mm}$ )		
<b>A</b>	1.5" BSP/NPT	2" BSP/NPT			
<b>B</b>	7.79 (198)	17.48 (444)			
<b>C</b>	1.5 (38)	2.28 (58)			
<b>A/F</b>	2.38 (60)	2.5 (64)			
DP490		DP525	DP490 / DP525		
CONFIGURATION	D	D	E	F	G
Terminal Head	15.16 (385)	34.21 (869)	--	--	--
BT Register	15.51 (394)	34.65 (880)	3.35 (85)	2.09 (53)	--
RT40 Register	14.96 (380)	34.06 (865)	4.45 (113)	2.48 (63)	1.89 (48)
RT14/EB Register	16.34 (415)	35.43 (900)	4.80 (122)	2.40 (61)	--
Flying Lead	9.33 (237)	16.69 (424)	--	--	--
BT / RT14/EB Register	--	--	--	--	1.57 (40)
*GG510-DB, GX510-DB	17.54 (445-5)	36.63 (930.4)	4.2 (106.7)	2.50 (63.5)	1.7 (43.2)










\*Display Sold Separately

**NOTE:** Dimensions are for reference only and may vary by model.

At Great Plains Industries, we've been building rugged, reliable, liquid flowmeters for over 35 years. The GPI Industrial Meter family includes a full line of Precision and Industrial Turbine meters plus Oval Gear meters in various materials, sizes and fitting options.

We design products to meet the needs of our customers. This includes maintaining appropriate, industry standard approvals. Approvals vary by product line and may be dependent on meter application.

The Approval symbol is listed under product specifications on individual product pages. If no approval mark is found, check the chart to the right. For details about specific "Approvals" refer to the chart.

<b>3-A</b>	<b>3-A Sanitary Standards, Inc.</b> "Flowmeters for Milk and Milk Products, Number 28-03" for GSCPS Models and L Option Meters.
<b>ATEX</b> 	<b>Ex II 1 G</b> Per 94/9/EC.
	Product reviewed for EMC Directive 2004/108/EC. Includes: Euro Norms 61000-6-2 (2005) and 61000-6-3 (2007) on A1 and G2 Series Meters. Note: For <b>Oval Gear Meters</b> , the CE Approval is applied when meter is part of a system.
	<b>Factory Mutual Approved</b> Intrinsically Safe for Class I, II, III, Division 1, All Groups. Nonincendive for Class I, II, III, Division 2 Groups A, B, C, D, F, G.
	<b>Factory Mutual Approved</b> Class 1, Div. 1, Group D (01A31GM Only)
	<b>Factory Mutual Approved</b> Intrinsically safe for Class I & II, Div. 1, Groups A, B, C, D, E, F & G, T6 Ta=-40° C to 60° C hazardous locations, and for use in Class I, Zone 0 as Ex is IIC T6 Ta=-40° C to 60° C.
	<b>Federal Communication Commission</b> Industry Canada Approval Class B; digital service, part 15 of FCC Rules.
	<b>Ex ia IIC T6 Ta=60° C</b>
<b>IP44/IP54/IP66</b>	<b>Ingress Protection Code</b> IP44 (Greater than 1 mm and splashed water); IP54 (Dust protected and splashed water); IP66 (Dust-tight and heavy seas).
<b>IP/NEMA</b>	Pulse versions of <b>Oval Gear Meters</b> have enclosure ratings that vary from IP54 / NEMA 13 to IP66 / NEMA 16 depending on the application.
<b>NEMA 4</b>	NEMA Requirements: Enclosure constructed for indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment. Protection against falling dirt, rain, sleet, snow, windblown dust, splashing or hose directed water that will be undamaged by the external formation of ice on the enclosure. <i>GPI products are tested to NEMA requirements.</i>
	Restriction of Hazardous Substances Directive 2002/95/EC and 2011/65/EU
	Indicates that the product was tested and has met the certification requirements for electrical, plumbing and/or mechanical products.