DP SERIES INSERTION IMPELLER METERS

FLOMEC® Insertion Meters are cost effective stainless steel meters for measuring the flow of water, fuels and other low viscosity liquids in pipe sizes 1.5" – 100" (10 – 2500 mm). Insertion Meters are a flexible, economic method to measure large flow rates with small pressure drops and low installation costs, with most applications battery powered with a FLOMEC totaliser. Applications include HVAC, hot and cold water, fire systems, water distribution (management and treatment), boiler feed water, waste water and hydrant flow testing.

FEATURES/BENEFITS

- IP68 (NEMA6) submersible 316SS construction (cable connection only)
- Intrinsically safe option available
- DP525 version suitable for "hot tap" installations
- Quadrature pulse option available for bi-directional flow measurement

PRODUCT CONFIGURATION

PRODUCT IDENTIFIER 1
DP = Insertion Meter

METER SIZE 2
490 = 1.5 to 36" (DN40-900)
525 = 2 to 100" (DN50-2500) suitable for "hot-tap" installations (valve not included)

BODY MATERIAL 3
S = 316 Stainless Steel

ROTOR/SHAFT MATERIALS 4
2 = PVDF/316 stainless steel 120ºC
3 = PEEK/tungsten carbide 150ºC

O-RING MATERIAL 5
1 = Viton™ -15ºC - + 150ºC
4 = Buna-N (Nitrile), -40ºC to + 125ºC

MAXIMUM TEMPERATURE LIMIT 6
2 = 125ºC max. (available with electrical connections 5 & 6)
3 = 150º C max. (only available with rotor/shaft type 3, electrical connection type 5, & Viton O-Ring)
5 = 100º C max. (standard temperature rating)

PROCESS CONNECTIONS 7
1 = 1-1/2" BSPT male thread (Not available on DP525)
2 = 1-1/2" NPT male thread (Not available on DP525)
3 = 2" BSPT male thread
4 = 2" NPT male thread

PICK-UP TYPE 8
1 = NPN open collector & voltage pulse (standard)
2 = NPN open collector only
3 = Reed switch only (may be used with an I.S. barrier or instrument in hazardous areas)
9 = Quadrature pulse output (requires F15 option for bi-directional flow capability)

ELECTRICAL CONNECTIONS 9
C = Flying cable 1.5 m on DP490, 1 m on DP525
2 = Flying cable – 10 m
5 = Terminal box on stem kit – IP67
6 = Stem kit ⅜" NPT x M16 thread (required for integral instruments)

INTEGRAL OPTIONS 10
___ =
R4 = RT40 rate totaliser with backlit large digit LCD, Aluminium housing [scalable pulse output, backlight]*#
R5 = RT14 backlit rate totaliser with all outputs (GRN Housing)*#
R6 = Intrinsically safe RT14 backlit rate totaliser with all outputs (GRN Housing, IECEx & ATEX approved)*#
R7 = RT40 rate totaliser with backlit large digit LCD, GRN housing [scalable pulse output, backlight]*#
F15 = F115 backlit bi-direction flow, rate/tot, pulse out, 4-20mA
F18 = F018 backlit rate/tot, pulse out, 4-20mA, 10 pt lin,HART
F19 = F018 Intrinsically Safe backlit rate/tot, pulse out, 4-20mA,10 pt lin, HART^

* Temp code 5 required when operating temperature is between 176º F (80º C) & 250º F (120º C)
\# Temp code 8 required for all integral instruments
^ Must use pick-up type 3

	1	2	3	4	5	6	7	8	9	10
--->>>>	DP	490	S	2	1	2	-2	1	6	R5G

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SPECIFICATIONS

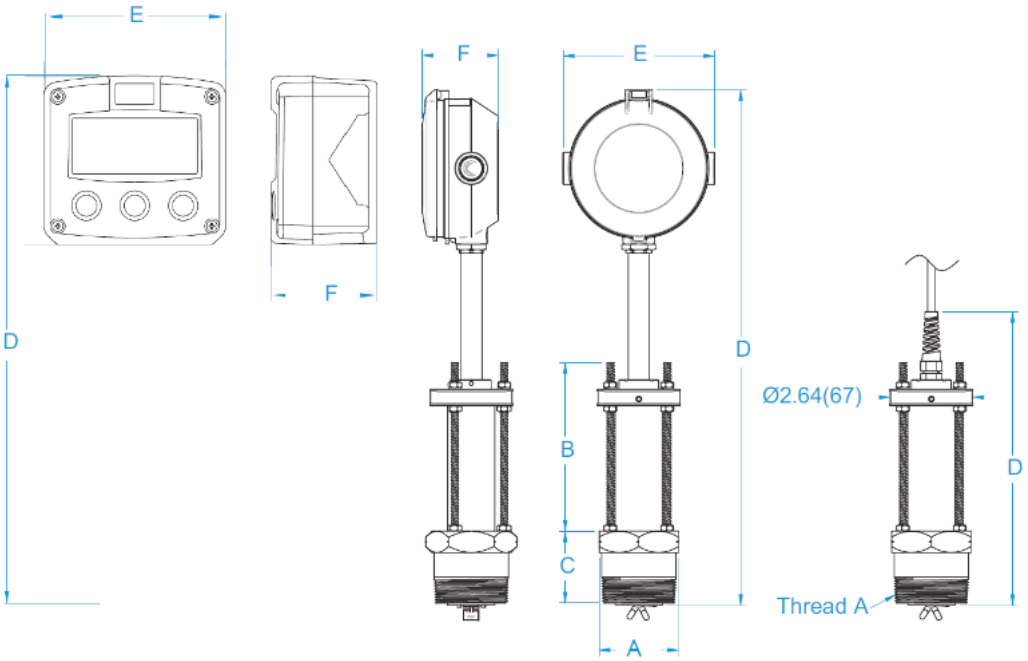
	DP490	DP525
Suits Pipe Sizes	1.5 - 35" (40-900 mm)	2 - 100" (50-2500 mm)
Pipe Connection	1.5" or 2" BSPT or NPT male thread	2" BSPT or NPT male thread
Flow Velocity Range	3 - 33 ft/sec (1 -10 m/s)	
Linearity % of Reading	Typically ± 1.5%	
Temperature Range:	-40˚F to 300˚F (-40˚C to 150˚C)	
Max. Pressure:	1160 psi (80 bar)	
Materials	316SS body and rotor shaft	
Protection Class:	IP68 (NEMA 6), optional I.S (Instrinsically Safe) Integral options	
Pulse Outputs		
Hall Effect	3 wire open collector, 5-24v (dc), 20mA max. Nom 0 -240Hz	
Reed*	30v (dc), 200mA max. Nom 0 - 80Hz	
Voltage Pulse	Self Generated voltage, Nom 0 - 240Hz	
Non-Magnetic Sensor	3 wire open collector, 5 - 24V (dc), 20mA max. Nom 0 - 240Hz	
Optional Outputs**	4-20mA, scaled pulse, quadrature pulse	

Reed Switch resolution is 1/3 of the NPN Hall Effect or Voltage Pulse outputs
***Optional Integral option is required*

Flying Cable Option	DP490	DP525
A- Thread	1.5" or 2" BSP or NPT	2" BSP or NPT
A - Dimension	2.36" (60 mm)	2.52" (64 mm)
B	7.8" (198 mm)	17.48" (444 mm)
C	1.5" (38 mm)	2.28" (58 mm)
D	9.33" (237 mm)	16.69" (424 mm)

Integral Option	DP490	DP525
A- Thread	1.5" or 2" BSP or NPT	2" BSP or NPT
A - Dimension	2.36" (60 mm)	2.52" (64 mm)
B	7.8" (198 mm)	17.48" (444 mm)
C	1.5" (38 mm)	2.28" (58 mm)
D - RT12/RT14	16.34" (415 mm)	35.43 in (900 mm)
D - RT40	14.96" (380 mm)	34.06" (865 mm)
D - F018/F115	16.26" (413 mm)	35.35" (898 mm)
E - RT12/RT14	0.47" (122 mm)	
E - RT40	4.45" (113 mm)	
E - F018/F115	5.12" (130 mm)	
F - RT12/RT14	2.40" (61 mm)	
F - RT40	2.48" (63 mm)	
F - F018/F115	2.95" (75 mm)	

DIMENSIONS



APPLICATIONS

- HVAC
- Hot and Cold Water
- Fire Systems
- Water Distribution (Management and Treatment)
- Boiler Feed Water
- Waste Water
- Hydrant Flow Testing