



PRODUCT CONFIGURATION

PRODUCT IDENTIFIER **1**

DP = Insertion Meter

METER SIZE **2**

490 = 1.5 to 36" (40-900 mm)

525 = 2 to 100" (50-2500 mm) suitable for "hot-tap" installations (valve not included)

BODY MATERIAL **3**

S = 316 Stainless Steel

ROTOR/SHAFT MATERIALS **4**

2 = PVDF/316 stainless steel (260°F [120°C])

3 = PEEK/tungsten carbide (300°F [150°C])

O-RING MATERIAL **5**

1 = Viton™ 5°F to + 300°F (-15°C - + 150°C)

4 = Buna-N (Nitrile), -40°F to + 260°F (-40°C to + 125°C)

MAXIMUM TEMPERATURE LIMIT **6**

2 = 260° F (125° C) max. (available with electrical connections 5 & 6)

3 = 300° F (150° C) max. (only available with rotor/shaft type 3, electrical connection type 5, & Viton O-Ring)

5 = 212° F (100° C) max. (standard temperature rating)

8 = 176° F (80° C) max. (for non-magnetic pick-up type 4)

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 (5 ft [1.5 m] on DP490, 3 ft [1 m] on DP525)

2 = Flying cable – 33 ft (10 m)

5 = Terminal box on stem kit – IP67

6 = Stem kit 3/8" NPT x M16 thread (required for integral instruments)

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 totalizer. 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

INTEGRAL OPTIONS **10**

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R3 = Intrinsically Safe RT12 with all outputs (GRN housing) [IECEx & ATEX approved]

R3G = RT12 Intrinsically Safe rate totalizer with all outputs (GRN Housing) [IECEx & ATEX approved] (with gallons calibration)*#

R4 = RT40 backlit rate totalizer (Alloy housing with fascia protector) [scalable pulse output, backlight]

R4G = RT40 rate totalizer with backlit large digit LCD (Alloy housings with fascia) (with gallons calibration)*#

R5 = RT14 backlit rate totalizer with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight]

R5G = RT14 backlit rate totalizer with all outputs (GRN Housing) (with gallons calibration)*#

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^

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

* Temp code 5 required when operating temperature is between 176° F (80° C) & 250° F (120° C)

Temp code 8 required for all integral instruments

^Must use pick-up type 3

SPECIFICATIONS

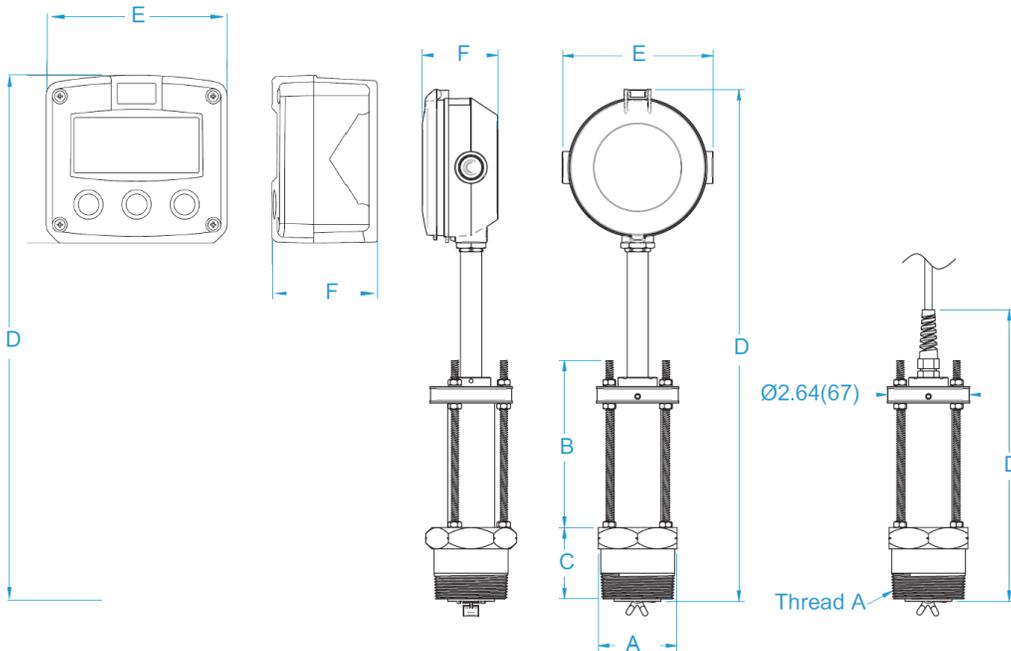
| | DP490 | DP525 |
|------------------------|---|----------------------------|
| Suits Pipe Sizes | 1.5 - 35" (40-900 mm) | 2 - 100" (50-2500 mm) |
| Pipe Connection | 1.5" or 2" BSPT or NPT male thread | 2" BSPT or NPT male thread |
| Flow Velocity Range | 3 - 33 ft/sec (1 - 10 m/s) | |
| Linearity % 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 (Intrinsically 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

Accu-Flo
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Service & Warranty: For technical assistance, warranty replacement or repair contact your **FLOMEC®** or **GPI®** distributor. In North or South America: **888-996-3837 / FLOMEC.net**
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