



# **UK** Flowtechnik

Specialists in flow metering, pumps, couplings  
and process measurement equipment

## **PRODUCT DATASHEET**

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# DP Series Insertion Paddle Wheel Flowmeter



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

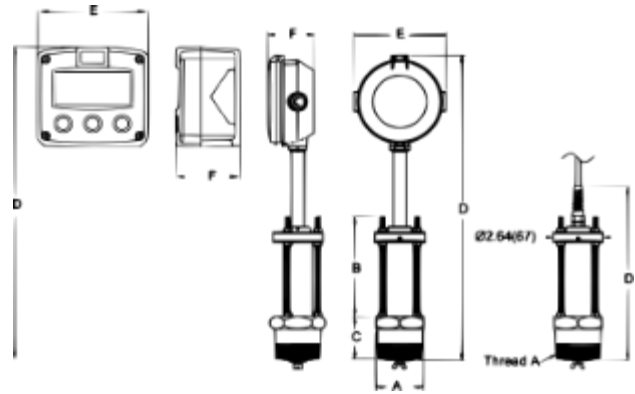
- IP68 (NEMA6) submersible 316SS construction (cable connection only)
- Intrinsically safe option available
- DP525 version suitable for “hot tap” installations
- Quadrature pulse option available for bi-directional flow measurement

## Technical Data

	DP490	DP525
<b>For: Pipe Size</b>	1.1/2” - 35”, DN40 - DN900	2” - 100”, DN50 - DN2500
<b>Velocity</b>	1-10 M/S	
<b>ConnectionSize</b>	1.1/2” or 2” BSPT or NPT male	2” BSPT or NPT male
<b>Body Material</b>	316 Stainless Steel	
<b>Rotor/Shaft Material</b>	PVDF/316 Stainless Steel or PEEK/Tungsten	
<b>Seals</b>	Viton or Buna-n (Nitrile)	
<b>Linearity</b>	Typically +/- 1.5% of reading	
<b>Max Pressure (Bar)</b>	80 Bar	
<b>Max Temperature (°C)</b>	150°C	
<b>Output</b>	Reed switch, NPN, Voltage Pulse	
<b>Options</b>	Variety of safe area and hazardous area directly mounted instruments to display flow rate, total, alarm/pulse and 4-20 mA (HART) outputs	

## Dimensional Data

	490	525
A	60	64
D (cable)	237	424
D (RT14)	415	900
D (RT40)	380	865
D (F series)	413	898



## Ordering Information

DP490 S I I 5 - I I 6 R5

### Model Code

1.5" to 36" (DN40-900) Pipes	<b>DP490</b>
2" to 100" (DN50-2500) Pipes	<b>DP525</b>

### Body Material

316 Stainless Steel	<b>S</b>
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### Rotor & Shaft Material

PVDF/316 Stainless Steel (Max 120°C)	<b>1</b>
PEEK/Tungsten Carbides (Max 150°C)	<b>2</b>

### O-Ring Material

Viton (standard, -15 to +150°C)	<b>1</b>
Buna-N/Nitrile (-40 to +125°C)	<b>4</b>

### Temperature Rating

Max 125°C (available with electrical connections 5 & 6)	<b>2</b>
Max 150°C (only available with rotor/shaft type 3, electrical connection type 5, & Viton O-Ring)	<b>3</b>
Max 100°C (standard temperature rating)	<b>5</b>

### Process Connection

1-1/2" BSPT male thread (Not available on DP525)	<b>1</b>
1-1/2" NPT male thread (Not available on DP525)	<b>2</b>
2" BSPT male thread	<b>3</b>
2" NPT male thread	<b>4</b>

### Integral Options

No Instrument	<b>--</b>
RT40 backlit rate totaliser with all outputs (Alloy housing with facia protector) [scalable pulse output, backlight]*	<b>R4</b>
RT14 backlit rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight]*	<b>R5</b>
Intrinsically safe RT14 backlit rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight][IECEX & ATEX approved]*	<b>R6</b>
RT40 backlit rate totaliser with all outputs (GRN housing) [scalable pulse output, backlight]*	<b>R7</b>
F115 backlit bi-direction flow, rate/tot, pulse out 4-20mA,	<b>F15</b>
F018 backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART	<b>F18</b>
F018 Intrinsically Safe backlit rate/tot, pulse out, 4-20mA, 10 pt lin, HART [IECEX & ATEX approved]	<b>F19</b>

### Electrical Connection

Flying cable 1.5 m on DP490, 1 m on DP525	<b>C</b>
Flying cable - 10 m	<b>2</b>
Terminal box on stem kit - IP67	<b>5</b>
Stem kit 3/8" NPT x M16 thread (required for integral instruments)	<b>6</b>

### Pick-up Type

NPN open collector & voltage pulse (standard)	<b>1</b>
NPN open collector only	<b>2</b>
Reed switch only (may be used with an I.S. barrier or instrument in hazardous areas)	<b>3</b>
Quadrature pulse output (requires F15 option for bidirectional flow capability)	<b>9</b>

\* Temp code 5 required when operating temperature is between 80°C & 120°C

^ Must use pick-up type 3