TRIMEC

DUALPULSE PADDLE WHEEL FLOWMETERS

DUALPULSE – insertion flowmeters

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).*

Insertion flowmeters are installed with the metering head 1/8th into the pipe resulting in very little pressure drop. They do not require external power when used with the Trimec rate totalisers however some options such as high temperature & non-magnetic models require external power.

Applications include HVAC, hot & chilled water, fire systems, water distribution (management & treatment), boiler feed water & hydrant flow testing.

FEATURES :

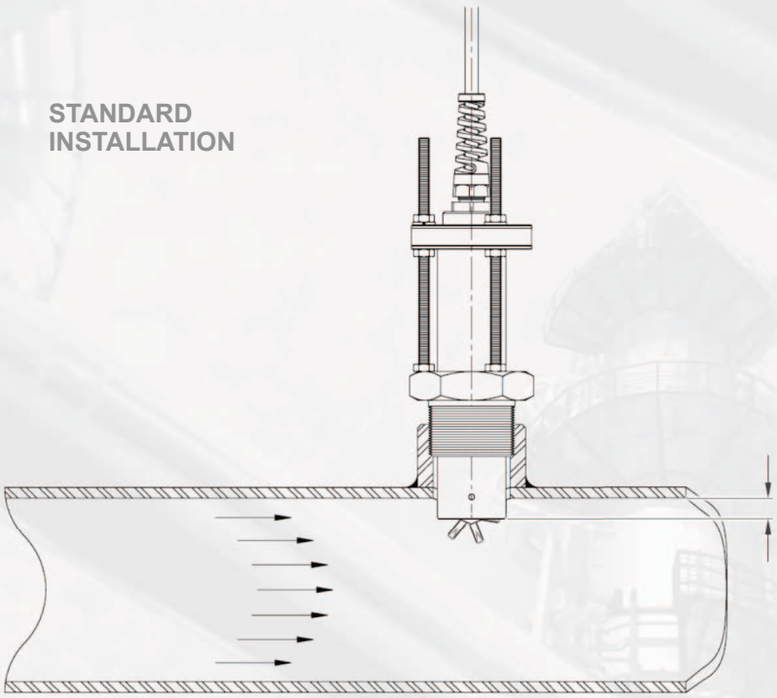
- IP68 (NEMA6) submersible 316SS construction.
- Low cost of ownership, wide flow range.
- Rugged & compact design.
- Intrinsically safe hazardous area versions.
- Integral or remote pre-amplifiers & flow instruments.
- DP525 version suitable for “hot tap” installation.
- BI-Directional Flow Measurement

GENERAL SPECIFICATIONS

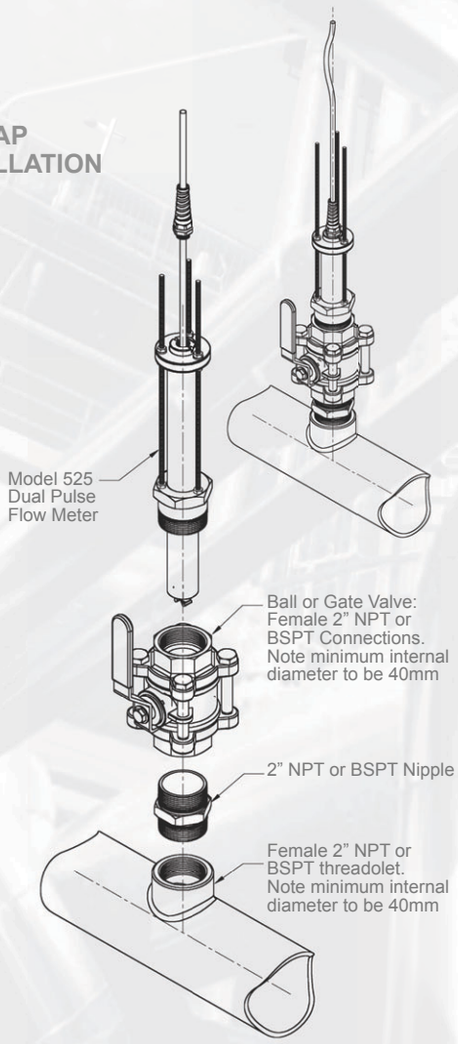
Model prefix :	**DP490**	**DP525**
Suit pipe sizes	40~900mm *(1.5”~36”)*	50~2500mm *(2”~100”)*
Pipe connection	*1.5” BSP or NPT*	*2” BSP or NPT*
Flow range	0.25 ~ 6300 litres/sec *(4 ~ 99600 USGM)*	0.4 ~ 49000 litres/sec *(6 ~ 780000 USGM)*
Flow velocity range	0.3 ~ 10 metres/sec *(1 ~ 33 feet/sec)*	
Linearity	typically ± 1.5% with well established flow profife	
Temperature range	-40ºC ~ +100ºC *(-40ºF ~ +212ºF) 200ºC max.*	
Maximum pressure	80 bar *(1200 psig)*	
Materials	316SS body & rotor shaft, PVDF rotor	
Pulse outputs		
** Reed switch*	30Vdc x 200mA max. Nom. 0~80hz	
Hall effect	3 wire NPN, 5~24Vdc, 20mA max. Nom. 0~240hz	
Voltage Pulse	self generated voltage. Nom. 0~240hz	
Intrinsically safe coil	self powered, generates 15~3000mV	
High temperature coil	self powered, 200ºC *(390ºF)* max.	
Non magnetic sensor	3 wire NPN, 5~24Vdc, 20mA max. Nom. 0~240hz	
Analog	loop powered 4 ~ 20mA	

** Maximum thermal shock 10ºC (50ºF) / min. applies to the reed switch*

STANDARD INSTALLATION



HOT TAP INSTALLATION



MODEL CODING

DP490	1.5 to 36" pipes *(40 ~ 900mm)*
DP525	2 to 100" pipes *(50 ~ 2500mm)* suitable for "hot-tap" installations

Body material

S	316 Stainless Steel

Rotor & bearing materials

1	PEEK high temperature rotor - 200ºC (390ºF)
2	PVDF rotor - 100ºC (212ºF) max *(standard)*
3	PVDF rotor with hastelloy shaft *(for chlorinated waters)*

O-ring materials

1	Viton *(standard)*, -15~+204ºC *(5~400ºF)*
2	EPR *(Ethylene Propylene Rubber)* for ketones only
3	Teflon encapsulated viton - application specific
4	Buna-N *(Nitrile)*, -65~+125ºC *(-53~+250ºF)*

Temperature limits

5	100ºC (212ºF) standard
2	125ºC (260ºF) - *PEEK rotor only*
3	150ºC (300ºF) - NPN output & *PEEK rotor only*
6	200ºC (390ºF) *with output type 6 coil & PEEK rotor*

Process connections

-	**1**	BSPT - *1½"M (DP490), 2"M (DP525)*
-	**2**	NPT - *1½"M (DP490), 2"M (DP525)*
-	**3**	2" BSPT male thread on the DP490
-	**4**	2" NPT male thread on the DP490

Pick-up type

1	NPN hall effect & voltage pulse *(standard)*
2	NPN open collector(s)
3	Reed switch only *(I.S. applications)*
4	Non magnetic rotor with NPN output
5	Non magnetic rotor with I.S. coil output
6	High temp. 200ºC *(390ºF)* coil output
7	Non magnetic rotor for 125ºC *(255ºF)*

Electrical connections

1	3 metre (10ft) cable *(std)*
2	10 metre (33ft) cable
3	20 metre (66ft) cable
4	50 metre cable (164ft)
5	Terminal box on stem kit
6	Stem kit

Integral options

	QP	Quadrature pulse output
with scaleable pulse output	**B2**	BT11 dual totaliser
IECEx & ATEX approved	**B3**	I.S. intrinsically safe BT11
scaled pulse, alarms & 4~20mA	**R2**	RT12 rate totaliser
IECEx & ATEX approved	**R3**	I.S. intrinsically safe RT12
scaled pulse + backlighting	**R4**	RT20 large LCD rate totaliser
dc powered 2 stage batch controller	**E0**	Batch controller
Requires electrical connection 5	**FI**	Loop powered 4~20mA output
	SB	Specific build requirement

Model No. Example

DP490	**S**	**2**	**1**	**5**	-	**1**	**1**	**6**	**R2**

for individual data sheets:
www.trimecind.com