

300 DriveSure ADC/En/Pn

300 series panel mount pumps

Key Features

- DriveSure panel mount pump for 313D/D2 and 314D/D2 pumpheads
- 0.1 rpm to 410 rpm speed range at 0.1 rpm increments
- Watson-Marlow closed-loop control technology delivers consistent, cool and quiet performance
- EtherNet/IP™ and PROFINET® versions for digital network integration, control and monitoring
- ADC version with 4-20 mA, 0-10 V, 2-2000 Hz and fixed speed control options
- Sealed mounting plate for easy installation and IP66 capability
- Integrated cover-open sensor and prime-switch input
- Downloadable PC software (WM Connect) to evaluate, optimise and diagnose via USB connection



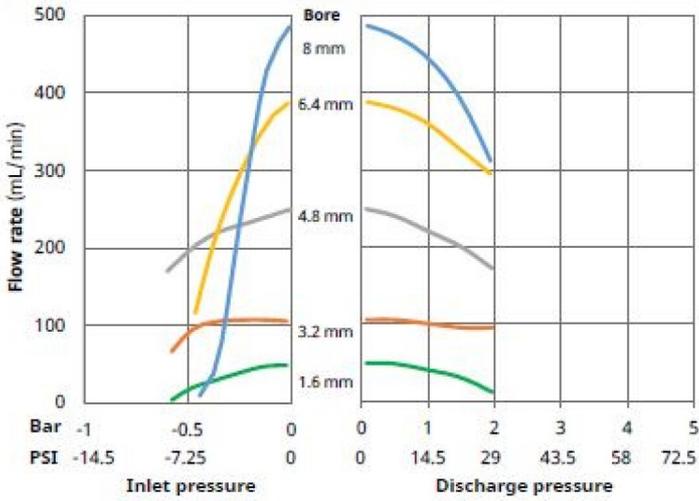
300 DriveSure ADC/En/Pn performance

Flow Rate (mL/min) by tube bore from 0.1 rpm (min) to 410 rpm (max)										
Pumphead	1.6 mm		3.2 mm		4.8 mm		6.4 mm		8 mm	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
313D	0.027	112.5	0.100	410	0.221	904	0.368	1507	0.500	2050
313D2	0.026	108	0.100	418	0.196	890	0.308	1382	-	-
314D	0.025	102.5	0.086	352	0.191	784	0.300	1230	0.400	1640
314D2	0.025	103.3	0.092	376	0.176	782	0.269	1191	-	-
316D	0.019	80.8	0.071	287	0.115	575	0.149	719	-	-
318D	0.018	71.9	0.059	249	0.094	428	-	-	-	-

Performance data is based on a 48 V DC power supply, pumping water at 20°C at 130m altitude, with 0 bar inlet and discharge pressure. Actual performance is dependent on power supply voltage (DriveSure range 12 V to 48 V DC). For further information contact your local Watson-Marlow representative.

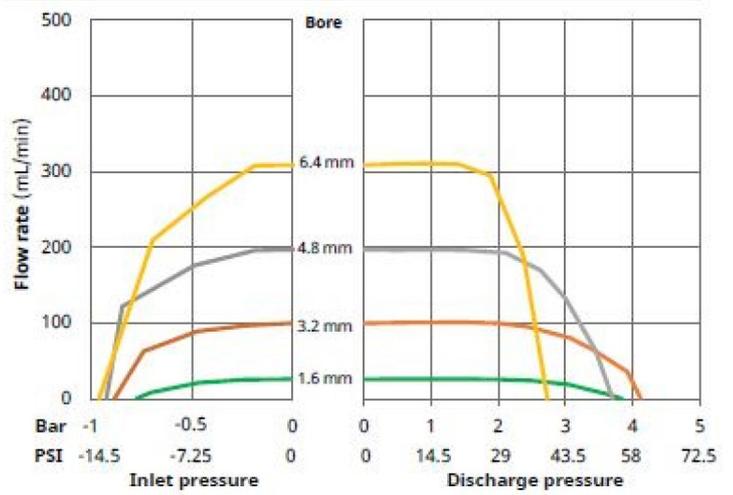
313D Pumphead

Marpene, water, 100 rpm, counter-clockwise



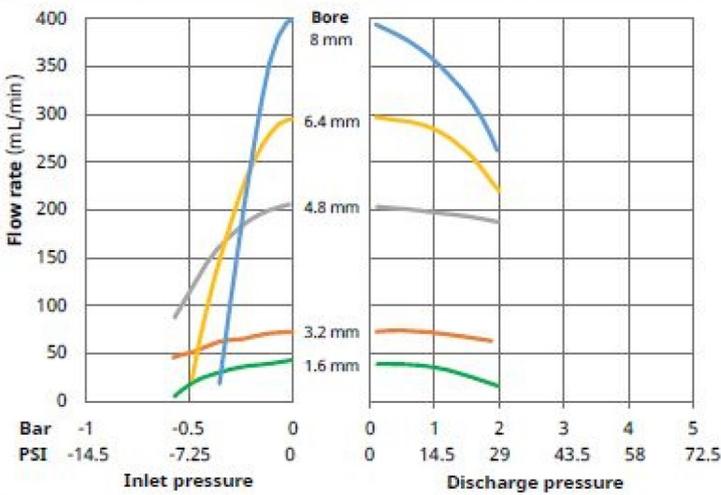
313D2 Pumphead

Marpene, water, 100 rpm, counter-clockwise



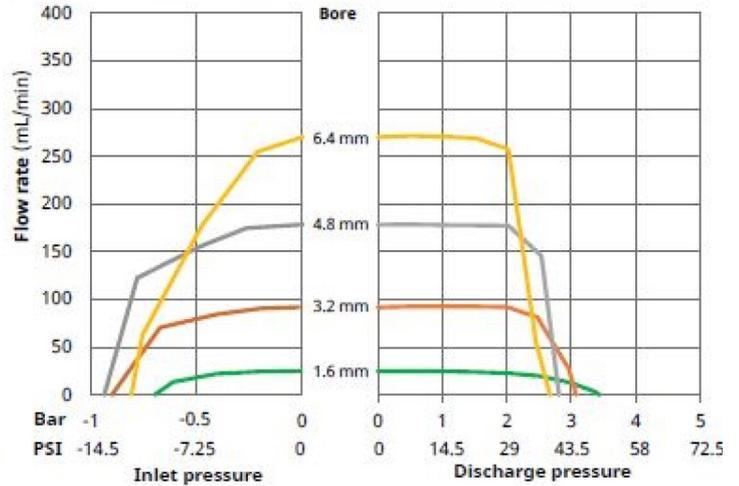
314D Pumphead

Marpene, water, 100 rpm, counter-clockwise



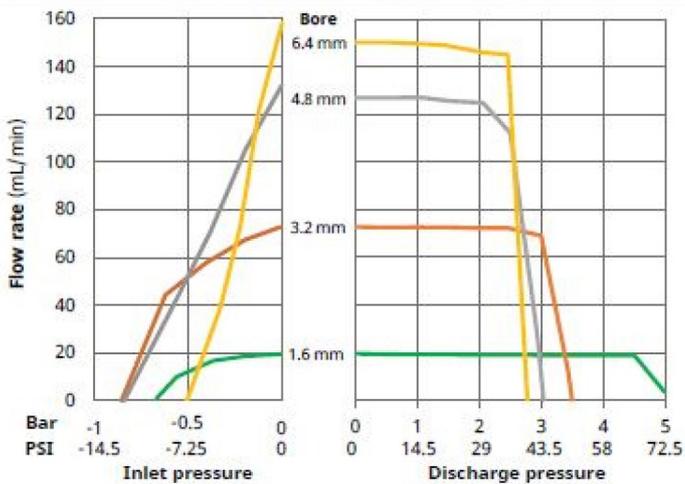
314D2 Pumphead

Marpene, water, 100 rpm, counter-clockwise



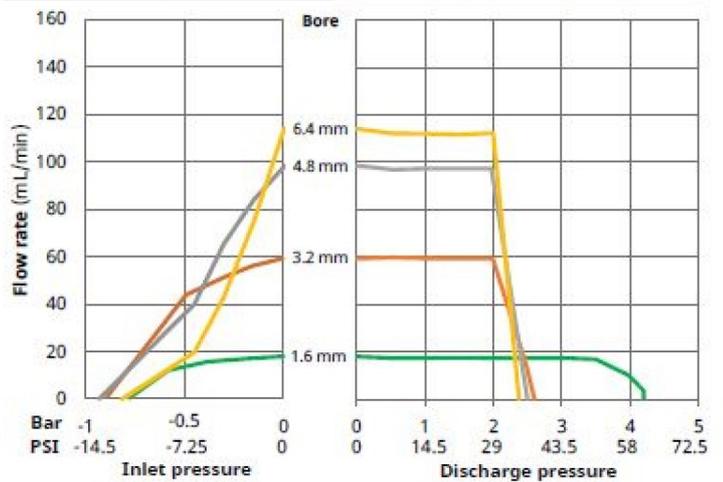
316D Pumphead

Marpene, water, 100 rpm, counter-clockwise



318D Pumphead

Marpene, water, 100 rpm, counter-clockwise



Technical specifications

300 DriveSure ADC/En/Pn	
Motor types	NEMA 24 stepper motor
Pumphead options	313D, 313D2, 314D, 314D2, 316D, 318D
Flow rate range	0.003 ml/min to 2050 ml/min
Operating speed range	0.1 rpm to 410 rpm
Speed Resolution	0.1 rpm
Supply voltage	12 V to 48 V DC
Operating temperature ranges	5 °C to 40 °C (41 °F to 104 °F)
Rated Power	75 W
Control options	0-10 V, 2-2000 Hz, 4-20 mA, EtherNet/IP™, Fixed speed, Prime speed, PROFINET®
Alarms	Cover-open, Hardware Fault, Over Current, Software error, Stall, Under/Over Voltage
Outputs	Fault, Tacho
External Inputs	Prime switch
Weight ranges	1.7 - 1.8 kg (3.748 - 3.968 lbs)
Location	Indoor, Enclosure
Ingress Protection	IP66 capable panel sealing
Humidity	80 % up to 31 °C (88 °F), decreasing linearly to 50 % at 40 °C (104 °F)
Noise	<67 dB(A) at 1m distance
Max. altitude	2000 m (6561 ft)
Standards	BS EN 55011-2016+A2-2021, BS EN IEC 61326-1-2021, CSA C22.2 No. 61010-1-12/AMD1:2018, EN 61010-1:2010/A1:2019, FCC 47CFR (Part 15), IEC 61010-1:2010/AMD1:2016, UL 61010-1:2012/R:2019-07
Certification and compliance	CB Certificate, EMC, NRTL certification
Compatible tubing bore size	0.5, 0.8, 1.6, 3.2, 4.8, 6.4, 8 mm
Compatible tubing wall thickness	1.6, 2.4 mm

Outputs are for ADC version only. Alarms are for EtherNet/IP™ & PROFINET® versions only.

Noise level may vary depending on the application and system integration.

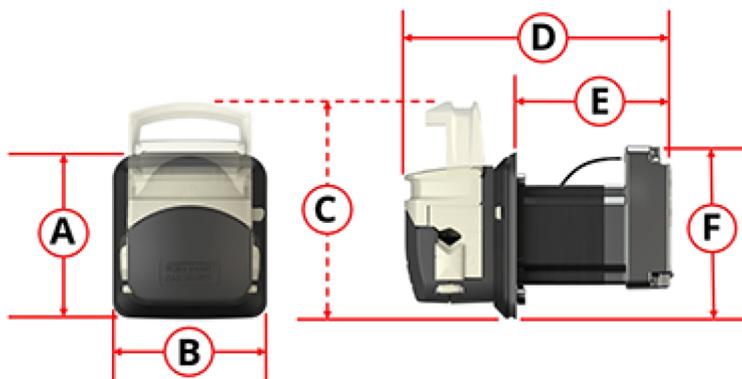
For detailed specifications of individual models refer to product reference manual or contact WMFTS representative.

Materials of construction

300 DriveSure ADC/En/Pn	
Pumphead body assembly	Glass filled polypropylene, Polyacrylamide–IXEF (PARA), Stainless steel
Pumphead rotor assembly	Electroless nickel plated hardened steel, Glass filled Nylon
Pumphead roller assembly	MoS2 filled Nylon 6 (Nylatron)
Motor	Aluminium, Plasma nitride coated stainless steel
Controller Housing	ABS/PC, Aluminium
Mounting plate assembly	Nitrile, Polyacrylamide (PARA)-halogen free, UL94 V-0 rated, Thermoplastic elastomer (TPE)

Information listed covers the complete range. For detailed specifications of individual models/components refer to product reference manual or contact WMFTS representative.

300 DriveSure ADC/En/Pn dimensions



A		B		C		D		E		F	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
101	3.98	93	3.68	128	5.04	160	6.30	92	3.62	103	4.06

Product codes



A	B	C	D	E	F	G
Product	Control	Cable length	Pumphead colour	Pumphead	Tube clamp	Tube wall thickness
0 = Complete pump	4 = ADC	1 = 1 m (3.28 ft) cable	0 = No pumphead	0 = No pumphead	0 = No pumphead	0 = No pumphead
6 = Drive only	8 = En (EtherNet/IP™)	3 = 3 m (9.84 ft) cable	1 = Standard colour	C = 313D/313D2	V = Variable	1 = 1.6 mm
	9 = Pn (PROFINET®)		2 = Black	D = 314D/314D2	C = Fixed 0.5 mm to 1.6 mm bore	2 = 2.4 mm
			3 = White		F = Fixed 3.2 mm bore	
					K = Fixed 4.8 mm bore	
					N = Fixed 6.4 mm to 8.0 mm bore	

Accessories and Spares	
Product	Product code
300 Series DriveSure Sealed Mounting Plate / Sensor	039.IPMP.DVS
DriveSure cable pack - 24 V power supply/USB-C - trials only *	009.24CP.DVS
DriveSure cable pack - 48 V power supply/USB-C - trials only *	009.48CP.DVS
1 m Power Cable DriveSure ADC/En/Pn	009.1PW.DVS
3 m Power Cable DriveSure ADC/En/Pn	009.3PW.DVS
1 m Control Cable DriveSure ADC	009.1CC.DVS
3 m Control Cable DriveSure ADC	009.3CC.DVS
Ethernet Cable, RJ45 to RJ45, CAT 5e SHIELDED, 3m	059.9123.000
PROFINET® Cable, RJ45 to RJ45, CAT 5e SHIELDED, 3m	059.9128.000

*Cable packs do not include mains power lead. If required, order power leads suitable for your region.

Disclaimer: All flow rates shown were obtained pumping water at 20 °C (68 °F) with zero suction and delivery heads. Watson-Marlow, Pumpsil, PureWeld XL, Bioprene and Marprene are trademarks of Watson-Marlow Limited. The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. GORE and STA-PURE are trademarks of W. L. Gore & Associates. Please state the product code when ordering pumps and tubing.



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