

100 DriveSure ADC/En/Pn

100 series panel mount pumps

Key Features

- DriveSure panel mount pump for 114 and 116 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



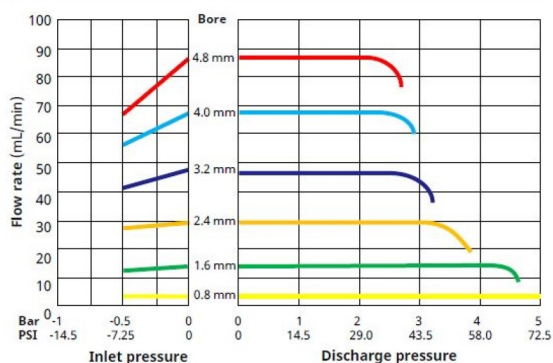
100 DriveSure ADC/En/Pn performance

Flow Rate (mL/min) by tube bore based on 0.1 rpm (Min) to 410 rpm (Max)														
Pumphead	0.5 mm		0.8 mm		1.6 mm		2.4 mm		3.2 mm		4.0 mm		4.8 mm	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
114DV	0.002	9.3	0.004	17.4	0.014	57.4	0.029	118	0.048	195	0.068	277	0.085	349
114DVP	0.002	9.3	0.004	17.4	0.014	57.4	0.029	118	0.048	195	0.068	277	0.085	349
116DV	0.002	7.1	0.003	12.0	0.011	43.4	0.022	90.8	0.032	127	0.043	158	0.048	184
116DVP	0.002	7.2	0.003	12.1	0.010	43.5	0.021	88.1	0.031	127	0.040	152	0.046	167

Performance data is based on a 48 V DC power supply, pumping water, 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.

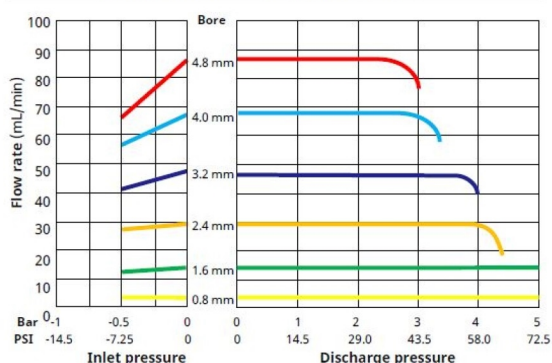
114DV Pumphead

Marprene, water, 100 rpm, counter-clockwise



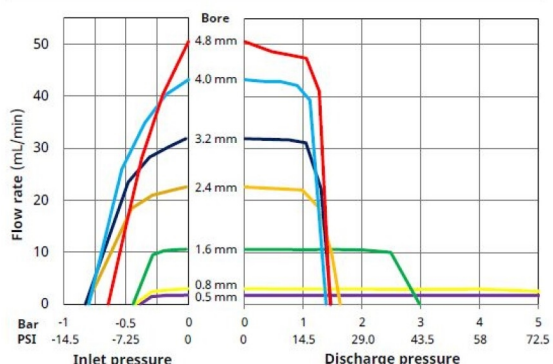
114DVP Pumphead

Marprene, water, 100 rpm, counter-clockwise



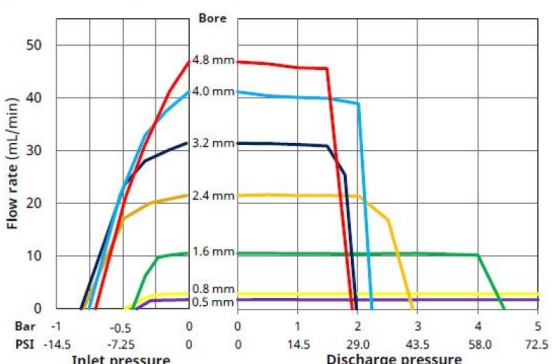
116DV Pumphead

Marprene, water, 100 rpm, counter-clockwise



116DVP Pumphead

Marprene, water, 100 rpm, counter-clockwise



Technical specifications

	100 DriveSure ADC/En/Pn
Motor types	NEMA 17 stepper motor
Pumphead options	114DV, 114DVP, 116DV, 116DVP
Number of rollers	4, 6
Number of channels	1
FlowRateRange	0.002 ml/min to 349 ml/min
	0.1 rpm to 410
Speed Resolution	0.1 rpm
Supply voltage	12 to 48 VDC
Operating temperature	41 °F to 104 °F (5 °C to 40 °C)
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	1.764 - 1.984 lbs (0.8 - 0.9 kg)
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	<60 dB(A)
Max. altitude	6561 ft (2000 m)
Standards	BS EN 55011-2016+A2-2021, BS EN IEC 61326-1-2021, CC 47CFR (Part 15), CSA C22.2 No. 61010-1-12/AMD1:2018, EN 61010-1:2010/A1:2019, 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, 2.4, 3.2, 4, 4.8 mm
Compatible tubing wall thickness	1.6 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.

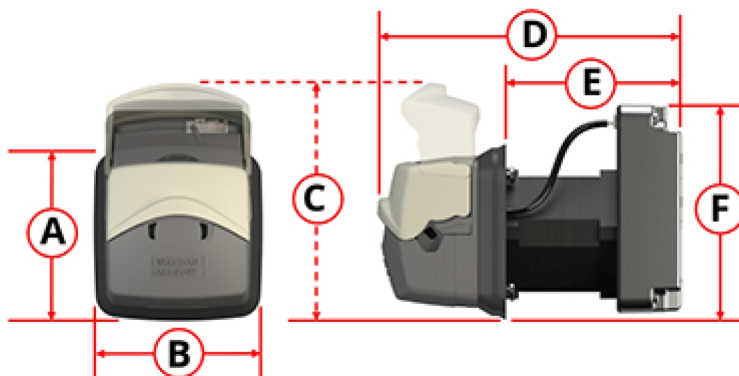
For detailed specifications of individual models refer to product reference manual or contact WMFTS representative.

Materials of construction

	100 DriveSure ADC/En/Pn
Pumphead body assembly	Grilamid PA12, Polyacrylamide-IXEF (PARA)
Pumphead rotor assembly	FPM rubber, Polyacrylamide-IXEF (PARA), Polytetrafluoroethylene (PTFE) filled Polybutylene Terephthalate (PBT), PTFE filled PBT, Stainless steel
Pumphead roller assembly	Polytetrafluoroethylene (PTFE) filled Polybutylene Terephthalate (PBT)
Motor	Aluminum, Plasma nitride coated stainless steel
Controller Housing	ABS/PC, Aluminum
Mounting plate assembly	Nitrile, Polyacrylamide (PARA)-halogen free, UL94 V-0 rated, Thermoplastic elastomer (TPE), Thermoplastic elastomer (TPE)

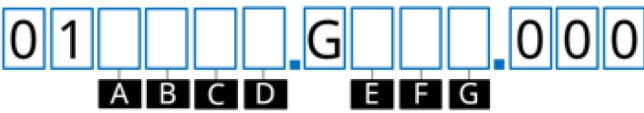
Information listed covers the complete range. For detailed specifications of individual models/components refer to product reference manual or contact WMFTS representative.

100 DriveSure ADC/En/Pn dimensions



A		B		C		D		E		F	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
73	2.87	74	2.91	98	3.85	128	5.04	73	2.87	89	3.50

Product codes



A	B	C	D	E	F	G
Product	Control	Cable length	Pumphead colour	Pumphead	Pressure	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	A = 114	S = Standard pressure	1 = 1.6 mm
	9 = Pn (PROFINET®)		2 = Black	B = 116	P = Plus pressure	
			3 = White			
Accessories and Spares						
Product					Product code	
100 Series DriveSure Sealed Mounting Plate / Sensor					019.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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