



Improving your PERFORMANCE

520Di IP31 high accuracy dispenser fitted with 505CA multi-channel cassette pumpheads

Technical Information

- Multi-channel dispensing with microlitre flow rates
- +/-0.5% flow accuracy per channel
- Calibration by weight or by volume
- "Suck-back" facility eliminates drips at dose end
- RS232 control via serial communications
- Simple security protection code protects set functions. Comprehensive security protection can be incorporated to protect dispensing parameters and calibration values
- Up to 50 dispensing programs including dose parameters and calibration, can be stored in the memory with full file name
- 505CA cassette pump features eight planetary gear driven rollers for ultra low pulsation. Note that the 505CA pumphead can only be run up to a maximum of 170rpm
- Cassettes have a sprung track and accept 20 different sizes of colour coded manifold tubing. Up to 48 pumping channels can be achieved from a single drive

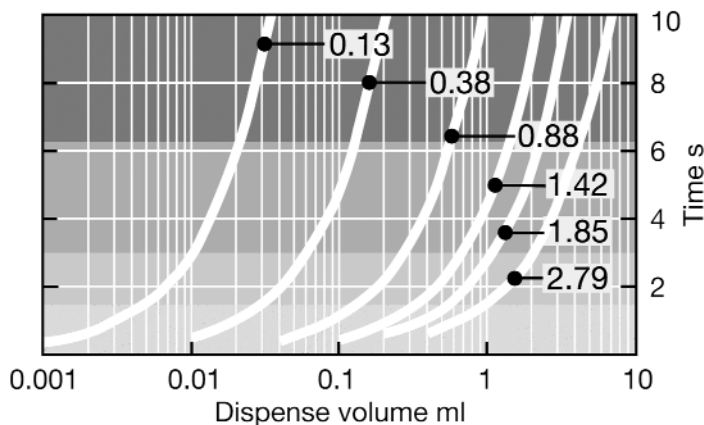


520Di/CA recommended dose sizes (ml)

Maximum speed	Tube bore	0.13mm	0.38mm	0.88mm	1.42mm	1.85mm	2.79mm
170rpm	Minimum dose	0.001ml	0.015ml	0.06ml	0.16ml	0.25ml	0.48ml
	Maximum dose	0.04ml	0.25ml	1.0ml	2.50ml	3.75ml	7.50ml

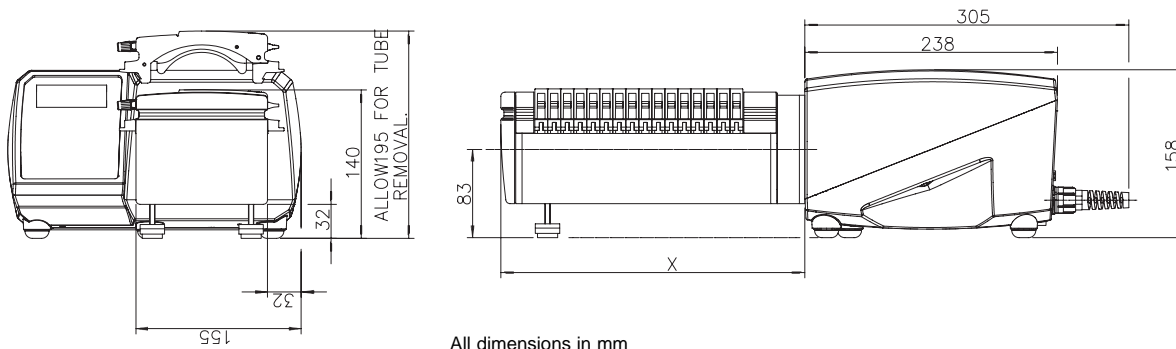
520Di/CA flow rates

Tube bore	0.13mm	0.19mm	0.25mm	0.38mm	0.50mm	0.63mm	0.76mm	0.88mm	1.02mm	1.14mm
Speed range 0.1 to 170rpm	0.0001-0.20	0.0002-0.31	0.0003-0.44	0.0007-1.22	0.0011-1.90	0.0017-2.82	0.0022-3.74	0.0032-5.44	0.0042-7.14	0.0052-8.84
Tube bore	1.29mm	1.42mm	1.52mm	1.65mm	1.85mm	2.05mm	2.29mm	2.54mm	2.79mm	
Speed range 0.1 to 170rpm	0.0066-11.2	0.0080-13.6	0.0086-14.6	0.010-17.3	0.013-21.4	0.015-25.8	0.018-31.3	0.022-37.4	0.024-40.8	



Dispense volume against time for the 520Di pump with a selection of tubes. Dispensing accuracy is indicated by the background shade

- within ±5.0%
- within ±2%
- within ±1.0%
- within ±0.5%



Pumpheads	Dimension 'x'
4 WAY	139
8 WAY	188
12 WAY	237
16 WAY	286
20 WAY	385
24 WAY	434
28 WAY	483
32 WAY	532
36 WAY	631
40 WAY	680
44 WAY	729
48 WAY	778

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Specification

Weight	10.7kg
Operational Temperature range	5°C to 40°C
Noise	<70dBb(A) at 1m
Control Ratio	2200:1
Standards	CE, cETL _{US}
Supply	110V/230V 1ph, 50/60Hz

520Di drive and 505CA pumphead ordering information		
Pump	Specification	Product code
520Di 170rpm IP31 drive	100-120V/220-240V 50/60Hz 1ph 100VA	056.7171.000*
505CA4	Four channel pumphead	053.4202.000
505CA8	Eight channel pumphead	053.4222.000
505CA12	Twelve channel pumphead	053.4242.000
505CA16	Sixteen channel pumphead	053.4262.000
505CAX12	Twelve channel extension pumphead	053.3442.000
505CAX16	Sixteen channel extension pumphead	053.3462.000

*Replace 0 with A, E or U for American, European or UK mains lead

Materials of Construction

Drive casework	Pressure die-cast aluminium LM24
Casework coating	Alocrom pre-treatment, exterior grade polyester powder coat
Keypad	Polyester
Switch plate	Glass filled ABS plastic
Rear blanking plate	Stainless Steel 304
Gearbox nose	Aluminium LM24M
Drive shaft	Electroless nickel plated carbon steel
Cassette	Verton body, Kematal track and leg (standard) Verton body/PVDF track and leg (optional) Stainless Steel pins
Pumphead body	Aluminium chassis, brass sun gear, Acetal planetary gear
Rotor	Stainless steel rollers, aluminium end plates
Guard	Verton gear guards and end cover

Tube ordering codes						
Manifold pump tubing for 505CA						
Colour code	Tube	Marprene*	PVC	Silicone	Solvent	Acid
Orange/black	0.13		980.0013.000		984.0013.000	
Orange/red	0.19		980.0019.000		984.0019.000	
Orange/blue	0.25	978.0025.000	980.0025.000		984.0025.000	
Orange/green	0.38	978.0038.000	980.0038.000		984.0038.000	
Orange/yellow	0.50	978.0050.000	980.0050.000		984.0050.000	986.0050.000
Orange/white	0.63	978.0063.000	980.0063.000	982.0063.000	984.0063.000	986.0063.000
Black/black	0.76	978.0076.000	980.0076.000	982.0076.000	984.0076.000	986.0076.000
Orange/orange	0.88	978.0088.000	980.0088.000	982.0088.000	984.0088.000	986.0088.000
White/white	1.02	978.0102.000	980.0102.000	982.0102.000	984.0102.000	986.0102.000
Red/red	1.14	978.0114.000	980.0114.000	982.0114.000	984.0114.000	986.0114.000
Grey/grey	1.29	978.0129.000	980.0129.000	982.0129.000	984.0129.000	986.0129.000
Yellow/yellow	1.42	978.0142.000	980.0142.000	982.0142.000	984.0142.000	986.0142.000
Yellow/blue	1.52	978.0152.000	980.0152.000	982.0152.000	984.0152.000	986.0152.000
Blue/blue	1.65	978.0165.000	980.0165.000	982.0165.000	984.0165.000	986.0165.000
Green/green	1.85	978.0185.000	980.0185.000	982.0185.000	984.0185.000	986.0185.000
Purple/purple	2.05	978.0205.000	980.0205.000	982.0205.000	984.0205.000	986.0205.000
Purple/black	2.38	978.0238.000	980.0238.000	982.0238.000	984.0238.000	986.0238.000
Purple/orange	2.54	978.0254.000	980.0254.000	982.0254.000	984.0254.000	986.0254.000
Purple/white	2.79	978.0279.000	980.0279.000	982.0279.000	984.0279.000	986.0279.000

* For autoclavable Marprene tubing, please replace last "0" with "" - for example 978.0238.00*
Please state the product code when ordering pumps and tubing



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All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads.

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