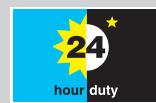


# 730SN, 730UN, 730DuN, 730BpN, 730US, 730DuS and 730EnN Pumps

# 700 series Watson-Marlow Pumps

## FEATURES

- Colour display and intuitive menu structures provide visual status indication and minimal key presses
- Flow rates from 0.12 L/hr (0.03 USGPH) to 3,300 L/h (872 USGPH)
- 3,600:1 speed control range from 0.1 to 360 rpm in 0.1 rpm increments
- Keypad incorporates 3-level security PIN lock
- IP66 (NEMA 4X) cased pumps
- Dual voltage 115/230V 50/60Hz
- Remote Analogue/Digital, RS485, PROFIBUS, SCADA and EtherNet/IP™ control options



*Watson-Marlow... Innovation in Full Flow*

## PERFORMANCE: 720R/RE SINGLE PUMPHEADS

- R—4.8mm wall tubing - four roller pumphead for continuous tubing



720R

- RE—four roller pumphead for LoadSure elements for use with quick release industrial or sanitary tri-clamp connections

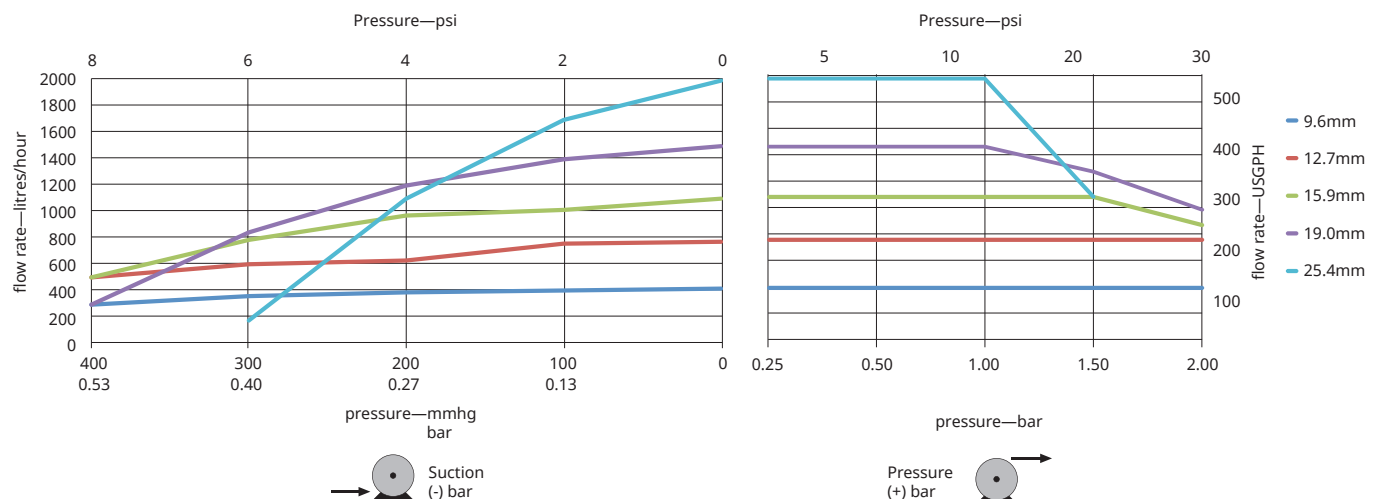


720RE

### 730 cased pumps' performance limits—L/h (USGPH)

Single pumphead (720R, 720RE)	0.25 bar (3.6psi)		0.5 bar (8psi)		1 bar (15psi)		1.5 bar (22psi)		2 bar (30psi)	
	Max speed (rpm)*	Max flow	Max speed (rpm)*	Max flow	Max speed (rpm)*	Max flow	Max speed (rpm)*	Max flow	Max speed (rpm)*	Max flow
9.6mm (0.4")	360	420 (111)	360	420 (111)	360	420 (111)	360	420 (111)	360	420 (111)
12.7mm (0.5")	360	780 (206)	360	780 (206)	360	780 (206)	360	780 (206)	360	780 (206)
15.9mm (0.6")	360	1100 (291)	360	1100 (291)	360	1100 (291)	360	1100 (291)	300	900 (238)
19.0mm (0.7")	360	1500 (396)	360	1500 (396)	360	1500 (396)	300	1300 (343)	250	1000 (264)
25.4mm (1.0")	360	2000 (528)	360	2000 (528)	360	2000 (528)	200	1100 (291)		

\*The maximum speed is reduced at increased discharge pressures to ensure safe running of the pump



## PERFORMANCE: 720RX/REX TWIN PUMPHEADS

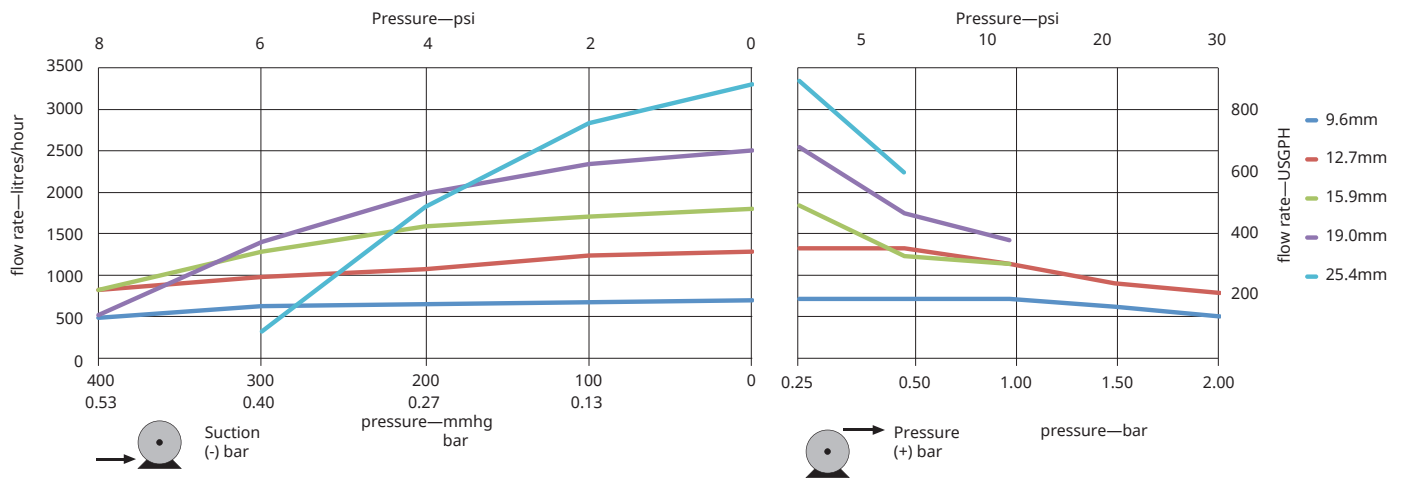
- RX—4.8mm wall tubing - four roller extension pumphead for continuous tubing for up to 1bar (15psi)
- REX—four roller extension pumphead for LoadSure elements for up to 1bar (15psi)



### 730 cased pumps' performance limits—L/h (USGPH)

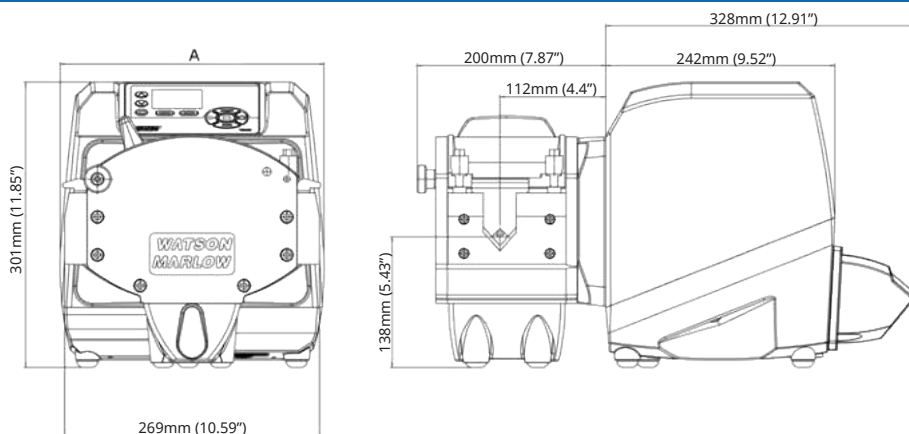
Twin pumphead (720R/RX, 720RE/REX)	0.25 bar (3.6psi)		0.5 bar (8psi)		1 bar (15psi)		1.5 bar (22psi)		2 bar (30psi)	
	Max speed (rpm)*	Max flow	Max speed (rpm)*	Max flow	Max speed (rpm)*	Max flow	Max speed (rpm)*	Max flow	Max speed (rpm)*	Max flow
9.6mm (0.4")	300*	700 (185)	300*	700 (185)	300*	700 (185)	250	590 (156)	200	470 (124)
12.7mm (0.5")	300*	1300 (343)	300*	1300 (343)	250	1100 (291)	200	870 (230)	175	760 (201)
15.9mm (0.6")	300*	1800 (476)	200	1200 (317)	175	1100 (291)				
19.0mm (0.7")	300*	2500 (660)	200	1700 (449)	160	1390 (367)				
25.4mm (1.0")	300*	3300 (872)	200	2200 (581)						

\*The maximum speed is reduced at increased discharge pressures to ensure safe running of the pump



## DIMENSIONS

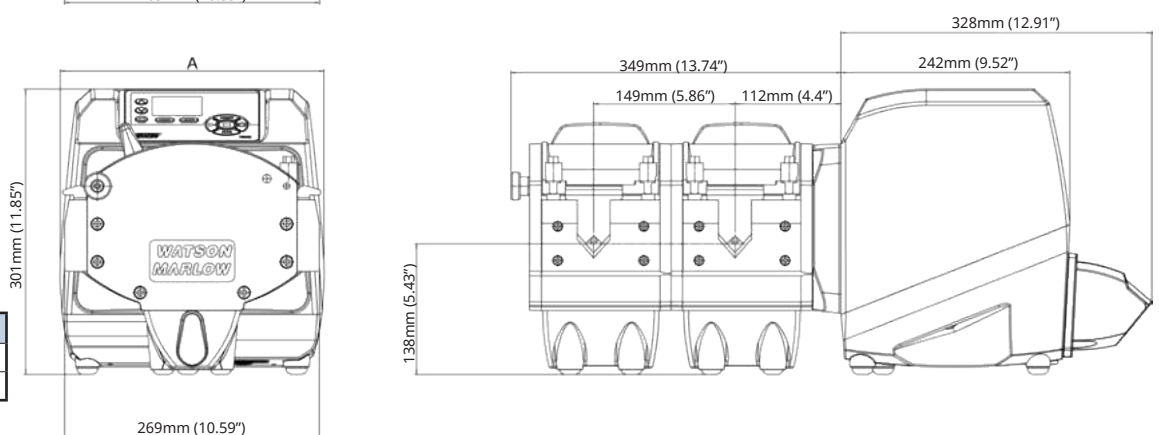
### Single pumphead



#### Dimension A

720R	279mm (11")
720RE	314mm (12.4")

### Dual pumphead



#### Dimension A

720RX	279mm (11")
720REX	314mm (12.4")

## TECHNICAL DATA

Pump drives	730SN	730UN	730DuN	730BpN	730US	730DuS	730EnN
<b>Model</b>	Standard IP66 / NEMA 4X	Universal IP66 / NEMA 4X	Digital Universal IP66 / NEMA 4X	Bus Pump / Profibus IP66 / NEMA 4X	Universal SCADA / IP66 / NEMA 4X	Digital Universal SCADA / IP66 / NEMA 4X	EtherNet/IP / IP66 / NEMA 4X
<b>Manual control</b>							
Intuitive keypad and colour display	•	•	•	•	•	•	
Choice of flowrate or speed display	•	•	•	•	•	•	•
Full calibration with choice of flow units	•	•	•	•	•	•	•
MemoDose function	•	•	•	•	•	•	
Auto restart facility	•	•	•	•	•	•	•
Guard switch detection	•	•	•	•	•	•	•
Leak detection		•	•	•	•	•	•
<b>Remote control</b>							
Configurable start/stop, leak detector and pressure switch input (via contact closure or 5V TTL to 24V)		•	•				
Configurable start/stop, leak detector and pressure switch input (via 110V industrial logic)					•	•	
Configurable Start/Stop and leak detector input via contact closure or 5V TTL or 24V industrial logic <b>Note:</b> Does not include pressure switch							•
Direction change and auto/manual toggle input (via contact closure or 5V TTL to 24V)		•	•				
Direction change and auto/manual toggle input (via 110V industrial logic)					•	•	
Remote operation of MemoDose (foot/hand-switch or logic input)		•	•		•	•	
Four configurable digital status outputs through 24V, 30W relays		•	•				
Four configurable digital status outputs through 110V relays					•	•	
Remote pressure/flow sensors							•
<b>Analogue speed control</b>							
Fully configurable inputs; 0-10V or 4-20mA		•	•		•	•	
Analogue outputs; 0-10V, 4-20mA		•	•		•	•	
Keypad/analogue input scaling (replacement of diaphragm pumps)			•			•	
Tacho frequency output; 0-1478Hz		•	•				
2x sensor inputs 4-20mA*							•
<b>Security</b>							
3-level security PIN lock	•	•	•	•	•	•	•
<b>Network communication</b>							
RS485 network control			•			•	
<b>Digital pump commands (Profibus / EtherNet/IP)</b>							
Profibus DP V0				•			
Communication speeds from 9.6 kbits/s up to 12000 kbits/s				•			
Baud Rate (MBPS) 10/100 Full/Half Duplex Operation							•
Auto-detect bus speed				•			•
Speed set point				•			•
Speed feedback				•			•
Flow calibration function				•			•
Hours run				•			•
Revolution counter				•			•
Leak detection				•			•
Low fluid level alarm				•			•
Diagnostic feedback				•			•
EtherNet/IP							•
Device Level Ring (DLR)							•
Flow Totaliser							•

\*Range of 3rd party pressure/flow sensors supported—consult factory for list

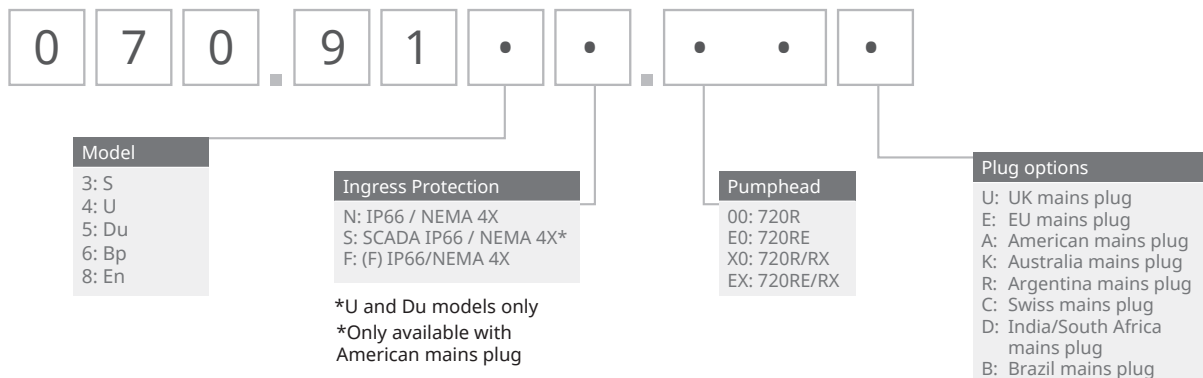
## SPECIFICATIONS

730SN, 730UN, 730DuN, 730US, 730DuS, 730BpN, 730EnN	
Ingress rating	IP66 / NEMA 4X
Enclosure	Watertight / dustproof
Suitability	Corrosion resistant for heavy industrial environments
Humidity (non-condensing)	80% up to 31C (88F), decreasing linearly to 50% at 40C (104F)
Temperature	5C to 40C (40F to 104F)
Pump weight	25kg (55lb 2oz)
Speed control ratio	3,600:1
Noise	85dB(A) at 1m
Standard	CE, cETLus, IRAM, C-Tick, NSF/ANSI 61 (for Marprene tubing and loadsure elements)
Power supply	100-120V/200-240V 1ph 50/60Hz, 350VA

## MATERIALS OF CONSTRUCTION

Component	Material
Keypad	Polyester
Switch-plate	ABS PA-765
Rear blanking plate	Stainless steel 316
Drive casework	Pressure die-cast aluminium (top - LM6, base - LM24)
Casework and pumphead coating	Alocrom pre-treatment, exterior grade polyester powder coat
Drive shaft	Stainless steel 440C
Pumphead body/track	Aluminium
Rotor end plates	Aluminium
Rollers	MOS2 filled nylon 6 (Nylatron)
Springs/spindles	Stainless steel
EtherNet/IP™ connection	2x SKT M12D

## ORDER INFORMATION



\*(F) module for KROHNE flow sensor

	Sanitary LoadSure elements Tri-clamp style PVDF connectors				Industrial LoadSure elements Cam & Groove PP connectors			
	3/4"		1"		3/4"		1"	
	12.7mm	15.9mm	19.0mm	25.4mm	12.7mm	15.9mm	19.0mm	25.4mm
Marprene®					902.0127.PPC	902.0159.PPC	902.0190.PPC	902.0254.PPC
Pumpsil®	913.A127.PFT	913.A159.PFT	913.A190.PFT	913.A254.PFT	913.A127.PPC	913.A159.PPC	913.A190.PPC	913.A254.PPC
Bioprene®	933.0127.PFT	933.0159.PFT	933.0190.PFT	933.0254.PFT				
STA-PURE® Series PCS	961.0127.PFT	961.0159.PFT	961.0190.PFT	961.0254.PFT				
Neoprene					920.0127.PPC	920.0159.PPC	920.0190.PPC	920.0254.PPC

Continuous tubing					
	9.6mm	12.7mm	15.9mm	19mm	25.4mm
Marprene®	902.0096.048	902.0127.048	902.0159.048	902.0190.048	902.0254.048
Pumpsil®	913.A096.048	913.A127.048	913.A159.048	913.A190.048	913.A254.048
Bioprene®	933.0096.048	933.0127.048	933.0159.048	933.0190.048	933.0254.048
PureWeld® XL	941.0096.048	941.0127.048		914.0190.048	914.0254.048
STA-PURE® Series PCS	961.0096.048	961.0127.048	961.0159.048	961.0190.048	961.0254.048
Neoprene		920.0127.048	920.0159.048	920.0190.048	920.0254.048

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads. Disclaimer: 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. It is the users responsibility to ensure product suitability for use within their application. Watson-Marlow, LoadSure, Pumpsil, PureWeld XL, Bioprene, Marprene are registered trademarks of Watson-Marlow Limited. Tri-Clamp is a registered trademark of Alfa Laval Corporate AB. GORE and STA-PURE are registered trademarks of W.L. Gore and Associates. Please state the product code when ordering pumps and tubing.



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