Qdos H-FLO

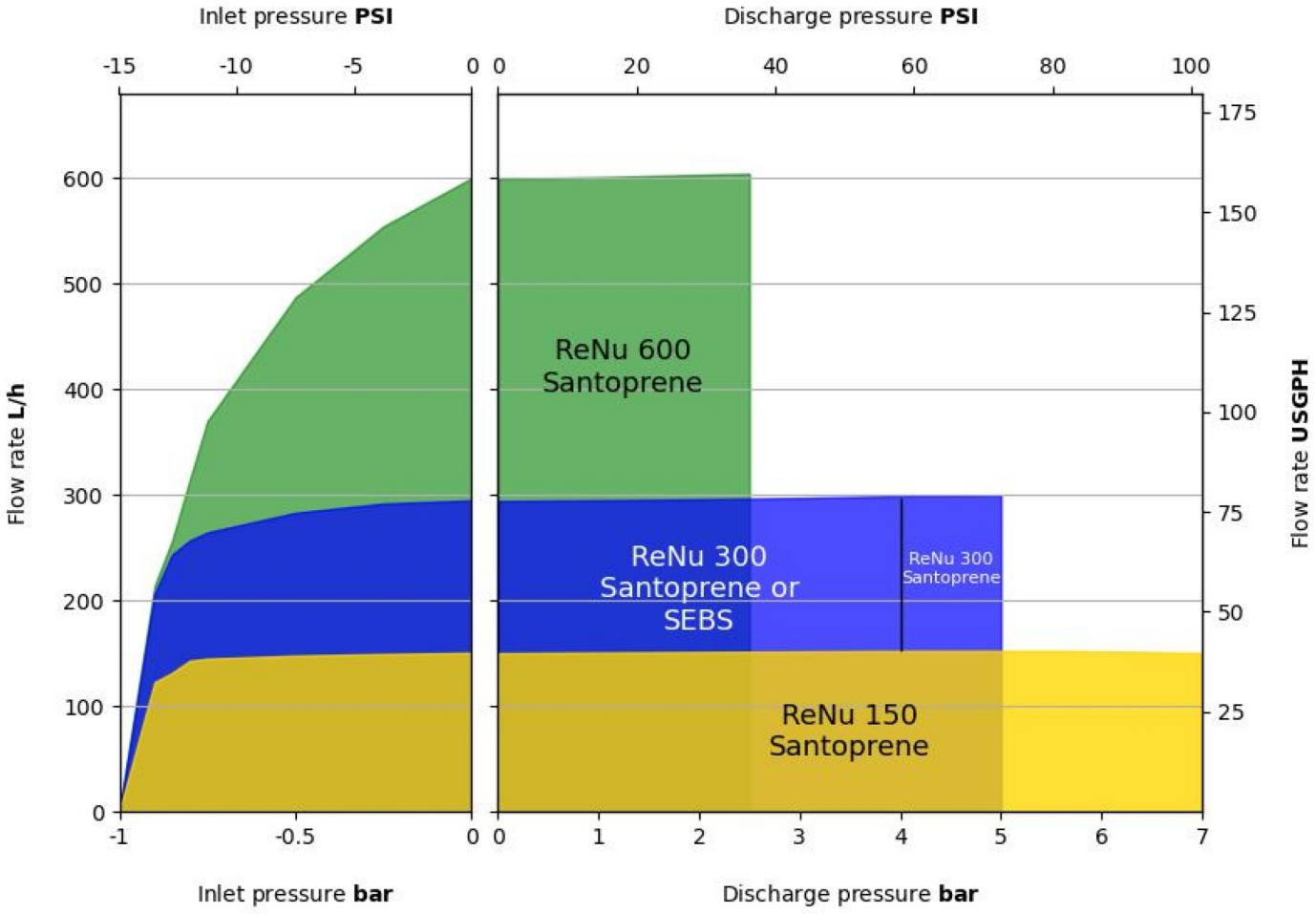
Qdos H-FLO: chemical metering and dosing pump

Features and benefits

- Qdos® H-FLO offers flow rates up to 600 L/h and pressure capability up to 7 bar
- RFID Pumphead detection ensures confirmation of correct pumphead
- Revolution counter for pumphead service maintenance
- One common pump drive with several pumphead options for changing process conditions and chemistries
- Network integration, control and communication options include EtherNet/IP™, PROFIBUS® and PROFINET®
- Optional pressure sensing kit with configurable alarms for process monitoring

Performance

Pumphead	Flow rate		Discharge pressure	Fluid temperature
	Min.	Max.	Max.	Max.
ReNu 150 Santoprene	0.12 L/h (0.032 USGPH)	150 L/h (39.62 USGPH)	7 Bar (102 PSI)	45 °C (113 °F)
ReNu 300 Santoprene	0.12 L/h (0.032 USGPH)	300 L/h (79.36 USGPH)	5 Bar (73 PSI)	45 °C (113 °F)
ReNu 300 SEBS	0.12 L/h (0.032 USGPH)	300 L/h (79.36 USGPH)	4 Bar (58 PSI)	40 °C (104 °F)
ReNu 600 Santoprene	0.12 L/h (0.032 USGPH)	600 L/h (158.50 USGPH)	2.5 Bar (36 PSI)	45 °C (113 °F)



Technical specifications

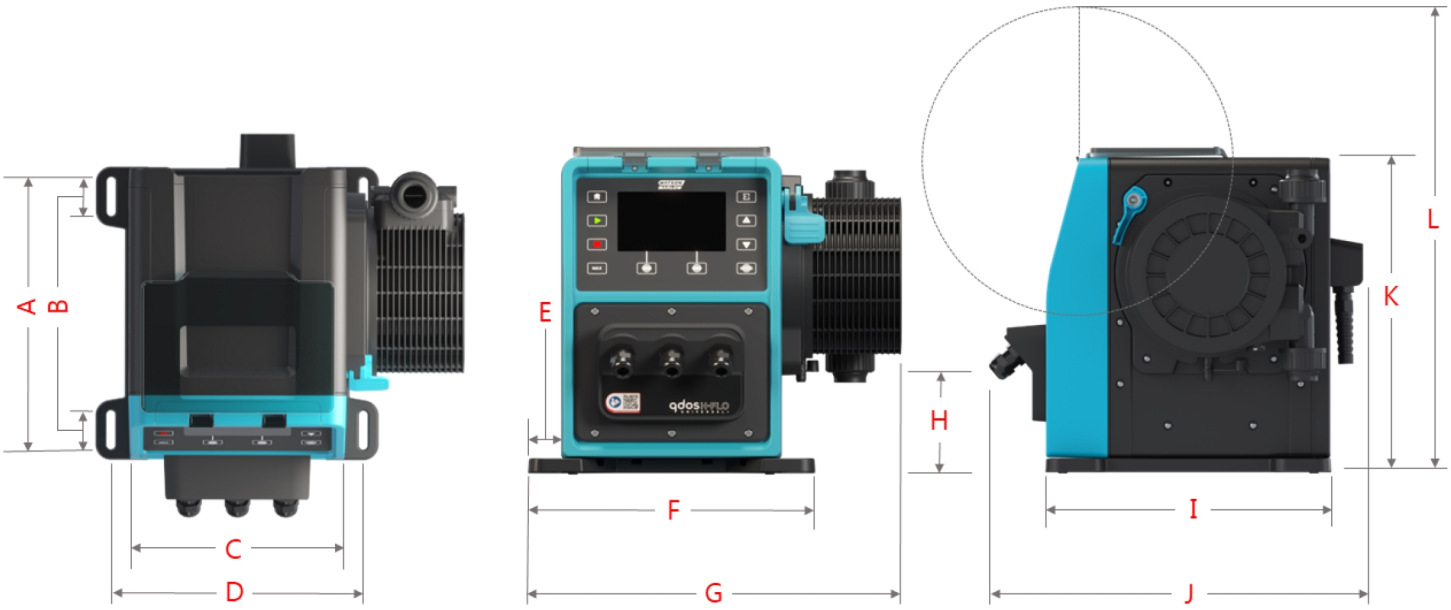
	Qdos H-FLO
Max. flow rate	600 L/h
Min. flow rate	0.12 L/h
Max. flow rate	158.5 USGPH
Min. flow rate	0.032 USGPH
Max. operating pressure	7 bar
Max. operating pressure	102 psi
Max. operating speed	186 rpm
Min. operating speed	0.1 rpm
Ambient Temperature Range	5 °C to 45 °C
Ambient Temperature Range	41 °F to 113 °F
Weight	15 kg
Weight	33 lbs
Control types	EtherNet/IP™, Manual, PROFIBUS®, PROFINET®, Universal, Universal+
Standards	CAN/CSA-C22.2 NO. 61010-1-12 (R2022), EN 301 489-1 (17), EN 61326-1:2021, EN60204-1:2018, FCC 47CFR (Part 15), NSF 61, PSE, RoHS, UL 61010-1:2012 Ed.3
Ingress Protection	IP66, NEMA 4X
Humidity	80 % up to 31 °C, 88 °F, decreasing linearly to 50 % at 40 °C, 104 °F
Noise	< 70dB(A) at 1m
Max. altitude	2000 m
Power supply	100 V to 240 V AC 50 to 60 Hz 350 VA

Minimum and maximum flow depends upon pumphead, flow unit and method of control. Pressure and speed depends on pumphead chosen. Weight is of drive and pumphead combined.

Materials of construction

	Qdos H-FLO Santoprene	Qdos H-FLO SEBS
	Wetted materials	
Tubing	Santoprene	SEBS
Fluid connection port	Glass filled polypropylene	PVDF
Fluid connection seals	FKM	FKM
Fluid connectors	PVCu	PVCu
	Non-wetted materials	
Information labels	Polyester, Polyester resin (PET)	Polyester, Polyester resin (PET)
Connection collar	PVCu	PVCu
Pumphead body assembly	20 % glass filled PPE/PS	20 % glass filled PPE/PS
Drive casework	20 % glass filled PPE/PS	20 % glass filled PPE/PS
Keypad/HMI	Polyester	Polyester
Keypad/HMI cover	Polycarbonate (PC)	Polycarbonate (PC)
Driveshaft	Stainless steel 440C	Stainless steel 440C
Driveshaft seal	Santoprene	Santoprene
Baseplate	20 % glass filled PPE/PS	20 % glass filled PPE/PS

Qdos H-FLO dimensions



A		B		C		D		E		F	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
276.0	10.866	35.0	1.378	224.0	8.819	260.0	10.236	33.7	1.327	291.5	11.476
G		H		I		J		K		L	
mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
380.0	14.961	118.7	4.673	334.3	13.161	394.2	15.520	332.3	13.083	482.0	18.976
Qdos pump with gland connections shown. For other configurations see product reference manual.											

Control options

Input/Output control connection options - Universal and Universal+ models only		
	M: M12 connectors	**T: User-wired cable gland connectors**
Input	Analogue: 4-20 mA, Digital: 24V IEC61131-2 Type 3	Analogue: 4-20 mA, Digital: 24V IEC61131-2 Type 3, AC: 110VAC
Output	Analogue: 4-20 mA, Digital: Relay-CO 1A 24VDC	Analogue: 4-20 mA, Digital: Relay-CO 5A 110VAC, 5A 30VDC
Input control connection for Manual pump		
Input (Run stop only)	Digital:24V IEC61131-2 Type 3	N/A

Operational modes	**Manual**	**Universal**	**Universal+**	**EtherNet/IP**	**PROFIBUS**	**PROFINET**
Manual	•	•	•	•	•	•
Bus Network Communication				•	•	•
Contact mode		•	•			
4-20 mA		•	•			
Fault reporting	•	•	•	•	•	•

Features	**Manual**	**Universal**	**Universal+**	**EtherNet/IP**	**PROFIBUS**	**PROFINET**
RFID pumphead detection	•	•	•	•	•	•
Numerical flow display	•	•	•	•	•	•
Numerical speed display	•	•	•	•	•	•
Fluid level monitor	•	•	•	•	•	•
Max (prime)	•	•	•	•	•	•
Auto restart (after power restored)	•	•	•	•	•	•
Fluid recovery	•	•	•	•	•	•
Leak detection	•	•	•	•	•	•
5” (127 mm) colour TFT display	•	•	•	•	•	•
Pressure sensing (optional pressure sensor)		•	•	•	•	•
Revolution counter				•	•	•

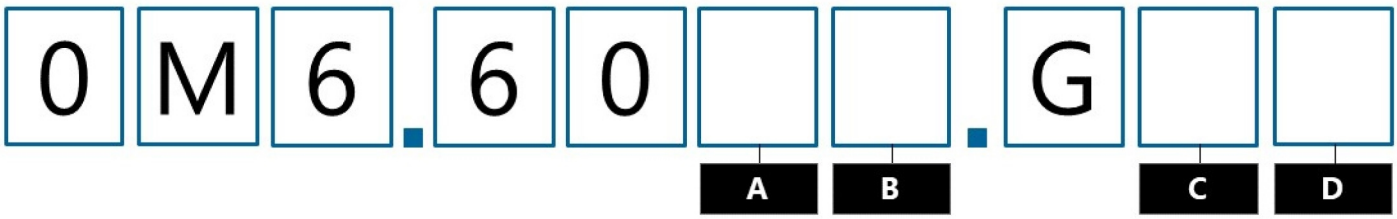
Control methods	**Manual**	**Universal**	**Universal+**	**EtherNet/IP**	**PROFIBUS**	**PROFINET**
Input/Output options	M	M or T	M or T	M	M	M
Manual control capability	•	•	•	•	•	•
4-20 mA input & calibration		•	•			
4-20 mA output			•			
Contact input (pulse/batch)		•	•			
Pressure sensor input (pressure sensor purchased separately)		•	•	•	•	•
Manual speed adjustment range*	1900:1	1900:1	1900:1	1900:1	1900:1	1900:1
Minimum drive shaft adjustment speed increment	0.1	0.1	0.1	0.1	0.1	0.1
4-20 mA resolution		2184:1	2184:1			
Run stop input	•	•	•			
Run status output		•	•			
Alarm output		•	•			
Four configurable relay outputs		•	•			
Remote fluid recovery input		•	•	•	•	•

*Speed adjustment range depends upon pumphead chosen, maximum shown

EtherNet/IP, PROFIBUS and PROFINET functions	**Manual**	**Universal**	**Universal+**	**EtherNet/IP**	**PROFIBUS**	**PROFINET**
Speed set point				•	•	•
Speed feedback				•	•	•
Flow calibration function				•	•	•
Hours run				•	•	•
Leak detection				•	•	•
Low fluid level alarm				•	•	•
Diagnostic feedback				•	•	•
Pressure sensing (optional pressure sensor)				•	•	•

Security	**Manual**	**Universal**	**Universal+**	**EtherNet/IP**	**PROFIBUS**	**PROFINET**
Keypad lock	•	•	•	•	•	•
PIN lock to protect set up	•	•	•	•	•	•

Product codes



Drive product codes

A	B	C	D
Model	**Input/Output connectors**	**Pumphead orientation**	**Power plug**
3: Manual 4: Universal 5: Universal+ 7: PROFIBUS 8: EtherNet/IP 9: PROFINET	M: M12 connectors T: User-wired cable gland connectors	L: Left R: Right	A: US B: Brazil C: Swiss D: India, South Africa E: European K: Australia R: Argentina U: UK

Pumphead product codes

Description	Product code
ReNu 150 pumphead Santoprene	0M3.6200.PFP
ReNu 300 pumphead Santoprene	0M3.7200.PFP
ReNu 300 pumphead SEBS	0M3.7800.PFP
ReNu 600 pumphead Santoprene	0M3.8200.PFP

Flow rate data obtained pumping water at 20 °C (68 °F). 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 user's responsibility to ensure product suitability for use within their application. Watson-Marlow, qdos, ReNu, and CWT are registered trademarks of Watson-Marlow Limited

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