ProMinent® DULCO Flex Control Peristaltic Metering Pumps

Overview: DULCO flex Control

The new DULCO flex Control is an intelligent peristaltic metering pump that is valve-free and has the accuracy of a diaphragm pump. Applications include gaseous, highly viscous, abrasive, shear-sensitive and chemically aggressive fluids.

The liquid end of the pump is designed for a quick and simple replacement of the tubing, utilizing a unique exchange process. The pump display provides precise instructions on the steps required for the tube replacement. High-preformance tubing consists of a TPV (Santoprene) or PUR (Polyurethane) material that provides excellent chemical resistance and a long service life.

The DULCO flex Control is powered by a DC motor and will provide continuous metering from 0.048 GPD (0.18 L/D) to 7.92 GPH (30 L/H) and pressures up to 101.5 PSIG (7bar). Additional features such as communication protocol includes PROFIBUS, CANbus, Modbus and PROFINET will be available early 2020.

Your benefits

- Volume adjustment in GPH or LPH
- Manual, Analog, Contact and Batch modes optional
- High visibility of LED-indicator lights
- Large illuminated display
- New configurable input/output port
- CIP (cleaning in place) enabled system
- Turn down ratio up to 3,000:1
- Reverse flow is possible
- Dosing head can be aligned in four directions: Left, Right, Up and Down
- Integrated 7-day timer
- Viscosities to 10,000 cPs
- DULCOnneX-enabled

PROFI® PROCESS FIELD BUS BUS

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Capacity Data

Capacity data: DULCO flex Control

Pump Version	Capacity at Maximum Backpressure				Max. speed	Connector size	Pre-primed suct. lift		Shipping weight	
	GPH	**(L/h)**	**PSIG**	**(bar)**	**rpm**	**in**	**ft**	**(m)**	**lbs**	**(kg)**
0730	7.92	(30)	101.5	(7)	100	1/2" x 3/8"	16.4	(5)	12.8	5.8
0530	7.92	(30)	72.5	(5)	100	1/2" x 3/8"	16.4	(5)	12.8	5.8

Tube material:

TPV (Santoprene): available with pump versions 0730 and 0530

PUR (Polyurethane): available with pump version 0530 only

Tube connectors: PVDF/PTFE

Metering reproducibility: ± 2% with retracted tube (after approx. 200 revolutions)

Turndown: 3,000:1

Electrical connection: 100 -230 V ± 10%, 50/60 Hz

Nominal power: approx. 45 W

Degree of protection: IP 66, NEMA 4X Indoor

Permissible ambient temperature: 14 - 113 °F

Optional relay modules: 1 x switch over contact, 230 V - 8 A or 2 x On, 24 V - 100 mA

Capacity data represents minimum values, tested using water at 68 °F (room temperature)

Spare Parts

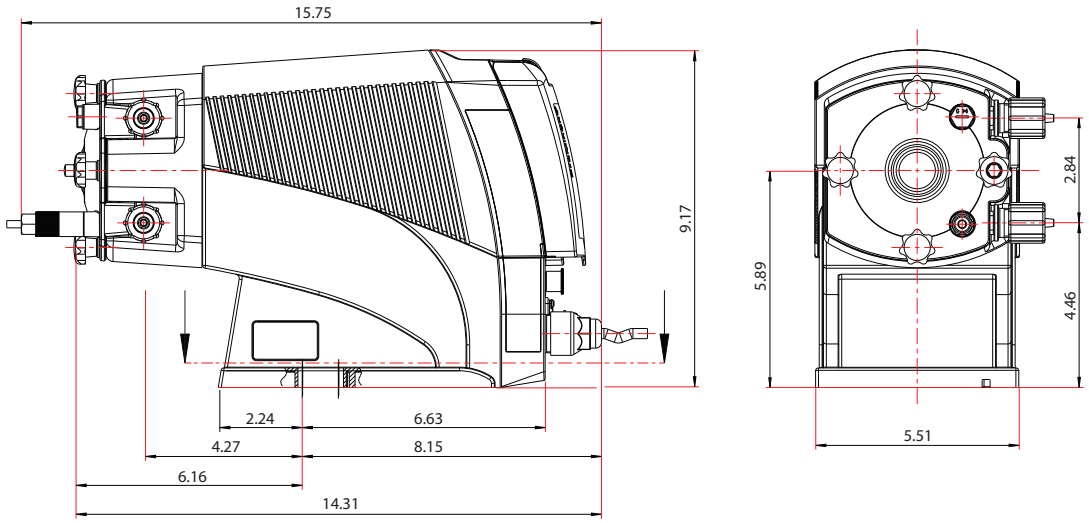
Dosing Head Parts:	**Part Number**		**Part Number**
Dosing head	1094919	Knob (ONLY)	1104340
Dosing head cover	1104727	Knob cap nut	1104347
Knob with screw	1102764	Threaded pin	1104346

Replacement Tubes:	**Part Number**
TPV (Santoprene) 101.5 PSIG (7 bar), Version 0730	1102991
TPV (Santoprene) 72.5 PSIG (5 bar), Version 0530	1102907
PUR (Polyurethane) 72.5 PSIG (5 bar), Version 0530	1104951

Replacement Rotor Parts:	**Part Number**
Rotor part 1	1102768
Rotor part 2	1102769
Rotor complete	1103249

Replacement Connection set:	**Part Number**
SPK 0530 SPF	1108974
SPK 0530 SPT	1108975
SPK 0730 SPF	1108951
SPK 0730 SPT	1108952

Dimensional Drawings



Note: All above measurements are in inches

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Specifications

Materials of construction:	
Housing	PPE (Polyphenylene Ether) + 20% Glass fiber
Dosing head	PA6 50% Glass bead
Rotor	PPS 40% Glass fiber
Pump hose	PTFE faced EPDM with plastic core
Hose Connection	PVDF
O-rings (wetted)	PTFE
Enclosure rating	IP 66, NEMA 4X Indoor
Electrical:	
Power supply	100 – 230 VAC 1 Phase 50 / 60 Hz ± 10%
Check valves:	Double ball suction / discharge (PVT4 with spring loaded single ball)
Power cord:	6ft
Relay cable (optional):	6ft
Relay Options	
Identcode Option 1:	1 x changeover contact 230 V AC - 6 A, Fault indicating relay (N/C)
Identcode Option 4:	1 x N/O 24 V DC -1 A - 1 x N/O 24 V - 1 ma, As 1 + pacing relay
Identcode Option C:	1 x N/O 24 V DC - 100 mA and 1 x 4-20 mA output, As 1 + 4-20 mA output
Ambient temperature range:	
In operation	14 °F to 113 °F (-10 °C to 45 °C)
Storage & Transport	14 °F to 122 °F (-10 °C to 50 °C)
Feed chemical	14 °F to 122 °F (-10 °C to 50 °C)
Climate:	95% Relative humidity – non-condensing
Sound pressure level:	LpA < 70 dB according to EN ISO 20361
Warranty:	2 years on pump drive, 1 year on liquid end
Valve threads:	NP / PVT M20 x 1.5 (provided with adapters for tubing)
Standard production test:	All pumps are tested for capacity at maximum pressure prior to shipment
Contact input	
Minimum pulse duration:	20 ms
Maxiumum pulse input:	25 pulses / second
Analog Input Impedance:	120 Ohms

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Identcode Ordering System

DFXa	DULCO flex Control																		
	Regional design:																		
	US	USA																	
		Version Capacity:																	
		0730	7.92 gph (30 l/h), 101.5 psi (7 bar)																
		0530	7.92 gph (30 l/h), 72.5 psi (5 bar)																
			Tube material:																
			SP	Santoprene (TPV)	***Note:*** *Version 0730 is only available with Santoprene (TPV) option.*														
			VP	Polyurethane (PUR)															
				Seal material:															
				F	FDA-compliant (PTFE)														
				T	PTFE														
					Dosing head orientation:														
					R	Right (view from behind)													
					L	Left (view from behind)													
					O	Top													
					U	Bottom													
						Hydraulic connector:													
						0	Standard connector (12x9)												
						Q	connection 1/2" x 3/8" (USA)												
							Tube rupture alarm:												
							1	With diaphragm rupture indicator, optical sensor											
								Design:											
								0	Housing RAL 5003 / cover RAL 2003										
									Logo:										
									0	with ProMinent logo									
										Power connection:									
										U	Universal 100 - 240 V								
											Cable and plug:								
											D	USA 115 V - 6 ft. (2m)							
												Relay:							
												0	No relay						
												1	1x changeover contact 230 V - 8A, fault indicating relay N/C						
												4	2x N/O 24 V - 100 mA, fault indicating relay N/C + pacing relay						
												C	1x N/O 24 V - 100 mA, fault indicating relay N/C + 4-20 mA output						
													Accessories:						
													0	None					
													1	Injection valve 1/2" and foot valve					
														Control Variants:					
														0	Manual + Contact with PulseControl				
														3	Manual + Contact with PulseControl + Analog				
															Communication:				
															0	None			
																Language:			
																EN	English		
																	Certification:		
																	01	CE	
																		Documentation:	
																		EN	English
DFXa	**US**	**730**	**SP**	**T**	**R**	**0**	**1**	**0**	**0**	**U**	**D**	**0**	**0**	**0**	**0**	**EN**	**01**	**EN**	