

General Description

The Encore® EA line of solenoid driven metering pumps combines the digital technology of state-of-the-art microprocessors with the durability of high-quality mechanics. Its versatility and wide range of external control options make it ideal for a variety of applications. The pump can be supplied with a user-friendly digital display that shows the different operating modes and further technical messages.

The Encore® EA is available with the following features:

- Capacities from 17.78 lph 104.84 lph with pressures up to 10.34 bar (set by manually changing the stroke length via the stroke length adjustment knob).
- Manual control with continuous stroke frequency adjustment from 0 - 70 strokes per minute.
- Changeover function to external pulse control by water meter or other voltage free contacts.
- Connection for level indication with alarm signal.
- Optional warning alarm relay.

Magnetic Drive

The stroke movement of the metering diaphragm is produced by a D.C. solenoid. Due to the infinitely adjustable stroke, the stroke length can be set anywhere between 20 - 100%, depending on the pump size. The solenoid design eliminates reduction gears or rotating parts, making the Encore® EA long-lasting and low-maintenance. The armature runs in a maintenance free bushing with PTFE coating and additional silicone grease lubrication.

Materials of Construction

Liquid ends of Polypropylene, PVC, PVDF and 316 Stainless Steel. Diaphragms are PTFE coated EPDM. Seals of Viton™, Hypalon™ or PTFE are available.

Options

- Diaphragm Leak Detection



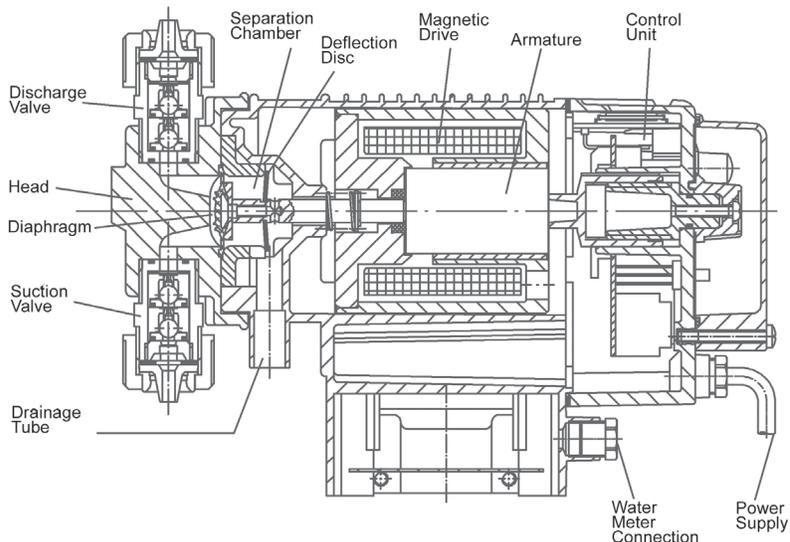
Control Unit

The main part of the control unit is a microprocessor which controls the stroke frequency with digital accuracy. The various control possibilities allow the Encore® EA to be adapted to practically all requirements of home water supply, water and waste water treatment as well as industrial processes. The electronic control unit is available in two basic versions with functions described below.

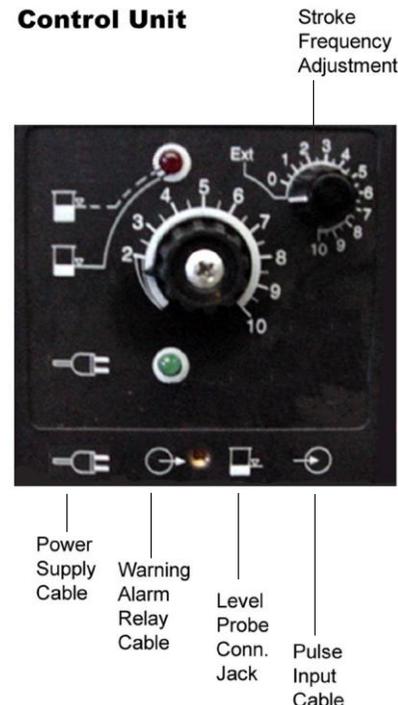
Functions	Encore® EA	
Level Control with Alarm Signal	x	
Low Level Indication	x	
Warning Alarm Relay	o	
Manual Control 0-100%	x	
Contact	x	
External Control	0-20 mA	--
	4-20 mA	--
Pulse Multiplication/Division	--	
Stroke Frequency Adjustment	x	
Digital Display	x	

-- = not available; x = standard; o = optional

Cross Section of Encore® EA



Control Unit



Model			20	40	100
Capacity	lph		17.78	48.06	104.84
Maximum pressure	bar		10.34	4.13	2
Power supply requirement	VAC Hz.		115, 50/60 or 230, 50/60		
Power supply cable (2 M.)			UL/CSA Plug, 2 m with standard plug		
Maximum speed	SPM		70		70
Power consumption at maximum speed	Watts		66		70
Current consumption during stroke	Amps		7.4		4.1
Protection class			NEMA 4X		
Insulation class			F		
Input pulse duration			min. 30 ms		
Maximum carrying capacity @ voltage amps			250 VAC, 2.5 A // 30 VDC, 2.5 A		
Solenoid excitation time per pulse	ms		190		180
Voltage to low level probe	VDC		5 for potential-free switches		
Impedance to 0/4 - 20 mA input	Ohm			150	
Maximum suction lift (water)	M.		2'	1.5'	1'
Maximum ambient temperature	°C			40	
Maximum temperature of process fluid	PVC	°C		35	
	PP, PVDF, SS	°C		50	
Pump weight	Plastic	lbs.		29	
	316SS	lbs.		33	

*Maximum lift (water): Encore® EA 20 = 2 M.; Encore® EA 40 = 1.5 M.; Encore® EA 100 = 1 M.