



HIBAR
SYSTEMS LIMITED

The Liquid Dispensing Specialists

4S SERIES PRECISION CHECK VALVE DISPENSING PUMPS



0 - 170 ml
Dispense Volume

The **HIBAR 4S SERIES CHECK VALVE STYLE DISPENSING PUMPS** are ideally suited for low to medium viscosity applications in food, cosmetic, technical and pharmaceutical industries. Dispensing accuracies of $\pm 1/2\%$ or better can be easily maintained without readjustment or recalibration.

The 4S Series Pumps combine this proven dispensing technology with state-of-the-art servomotor drives to provide precise, programmable control over the dispense volume and speeds. The modular design and electronic control simplifies interfacing to existing filling systems.

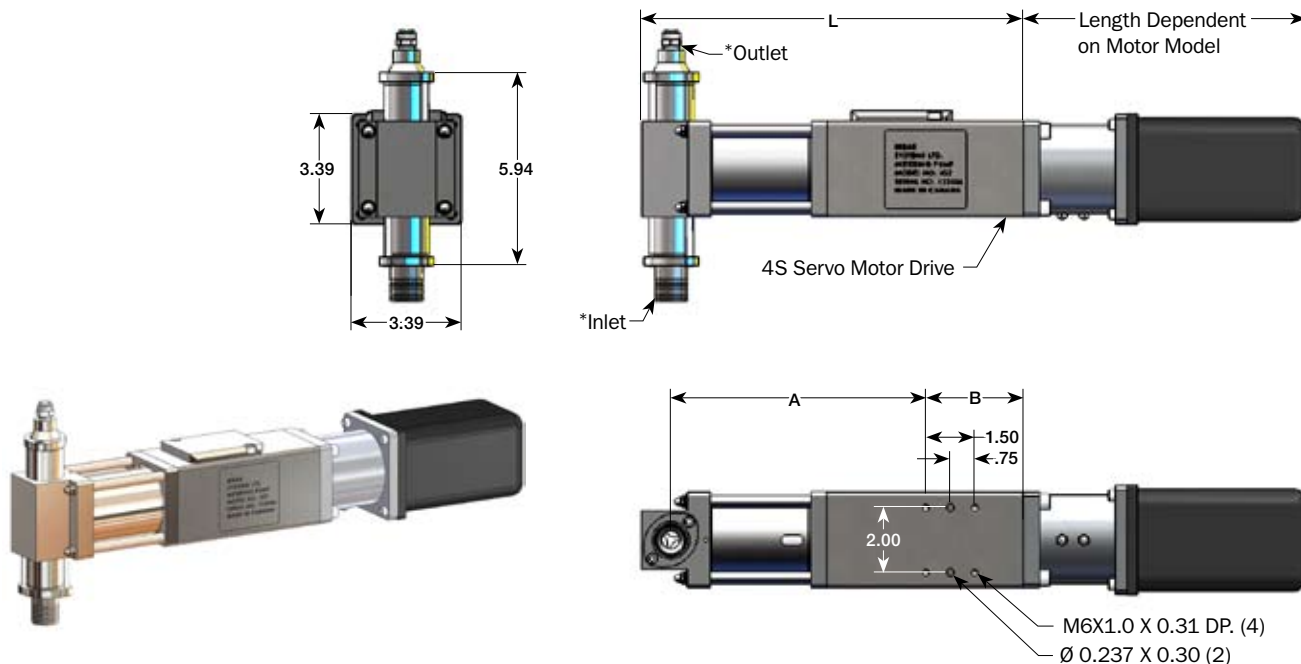
SERVOMOTOR DRIVE FEATURES

- **Accuracy** Dispensing accuracies of up to $\pm 0.1\%$ or better.
- **Control** Precise control of the dispense profile will minimize splashing and foaming while maximizing the cycle rate.
- **Versatility** Via a RS232 connection the user can quickly download recipes, including parameters such as acceleration, fill volume and fill speed.
- **Compact** The motor, resolver and drive controller are one integral unit mounted on the back of the pump.
- **Simplicity** Requires only power and a start signal to perform cycle.

4S SERIES PUMP FEATURES

- High quality Stainless Steel construction.
- Integrated check valves handle fluids with viscosities up to 20,000 cps. and containing no solids.
- Easy to disassemble, clean and maintain.
- Modular design makes it easy to integrate with automated filling equipment.
- Compact footprint for easy mounting.
- Long service life lasting for millions of cycles.
- Wide range of fill nozzles & accessories are available to suit specific applications.

PRECISION CV DISPENSING PUMPS SPECIFICATIONS AND APPLICATIONS



* Hose style inlet and tube outlet shown.
Other styles available.
Consult Hibar for different product connection requirements.

Model	Plunger Diameter		Stroke		Maximum Dispensing Volume (cc)	Cycle Speed (cpm)	Voltage VDC	External Dimensions inch (mm)			Weight lbs (kg)		
	inch	(mm)	inch	(mm)				A	B	L			
4S1-C-10	7/8	(22.23)	1.00	(25.4)	9.9	0-180 ^A	48	6.85	3	10.77	14.75 (6.7)		
4S1-C-30	1 5/8	(41.28)			34			5.85				(148.6)	(273.6)
4S1-C-60	2 1/8	(53.98)			58			9.77				(248.2)	
4S2-C-20	7/8	(22.23)	2.00	(50.8)	20	0-150 ^A	48	9.85	3	13.77	16.25 (7.4)		
4S2-C-65	1 5/8	(41.28)			68			7.85				(199.4)	(349.8)
4S2-C-110	2 1/8	(53.98)			116			11.77				(298.8)	
4S3-C-30	7/8	(22.23)	3.00	(76.2)	30	0-120 ^A	48	12.85	3	16.77	17.75 (8)		
4S3-C-100	1 5/8	(41.28)			102			9.85				(250.2)	(426)
4S3-C-170	2 1/8	(53.98)			174			13.77				(349.8)	

^A Maximum cycle rate is application dependant

APPLICATIONS

Pharmaceutical	Cosmetics	Food	General
<ul style="list-style-type: none"> Medicine Culture Media Biologicals Antibiotics Cough Syrup 	<ul style="list-style-type: none"> Perfume Creams Lotions Shampoos Oils Mouthwash Nail Lacquer Moisturizer Skin Cleanser Make-up Remover 	<ul style="list-style-type: none"> Ketchup Vinegar Honey Butter Coffee Cream Jelly Sauces Juices Puddings 	<ul style="list-style-type: none"> Acids Alkalines Reagents Inks Paints Glues/Adhesives Battery Electrolyte Lighter Fluids Oils Solvents