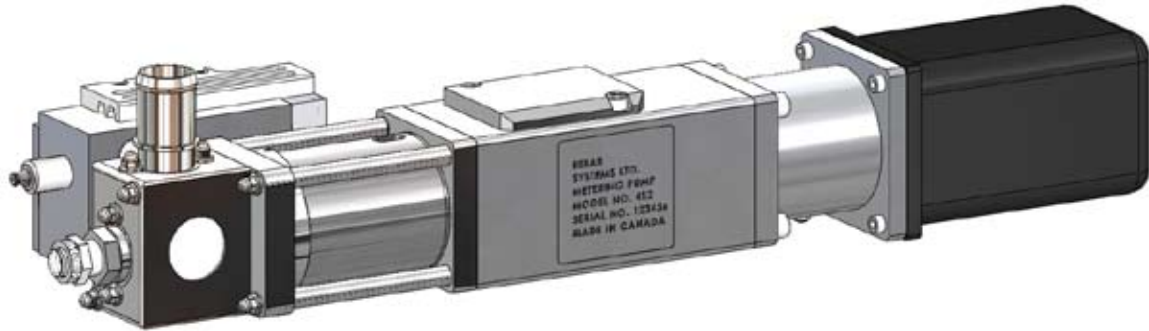




HIBAR
SYSTEMS LIMITED

The Liquid Dispensing Specialists

4S SERIES PRECISION ROTARY VALVE DISPENSING PUMPS



0 - 170 ml
Dispense Volume

The **HIBAR 4S SERIES ROTARY VALVE STYLE DISPENSING PUMPS** are ideally suited for higher viscosity applications in food, cosmetic, technical and pharmaceutical industries. Liquids with up to 100,000 cps viscosities and including particulates are easily handled with our durable ceramic rotary valve design. Dispensing accuracies of $\pm 1/2\%$ or better with positive cut-off and no drip 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.

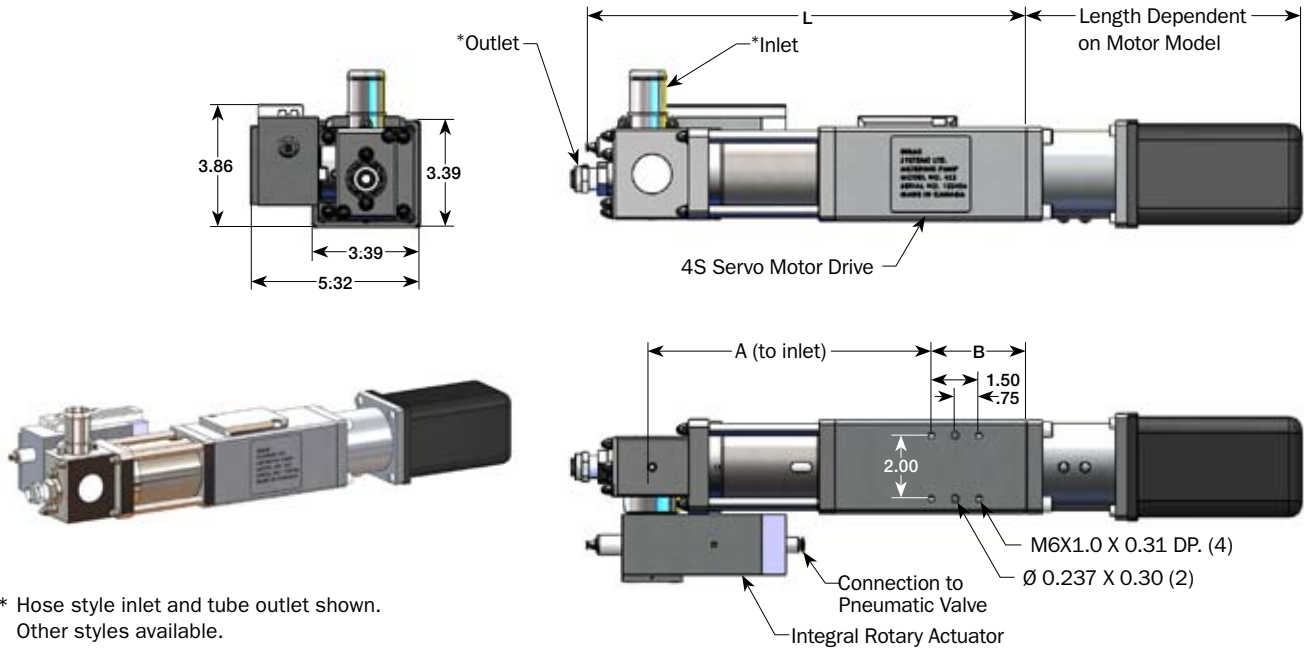
SERVOMOTOR DRIVE FEATURES

- **Accuracy** Dispensing accuracies of up to $\pm 0.1\%$ or better.
- **Control** Precise control of the dispense profile provides optimal cut-off at the nozzle 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 a complete dispense cycle.

4S SERIES PUMP FEATURES

- High quality Stainless Steel construction.
- Wear resistant ceramic rotary valve handles high viscosity fluids with particulates up to 100,000 cps. Higher viscosities achievable with pressurized infeed.
- Easy to disassemble, clean and maintain.
- Compact footprint for easy mounting.
- Long service life for millions of cycles.
- Dispensing accuracies of up to $\pm 1/2\%$ or better.
- Wide range of fill nozzles and accessories are available to suit specific applications.

PRECISION RV 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-R-10	7/8	(22.23)	1.00	(25.4)	9.9	0-140 ^A	48	7.96	3	(76.2)	12.88	(327)	18.5	(8.4)		
4S1-R-30	1 5/8	(41.28)			34			6.96			(176.8)				11.88	(302)
4S1-R-60	2 1/8	(53.98)			58			8.96			(227.6)				13.88	(353)
4S2-R-20	7/8	(22.23)	2.00	(50.8)	20	0-110 ^A	48	10.96	3	(76.2)	15.88	(403)	20.0	(9)		
4S2-R-65	1 5/8	(41.28)			68			8.96			(227.6)				13.88	(353)
4S2-R-110	2 1/8	(53.98)			116			10.96			(278.4)				15.88	(403)
4S3-R-30	7/8	(22.23)	3.00	(76.2)	30	0-90 ^A	48	13.96	3	(76.2)	18.88	(480)	21.5	(9.8)		
4S3-R-100	1 5/8	(41.28)			102			10.96			(278.4)				15.88	(403)
4S3-R-170	2 1/8	(53.98)			174			10.96			(278.4)				15.88	(403)

^A Maximum cycle rate is application dependant

APPLICATIONS

Cosmetics		Food		Pharmaceutical		General	
- Mascara	- Shampoos	- Salad Dressing	- Juices	- Medicine	- Toothpaste	- Abrasive Kitchen/ Bathroom Cleaner	
- Exfoliant	- Antiperspirant	- Popcorn Oil	- Honey	- Cough Syrup	- Caulking	- Paints/Inks	
- Lipstick	- Lip Gloss	- Ketchup/Mustard	- Butter	- Antibiotic	- Glues/Adhesives	- Tooth Whitener	
- Creams	- Nail Lacquer	- Marmalade	- Margarine	- Blood Serum	- Grease/Oils	- Fluxes	
- Lotions	- Foundation	- Sauces	- Relish	- Biological	- Zinc Gel		