

## Auto-Reverse, Magnetic Stirrers, HI 302N, HI 312N



HI 312N is a powerful stirrer that stirs up to 5.0 liters (1.3 gallons). The HI 302N model can stir up to 2.5 liters (0.66 gallons). It is often desirable to stir your samples in two directions. This will achieve maximum homogeneity and solubility.

An advanced circuit allows HI 302N and HI 312N to reverse the direction of the stirring at a user selected interval. The interval can be adjusted from 30 seconds up to 3 minutes.

In addition to precision speed control, a limiter will also assure that the maximum speed will never be exceeded.

During repeated testing, samples are often removed from the stirrer before the speed is reduced. This could cause the motor to accelerate until it destroys itself. Hanna stirrers incorporate a VCO device that stops the motor from accelerating as soon as the load is removed (Speedsafe).

In addition to these features, HI312N also has an automatic feedback feature. The motor is electronically controlled to maintain the chosen speed as the load changes. If the viscosity or the level (fluid weight) increases or decreases, the circuitry will adjust the output power.

- **Auto-Reverse:** These stirrers will change stir direction at a user selectable interval adjustable from 30 seconds to 3 minutes.
- **Automatic Feedback:** HI 312N includes an exclusive device that will maintain a constant speed as the load varies (due to increased or decreased viscosity or volume).
- **Stirring Capacity:** HI 302N stirs up to 2.5 liters (0.66 gallons) and HI312N stirs up to 5.0 liters (1.3 gallons).
- **Chemical Resistance:** The AISI 316 stainless steel cover offers excellent protection from most harmful chemicals in the lab.

HI 302N and HI 312N are supplied complete with a 50 mm (2 in) long (dia. 7 mm/0.3 in) Teflon® coated magnetic stir bar and instruction manual.

Specifications	HI 302N	HI 312N
Maximum Stirring Capacity	2.5 l (0.66 Ga)	5 l (1.3 Ga)
Speed Range:		
Min.	100 rpm	100 rpm
Max.	800 to 1000 rpm	800 to 1000 rpm
Reverse Interval	from 30 seconds to 3 minutes	from 30 seconds to 3 minutes
Auto-Feedback	Not applicable	Standard
Power Supply	HI302N/D: 220/240 V, 50/60 Hz HI302N/U: 110/115 V, 50/60 Hz	HI312N/D: 220/240 V, 50/60 Hz HI312N/U: 110/115 V, 50/60 Hz
Installation Category	II	II
Cover Material	AISI 316 Stainless Steel	AISI 316 Stainless Steel
Environment	0 to 50°C (32 to 122°F); RH 95%	0 to 50°C (32 to 122°F); RH 95%
Dimensions	180 x 180 x 70 mm (7.1 x 7.1 x 2.8 in)	180 x 180 x 70 mm (7.1 x 7.1 x 2.8 in)
Weight	1.6 kg (3.6 lbs)	1.6 kg (3.6 lbs)

Catalog No.	Product
CGS 8228.41	HI 302N/D Stainless Steel Cover, 220/240V
CGS 8229.41	HI 302N/U Stainless Steel Cover, 110/115V
CGS 8230.41	HI 312N/D Stainless Steel Cover, 220/240V
CGS 8231.41	HI 312N/U Stainless Steel Cover, 110/115V
CGS 8232.41	Standard Stir Bar, 10 pcs.