Inline Soy Milk Concentration Analyzer

Technology | Brand | Innovation

MDS-SC30-F



Product Overview

The MDS-SC30-F is an instant concentration measuring instrument designed specifically for on-site process control in soy product manufacturing, aimed at resolving the lag issues associated with traditional laboratory sampling and off-line testing.

It can be deployed directly on production lines, boiling kettles, or discharge outlets to achieve real-time measurement of raw soy milk, cooked soy milk, and blended liquid mixtures—all without interrupting the production process, enabling operators to track concentration variations immediately.

Relying on precise numerical feedback, the device replaces empirical manual judgment. By setting fixed standard concentration values, the flavor, mouthfeel, and concentration of every product batch can maintain high consistency, effectively enhancing product stability.

In terms of operation, it features a minimalist design that requires no specialized personnel: measurements are taken simply by dripping a sample or flowing through, and single-touch calibration allows quick adoption both in commercial kitchens and industrial soy processing plants.

With excellent environmental adaptability, its high-temperature resistant design allows direct application in hot liquid conditions. Minimal interference from light impurities ensures reliable and repeatable measurements. Overall, guided by the core values of "Instant, Precise, Simple, and Durable," it provides an efficient and stable solution for real-time concentration control in soy product production.

Product Features

1. Easy & Quick Operation: No specialized operators needed; simple sample-and-read operation with one-touch calibration, allowing rapid deployment in commercial kitchens and processing plants.

2. Flexible Installation: Supports threaded, flanged, and tri-clamp sanitary connections, customizable to fit various pipelines or tanks.

3. Versatile Signal Output: Provides 4–20mA analog output and RS485 digital output (Modbus protocol) for easy integration into PLC/DCS automation systems.

4. Low Maintenance: Clean and robust mechanical design requiring no complex daily maintenance, built for high-frequency, long-duration continuous operation.

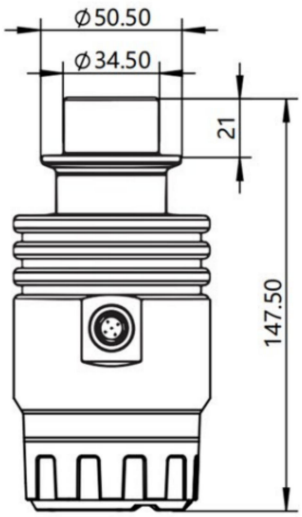
5. Real-time & In-line: Direct testing in production lines, boiling kettles, or discharge ports eliminates sample delivery delays and ensures true real-time process monitoring.

Technical Specifications

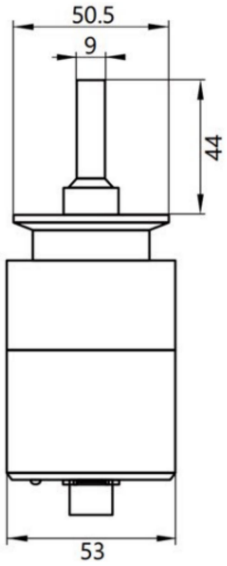
Measurement Range	Soy Milk Concentration: 0.0 – 30.0%
	Refractive Index: 1.3330 – 1.3812
	Temperature: -20°C to +100°C
Measurement Accuracy	Brix: ±0.20%
	Refractive Index: ±0.00030
	Temperature: ±0.5°C
Resolution	Brix: 0.1%
	Refractive Index: 0.0001
	Temperature: 0.1°C
Output	Analog Output: 4~20mA corresponding to Brix concentration -1.0 ~ 57.0% (Customizable)
	Digital Output: RS485
	Other output methods customizable
Input	DC 24V ±10%, Current <100mA
Measurement Time	Default: 1 measurement per second
Ambient Temperature	0.0~60.0°C
Sample Volume	Immersion measurement
Pressure Resistance	0.6MPa
Protection Rating	Measurement section: IP67
Installation Method	Threaded, flanged, clamp, etc., customizable

ANHUI MADSUR TECHNOLOGY CO., LTD
安徽迈德施环保科技有限公司(91341700MA2WDHBL9Y)
2nd Flr, Jiulong Bldg, 471 Shicheng Ave, Guichi Dist, Chizhou, China | 0566-3397777 | info@madsurgroup.com | www.madsurgroup.com

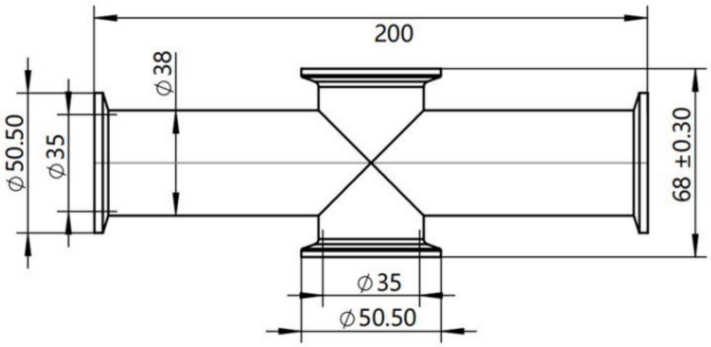
Product Dimensions



Online Liquid Optical Analyzer



Ultrasonic Cleaning Probe



Flow-through Cell

Product Accessories

Flow-through Cell x 1		Clamp x 4	
		Plug x 1	
Gasket x 4		Rear Protective Cover x 1	
Weld-on quick connector x 2		Lens Protective Cover x 1	

Customizable split-type display

Recommended External Loop Installation



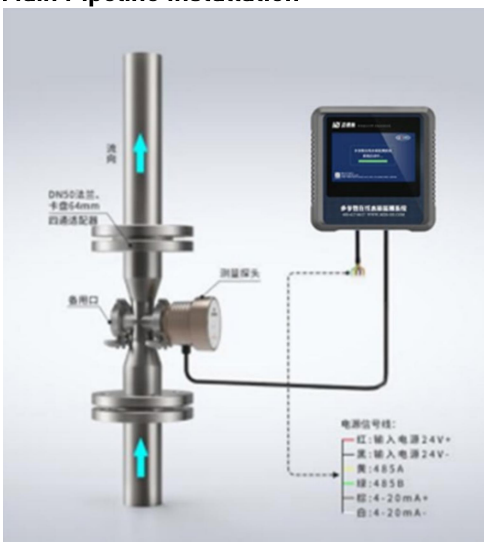
Side-Wall Direct Insertion



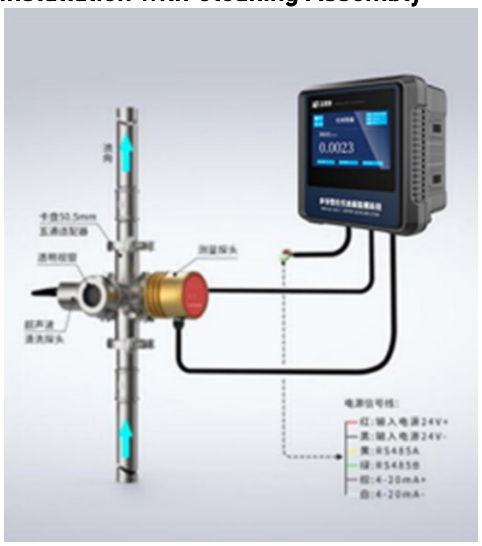
Top Direct Insertion



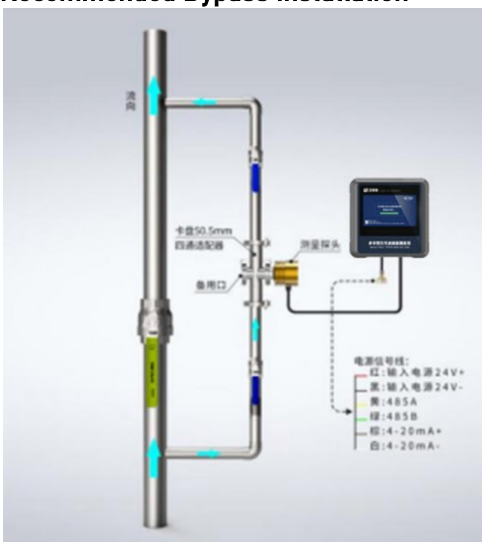
Main Pipeline Installation



Installation with Cleaning Assembly



Recommended Bypass Installation



Product parts



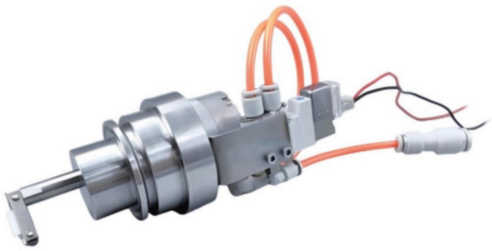
Ultrasonic Cleaning Probe



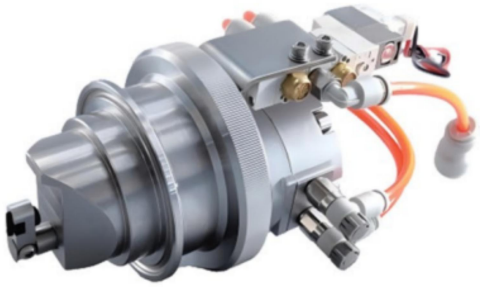
Ultrasonic Cleaning Probe



Ultrasonic Cleaning Probe



Automatic Brush Cleaning Device



Automatic Brush Cleaning Device



Automatic Brush Cleaning Device



High-pressure water/air cleaning unit

Showcase of Engineering Application Examples

