MDS-7200-NMP



Product Overview

The MDS-7200-NMP is an inline refractometer specifically designed for real-time monitoring of NMP liquid concentration. It is engineered to eliminate the detection lag and measurement fluctuations associated with traditional manual sampling. Featuring a submersible installation design, the device can be deployed directly on the factory floor. By default, it collects data continuously at a frequency of 1 Hz, delivering second-level response to concentration changes and helping users track process dynamics in real time.

Based on the refractive index measurement principle, the instrument covers an NMP measurement range of 0.00% to 100.00%, while simultaneously detecting both refractive index and temperature. With strong environmental adaptability, it operates stably in ambient temperatures from 0°C to 60°C. The measurement unit features an IP67 protection rating and a pressure resistance of 1.0 MPa, making it suitable for most production conditions. It provides a 4–20 mA analog output and RS485 digital output, allowing concentration signals to be flexibly integrated with control systems or data platforms. The device also supports various mounting customizations—including threaded, flange, and sanitary clamp connections—to meet diverse on-site requirements.

Through fully automated, uninterrupted online monitoring, the system delivers a one-stop solution to improve NMP production control efficiency, reduce manual intervention, and stabilize process quality, helping enterprises achieve cost reduction, efficiency gains, and refined production management.

Product Advantages

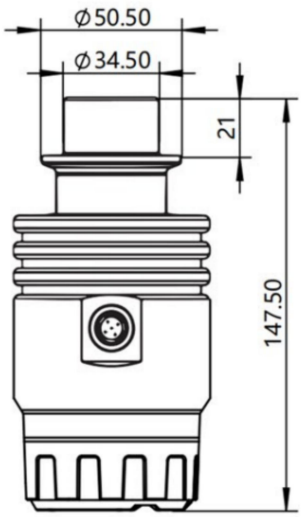
1. Built-in automatic temperature compensation ensures stable and accurate concentration readings across varying process temperatures, preventing measurement deviations caused by temperature drift.
2. Fully submersible measurement design with no moving parts or consumables. It requires no frequent calibration or maintenance, significantly reducing operator workload.
3. Flexible combinations of analog and digital outputs, with support for custom communication protocols, allowing for easy integration with various control systems and cloud platforms.
4. Measurement components offer excellent sealing and pressure resistance, making them suitable for pressurized environments within pipes or vessels. Ensures stable and reliable long-term online operation.
5. Supports a variety of connection specifications ranging from micro-tubing to large-diameter pipes. Threaded, flange, and sanitary clamp connections are available, with customized installation interfaces to suit on-site requirements.

Technical Specifications

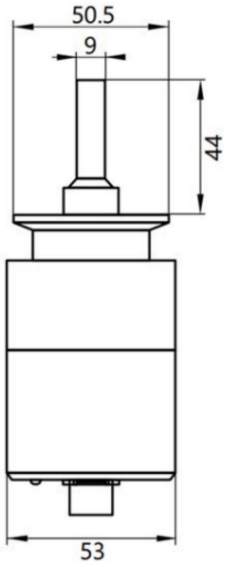
Measurement Range	NMP0.00~100.00%
	Refractive Index: 1.33299 - 1.51782
	Temperature: -20°C~100°C
Measurement Accuracy	Brix: ±0.20%
	Refractive Index: ±0.00030
	Temperature: ±0.5°C
Resolution	Brix: 0.1%
	Refractive Index: 0.0001
	Temperature: 0.1°C
Output	Analog Output: 4~20mA corresponding to Brix concentration -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	1MPa
Protection Rating	Measurement section: IP67
Installation Method	Threaded, flanged, clamp, etc., customizable

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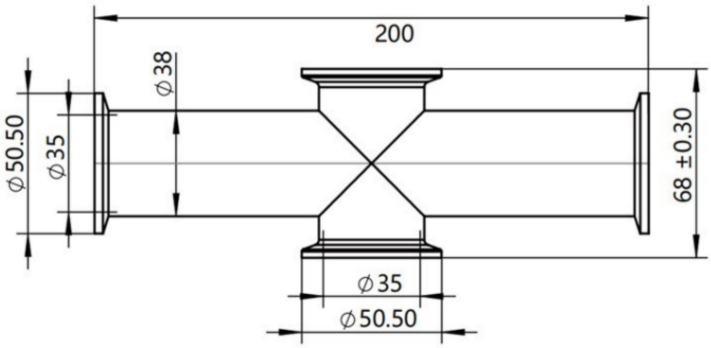
Product Dimensions



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		Lens Protective Cover x 1	
Weld Ferrule x 2		Rear Protective Cover x 1	

Customizable split-type display

Recommended External Loop Installation



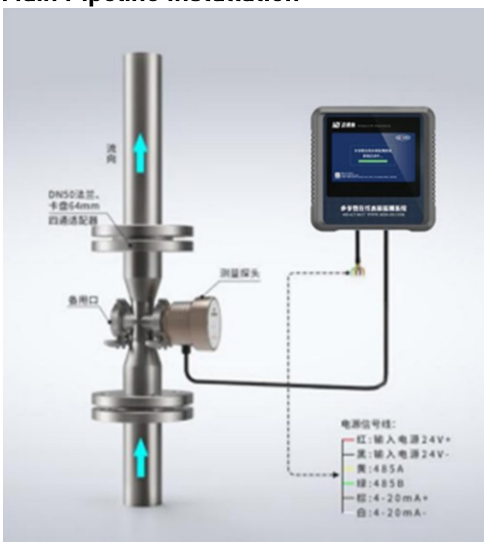
Side-Wall Direct Insertion



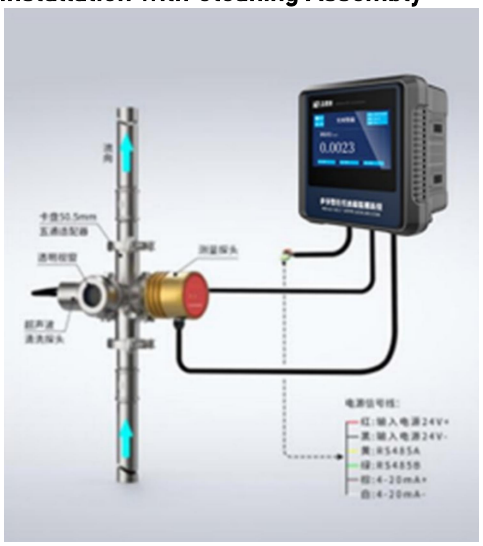
Top Direct Insertion



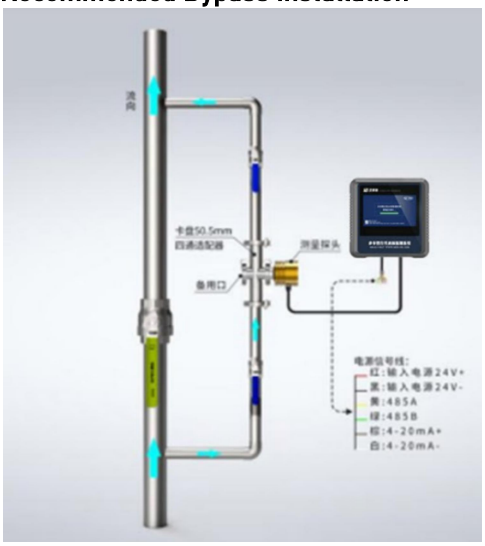
Main Pipeline Installation



Installation with Cleaning Assembly



Recommended Bypass Installation



Product parts



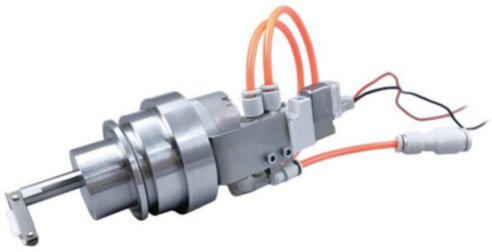
Ultrasonic Cleaning Probe



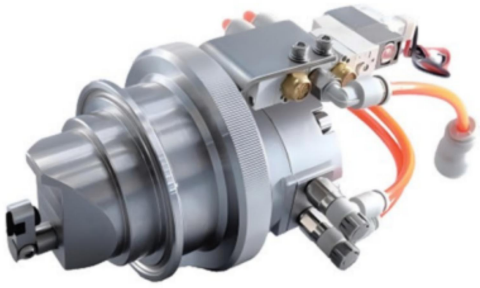
Ultrasonic Cleaning Probe



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

