Inline Propylene Glycol Refractometer

Technology | Brand | Innovation

MDS-7200-PG



Product Overview

The MDS-7200-PG Inline Propylene Glycol Refractometer is designed based on the refractive index measurement principle specifically for real-time online monitoring of propylene glycol concentration, making it suitable for process control in industries such as medicine. The device features a built-in ultrasonic cleaning probe that automatically removes attachments from the optical window, ensuring long-term stable operation. It also offers flow cell installation options, supporting submerged or pipeline bypass layouts. With flexible installation methods, it can adapt to threaded, flanged, and clamped interfaces, and supports customized connections.

The instrument is equipped with temperature compensation to accommodate medium temperatures from 0 to 100°C, a pressure resistance rating up to 1MPa, and good environmental adaptability. Output signals include standard 4–20mA analog output and an RS485 digital interface, with options to customize other protocols for easy integration with control systems. The measurement section has an IP67 protection rating, making it suitable for humid or mildly dusty field conditions. Its compact structure and rapid response enable uninterrupted concentration monitoring, effectively replacing manual sampling and testing, and enhancing the timeliness and reliability of process control.

Product Features

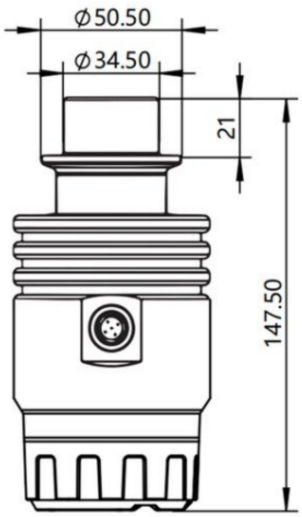
1. Continuous online monitoring of propylene glycol concentration based on the refractive index measurement principle, replacing manual sampling and testing.
2. Equipped with a standard ultrasonic cleaning probe to automatically clear optical window deposits, effectively maintaining long-term measurement stability.
3. Supports flow cell installation and is compatible with threaded, flanged, and clamped connection forms for easy integration into different pipelines.
4. Provides analog current signals and digital communication interfaces, with customizable output protocols to adapt to various control systems.
5.Features temperature compensation to automatically correct the impact of temperature fluctuations on concentration readings, ensuring reliable measurement results.

Technical Specifications

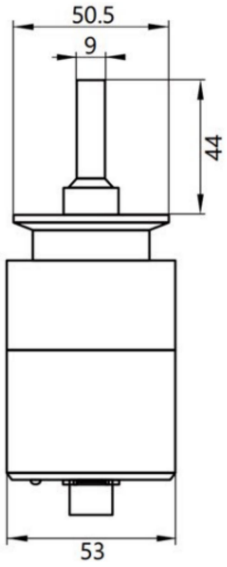
Measurement Range	Propylene Glycol: Quality 0.0–100.0%, -1.0–73.0%; Volume -1.0–101.0%, 1.0–73.0%; Boiling Point 99.9–112.0%; Freezing Point -94.0–33.0%
	Refractive Index: Quality 1.32661–1.43972, 1.33050–1.41211; Volume 1.33050–1.44300, 1.33050–1.41211; Boiling Point 1.33000–1.41211; Freezing Point 1.33050–1.41211
	Temperature: 0°C ~ 100°C (customizable up to 150°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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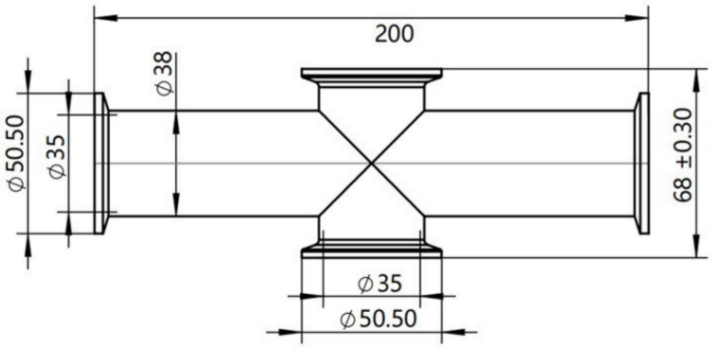
Product Dimensions



Online Liquid Optical Analyzer

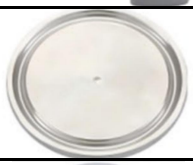


Ultrasonic Cleaning Probe



Flow-through Cell

Product Accessories

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

Customizable split-type display

Recommended External Loop Installation



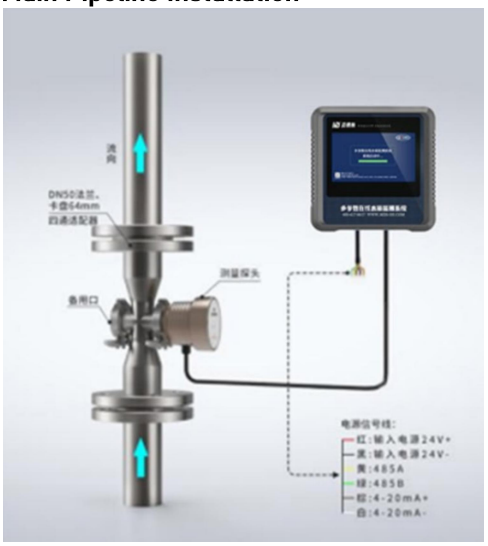
Side-Wall Direct Insertion



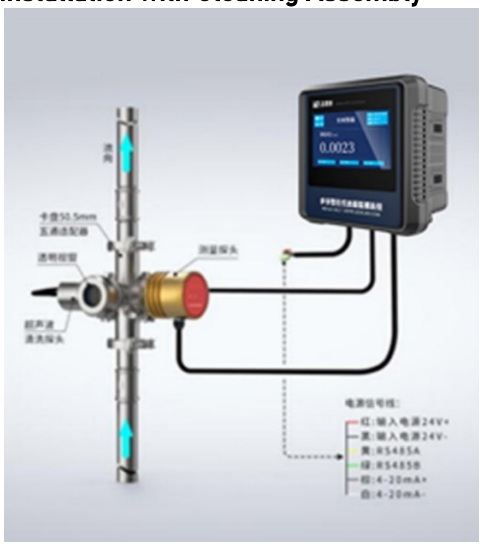
Top Direct Insertion



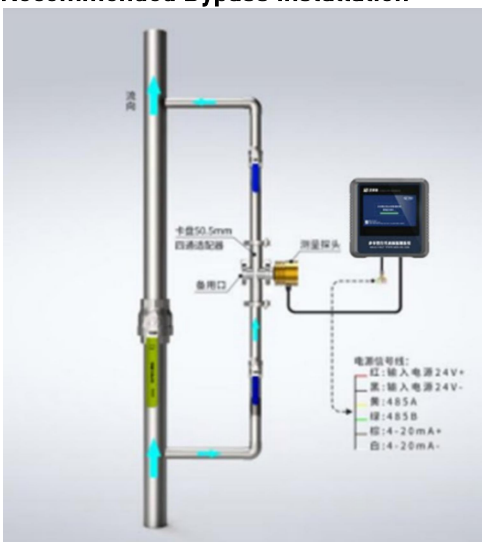
Main Pipeline Installation



Installation with Cleaning Assembly



Recommended Bypass Installation



Product parts



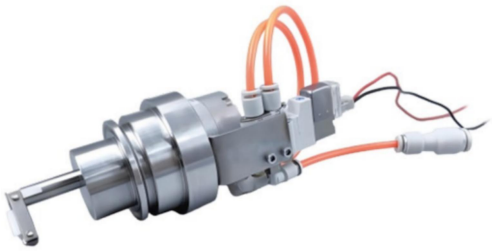
Ultrasonic Cleaning Probe



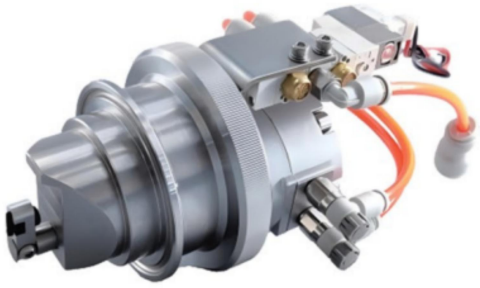
Ultrasonic Cleaning Probe



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

