MDS-7200-DP Online liquid concentration sensor

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Product Overview

The MDS-7200-DP online liquid concentration sensor is designed based on the optical principle of critical angle total reflection. It is a high-precision instrument used for real-time monitoring of the soluble solid content (Brix value) of liquids. The product can be directly installed on production line pipes or tanks, helping users dynamically grasp the operating status of the process and the product qualification rate.
The sensor has a wide concentration and temperature adaptation range, and its measurement response is rapid (default: once per second). It supports immersive continuous sampling. Its structure is sealed and reliable, and the protection grade of the measurement part is high. It is also equipped with a waterproof breathable valve, allowing it to cope with humid, spray, and other industrial site environments. At the same time, it has sufficient pressure resistance and is suitable for conventional pipeline conditions. The installation method is flexible, providing multiple interfaces such as threads, flanges, and chucks, and supports customized requirements.
In terms of signal output, the sensor is equipped with a 4–20 mA analog output and an RS485 digital interface, making it easy to integrate with control systems. It is powered by 24V DC and has low power consumption. The concise operation panel makes on-site debugging and reading more convenient. The product is widely used in food, pharmaceutical, chemical, and other industries, providing stable and reliable technical support for online concentration monitoring.dustrial environments.

Features

1. While measuring concentration, it simultaneously acquires liquid temperature information, facilitating temperature compensation or correlation analysis, and providing more comprehensive real-time data support for process control.
2. Equipped with a concise operation panel, on-site parameter viewing and basic settings can be completed quickly, reducing operator training difficulty and improving daily usability.
3. It can operate stably within a wide ambient temperature range, adapting to different workshop environments and seasonal changes, and reducing measurement deviations caused by external temperature fluctuations.
4. With an integrated compact design, the measurement part features a high protection grade. Combined with a waterproof breathable valve, it maintains stable operation during long-term online installation in humid or spray areas.
5. The concentration range corresponding to the analog signal can be flexibly set according to the user's actual process requirements, making it easy to match with receiving instruments or controllers of different ranges.
6. In addition to the standard digital communication interface, other output forms can also be customized on demand, making it convenient to connect to various control systems or data acquisition platforms, with strong scalability.

Specification

Category	Specification	Category	Specification
Measurement Range	Brix 0.0 ~ 90.0%	**Resolution**	Brix 0.1%
	RI 1.3330~1.5177		RI 0.0001
	Temperature -20°C~100°C		Temperature 0.1°C
Measurement Accuracy	Brix ±0.2%	**Environment Temperature**	0.0~ 60.0°C
	RI ±0.0003	**Sample Volume**	Submerged Measurement
	Temperature ±0.5°C	**Withstand Pressure**	1MPa
Measuring Time	measure once in 1 seconds default	**Protection Grade**	Measuring Part IP67
Installation	Thread, flange, chuck, etc. Support customization.		
Output	Analogue Output:4~20mA correspond to brix concentration 0.0-90.0% (Support Customization)		
	Digital Output: RS485		
	Other output options can be customized.		
Input	DC +24V±10% Electricity<100mA		

Thanks for your business!

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