

Liquid Concentration Scheduled Detection**Remote Monitoring of Production Processes**

- **Flexible Installation:** Compatible with pipelines, tanks, and other complex scenarios, saving installation time and cost.
- **Stable Detection:** Advanced technology ensures measurements are unaffected by medium characteristics (bubbles, color, turbidity) or process conditions (pressure, flow), delivering stable and accurate data.
- **Easy Calibration:** Probes are strictly calibrated before delivery, with built-in temperature compensation; ready-to-use upon installation.
- **Smart Customization:** Built-in concentration data processing system allows users to create on-site data models and customize parameters to improve measurement accuracy.
- **Self-Diagnosis & Maintenance:** Equipped with probe self-diagnosis function to quickly locate faults and reduce downtime.

- **On-site Calibration:** Supports RI calibration and adjustment for real-time error correction.
- **Intelligent & Durable:** Uses smart chips with no reagent consumption, low power consumption, and a probe light source lifespan of up to 100,000 hours.
- **One-Stop Solution:** With the above advantages, provides a comprehensive solution for industrial detection, improving production efficiency and quality monitoring.

Technical Parameters

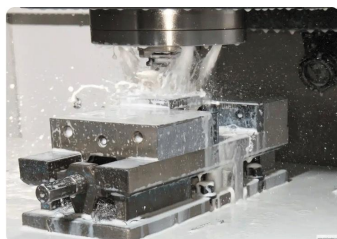
Model	CRN50	CRN52	CRN56
Measured Parameters	Refractive index, temperature, concentration, Brix (or other scales)		
Displayed Parameters	Refractive index (nD), Brix (temperature-compensated to sucrose), concentration (Conc), temperature (°C)		
Data Processing System	Probe status diagnosis, RI calibration and adjustment, self-modeling, multi-point temperature compensation, concentration curve correction		
Concentration Range	0.0~90%Brix		0.0~100%Brix
Refractive Index Range	1.33299~1.51782		1.33299~1.57041
Resolution Accuracy	0.01%; refractive index 0.00001; temperature 0.1°C		
Measurement Accuracy	±0.1%, Refractive Index 0.0001, Temperature 0.5°C		
Temperature Range	Process: -20~70°C (max 100°C); Cleaning: 0~120°C; supports CIP (Cleaning in Place) & SIP (Sterilization in Place)		
Process Connection	Compact clamp (Customizable Flange: DN25 / DN50 / DN65 / DN80)		
Key Component Material	Wetted Material: SS316L + High-Strength Optical Glass, Gasket Material: Fluororubber	Wetted Material: SS316L + Sapphire (Optional: PTFE, Hastelloy, Titanium, Tantalum), Gasket Material: Fluororubber	
Power Supply	Standard: 24 VDC; Optional: 100~240 VAC, 50~60 Hz, 30VA		
Cable Length	Standard: 2m; extendable up to 200m		
Display	Built-in 1.4-inch screen		
Signal Output	4-20mA/RS485/RS232/USB		
Protection Rating	Wetted parts: IP68		

Pressure Range	$\leq 1.5\text{MPa}$
Explosion-Proof Rating	Ex ia IIC T6 Ga
Net Weight	$\approx 1.0\text{kg}$
Cleaning Options	CRN5-C1 Ultrasonic Cleaning Module; CRN5-C2 High-Pressure Washing Module
Installation Options	Small-pipe adapters, three-way/four-way pipe with window, sanitary adapters (customized per installation conditions)
Other Options	Remote display controller, multi-channel data acquisition system (up to 120 channels), terminal data acquisition system, wireless transmission module
Special Scales	Customizable per customer requirements

Application Fields



Food & Beverage



Metal Processing
& Manufacturing



Biopharmaceuticals



Environmental Protection
& Chemicals