

CASCED Controlled English Translation

Source file: 位置/智能物位传感器.pdf

Original diagrams and page relationships are retained in the paired source PDF. The following English text is the controlled translation and data transcription.

Smart Level and Material Sensor

Model: SL / SL50 / SL60

Product family: Level Measurement

Category: Point Level Sensors

Overview

Frequency-sweep point-level sensor for liquids, solids, slurries, phase separation, media identification, and dry-run protection.

Features

- Detects solids, liquids, and slurries
- Resistant to foam and buildup
- Suitable for media up to 50,000 cP
- Top, bottom, or side mounting
- Optional sanitary and hazardous-area versions

Applications

- Beverage and dairy processing
- Brewing and sterilization
- Food sauces
- Cosmetics
- Battery filling
- Environmental solids/liquids processing
- Pump dry-run protection

Technical Specifications

Specification	Source value
Measurement principle	Frequency sweep
Hysteresis	±1 mm
Repeatability	±1 mm
Media dielectric constant	DC ≥1.5
Response time	0.2 s
Damping	0–5 s adjustable

Specification	Source value
Supply	12–30 VDC
Typical/max. supply current	8 mA / 40 mA, no load
Standard process temperature	-40°C to +115°C
Standard process pressure	-0.1 to 10 MPa
Wetted materials	PEEK; 304 stainless steel; 316L stainless steel
Wetted surface finish	Ra <0.8 µm
Output	PNP or NPN, NO or NC; PWM option
Protection functions	Short-circuit and reverse-polarity protection
Example thresholds	Water-based media 550; beer foam 350; conductive viscous media 720; oil/fat 250; dry tea 180; rice/wheat 250

Source-Control Status

Review required — two near-duplicate brochures have different example model strings and page counts.