RADAR LEVEL MEASUREMENT / DATA SHEET

SS401-01
Radar Tank Level Sensor

Compact FMCW radar sensing for non-contact tank-level measurement.

Overview

- SS401-01 is a compact non-contact radar tank-level sensor operating at 76-81 GHz using FMCW radar technology.
- A 5 GHz working bandwidth and millimeter-wave RF chip support higher resolution, accuracy and signal-to-noise performance.
- The 6° beam angle and integrated lens design reduce installation-environment interference and support compact installation.
- The source description lists a 65 m maximum range and a 10 cm blind zone, with bracket fixing and wired installation.



Range **0.1-65 m**	**Accuracy** **±2 mm**	**Frequency** **76-81 GHz**	**Beam angle** **6°**
Bandwidth **5 GHz**	**Supply** **9-28 VDC**	**Interface** **RS485**	**IP level** **IP67 / IP68***

Key Advantages

- 76-81 GHz FMCW radar operation with a millimeter-wave RF chip.
- 5 GHz working bandwidth for higher measurement resolution and accuracy.
- Narrow 6° beam angle and integrated lens design support compact installation.
- Non-contact measurement with no mechanical wear or direct medium contact.
- RS485 communication and a source-listed 0.1-65 m measurement range.

Application Scenarios

- Tank and vessel level measurement.
- Small tanks where a smaller blind zone is useful.
- Dusty environments where high-frequency radar is advantageous.
- Tilted solid surfaces and process conditions requiring non-contact measurement.

Measurement Principle

SS401-01 uses frequency modulated continuous wave (FMCW) radar operating at 76-81 GHz. The webpage lists a 5 GHz working bandwidth, a 6° beam angle, a 0.1-65 m range and a 10 cm blind zone. The measurement is non-contact; the source also notes that high-frequency radar is less affected by severe dust and that the product uses bracket fixing for quick installation.

Technical Specifications

Parameter	Specification	Parameter	Specification
Radar / Operating frequency	76-81 GHz	**Radar / Working bandwidth**	5 GHz
Measurement / Range	0.1-65 m	**Measurement / Blind zone**	10 cm (source description)

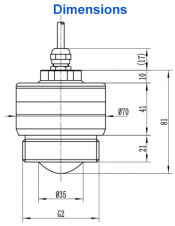
Parameter	Specification	Parameter	Specification
Measurement / Accuracy	±2 mm	**Radar / Beam angle**	6°
Electrical / Supply voltage	9-28 VDC	**Electrical / Communication**	RS485
Mechanical / Material	Stainless steel / PP	**Mechanical / Cable entry**	PG9
Electrical / Cable	0.5 mm²	**Environment / Working temperature**	-30 to 75 °C
Protection / IP level	IP67 (technical parameter table)	**Protection / Feature listing**	IP68

Output and Communication

Interface	Source-listed configuration
RS485	Source-listed communication method
Range	0.1-65 m radar level measurement
Cable entry	PG9
Cable	0.5 mm²

RS485 is listed. The source shows IP67 in the technical table and IP68 in a feature listing.

Mechanical Dimensions / Installation



The webpage drawing indicates an approximately Ø70 mm body, an 81 mm overall dimension, a Ø35 mm lower feature and a G2 connection. The page does not provide a pin-level wiring diagram.

Product Selection / Ordering Information

Selection	Configuration
Base model	SS401-01 — Radar Tank Level Sensor
Configuration summary	FMCW radar; 76-81 GHz; 0.1-65 m range; 9-28 VDC; RS485; 6° beam angle; stainless steel / PP; PG9 cable entry

No source order-code table is provided; specify SS401-01 with the required configuration.

CONTACT / SUPPORT

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