SOLIDAT

Measure the Solid Benefits...

SLDL5100 series

SoltaFMScan FM radar level meter

■ Working principle

SoltaFMScan FM radar level meter uses FM continuous wave (FMCW) technology to transmit signals within the working areaFrequency modulation (frequency sweep) can obtain distance values by comparing the frequency difference △ f between the transmitted wave and the transmitted wave.

SLDL5180 uses 78GHz~80GHz signals, while SLDL5190 uses 120GHz~128GHz signals.

■ Product Features

- The SLDL5180 series has a launch angle of up to 1 °, and the SLDL5190 series has a launch angle of 0.7 °. It can be installed through a long outlet pipe and can be installed on a ball valve
- The SLDL5180 series can achieve an accuracy of 1mm, while the SLDL5190 series can achieve an accuracy of 0.5mm
- SoltaFMScan patented processing technology, fast processing of echo signals, single measurement only takes 5ms, and can quickly track material level changes
- Strong penetration ability, especially suitable for use in high steam and dust environments
- Easy to debug, no need to load or empty the container, saving time
- Easy installation and setup, only two parameters need to be set to achieve measurement
- One click false echo learning enables accurate measurement even with multiple interfering echoes
- Multinational language support (including Chinese), intuitive display of echoes and false echoes, convenient for maintenance personnel to analyze and debug
- The measurement is not affected by changes in the characteristics of the medium, nor by severe process conditions such as temperature, pressure, or dust
- Supports communication methods such as HART, Modbus, Profibus PA, Foundation Fieldbus, GPRS/CDMA remote, Bluetooth, etc

Technical Parameter

Model	SLDL5185	SLDL5181	SLDL5182	SLDL5183	SLDL5184	SLDL5195
Application	Used for continuous monitoring of solid medium level in the silo	Suitable for small and medium-sized containers, such as storage tanks, feed boxes, or small process tanks	Applied in the food and pharmaceutical industries, there are high requirements for the hygiene and cleanliness of process connections.	Especially suitable for highly corrosive media	Used for storage tanks of different sizes, containers with many internal installations, and narrow vertical shafts	Used for extremely harsh working conditions such as high temperature and pressure, steam, etc., high-precision metering level measurement
Frequency	78GHz					120GHz
Measuring range	100m	100m	100m	100m	100m	150m
Antenna material	PEI、PEEK	PTFE、PFA	PTFE、PFA	PTFE、PFA	PVDF plastic encapsulated antenna	PTFE、PFA
Process connection	Flange	Thread、flange	Thread、flange	Thread、flange	Thread、flange、gantry frame	Thread、flange
Process temperature	-40 ... +200°C	-40... +200°C	-40... +200°C	-40... +200°C	-40... +200°C	-196... +1200°C
Process pressure	-1 ... 10 bar	-1 ... 20 bar	-1 ... 20bar	-1 ... 16bar	-1 ... 3bar	-1 ... 400bar
Measurement deviation	±1mm	±1mm	±1mm	±1mm	±1mm	±0.5mm
Beam angle	3°	7°	≤6°	3°		0.7°
Transmission frequency	78GHz~80GHz					120GHz~128GHz
OUTPUT	4... 20 mA/HART two wire/four wire, Profibus PA, Foundation Fieldbus, Modbus protocol, 485 bus protocol, GPRS/CDMA remote, Bluetooth					
Permit	ATEX、IEC、FAC、CSA、SIL3					

Selection criteria

		SLDL5185	SLDL5181	SLDL5182	SLDL5183	SLDL5184	SLDL5195
Container	Small container	●	●	●	·	·	·
	Storage box	●	●	●	·	·	·
	Process vessel	●	●	●	·	–	·
Process	Simple process conditions	●	●	●	·	·	·
	The most difficult process conditions	●	●	●	·	–	·
	Aggressive liquid	–	–	–	·	–	·
	Produce bubbles and foam	–	●	●	–	–	·
	Wave motion on the surface	–	●	●	–	·	·
	Generate steam or condensate	–	●	●	·	·	·
	Attachment	●	●	●	·	·	·
	Flow Measurement	–	●	●	–	·	·
Install	Installation flush with the front	–	●	●	·	·	·
	Thread Joint	–	●	●		·	·
	Flange joint	●	●	●	·	·	–
	Sterile connector	●	●	●	·	·	–
	Gantry frame	–	●	●	–	·	–
Antenna	Antenna extension cable	–	–	–	·	–	·
	Riser type long line	–	–	–	–	–	·
	Narrow launch rod	–	●	●	·	–	·
	Measurement in a bypass or peak tube	–	–	–	·	·	·
	Air blowing joint	–	–	–	–	–	·
General industry	Chemistry	●	●	●	·	–	·
	Energy	●	●	●	·	·	·
	Food	●	●	●	·	–	·
	Metal mining	–	–	–	–	–	·
	Offshore operations	–	–	–	–	–	·
	Paper products	–	–	–	·	·	·
	Petrifaction	–	–	–	·	–	·
	Medicine	–	●	●	·	·	·
	Shipbuilding	–	–	–	·	–	·
	Environmental protection and recycling	–	●	●	·	–	·
	Water/wastewater	–	●	●	–	·	·
	Cement manufacturing	●	–	–	–	–	·