

SKE Radar Level Series

SKR800 Non-contact FMCW 80GHz Radar Level Transmitter Model & Specification



Introduction

The SK-R800, 2-wire 80 GHz Non-Contact Radar Level transmitter utilizes Frequency Modulated Continuous Wave (FMCW) technology which has greater sensitivity and accuracy for level measuring applications.

Features

1. 80GHz FMCW technology.
2. Measuring range: up to 30 m (liquids) / 60 m (solids)
3. Accuracy ± 2 mm(liquid), ± 5 mm(solid)
4. PTFE sealed antenna, not affected by temperature, condensate water.
5. Narrow emitting angle $1.5^\circ - 5^\circ$.
6. Small antenna size fits most process: easy to set and install
7. Light weight and small sized than 26GHz Radar Type
8. Self owned and developed software/algorithm
9. OEM/Customized service supported.



Industries

- ✓ Chemical market
- ✓ Oil & Gas
- ✓ Power
- ✓ Food
- ✓ Pharmaceutical
- ✓ Water/Wastewater
- ✓ Metals, Minerals & Mining

Application

Liquid & Solid Level Measurement:

- ◆ Storage tanks/vessel/silo
- ◆ Process tanks
- ◆ Open channel water
- ◆ River, Flume



Product Model

SKR800N (80 GHz)

Standard liquids application/Corrosive process applications

Simple solids application



Thread G 2 1/2

The SKR800N is an 80 GHz FMCW radar transmitter for continuous level measurement of **Standard liquids**, and **Simple Solid application** under different process conditions.

- * Narrow beam focusing 3° provide accurate and reliable measurement in regular or strongly corrosive liquids.
- * The antenna options permit to measure distances up to 30 m.
- * Thread connection G 2 1/2, flanged connections from DN80.

SKR800NS (80 GHz)

Liquids in small vessels/Corrosive applications



Thread G 3/4



DN32

The SKR800N is an 80 GHz FMCW radar transmitter for continuous level measurement of **Liquids**, especially in **small vessels**.

- * Narrow beam focusing 5° provide accurate and reliable measurement in regular or strongly corrosive liquids.
- * The antenna options permit to measure distances up to 20 m.
- * Light weight, easy to set and install in small tank/vessel.
- * Thread connection G 3/4, Flange connections from DN32

SKR800H (80 GHz)

Solids in process applications



Thread M130*2









DN200

The SKR800H is an 80 GHz FMCW radar transmitter for continuous level measurement of **Bulk Solid**, and **Large range liquid application**

- * Narrow beam focusing 1.5° provide accurate and reliable measurement in regular or strongly corrosive liquids.
- * The antenna options permit to measure distances up to 60 m.
- * Thread connection M130*2, Flange connections from DN100

SK-R800 Specification

			
Model	SKR800N	SKR800NS	SKR800H
Product Type	FMCW Radar Level Transmitter	FMCW Radar Level Transmitter	FMCW Radar Level Transmitter
Application	 <ul style="list-style-type: none"> *Simple liquid Measurement (exp: water) *Standard liquid measurement (exp: chemical) *Simple solid measurement 	 <ul style="list-style-type: none"> *Simple Liquid Measurement *small sized antenna, light weight *Suitable for small sized tank/vessel 	 <ul style="list-style-type: none"> *Standard Bulk Solid Measurement *Large range water measurement *Suitable for Narrow tank, silo, vessel.
Frequency	77GHz-81GHz	77GHz-81GHz	77GHz-81GHz
Measurement Range	Liquid: 0.2-30m (0.6 ft – 98 ft) Solid: 0.2-15m (0.6 ft – 49 ft)	Liquid: 0.2m-20m (0.6 ft – 65 ft)	Solid: 0.2-60m (0.6 ft – 198 ft) Liquid: 0.2-60m (0.6 ft – 198 ft)
Accuracy	±2mm for liquid ±5mm for solid	±2mm	±5mm for solid ±2mm for liquid
Beam Angle	3°	5°	1.5°
Antenna Material	SS 304/Sealed PTFE	SS 304/Sealed PTFE	SS 304/Sealed PTFE
Process Connection	Thread G 2 1/2 ; Flange from DN80	Thread G 3/4 ; Flange From DN32	Thread M130*2 ; Flange from DN100
Process Temperature	-40°C to +60°C (-40 to +140 °F)	-40°C to +60°C (-40 to +140 °F)	-40°C to +60°C (-40 to +140 °F)
Process Pressure	Normal atmospheric pressure	Normal atmospheric pressure	Normal atmospheric pressure
Signal output	4-20mA/RS485(Modbus - RTU)	4-20mA/RS485(Modbus - RTU)	4-20mA/RS485(Modbus - RTU)
Power	Two-wire DC 24V (22V~30V)	Two-wire DC 24V (22V~30V)	Two-wire DC 24V (22V~30V)
Explosion-proof	Exdia II CT6Gb	Exdia II CT6Gb	Exdia II CT6Gb

SK-R800 Model Selection

SK-R800 **80GHz Radar Level Transmitter**

Code	Medium Type
L	Liquid
S	Solid

Code	Measuring Range
0.2~60	10、 15、 20、 30、 45、 60

Code	Connection
G	G2 1/2 Thread
S	G3/4 Thread
F	Customized Flange

Code	Temperature
N	-40-60°C

Code	Cable entry
M	M20×1.5(F)
N	1/2 NPT(F)

Code	Electronics
T	Two-wire 4...20mA
M	Modbus

SK-R800