

The Need For Every
Process Industry



**RADAR
LEVEL
TRANSMITTER
MODEL: SC / L-150X**

The Radar uses an Frequency of 80GHz and works on Frequency Modulated Continuous Wave.

The FMCW Radar emits a high frequency signal whose frequency increases linearly during the measurement phase (called the frequency sweep). The signal is emitted, reflected from the measuring surface and received with a time delay, t. Delay time, $t=2d/c$, where d is the distance to the product surface and c is the speed of light in the gas above the product. For further signal processing the difference Δf is calculated from the actual transmit frequency and the receive frequency. The difference is directly proportional to the distance.

LEVEL

ALL THE INFORMATION YOU NEED FOR YOUR NEXT RADAR

Radar Model	SC / L-1501	SC / L-1502	SC / L-1503L	SC / L-1503S
Application	Liquid / Slurries	Liquid / Slurries / Solids	Liquids / Slurries	Liquid / Slurries / Solids
Range	0-10m (30m opt)	0-10/15/20/40m	0-40m	0-70/85/120m
Opr. Frequency	80 Ghz	80 Ghz	80 Ghz	80 Ghz
Power Supply	15 - 36VDC (2wire)	15-36VDC (2 wire)	15 - 36VDC (2wire)	15 - 36VDC (2wire)
Output	4-20mA (2 wire)	4-20mA (2/4 wire) / RS485 Modbus	4-20mA (2/4 wire) / RS485 Modbus	4-20mA (2/4 wire) / RS485 Modbus
Accuracy	Upto ± 2 mm	Upto ± 1 mm	Upto ± 1 mm	Upto ± 1 mm
Resolution	1mm	1mm	1mm	1mm
Repeatability	Upto ± 1 mm	Upto ± 1 mm	Upto ± 1 mm	Upto ± 1 mm
Opr. Temp.	-40°C to +80°C	-40°C to +100°C	-40°C to +250°C (400°C /1200°C on Request)	-40°C to +250°C (400°C /1200°C on Request)
Opr. Pressure	-1 Bar to +2 Bar	-1Bar to +5Bar	-10 Bar to +40 Bar	-10 Bar to +40 Bar
Configuration/ Zero and Span Adjustment	Bluetooth Android & iOS App	HART 7.0/Display Keypad/Bluetooth Android & iOS App	HART 7.0 / Display Keypad / Bluetooth Android & iOS App	HART 7.0 / Display Keypad / Bluetooth Android & iOS App
Housing	Aluminium / PP	Aluminium / SS316	Aluminium / SS316	Aluminium / SS316
Sensor (Standard)	PP	PTFE Lens Antenna +PVDF Connection.	PTFE Lens Antenna +PVDF / SS Conn.	PTFE Lens Antenna + SS Conn.
Cable Entry	M20 / 1/2" NPT (OPTIONAL)	M20 / 1/2" NPT (OPTIONAL)	M20 / 1/2" NPT (OPTIONAL)	M20 / 1/2" NPT (OPTIONAL)
Response Time	Less than 1 Sec	Less than 1 Sec	Less than 1 Sec	Less than 1 Sec
Load Impedance	700 Ω	700 Ω	700 Ω	700 Ω
Protection	Ip67 / 68 Ex db IIC T6 Gb Ex ia IICT6 Ga	Ip67 / 68 Ex db IIC T6 Gb Ex ia IICT6 Ga	Ip67 / 68 Ex db IIC T6 Gb Ex ia IICT6 Ga	Ip67 / 68 Ex db IIC T6 Gb Ex ia IICT6 Ga
Failure Output	3.9mA/Hold/22mA	3.9mA/Hold/22mA	3.9mA/Hold/22mA	3.9mA/Hold/22mA

80GHz RADAR LEVEL TRANSMITTER WITH BLUETOOTH

MODEL : SC / L-1501

Compact 80GHz Radar



MODEL CODING : SC / L-1501 - 1-2-3-4-5-6-7-8-XX

1. Approvals

P	Standard
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2. Temperature

A	-40° to 80°C
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3. Antenna Material

C	PP
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4. Thread / Flang

GC	Thread G 1½A
GD	Thread G 2A
GE	Thread G 2½A

5. Output

A	4-20mA (2wire, 24VDC)
B	4-20mA HART (2wire, 24VDC)

6. Housing

D	Aluminum - IP68
H	PP - IP68

7. Display / Programming

A	With Loop Powered Indicator
B	Without Loop Powered Indicator

8. Range

X	Mention Maximum Range in marters (10/30)
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80GHz RADAR LEVEL TRANSMITTER WITH HART

MODEL : SC / L-1502



Compact 80GHz Radar

MODEL CODING : SC / L-1502 - 1-2-3-4-5-6-7-8-XX

1. Approvals

P	Standard
F	Explosion Proof (Ex db IIC T6 Gb)
I	Intrinsic Safe (Ex ia IICT6Ga)
G	Explosion Proof (Ex db IIC T6 Gb) + Intrinsic Safe (Ex ia IICT6 Ga)

2. Temperature

A	-40° to 100°C
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3. Antenna / Sensor

D	PTFE Lens Antenna with PVDF Connection
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4. Process Connection Size

GC	Thread 1½A (for Liquid Applications)
GD	Thread G 3A (for Solid Application)

5. Output

B	4-20MA HART (2 Wire, 24 VDC)
R	RS485 Modbus

6. Housing / Enclosure

D	Aluminum (2 Chamber)
G	SS316

7. Cable Entry

M	M20
N	¼" NPT

8. Display

A	Integral LCD Display with Keypad
B	Integral LCD Display with Keypad + Remote Loop Powered Indicator

9. Range

XX	Maximum Range in meters (10/15/30/40)
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Flange As Per Customer Requirement

80GHZ HIGH FREQUENCY RADAR LEVEL TRANSMITTER

MODEL : SC / L – 1503L (Liquid, Slurries)

MODEL : SC / L – 1503S (Solid)



MODEL CODING : SC / L-1503 - 1-2-3-4-5-6-7-8-XX

1. Approvals

P	Standard
F	Explosion Proof (Ex db IIC T6 Gb)
I	Intrinsic Safe (Ex ia IICT6Ga)
G	Explosion Proof (Ex db IIC T6 Gb) + Intrinsic Safe (Ex ia IICT6 Ga)

2. Temperature

A	-40° to 200°C
B	-40° to 250°C
D	-40° to 400°C/-40° to 1200°C (Only with G)

3. Antenna / Sensor

C	PTFE Lens Antenna with SS316L Connection PTFE Seal
E	SS316L Horn Antenna with PTFE Seal
G	Ceramic with Horn Antenna / or Special HT Bracket

4. Process Connection Size

GC	Thread 1½A
GD	Thread G 3A

5. Output

B	4-20MA HART (2 Wire, 24 VDC)
C	4-20MA HART (4 Wire, 24 VDC) -230/110 VAC through SMPS
R	RS485 Modbus

6. Housing / Enclosure

D	Aluminum (2 Chamber)
G	SS316

7. Cable Entry

M	M20
N	½" NPT

8. Display

A	Integral LCD Display with Keypad
B	Integral LCD Display with Keypad + Remote Loop Powered Indicator

9. Range

XX	Maximum Range in meters (40) - SC/L-1503L
XX	Maximum Range in meters (70/85/120) - SC/L-1503S

Flange As Per Customer Requirement



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