

CPR6X00 SERIES PULSE RADAR

Area of application

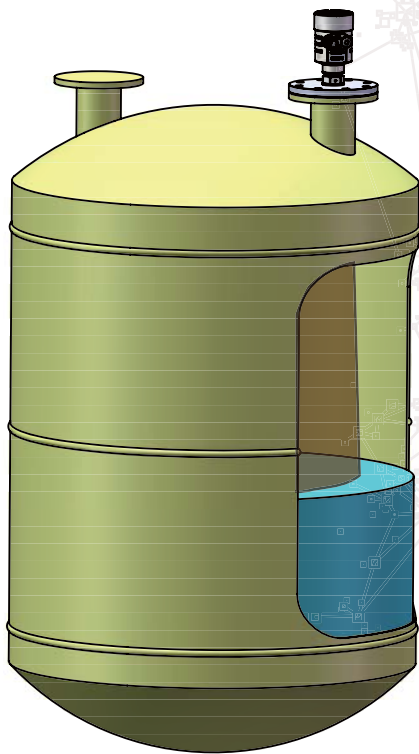
The CPR6X00 series are suitable for level measurement in liquids and bulk solids.

In liquids

They measure all kinds of liquids, even under high pressure and extreme temperatures, in simple as well as aggressive liquids.

In bulk solids

The sensors can also measure from the lightest to the heaviest bulk solids with absolute reliability, even in the presence of dust and noise, without being affected by buildup or condensation.



Measuring principle

The CPR6X00 pulse radar level transmitter is designed for continuous level measuring of liquids and solids.

ToF principle

The measuring instrument sends out short radar pulses toward the measured product via the antenna system. The product surface reflects the signal waves, which are then received back by the antenna system. The instrument calculates the level from the running time of the radar pulses and the entered tank height.

Advantages

- **Twin-chips**

With two MCU, CPR6X00 achieves higher processing ability.

- **Multi-Track**

Due to new Multi-Track wave tracking algorithm, CPR6X00 get highest reliability.

- **Waves Memo**

Wave management concept. To help understand abnormal output, CPR6X00 stores wave automatically.

CPR6100



CPR6200



Application	Continuous level measurement of aggressive liquids. Use in small tanks and tight mounting spaces with stirrers and heating spirals.	Continuous level measurement of liquids with slightly aggressiveness. Use in storage containers, reactors and process vessels.
Measuring range	0 ~ 30m	0 ~ 70m
Version	<ul style="list-style-type: none"> Φ 45 mm PTFE coated horn antenna Φ 45 mm PTFE coated extend horn antenna Φ 75 mm PTFE coated horn antenna Φ 75mm plastic horn 	<ul style="list-style-type: none"> D50 horn antenna(316, Φ48mm, height 190mm) D80 horn antenna(316, Φ78mm, height 215mm) D100 horn antenna(316, Φ98mm, height 295mm) D100 Extended horn antenna(316, Φ95mm, 473mm) D125 horn antenna(316, Φ123mm, 621mm)
Power	< 0.5 W	< 0.5 W
Sample frequency	54 Hz	54 Hz
Response time	< 2 s	< 2 s
Frequency	26 GHz	26 GHz
Process fitting	Thread G1½,G3A Flange	Thread G1½,G3A Flange
Process temperature	-40 °C ~ 150 °C	-40 °C ~ 1000 °C
Process pressure	-1.0 kgf/cm ² ~ 4 kgf/cm ²	-1.0 kgf/cm ² ~ 40 kgf/cm ²
Resolution	1 mm	1 mm
Accuracy	± 3mm	± 3mm
Repeatability	± 1.5 mm	± 1.5 mm
Signal output	4 ~ 20 mA HART	4 ~ 20 mA HART
Display and Adjustment	LCD display, tank side display and tank side hub	LCD display, tank side display and tank side hub
Antenna material	PTFE,PVDF	316L Stainless steel
Protect level	IP67	IP67
Electrical connection	2 × M20*1.5(Cable diameter 9 ~ 13 mm) ½NPT	2 × M20*1.5(Cable diameter 9 ~ 13 mm) ½NPT
Ex information	EX ia IIC T6 Ga, Ex d ia [iaGa]IIC T6/T2 Gb Ex iaD tD A21 IP67T80°C/T290°C	EX ia IIC T6 Ga, Ex d ia [iaGa]IIC T6/T2 Gb Ex iaD tD A21 IP67T80°C/T290°C

CPR6300



CPR6500



Application	Continuous level measurement of aggressive liquids under difficult process conditions.,storage tanks, process vessels and standpipes are available.	Continuous level measurement of aggressive liquids with small process fitting under simple process conditions.
Measuring range	0 ~ 70m	0 ~ 35m
Version	D50 horn antenna/316L+PTFE process fitting D80 horn antenna/316L+PTFE process fitting D100 horn antenna/316L+PTFE process fitting	Φ30 mm PTFE Integrated solid rod antenna
Power	< 0.5 W	< 0.5 W
Sample frequency	54 Hz	54 Hz
Response time	< 2 s	< 2 s
Frequency	26 GHz	6.3 GHz
Process fitting	Flange	Flange
Process temperature	-40 °C ~ 150 °C	-40 °C ~ 150 °C
Process pressure	-1.0 kgf/cm ² ~ 16 kgf/cm ²	-1.0 kgf/cm ² ~ 3 kgf/cm ²
Resolution	1 mm	1 mm
Accuracy	± 3mm	± 10mm
Repeatability	± 1.5 mm	± 5 mm
Signal output	4 ~ 20 mA HART	4 ~ 20 mA HART
Display and Adjustment	LCD display, tank side display and tank side hub	LCD display, tank side display and tank side hub
Antenna material	PTFE	PTFE, PVDF
Protect level	IP67	IP67
Electrical connection	2 × M20*1.5(Cable diameter 9 ~ 13 mm) ½NPT	2 × M20*1.5(Cable diameter 9 ~ 13 mm) ½NPT
Ex information	EX ia IIC T6 Ga, Ex d ia [iaGa]IIC T6/T2 Gb Ex iaD tD A21 IP67T80°C/T290°C	EX ia IIC T6 Ga, Ex d ia [iaGa]IIC T6/T2 Gb Ex iaD tD A21 IP67T80°C/T290°C

CPR6600



CPR6700



Application	Continuous level measurement of liquids under difficult process conditions. storage tanks, process vessels and standpipes are available.	Continuous level measurement of bulk solid, granules in small vessels.
Measuring range	0 ~ 70m	0 ~ 15m
Version	D150 (316, Φ 145 mm, height 200 mm, liquids) D200 (316, Φ 195 mm, height 280 mm, liquids) D250 (316, Φ 245 mm, height 490 mm, liquids)	Φ 75 mm horn antenna
Power	< 0.5 W	< 0.5 W
Sample frequency	54 Hz	54 Hz
Response time	< 2 s	< 2 s
Frequency	6.3 GHz	26 GHz
Process fitting	Flange	Flange
Process temperature	-40 °C ~ 1000 °C	-40 °C ~ 80 °C
Process pressure	-1.0 kgf/cm ² ~ 40 kgf/cm ²	-1.0 kgf/cm ² ~ 2 kgf/cm ²
Resolution	1 mm	1 mm
Accuracy	\pm 10mm	\pm 3mm
Repeatability	\pm 5 mm	\pm 1.5 mm
Signal output	4 ~ 20 mA HART	4 ~ 20 mA HART
Display and Adjustment	LCD display, tank side display and tank side hub	LCD display, tank side display and tank side hub
Antenna material	316L Stainless steel (Optional: with coating)	Plastic, PVDF, PTFE
Protect level	IP67	IP67
Electrical connection	2 x M20*1.5(Cable diameter 9 ~ 13 mm) ½NPT	2 x M20*1.5(Cable diameter 9 ~ 13 mm) ½NPT
Ex information	EX ia IIC T6 Ga, Ex d ia [iaGa]IIC T6/T2 Gb Ex iaD tD A21 IP67T80°C/T290°C	EX ia IIC T6 Ga, Ex d ia [iaGa]IIC T6/T2 Gb Ex iaD tD A21 IP67T80°C/T290°C

CPR6800



CPR6900

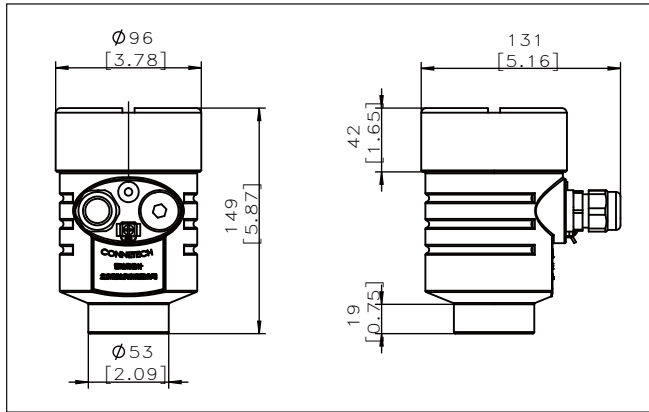


Application	Continuous level measurement of bulk solid,powder,granules	Continuous level measurement of bulk solid,powder,granules in big vessel or difficult conditions
Measuring range	0 ~ 35m	0 ~ 70m
Version	D80 horn antenna(316, Φ78mm, height 215mm) D100 horn antenna(316, Φ98mm, height 295mm) D100 Extended horn antenna(316, Φ95mm, 473mm) D125 horn antenna(316, Φ123mm, 621mm)	D200 Paraboloid antenna D250 Paraboloid antenna
Power	< 0.5 W	< 0.5 W
Sample frequency	54 Hz	54 Hz
Response time	< 2 s	< 2 s
Frequency	26 GHz	26 GHz
Process fitting	Flange	Flange
Process temperature	-40 C ~ 1000 C	-40 C ~ 1000 C
Process pressure	-1.0 kgf/cm ² ~ 40 kgf/cm ²	-1.0 kgf/cm ² ~ 40kgf/cm ²
Resolution	1 mm	1 mm
Accuracy	± 3mm	± 3mm
Repeatability	± 1.5 mm	± 1.5 mm
Signal output	4 ~ 20 mA HART	4 ~ 20 mA HART
Display and Adjustment	LCD display, tank side display and tank side hub	LCD display, tank side display and tank side hub
Antenna material	316L Stainless steel	304 Stainless steel
Protect level	IP67	IP67
Electrical connection	2 × M20*1.5(Cable diameter 9 ~ 13 mm) ½NPT	2 × M20*1.5(Cable diameter 9 ~ 13 mm) ½NPT
Ex information	EX ia IIC T6 Ga, Ex d ia [iaGa]IIC T6/T2 Gb Ex iaD tD A21 IP67T80°C/T290°C	EX ia IIC T6 Ga, Ex d ia [iaGa]IIC T6/T2 Gb Ex iaD tD A21 IP67T80°C/T290°C

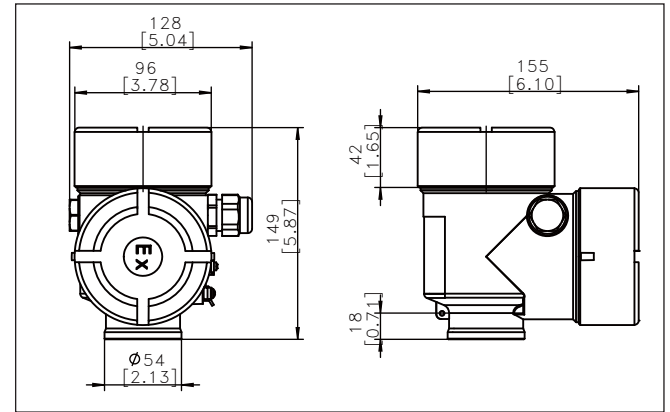
Housing version

The housings are available as double chamber version in plastic, stainless steel or aluminium. They are available with protection ratings up to IP 67 (1 bar).

Single chamber housing

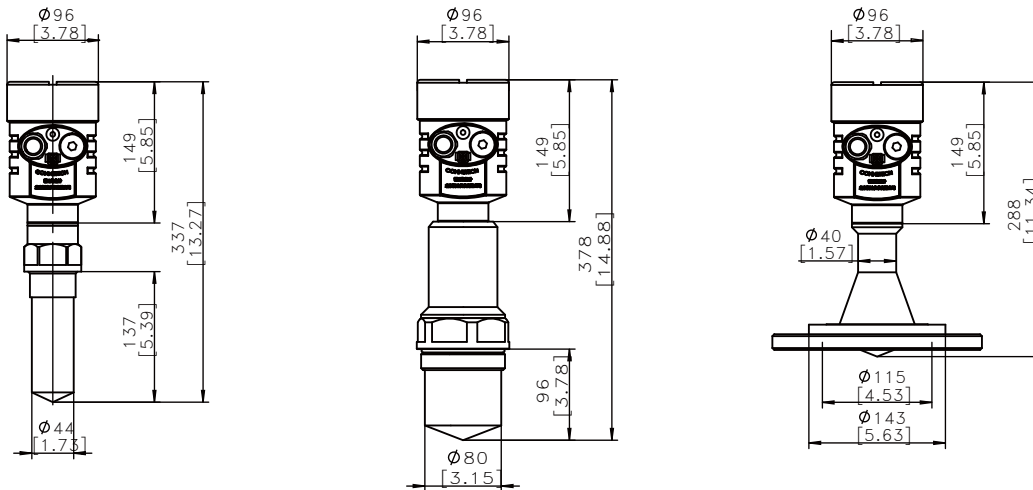


Double chamber housing

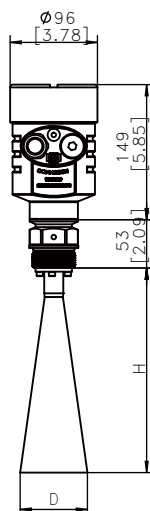


Dimensions

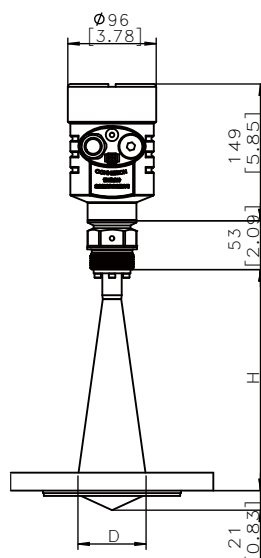
CPR6100



CPR6200



CPR6300



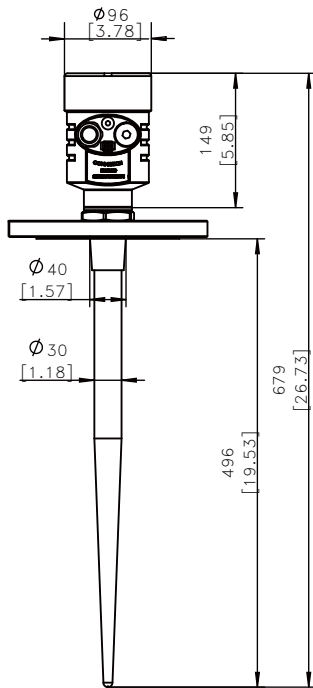
CPR6200

Antenna type	D	H
DN50	48	126
DN80	78	228
DN100	98	288
DN100(lengthen)	98	473
DN125	123	621

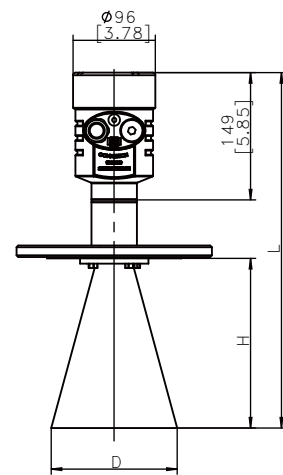
CPR6300

Antenna type	D	H
DN75	75	230
DN98	98	310

CPR6500

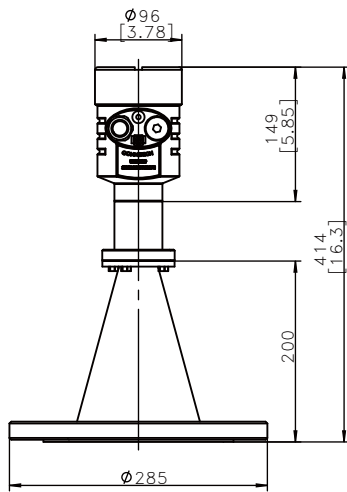


CPR6600

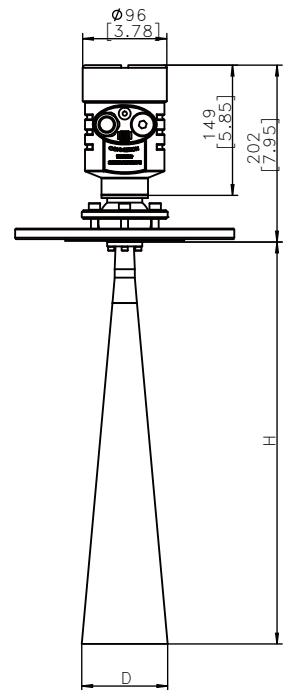


Antenna type	D	H
DN100	95	105
DN150	145	205
DN200	195	300
DN250	250	490

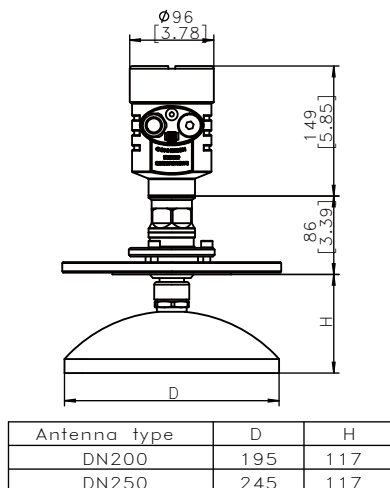
CPR6700



CPR6800



CPR6900



Antenna type	D	H
DN200	195	117
DN250	245	117

Antenna type	D	H
DN80	78	228
DN100	98	288
DN100(lengthen)	98	473
DN125	123	621