

## CPR6800S Specification Sheet

4 ... 20 mA/HART - 2 wire/4 wire Radar sensor for continuous level measurement of bulk solid and granules under difficult processing conditions



### Area of application

The CPR6800S is a radar sensor for continuous measurement of bulk solids and granules under difficult process conditions. The sensor is ideal for level measurement in high silos, large bunkers, stone crushers and in the furnace. Through the wide temperature and pressure range, the sensor can be used universally and enables a simple planning.

### Feature and benefit

- Twin-chips**  
 With two chips, CPR6800S achieves higher processing ability.
- Multi-Track**  
 Due to new Multi-Track wave tracking algorithm, CPR6800S gets highest reliability.
- Waves Memo**  
 With wave management function. To help understand abnormal output, CPR6800S stores wave automatically.

### Function

Measuring system operates based on the time-of-flight method (ToF). It measures the distance from the reference point (process connection) to the product surface. Radar impulses are emitted by an antenna, reflected off the product

surface and received again by the radar system. The time from emission to reception of the signals is proportional to the level in the vessels. A special time stretching procedure allows reliable and precise measurement of the extremely short signal running times.

### Technical data

Measuring range	0 ~ 70m
Sample frequency	54Hz
Response time	<2s
Resolution	1mm
Deviation	±3mm
Repeatability	±1.5mm
Frequency	26GHz
Ambient temperature	-40 °C ~ 70 °C
Process temperature	-40 °C ~ 1000 °C
Process pressure	-1 ~ 40 bar
Protect level	IP67

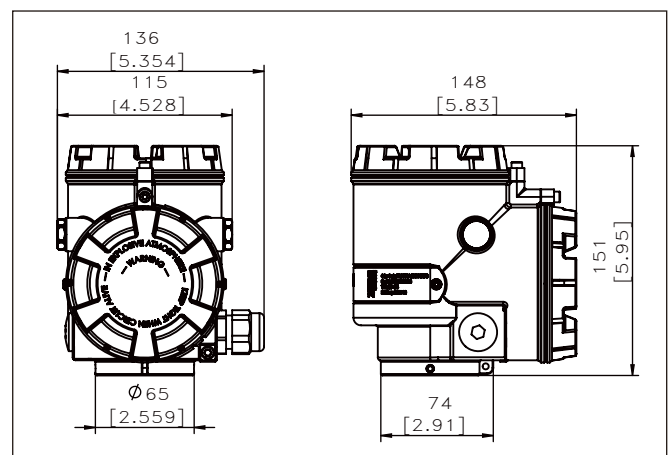
### Material

The antenna is made of 316L stainless steel and the process seal is made of FKM.

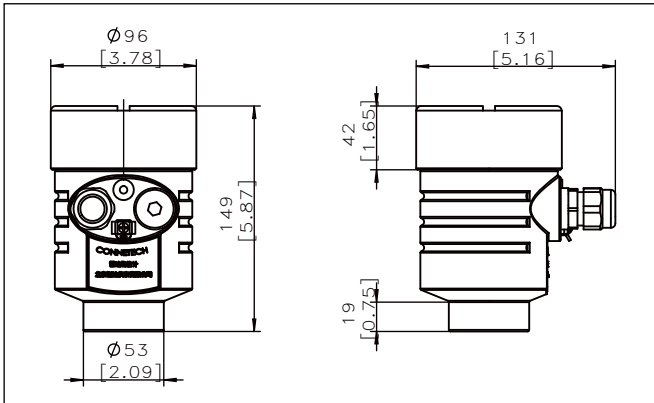
### Housing version

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

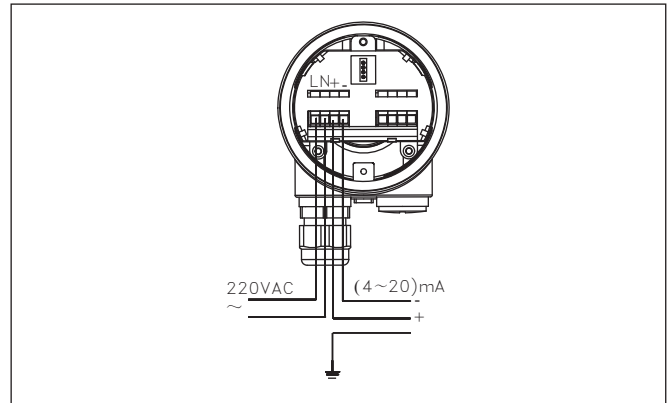
#### Double chamber housing



## Single chamber housing



## 220V AC.Four-wire



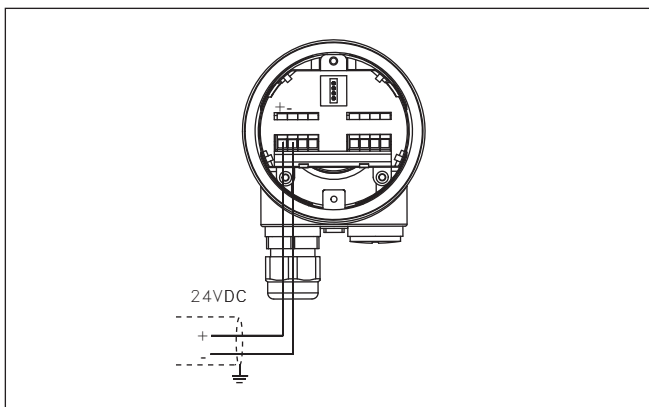
## Electric connection

The instruments are available in different electronics versions. 4 ... 20 mA/HART in two and four-wire version with 24 VDC and four-wire with 220VAC.

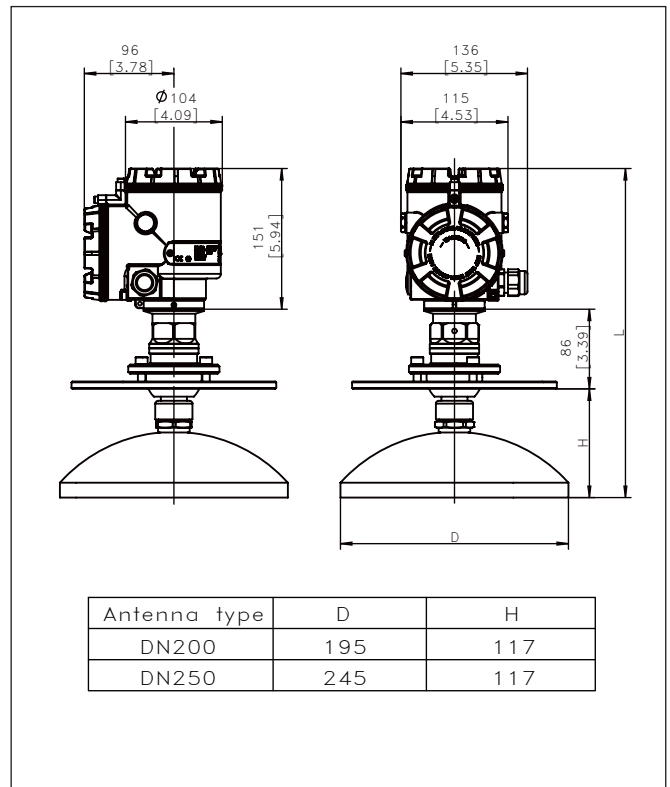
## Operation

The adjustment of the instrument is carried out via the - LCD display, tank side display, tank side hub and HART communicator.

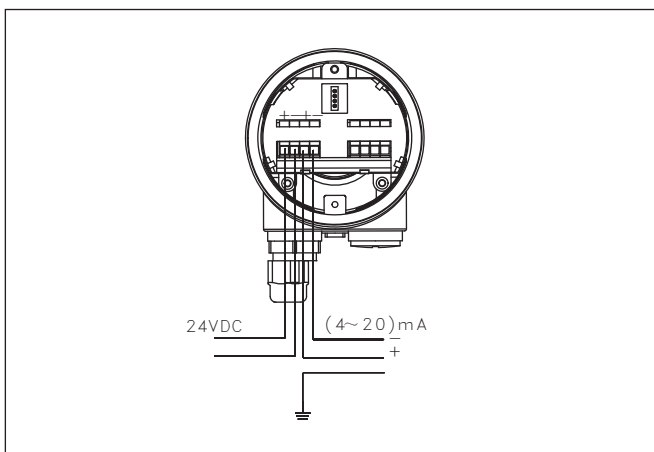
## 24V DC.Two-wire



## Dimensions



## 24V DC.Four-wire



## Ordering code

### CPR6800S Pulse Radar Level Transmitter



#### 1 | LANGUAGE

A	English
I	Chinese

#### 2 | APPROVAL

XX	Standard
CX	Ex ia IIC T6 Ga
DX	Ex d ia [iaGa]IIC T6/T2 Gb
EX	Ex iaD tD A21 IP67T80°C/T290°C

#### 3 | ANTENNA VERSION / MATERIAL

L	With parabolic antenna ø195mm / 304
K	With parabolic antenna ø245mm / 304
T	Customized

#### 4 | PROCESS FITTING

1K	Swiveling holder with flange DN200
1L	Swiveling holder with flange DN250
TT	Customized

#### 5 | PROCESS SEAL / TEMPERATURE/ PRESSURE

2	FKM (Viton) / -40...150°C/ -1...40bar
3	Kalrez 6375 / -20...150°C/ -1...40bar
4	FKM (Viton) + radiator / -40...250°C / -1...3bar
5	Kalrez 6375 + radiator / -20...250°C / -1...3bar
H	Graphite and ceramic / -60...400°C/ -1...40bar
T	Customized/Max. 1000°C /Max. 400Bar

#### 6 | ELECTRONICS

H	Two-wire 4...20mA/HART; 24 VDC
B	Four wire 4...20mA/HART; 220 VAC
I	Four wire 4...20mA/HART; 24 VDC
W	Wireless; GPRS; Wireless C Mesh
T	Customized

#### 7 | HOUSING/PROTECTION

A	Single chamber/ Aluminum / IP67
B	Double chamber/ Aluminum / IP67
W	Double chamber/ 316L SS/ IP67

#### 8 | CABLE ENTRY / CABLE GLAND/ CONNECT CABLE

M	M20x1.5 / with/ without
N	½NPT/ without/ without

#### 9 | LCD DISPLAY

X	Without display
A	With display

#### 10 | ACCESSORY

X	Without
K	Air purging/Quick connector ø8mm
U	Air purging/Stainless steel connector/thread G1/4