



## NCR6400 Compact Radar

### Typical application:

Continuous level measurement of liquids in simple applications with lower demands on pressure and temperature ranges.

### Measuring principle

The radar uses 80GHz 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  $\Delta f$  is calculated from the actual transmit frequency and the receive frequency. The difference is directly proportional to the distance.

### Advantages and features

- **IsoLens Technology (Patent technology)**

Isolated emitting and receiving signal enable full range measurement without dead zone. Unaffected by buildup or condensation near sensor.

- **EverCheck**

Real time self-monitoring on voltage, current and chip. Output warning when abnormality present.

- **WavesMemo**

Wave management concept. To help understand abnormal output, the NCR6400 stores echo .auto-matically

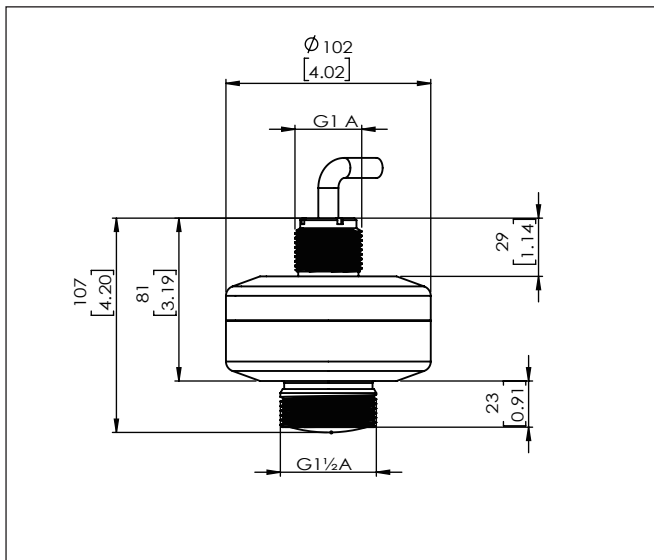
- **MultiTrack**

Wave management concept. To help understand abnormal output, the NCR6400 stores echo .auto-matically

### TECHNICAL DATA

Measuring range	0 ~ 30m
Process fitting and beam angle	Thread G1½ Mounting strap Beam angle 8°
Power	< 0.5 W
Response time	< 2S
Frequency	76~81 GHz
Media-contracting materials	Antenna: PP Seal: PP
Process temperature	-40°C ~ +80°C
Process pressure	-1 bar ~ 2 bar
Resolution	1 mm
Accuracy	± 2mm
Repeatability	± 1 mm
Signal output	4 ~ 20 mA/HART/RS485
Display and Adjustment	Standard: RS485 Optional: Bluetooth or HART
Protect level	IP67/IP68
Electrical connection	G1
Ex information	EX ia IIC T6 Ga

## Dimension



## Ordering code

### NCR6400 compact radar level transmitter

NCR6400							
	1	2	3	4	5	6	7

## 1 | VERSION

D	Max. 8m
R	Max. 15m
U	Max. 30m

## 2 | APPROVAL

XX	Standard
CX	Ex ia IIC T6 Ga
TT	Customized

## 3 | ANTENNA MATERIAL

Z	PP
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## 4 | ELECTRONICS

H	18~36VDC/4...20mA/HART
U	18~36VDC/RS485/4...20mA/HART
T	Customized

## 5 | COMMISSIONING

A	RS485/HART
B	RS485/HART/Bluetooth
T	Customized

## 6 | CABLE LENGTH

M	5M
N	10M
T	Customized

## 7 | PROTECTION

R	IP67
S	IP68