



# BNsens

## RADAR LEVEL SENSOR

### BNRD Series



**BNsens**

## DESCRIPTION

The high frequency radar level sensor is the radar level meter using a transmission frequency of up to 26GHz, increasing the measurement distance and accuracy, the antenna is further optimized, and the processor is also improved accordingly, so that it can perform higher rate signal analysis. Combining these factors, the performance of the instrument has been greatly improved, and it can overcome more complex measurement conditions and obtain more accurate measurement data.

## CHARACTERISTICS

- Non-contact radar, no wear, no pollution
- The measurement blind area is smaller, and the measurement of small tanks will also achieve good results
- Severe dust environment will not affect electromagnetic wave operation
- Shorter wavelength, better reflection on tilted solid surfaces

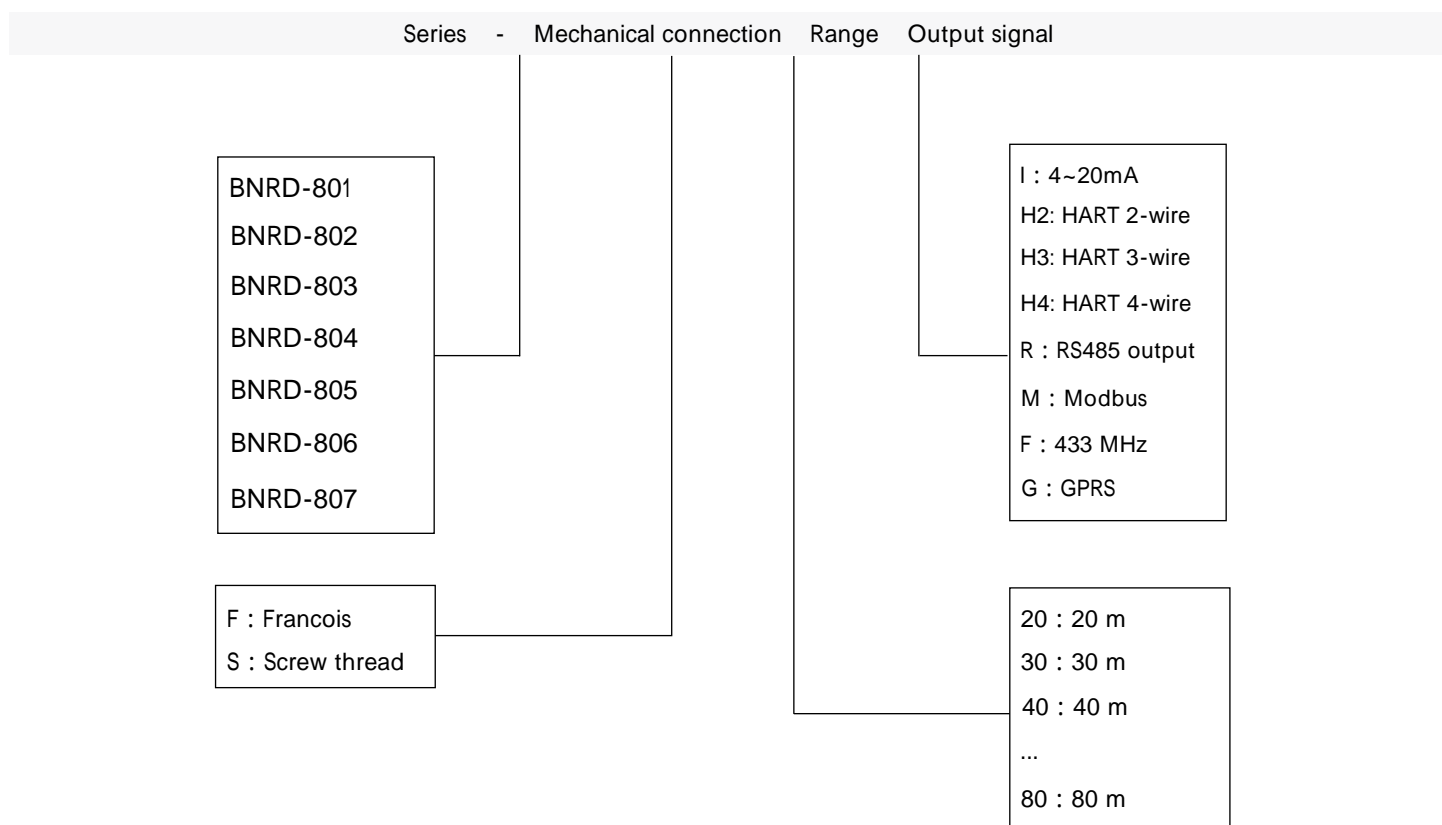
## PERFORMANCE INDEX

Performance index	BNRD Series
measuring range	0m ~ 20m...80m
Power supply	24V
Output signal	4~20mA, HART, RS485, Modbus, 433MHz radio frequency, GPRS wireless network
Medium temperature	-40 ~ 250
Frequency range	26GHz
Accuracy	± 3mm
Mechanical connection	Flange, thread
Process pressure	-0.4MPa~4.0MPa
Class of protection	IP67
Damping time	Default 1s
Level time	10m/min
Reveal	LCD display with four buttons
Display resolution	1mm
Relative humidity	< 95%
Thermal shock tolerance	< 40 /s

## RANGE OF APPLICATION

- BNRD-801 : Special for strong corrosion
- BNRD-802 : Temperature and pressure resistance slightly strong corrosive liquid
- BNRD-803 : Special for solids
- BNRD-804 : For solids, 40 meters or more
- BNRD-805 : Water level gauge, temperature and pressure resistance slightly corrosive liquid
- BNRD-806 : Large fluctuation, water vapor and other liquid level, water drop shape
- BNRD-807 : Health cone, small blind area

# NOMENCLATURE



FOR EXAMPLE : BNRD-801F20I

The series is BNRD-801, the power supply is 24V, mechanical connection is flange, measuring range is 0 ~20 meters, output signal is 4~20mA;

## INTRODUCTION

### : BNRD-801



- Product application: all kinds of highly corrosive liquids within 20 meters
- Measuring range: 0 ~ 20 meters
- Mechanical connection: thread, flange
- Medium temperature: -40 ~ 150
- Process pressure: -0.4 ~ 0.4MPa
- Accuracy:  $\pm 5\text{mm}$
- Frequency range: 26GHz
- Protection level: IP67
- Signal output: 4 ~ 20mA/HART (two-wire/four-wire),RS485/Modbus, 433M radio frequency, GPRS wireless network

### : BNRD-802



- Application: Temperature and pressure resistant slightly corrosive liquid
- Measuring range: 0 ~ 30 m
- Mechanical connection: thread, flange
- Medium temperature: -40 ~ 250
- Process pressure: -0.1~1.6MPa
- Accuracy:  $\pm 10\text{mm}$
- Frequency range: 26GHz
- Protection level: IP67
- Signal output: 4 ~ 20mA/HART (two-wire/four-wire), RS485/Modbus, 433M radio frequency, GPRS wireless network

## : BNRD-803



- Product application: solid materials, process containers or strong dust easy crystallization, condensation occasions
- Measuring range: 0 ~ 70 m
- Mechanical connection: thread, flange
- Medium temperature: -40 ~ 250
- Process pressure: normal pressure
- Accuracy:  $\pm 15\text{mm}$
- Frequency range: 26GHz
- Protection level: IP67
- Signal output: 4 ~ 20mA/HART (two-wire/four-wire), RS485/Modbus, 433M radio frequency, GPRS wireless network

## : BNRD-804



- Application: Over 40 meters of large scale solid materials, process containers or strong dust easy to crystallize
- Measuring range: 0 ~ 70 m
- Mechanical connection: thread, flange
- Medium temperature: -40 ~ 250
- Process pressure: normal pressure
- Accuracy:  $\pm 15\text{mm}$
- Frequency range: 26GHz
- Protection level: IP67
- Signal output: 4 ~ 20mA/HART (two-wire/four-wire), RS485/Modbus, 433M radio frequency, GPRS wireless network

## : BNRD-805



- Application: Temperature and pressure resistant, slightly corrosive liquid
- Measuring range: 0 ~ 30 m
- Mechanical connection: thread, flange
- Medium temperature: -40 ~ 250
- Process pressure: -0.1~0.4MPa
- Accuracy:  $\pm 3\text{mm}$
- Frequency range: 26GHz
- Protection level: IP67
- Signal output: 4 ~ 20mA/HART (two-wire/four-wire), RS485/Modbus, 433M radio frequency, GPRS wireless network

## : BNRD-806



- Application: liquid, slurry, condensation, highly corrosive liquid, dust or high crystallization have fluctuations or violent stirring storage containers, storage tanks and other harsh conditions
- Measuring range: 0 ~ 40 m
- Mechanical connection: flange
- Medium temperature: -40 ~ 150
- Process pressure: normal pressure
- Accuracy:  $\pm 3\text{mm}$
- Frequency range: 26GHz
- Protection level: IP67
- 信号输出：4 ~ 20mA/HART (两线/四线)、RS485/Modbus、433M无线射频、GPRS无线网络

: BNRD-807



- Application: liquid, slurry, condensation, highly corrosive liquid, small blind area and other industrial occasions
- Measuring range: 0 ~ 40 m
- Mechanical connection: flange
- Medium temperature: -40 ~ 150
- Process pressure: normal pressure
- Accuracy:  $\pm 3\text{mm}$
- Frequency range: 26GHz
- Protection level: IP67
- Signal output: 4 ~ 20mA/HART (two-wire/four-wire), RS485/Modbus, 433M radio frequency, GPRS wireless network

# DISCLAIMER

## Warning

### LIFE OR PROPERTY RISK

- Please ensure that this product has been designed as part of whole system and already considered related risks, make sure the product has the correct ratings and is designed based on the entire system. It must not be used when applications related to serious life or property damage risks.

Failure to follow this instruction can result in death or serious injury.

## Warning

### PERSONAL INJURY

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to follow this instruction can result in death or serious injury.

## Warning

### MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to follow this instruction can result in death or serious injury.

## Warranty/Remedy

Banning warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Banning's standard product warranty applies unless agreed to otherwise by Banning in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Banning during the period of coverage, Banning will repair or replace, at its option, without charge those items that Banning, in its sole discretion, finds defective. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Banning be liable for consequential special, or indirect damages.

While Banning may provide application assistance personally, through our literature and the Banning web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Banning assumes no responsibility for its use.

## SALES & SERVICE

Banning serves its clients through a worldwide network of sales offices, agents and distributors. For application assistance specifications, prices or names with the nearest authorized dealer, please contact your sales specialist or contact us directly:

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