DRC3-N

NB-IoT **LTE-M**

NB IoT – Cat-M1 IP68 Rated Corrosion Resistant Low Power Radar Distance and Level Sensor

- Compatible with most standard communication Protocols (UDP, LwM2M, MQTT, NIDD, etc.)
- Wide range of industrial applications
- High accuracy and repeatability
- Designed to meet outdoor and underground applications
- Long-term durable performance in harsh environment
- Ultra-low power
- Suitable for liquid and solid media

TECHNICAL SPECIFICATION

Sensor

Range	**10**	**30**	m
Accuracy (combined linearity, hysteresis, repeatability)	±5	±2	mm
Resolution	Sub mm	Sub mm	
Sensor Minimum Distance	0 ~ 20	0 ~ 20	cm
Process Pressure:	-1 to 3	-1 to 3	bar
Frequency:	80	80	GHz
Beam angle:	8	4	°
Compensated Temperature:	-20 ~ +60	-20 … +80	°C

Power

Power Supply:	Built-in Replaceable Lithium Battery, External Power option
Rated Voltage (V)	3.6
Battery Lifetime:	5,000+ readings and 5,000+ transmission (With UDP protocol/ More than 10 years for most applications)

Physical Specification

Materials:	Enclosure: POM, Sensor Head: PVDF, PA6 and Fiberglass
Weight: (g)	~700
Protection Rate: (-)	IP68, UV protected

Communication

SIM Card Type	4FF Nano-SIM, from any Network Provider
Firmware Update:	Over The Air, Locally via Wireless Connectivity
Sampling Period:	Configurable via downlink (default 4 hours)
Power Consumption:	Power Saving: < 5uA, Transmission: < 220mA
Communication Standards	Cat-NB1 (NB-IoT), Cat-M1, (option of back support by GPRS)
Communication Bands	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28 and B39

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• Data Rates:	Cat-M1: 375Kbps (DL)/375Kbps (UL) NB-IoT: 32Kbps (DL)/70Kbps (UL)
• TX Power:	23dBm
• Min Receiver Sensitivity:	Cat-M1: -107dBm NB-IoT: -113dBm
• Antenna:	Internal (Default)/ External (optional) (customised options available)
• Optional Features:	• Attach without PDN (Packet Data Network) • Support for IPV6 • SMS communication • Mobility support (Cat-M1 only)

NETWORK CONNECTION AND VISUALIZATION

Network Integration

Pre-configured or configurable to all main narrow band networks (3, A1, AT&T, China Mobile, DU, Etisalat, KPN, M1 Singapore, Optus, Orange, Proximus, Spark, Sprint, Swisscom, Telefonica, Telstra, T-Mobile, Verizon, Vodafone, 1NCE, Emnify and any other network)

Visualization and Data Management

10Sorex white label microservice platform and Integratable to all main IIoT platforms directly or through the API(AWS, Azure, PTC ThingWorx, Bosch IoT, Cisco Jasper & Kinetic, Sierra Numerex, MathWorks ThingSpeak, GE Digital Predix, LandisGyr, Siemens MindSphere, Cumulocity, myDevices, Ubidots, TagoIO, AllThingsTalk Maker, HPE IoT and any other major IoT platform).

10Sorex Platform Main Features

- Encrypted ultra-low power communication protocol
- Advanced device inventory
- Integration APIs for enterprise systems
- Multi-tenant role-based access control
- Data export and import
- White-label platform for enterprise runs on private account
- Variable alarm setting for high and low thresholds and multi-channel alerting
- Sampling and transmission interval configuration
- Transmission condition configuration
- Other configurations and customization available on request

Encrypted & ultra-low power	Integratable	Dynamic alerting
Multi-tenant	Scalable	Composable& API first
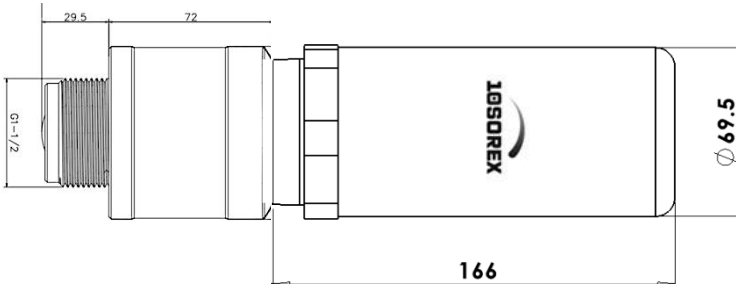
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MODEL GUIDE

Model	Options:
C Model:	29.5 72 G1-1/2 Ø69.5 166 Cylindrical compact, POM enclosure

INDUSTRIES

- Water & Environment
- Agriculture & Farming
- Oil & Gas
- Marine& Oceanography
- Mining & Construction
- Smart Building & HVAC

APPLICATIONS

- Flood alarming
- Corrosive Liquid Storage
- Manhole and underground water way
- Wastewater Tank

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ORDERING CODE

DRC3-N						
	Communication Type					
	B: NB-IoT		**C:** Cat-M1			
		Measurement Range				
		10meters		**30meters**		
			Device Activation			
			X: No switch (always on)		**Others** on request	
				Antenna		
				I: Internal	**E:** on request	
					Options	
					(On request)	
DRC3-N	B	10m	X	I		

Sample Product Code:

- **DRC3-N-B-10m-X-I**
  NB-IoT radar distance sensor, range of 10m, with cylindrical housing (compact and IP68 rated), always on and with internal antenna.