

NODE Series is an industrial class edge device for near real time monitoring of industrial machine, equipment or instrument parameters. NOD200 and NOD300 are part of NODE Series's IIOT (Industrial Internet of things) portfolio and are equipped with industrial standard 4-20mA sensor interfaces to be used in conjunction with external sensors. Both devices has digital inputs for monitoring the change of state of control unit (s) and has potential free relay outputs which can be used for controlling external machines, instruments or outputs in general. For integrating into the world of internet connectivity, devices have integrated Wi-Fi, GSM and Bluetooth.

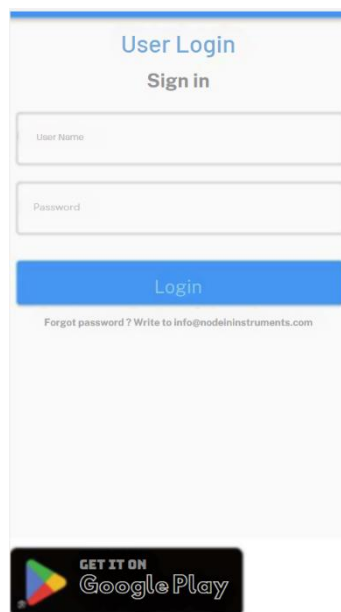
NOD200 and NOD300 seamlessly monitors machine or instruments parameters and securely send it to remote server based software or standalone software over Wi-Fi or GSM for remote monitoring and decision making. Using Mobile App., users can easily configure device as per requirement. The Mobile App is available on Play Store and App store for downloading.



*NOD200*



*NOD300*



*Mobile App : NOD IIOT*

## Product Features

Features	NOD200	NOD300
Plug-n-play installation	✓	✓
Monitor temperature, pressure, vibration etc. parameters over 4-20mA analog input	✓	✓
2x 4-20mA ports	✓	✓
Four digital inputs	✓	✓
Four potential free relay outputs	✓	✓
RS485 Modbus	×	✓
Device setting over user friendly Mobile App: NOD-IIOT	✓	✓
Mapping of digital inputs and analog thresholds to outputs	✓	✓
Analog sensor threshold setting	✓	✓
Configurable time intervals and schedules	✓	✓
Alert/warning set points	✓	✓
Secure data transfer using TCP-IP/MQTT/HTTP over Wi-Fi	✓	✓
Secure data transfer using TCP-IP/MQTT/HTTP over GPRS	×	✓
FOTA for remote software upgrade	✓	✓
16GB internal SD card	✓	✓
Battery backup for app. 2 hours	×	✓
LED indication for power ON and communication	✓	✓
IP 65 wall mount enclosure	✓	✓

## Typical Applications

**Smart Factory:** Accurately monitor your machines, plant/factory production instruments and environmental conditions to ensure everything is healthy and running as desired.

Examples: Centrifugal Compressor & HT Motor, Interface with Machine control panels & PLC's for remote data analysis and corrective actions.

**Conveyor Belts :** Enabling operators to track speed, misalignment, damage, thickness and wear, slippage and temperature of conveyor belts in real time, and therefore anticipate maintenance, avoid unplanned Down time and improve belt reliability and lifetime

**Heavy Equipment Monitoring :** Monitor and analysis heavy equipment usage and operation for predictive maintenance.

**Food & Beverages industry :** Factory/warehouse environment monitoring

## Technical Specifications

Specs	
INPUT POWER SUPPLY	<ul style="list-style-type: none"> <li>• Input Voltage: 12-24VDC</li> <li>• Max. power consumption :&lt; 0.5 VA (during data transmission)</li> </ul>
INDICATION	<ul style="list-style-type: none"> <li>• LED Indication.</li> <li>Power ON- Green</li> <li>Communication- Red</li> </ul>
BATTERY	<ul style="list-style-type: none"> <li>• Lithium Polymer: 3.7 V /2200 mAH</li> <li>• Rechargeable</li> </ul>
INPUTS/OUPTUTS	<ul style="list-style-type: none"> <li>• 4 Digital Inputs : 5VDC/12VDC/24VDC</li> <li>• 4 Digital Outputs -potential free relay</li> <li>Rating: 2A/24VDC, 1A/230VAC</li> </ul>
STANDARD ACCESSORIES	<ul style="list-style-type: none"> <li>• 1 meter Cables</li> </ul>
RS485	<ul style="list-style-type: none"> <li>• Baud rate: 9600</li> <li>Data format: 8 Data bits, no parity, 1 stop bit</li> <li>Protocol: Modbus RTU</li> </ul>
COMMUNICATION	<p><b>Wi-Fi-:</b></p> <ul style="list-style-type: none"> <li>• 2.4 GHz Wi-Fi</li> <li>• 802.11b/g/n</li> <li>• Bit rate: 802.11n up to 150 Mbps</li> <li>• Protocol supported: TCP-IP/HTTP/MQTT</li> </ul> <p><b>GPRS-:</b></p> <ul style="list-style-type: none"> <li>• LTE Features - Support Cat 1 FDD and TDD</li> <li>Support 1.4/3/5/10/15/20 MHz RF bandwidth</li> <li>• Transmitting Power- Class 4 for EGSM850</li> <li>Class 4 for EGSM900</li> <li>• Protocol supported: TCP-IP/HTTP/MQTT</li> </ul> <p><b>BLUETOOTH-: (For device configuration only)</b></p> <ul style="list-style-type: none"> <li>• Bluetooth V4.2 BR/EDR and Bluetooth LE</li> <li>• Class-1, class-2 and class-3 transmitter</li> </ul>
SENSOR INTERFACES	<ul style="list-style-type: none"> <li>• 4-20mA sensor interface– 2 ports</li> </ul>
ENVIRONMENTAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Operating temperature: -20 °C to 75 °C</li> <li>• Storage temperature: -20 °C to 85 °C</li> <li>• Humidity: up to 95% RH (Non-condensing)</li> </ul>
MECHANICAL SPECIFICATIONS	<ul style="list-style-type: none"> <li>• Wall Mount IP 65 enclosure.</li> <li>• NOD200</li> <li>Dimensions: 80 x 120 x 35 mm (L x H x W)</li> <li>Weight: 200 grams</li> <li>• NOD300</li> <li>Dimensions: 197.5 x 90 x 45.5 mm (L x H x W)</li> <li>Weight: 225 grams</li> </ul>
APPROVALS/PRODUCT STANDARDS	<ul style="list-style-type: none"> <li>• *ROHS Compliant, *CE (Conformité Européenne), *SIRIM</li> <li>*By design compliant, certifications awaited imminently</li> </ul>

## Mounting Screws & Terminal Specifications

Screws	
M4x20	2x NOD200, 4x NOD300
M4 Plain Washer	2x NOD200, 4x NOD300

Power Supply	Terminal Connector	Colour Code
Positive	4 Way	Red
Negative	4 Way	Black

Sensor Input	Terminal Connector	Colour Code
Sensor Input 1	4 Way	Light Grey/Orange
Sensor Input 2	4 Way	White/Blue

**Note:** 1. For 4-20 mA sensor input adhere to the specified colour code for accurate connections.  
2. Connect sensor + wire to power supply positive terminal.

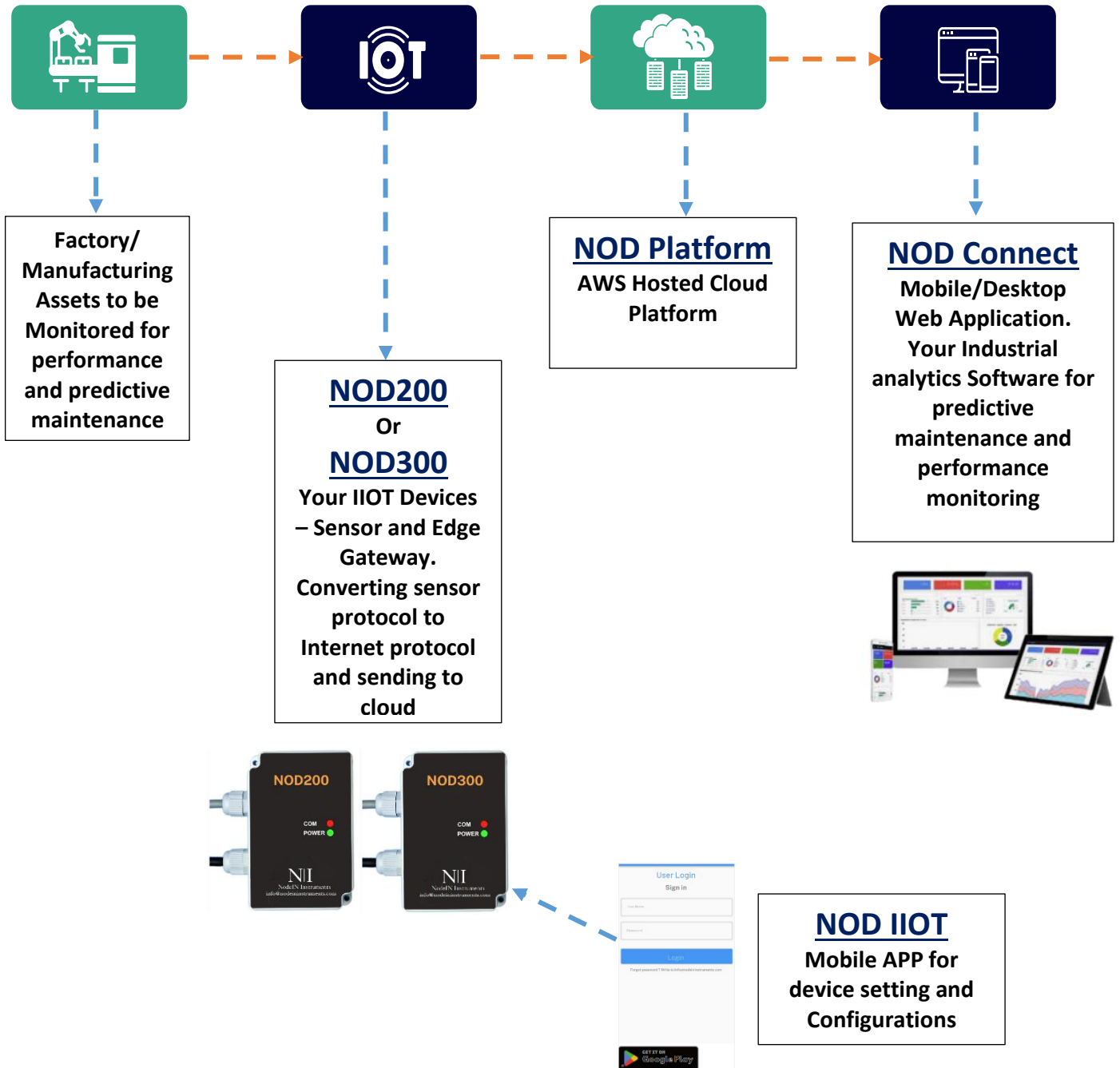
Digital Input	Terminal Connector	Colour Code
Digital Input 1	5 Way	Dark Brown
Digital Input 2	5 Way	Dark Grey
Ground	5 Way	Green
Digital Input 3	5 Way	Yellow
Digital Input 4	5 Way	Violet

**Note:** 1. Follow the correct colour code for each input.

Digital Output	Terminal Connector	Colour Code
Digital Output 1	6 Way	Black Violet Green
Digital Output 2		Grey/Light Grey Yellow White/Blue
Digital Output 3	6 Way	White Blue Brown
Digital Output 4		Orange White/Green Red

**Note:** 1. Follow the correct colour code for each output.

## Complete Solution Provider (End to End)



**Note: 1.Solutions can be customised based on your requirements.**