Ordering Information

For user manuals and dimensional drawings, visit the product page resources tab on ni.com.

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Wireless Sensor Network Accessories

- Mounting kits
- Outdoor enclosures
- Power supplies
- Connectivity accessories

Overview

The NI Wireless Sensor Network (WSN) platform includes several accessory options, including panel mounting, DIN-rail mounting, power supplies, and outdoor enclosures for long-term remote monitoring applications.

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Mounting Kits

NI wireless sensor network (WSN) mounting kits feature options to panel mount and DIN-rail mount WSN measurement nodes and gateways. The WSN measurement nodes have three built-in keyholes for mounting without the need for additional accessories. You can also use these keyholes to quickly secure the node to the NI WSN-3280 and WSN-3281 panel mount brackets, which attach to the desired surface via screw holes or magnet, respectively. The magnetic panel mount kit provides easy setup and takedown on virtually any metal surface. For high shock and vibration applications, NI recommends a panel mounting configuration rather than DIN-rail.

Product	Description
NI WSN-3280	NI WSN node panel mount bracket with spring-loaded screw-locking mechanism and integrated strain relief
NI WSN-3281	NI WSN node magnetic panel mount bracket with spring-loaded screw-locking mechanism and integrated strain relief
NI WSN-3282	NI WSN DIN-rail-mounting kit for nodes or gateway (includes four screws)
NI WSN-3283	NI WSN panel mount plate for nodes or gateway (recommended for gateway) with four keyholes for mounting to wall in multiple orientations (includes four screws)

Table 1. NI Wireless Sensor Network Mounting Kits

You can panel mount the NI WSN-9791 Ethernet gateway on its own using two integrated, half-circle screw holes or using the NI WSN-3283 panel mount plate, which provides four keyholes to mount the gateway in multiple orientations.

The NI WSN-3282 DIN-rail mount, which works for both nodes and gateways, connects to any standard 35 mm DIN rail. The node and gateway feature a four-hole screw pattern to accommodate the DIN-rail mount and WSN-3283 panel mount plate.

Figure 1. From Left to Right: NI WSN-3280 (front), WSN-3281 (rear), WSN-3282, and WSN-3283

Outdoor Enclosures

Accessory	Description
NI WSN-3291	IP65 outdoor enclosure for WSN measurement nodes
NI WSN-3294	IP65 outdoor enclosure for the NI WSN-9791 Ethernet gateway
NI WSN-3295	IP65 outdoor enclosure for the NI 9792 Programmable Gateway
NI WSN-3292	Set of replacement I/O glands for WSN outdoor enclosures: two glands, four inserts, and two plugs
NI WSN-3293	Additional I/O gland inserts (set of 5)

Table 2. NI Wireless Sensor Network Outdoor Enclosure and Accessories

The NI WSN-3291 is an outdoor, weatherproof enclosure for NI WSN measurement nodes. The enclosure features two I/O glands for routing power or sensor cables and is shipped with four I/O gland inserts and two I/O gland plugs so you can customize the glands for your application. The WSN-3291 offers an IP65 (Ingress Protection) rating to protect NI WSN measurement nodes for long-term, outdoor deployment, while the NI WSN-3294 provides similar protection for the WSN-9791 Ethernet gateway. The enclosures are shipped with an external antenna and internal mounting plate featuring a locking mechanism to secure the node/gateway inside the enclosure. They are mountable using M6 or quarter-inch screws.

The NI WSN-3292 is a set of replacement I/O glands that includes the same hardware shipped with the enclosure: two I/O glands, four inserts, and two plugs. The NI WSN-3293 contains four additional sizes of I/O gland inserts: 2-, 4-, 6-, and 10-hole inserts and one plug.

Figure 2. NI WSN-3291 Outdoor Enclosure With NI WSN Measurement Node (not included)

Power Supplies

WSN gateways and WSN measurement nodes operating in router mode require external power. You can choose from the following power supplies for your gateways and nodes.

Requiring a 100 to 240 VAC, 47 to 63 Hz, and 0.4 A input, the desktop power supply provides 12 VDC and up to 1.25 A, delivering up to 15 W to the device. The desktop supply is rated for 0 to 70 °C operating temperatures, and the power connector is a 3.5 mm, two-position MINI-COMBICON connector. You must purchase region-specific power cords for the desktop supply separately.

The PS-15 is a DIN-rail mountable, 24 VDC power supply that is recommended for WSN gateways and industrial applications. The PS-15 supply delivers up to 5 A of current and is rated for operation from -25 to 60 °C. You can wire two PS-5 supplies in parallel to deliver up to 10 A.

Figure 3. Desktop and PS-15 Power Supplies for NI Wireless Sensor Networks

Connectivity Accessories

NI WSN measurement nodes are shipped with a built-in, two-position MINI-COMBICON power connector and an 18-position, side-entry, screw-terminal I/O connector. The NI WSN-3284 kit contains two extra 18-position screw-terminal connectors and labels for the NI WSN-3202 analog input node, including one top-entry connector and one side-entry connector. (The NI WSN-3285 kit contains one top-entry connector and one side-entry connector, with labels for the NI WSN-3212 thermocouple input node.) You can also obtain four extra two-position power connectors to use with NI WSN Ethernet gateways or measurement nodes.

In addition, NI offers a power connector backshell kit that contains a strain relief attachment for the two-position power connector on the Ethernet gateway and measurement nodes. This attachment clips on the MINI-COMBICON connector and includes a zip tie to hold the power cable in place.

Figure 4. NI Wireless Sensor Network 18-Position Screw-Terminal Connectors and Power Connector Backshell Kit

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Ordering Information

For a complete list of accessories, visit the product page on ni.com.

Products	Part Number	Recommended Accessories	Part Number
Power Accessories			
U.S. power cord	763000-01	No accessories required.	
Desktop supply	780703-01	No accessories required.	
PS-15 industrial supply	781093-01	No accessories required.	
Outdoor Enclosure and Accessories			
NI WSN-3292	195712-01	No accessories required.	
NI WSN-3294 Outdoor Enclosure for WSN-9791 Ethernet Gateway	199975-01	No accessories required.	
NI WSN-3293	195738-01	No accessories required.	
NI WSN-3291 WSN Measurement Node Outdoor Enclosure	780994-01	No accessories required.	
Connectivity Accessories			
Power connectors	780702-01	No accessories required.	
Power connector backshell kit	196375-01	No accessories required.	

NI WSN-3284	781076-01	No accessories required.
NI WSN-3285	781077-01	No accessories required.
Mounting Accessories		
NI WSN-3280	780999-01	No accessories required.
NI WSN-3281	781073-01	No accessories required.
NI WSN-3282	780702-01	No accessories required.
NI WSN-3283	781075-01	No accessories required.

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Support and Services

System Assurance Programs

NI system assurance programs are designed to make it even easier for you to own an NI system. These programs include configuration and deployment services for your NI PXI, CompactRIO, or Compact FieldPoint system. The NI Basic System Assurance Program provides a simple integration test and ensures that your system is delivered completely assembled in one box. When you configure your system with the NI Standard System Assurance Program, you can select from available NI system driver sets and application development environments to create customized, reorderable software configurations. Your system arrives fully assembled and tested in one box with your software preinstalled. When you order your system with the standard program, you also receive system-specific documentation including a bill of materials, an integration test report, a recommended maintenance plan, and frequently asked question documents. Finally, the standard program reduces the total cost of owning an NI system by providing three years of warranty coverage and calibration service. Use the online product advisors at ni.com/advisor to find a system assurance program to meet your needs.

Calibration

NI measurement hardware is calibrated to ensure measurement accuracy and verify that the device meets its published specifications. To ensure the ongoing accuracy of your measurement hardware, NI offers basic or detailed recalibration service that provides ongoing ISO 9001 audit compliance and confidence in your measurements. To learn more about NI calibration services or to locate a qualified service center near you, contact your local sales office or visit ni.com/calibration.

Technical Support

Get answers to your technical questions using the following National Instruments resources.

- **Support** - Visit ni.com/support to access the NI KnowledgeBase, example programs, and tutorials or to contact our applications engineers who are located in NI sales offices around the world and speak the local language.
- **Discussion Forums** - Visit forums.ni.com for a diverse set of discussion boards on topics you care about.
- **Online Community** - Visit community.ni.com to find, contribute, or collaborate on customer-contributed technical content with users like you.

Repair

While you may never need your hardware repaired, NI understands that unexpected events may lead to necessary repairs. NI offers repair services performed by highly trained technicians who quickly return your device with the guarantee that it will perform to factory specifications. For more information, visit ni.com/repair.

Training and Certifications

The NI training and certification program delivers the fastest, most certain route to increased proficiency and productivity using NI software and hardware. Training builds the skills to more efficiently develop robust, maintainable applications, while certification validates your knowledge and ability.

- **Classroom training in cities worldwide** - the most comprehensive hands-on training taught by engineers.
- **On-site training at your facility** - an excellent option to train multiple employees at the same time.
- **Online instructor-led training** - lower-cost, remote training if classroom or on-site courses are not possible.
- **Course kits** - lowest-cost, self-paced training that you can use as reference guides.
- **Training memberships** and training credits - to buy now and schedule training later.

Visit ni.com/training for more information.

Extended Warranty

NI offers options for extending the standard product warranty to meet the life-cycle requirements of your project. In addition, because NI understands that your requirements may change, the extended warranty is flexible in length and easily renewed. For more information, visit ni.com/warranty.

OEM

NI offers design-in consulting and product integration assistance if you need NI products for OEM applications. For information about special pricing and services for OEM customers, visit ni.com/oem.

Alliance

Our Professional Services Team is comprised of NI applications engineers, NI Consulting Services, and a worldwide National Instruments Alliance Partner program of more than 700 independent consultants and integrators. Services range from start-up assistance to turnkey system integration. Visit ni.com/alliance.

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