

Ingress Protection (IP) Enclosures

NI 9921, NI 9922 **NEW!**

- Protection from harsh outdoor or industrial environments
- Fiberglass enclosure and connectors provide a minimum IP 54 rating
- For use with NI WLS-9xxx wireless data acquisition devices
- Sealed against dust particles and spraying water (rain)
- 0 to 55 °C temperature range
- Additional IP-rated cables and accessories available



| Model | IP-Rated Connectivity | | | | |
|---------|-----------------------|-----------------|---------|---------------|-------------------|
| | I/O Glands | Power Connector | Antenna | Ethernet Port | Trigger Connector |
| NI 9921 | ✓ | ✓ | ✓ | – | – |
| NI 9922 | ✓ | ✓ | ✓ | ✓ | ✓ |

Table 1. IP Enclosure Options

Overview

The NI 9921 and NI 9922 enclosures for NI Wi-Fi data acquisition (DAQ) devices provide a minimum of IP 54 protection from harsh outdoor and industrial environments. The two-digit ingress protection (IP) rating is defined by the IEC 60529 standard and specifies the degree to which the enclosures protect against the intrusion of solid particles (represented by the first digit) and water (represented by the second digit). Refer to Table 2 for a complete list of IP ratings and their meanings.

An IP 54 rating prevents entry by dust particles and spraying water. The low-cost NI 9921 enclosure features rubberized glands for passing I/O signals through to a WLS-9xxx device mounted inside and an external antenna for communication to a host PC. The NI 9922 enclosure features an additional Ethernet port and a four-pin trigger connector, all sealable against the environment.

Using IP Enclosures with NI Wi-Fi DAQ Devices

Each NI 9921 and NI 9922 can house one WLS-9xxx wireless DAQ device. Cables inside each enclosure connect power, Ethernet, antenna, trigger, and I/O lines to IP-rated connectors. With proper installation, the enclosures provide a minimum of IP 54 protection.

Each enclosure kit also includes mating connectors for creating your own IP-rated cables. In addition to the NI 9921, the contents of the NI 9921 shipping kit include:

- M12 female mating connector kit (power connector)
- Two M25 cable gland clamps
- Four cable glands (two split, two blanking) for I/O
- 2.4 GHz antenna
- WLS-9xxx DIN rail mounting kit

The NI 9922 shipping kit contains the same items as the NI 9921 kit as well as the following:

- Ethernet field termination kit
- M12 male mating connector kit (trigger connector)

Cabling and Accessories

As an alternative to the included field-terminable connector kits, you may purchase sealed, IP-rated cable assemblies to ensure proper ingress protection. Additional cable gland sizes are also available. Refer to the ordering information for part numbers.

Ingress Protection (IP) Enclosures

| Protection Against Solid Objects | | Protection Against Water | |
|----------------------------------|----------------|--------------------------|----------------------------|
| First Number | Description | Second Number | Description |
| 0 | Not protected | 0 | Not protected |
| 1 | >50 mm | 1 | Dripping water |
| 2 | >12.5 mm | 2 | Spray ≤15 deg off vertical |
| 3 | >2.5 mm | 3 | Spray ≤60 deg off vertical |
| 4 | >1 mm | 4 | Sprays from all angles |
| 5 | Dust-protected | 5 | Low-pressure jets |
| 6 | Dust-tight | 6 | High-pressure jets |
| – | – | 7 | Immersible ≤1 m |
| – | – | 8 | Immersible >1 m |

Table 2. IP Ratings and Their Meanings

Ordering Information

IP Enclosure Kits

NI 9921, Basic 196646-01

NI 9922, Complete..... 193406-01

Cables and Accessories

M12 female power cable 196648-05

M12 male trigger cable..... 196649-05

Sealed Ethernet cable 196650-05

Replacement cable glands 196647-01

BUY NOW!

For complete product specifications, pricing, and accessory information, call 800 813 3693 (U.S.) or go to ni.com/wifi.

BUY ONLINE at ni.com or CALL 800 813 3693 (U.S.)

NI Services and Support



NI has the services and support to meet your needs around the globe and through the application life cycle – from planning and development through deployment and ongoing maintenance. We offer services and service levels to meet customer requirements in research, design, validation, and manufacturing. Visit ni.com/services.

Training and Certification

NI training is the fastest, most certain route to productivity with our products. NI training can shorten your learning curve, save development time, and reduce maintenance costs over the application life cycle. We schedule instructor-led courses in cities worldwide, or we can hold a course at your facility. We also offer a professional certification program that identifies individuals who have high levels of skill and knowledge on using NI products. Visit ni.com/training.

Professional Services

Our NI Professional Services team is composed of NI applications and systems engineers and a worldwide National Instruments Alliance Partner program of more than 600 independent consultants and integrators. Services



range from start-up assistance to turnkey system integration. Visit ni.com/alliance.

OEM Support

We offer design-in consulting and product integration assistance if you want to use our products for OEM applications. For information about special pricing and services for OEM customers, visit ni.com/oem.

Local Sales and Technical Support

In offices worldwide, our staff is local to the country, giving you access to engineers who speak your language. NI delivers industry-leading technical support through online knowledge bases, our applications engineers, and access to 14,000 measurement and automation professionals within NI Developer Exchange forums. Find immediate answers to your questions at ni.com/support.

We also offer service programs that provide automatic upgrades to your application development environment and higher levels of technical support. Visit ni.com/ssp.

Hardware 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 Services

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. We provide manual calibration procedures, services to recalibrate your products, and automated calibration software specifically designed for use by metrology laboratories. Visit ni.com/calibration.

Repair and Extended Warranty

NI provides complete repair services for our products. Express repair and advance replacement services are also available. We offer extended warranties to help you meet project life-cycle requirements. Visit ni.com/services.



ni.com • 800 813 3693

National Instruments • info@ni.com