

Enclosures Overview

AUTOMATIONDIRECT has teamed up with one of the largest enclosure manufacturers in North America, Hubbell/ Wiegmann, to offer you quality NEMA enclosures at great prices.

A quality enclosure in an industrial environment not only maintains a better appearance over time, it also does a better job protecting the components in it. AutomationDirect offers over 1,500 part numbers across NEMA 1, 3, 3R, 3S, 4, 4X, 6P, 12, and 4/12 standards. Our non-metallic line of enclosures is designed for harsh outdoor environments requiring NEMA 3R or 4X ratings. A full line of accessories, including carbon steel, fiberglass, stainless steel, and aluminum subpanels, are also available.

We offer same-day shipping on select enclosure models and accessories direct from the Hubbell/ Wiegmann manufacturing facility in Freeburg, IL. Other sizes and products can be shipped within 14 days.



Disconnect Enclosures

We offer steel and stainless steel flanged enclosures for mounting disconnects. These enclosures are designed to house disconnects from AutomationDirect, Allen-Bradley, ABB Controls, Cutler-Hammer/Westinghouse, General Electric, I-T-E and Square D.

Over 100 electrical disconnect enclosure models are available, including:

- **Wall mounted enclosures:** NEMA 4, NEMA 4X, NEMA 12, and NEMA 4/12 rated models, 1/4 gauge steel or stainless steel
- **Floor mounted enclosures:** NEMA 12 rated models, two doors, right flange or center post disconnect mount
- **Free standing enclosures:** NEMA 12 rated models, single, two, three, four and five doors, up to 197" width
- **Disconnect enclosure accessories:** Including sub-panels, fans, filters, hole seals, lights, locks, and latches



NON-METAL



Premier Series

Fiberglass, poured polyurethane seamless gaskets, hinged covers with pull latches or screw covers
Series: HW_CHSC, HW_CHQR, HW_CHTL



Slim Line Series

NEMA 4X, hot compression-molded, fiberglass-reinforced thermoset polyester
Series: HW-N4X_



Pushbutton Series

22 or 30 mm feature lift-off covers with 1 - 7 cutouts, some 30 mm up to 25 cutouts
Series: HW_PB, HW_PBW



JIC Series

Lift-off and hinged screw covers, hinged covers with latches, fiberglass-reinforced thermoset polyester
Series: HW_SC, HW_CHSC, HW_CHQR, HW_CHTLW, HW_CHQRW



Control Series

NEMA 3R or 4X, hinged doors/covers with twist latches
Series: HW_CH

METAL



NEMA 1

Wall-Mount Enclosures

Small, Medium, and Large NIC, Junction Boxes
Series: N1C, N1C_LP, SC, SC_G, SC_NK, SC_GNK



NEMA 4/12

Single Door, Wall-Mount Enclosures

Series: N412, N412_SS (stainless steel)



floor-mount available also

NEMA 4X and other Stainless Steel Enclosures

(All parts are 304 stainless steel)

NEMA 4X Series: BN4_SS, BN4_CHSS, SSN4, SSN4D

Other Stainless Steel: N412_SS (see NEMA 412)
PBSS (see NEMA 12 Pushbuttons)
P_SS (see subpanels)

NOTE:

An underscore indicates numbers. (Example: the BN4_CH series has enclosure BN4060604CH. There is no underscore shown for trailing digits.



NEMA 12
"JIC" Wall-Mount Enclosures
 Series: B, B_SC, JIC, B_CH, WA_GIE



NEMA 12
Single/Two-Door, Wall-Mount Enclosures
 Series: N12, WA_WF, WA_FM



NEMA 12
Floor-Mount and Freestanding Enclosures
 Series: N12, WA_FS, WA_FSD, WA_FSDA, WA_FSDAD, WA_M_E



NEMA 4
"JIC" Wall Mount Enclosures
 Series: BN4, BN4_CH



NEMA 4
Single-Door, Wall-Mount Enclosures
 Series: N4



NEMA 4
Floor-Mount and Freestanding Enclosures
 Series: N4D, N4S_FS



NEMA 3R
Wall Mount Junction Boxes and Wiring Trough
 Series: RSC, RHC, RSCG



NEMA 12
Pushbutton Enclosures
 Series: PB, PBGX, PBXD, PBYX, PSL, WPBA
 PBSS(stainless steel)



NEMA 12
Operator Consoles
 Series: WC, W1C, WC_B, WC_BD, WC_C, WC_P, WC_T, WC_W, WA_CCOL, WA_PBCOL, WA_BASE



Subpanels and Panel Accessories
 Series: P, N1P, NP, NPDD, P_SS, WA_P_F, WA_SMP, WA_SOF, WA_FSCPS

Climate Control for your enclosure



- Air Conditioning units
- Heaters
- Controls: Thermostats, Hygrostats and Hygrotherms
- Fans and filters
- Vortex coolers

Enclosure Accessories



- Internal mounting
- Doors & Covers
- Lights kits and accessories
- Drip Shield Kits
- Hole seals
- Feet/support kits
- Window kits
- Document pockets
- Locks and latches
- Folding Shelves

NEMA Enclosures For Every Application

You've invested time, talent, and money in your control system. Protect it with a quality enclosure.

What is a NEMA enclosure?

NEMA enclosures meet the National Electrical Manufacturers Association standards for performance and protection of the electrical equipment installed within them. They are typically made from carbon steel or stainless steel. NEMA enclosures range in size from small pushbutton boxes to room-size panels. Enclosures are given a NEMA rating according to the types of applications the enclosure serves.

What are NEMA enclosures used for?

NEMA enclosures house all kinds of electrical components from simple terminal blocks, to industrial automation systems, to high voltage switchgear. In industrial automation systems, NEMA enclosures often house motor controls, drives, PLC/PC control systems, pushbuttons, and termination systems. Some enclosures are shaped to be operator consoles.

Who is Hubbell/Wiegmann?

Hubbell Incorporated has been in business since the late 1800s. Like his contemporaries, Edison, Ford, and Westinghouse, Harvey Hubbell II contributed to both spheres of progress: new design and manufacturing innovation. Wiegmann has been building high quality industrial enclosures for over 75 years. In 1994, the company was purchased from the Wiegmann family by Hubbell Electrical Products. With the resources and backing of Hubbell,

millions of dollars have been injected into the Wiegmann manufacturing facility. Foamed-in-place gaskets, powder coating, and smooth plasma corner welding are only a few of their product innovations. The enclosures are made in Freeburg, Illinois by skilled craftsmen with the aid of sophisticated Computer Numerical Controlled machinery. Wiegmann supplies enclosures for the OEM, commercial construction, and MRO markets. Wiegmann continues to modernize and automate their enclosure manufacturing facility.

Do we have the enclosure you need?

AUTOMATIONDIRECT offers over 1,500 part numbers across NEMA 1, 3, 3R, 3S,4, 4X, 6P, 12, 13, and 4/12 standards.

While AUTOMATIONDIRECT does not offer custom enclosures, one of our wide selection of quality Hubbell/Wiegmann enclosures should be perfect for your practical industrial automation solution.

30-day money-back guarantee

Order with the assurance of our unconditional 30-day money-back guarantee on enclosures.

Three Ways to Order: Phone, Fax, or Online



What Do The NEMA Ratings Mean?



NEMA 1 Enclosure



NEMA 3R Enclosure



NEMA 4 Enclosure



NEMA 4X Enclosure



NEMA 12 Enclosure



NEMA 4 & 12 Enclosure

NEMA 1

NEMA 1 enclosures are typically used for protecting controls and terminations from objects and personnel. This style of enclosure, while offering a latching door, does not have a gasketed sealing surface. NEMA 1 enclosures are used in applications where sealing out dust, oil, and water is not required. Motor start/stop stations are often housed in NEMA 1 enclosures.

NEMA 3R

NEMA 3R enclosures are typically used in outdoor applications for wiring and junction boxes. This style of enclosure provides protection against falling rain, sleet, snow, and external ice formation. Indoors they protect against dripping water. This style of enclosure does not have a gasketed sealing surface. Some models have hasps for padlocking.

NEMA 3S

NEMA 3S enclosures are intended for outdoor use primarily to provide a degree of protection against windblown dust, rain, sleet, and to provide for operation of external mechanisms when ice laden.

NEMA 4

NEMA 4 enclosures are used in many applications where an occasional washdown occurs or where machine tool cutter coolant is used. They also serve in applications where a pressurized stream of water will be used. NEMA 4 enclosures are gasketed and the door is clamped for maximum sealing. They have continuous hinges, mounting feet, and padlock hasps. NEMA 4 enclosures are available in sizes from small wall mounts to two-door floor mount models.

NEMA 4X

NEMA 4X enclosures are made of stainless steel or plastic. NEMA 4X enclosures are used in harsher environments than standard NEMA 4 units. Applications where corrosive materials and caustic cleaners are used necessitate the use of a NEMA 4X enclosure. Applications include food, such as meat/poultry processing facilities, where total washdown with disinfectants occur repeatedly and petro-chemical facilities, including offshore petroleum sites. NEMA 4X is used when protection from the worst environments is required. NEMA 4X enclosures are available in sizes from small wall mounts to two-door floor mount models. Wiegmann NEMA 4X enclosures are made of 304 stainless steel.

NEMA 6P

NEMA 6P enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against the entry of water during prolonged submersion at a limited depth.

NEMA 12

NEMA 12 enclosures are designed to prevent the ingress of dust, water, and oil. NEMA 12 enclosures are most often used for indoor applications of automation control and electronic drives systems. Some examples are packaging, material handling, non-corrosive process control, and manufacturing applications. Gasketed doors seal the enclosure's contents from airborne contaminants and non-pressurized water and oil. NEMA 12 enclosures are available in sizes from small wall mounts to two-door floor mount models.

NEMA 4 & 12

Wiegmann's "412" enclosures combine the attributes of NEMA 4 and NEMA 12 in an attractive, clean line enclosure. This enclosure features reversible doors for left or right opening, concealed hinges, and rear mounting holes for a more attractive installation. Optional mounting feet are available for conventional wall mounting. Wiegmann's 412 enclosures are available in wall mount models up to 60" x 36".

NEMA 13

NEMA 13 enclosures are intended for indoor use primarily to provide a degree of protection against dust, spraying of water, oil, and non-corrosive coolant.

Company
Information

Terminal Blocks

Power
Distribution
Blocks

Wiring
Accessories

ZIPLink
Connection
System

Multi-wire
Connectors

Sensor Cables
and Connectors

M12 Junction
Blocks

Panel Interface
Connectors

Wiring Duct

Cable Ties

Wire

Flexible Cord

Multi-conductor
Flex Cable

Data Cables

Wire
Management
Products

Power Supplies

DC Converters

Transformers
and Filters

Circuit Protection

Tools

Test
Equipment

Enclosures

Enclosure
Climate Control

Safety: Electrical
Components

Safety: Protective
Wear

Terms and
Conditions

It's not just a steel box!

Quality manufacturing processes

At a casual glance, many enclosures look pretty much alike – big gray metal boxes. However, all enclosures are not created equal. A quality enclosure not only maintains a better appearance over time in an industrial environment, it also does a better job of protecting the components within it. The reliability of a control system depends on a quality enclosure properly protecting its electronic control components no matter

what the external environment. Following the legacy of Harvey Hubbell II, Hubbell/Wiegmann is constantly modernizing their manufacturing facility in Freeburg, IL to produce enclosures of consistently high quality. CNC metal cutting, robotic plasma welding, and powder coating are just a few of the innovative steps the Wiegmann facility has taken in producing their enclosures. In addition, these

processes also lower the cost for you, the user. Add our highly efficient operation, and you can enjoy “OEM-like” prices on single unit purchases. Just look at a few of the features provided by the modernized manufacturing processes.

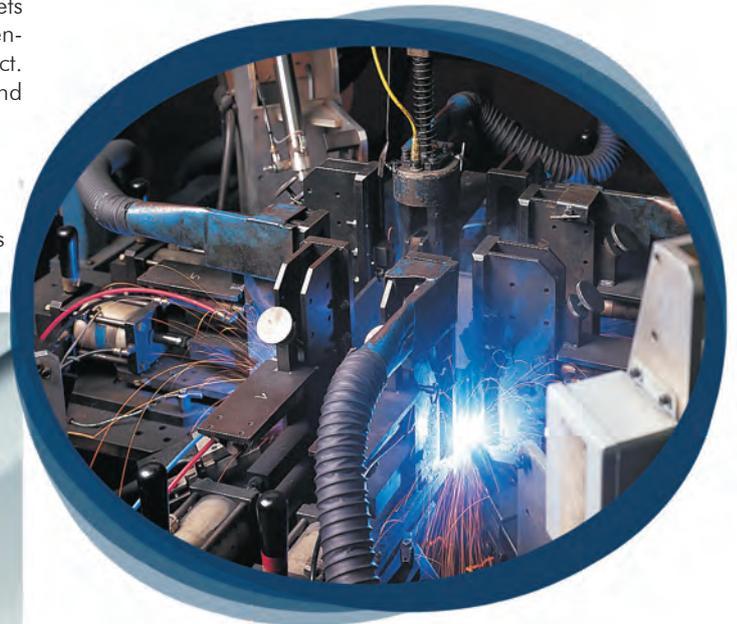
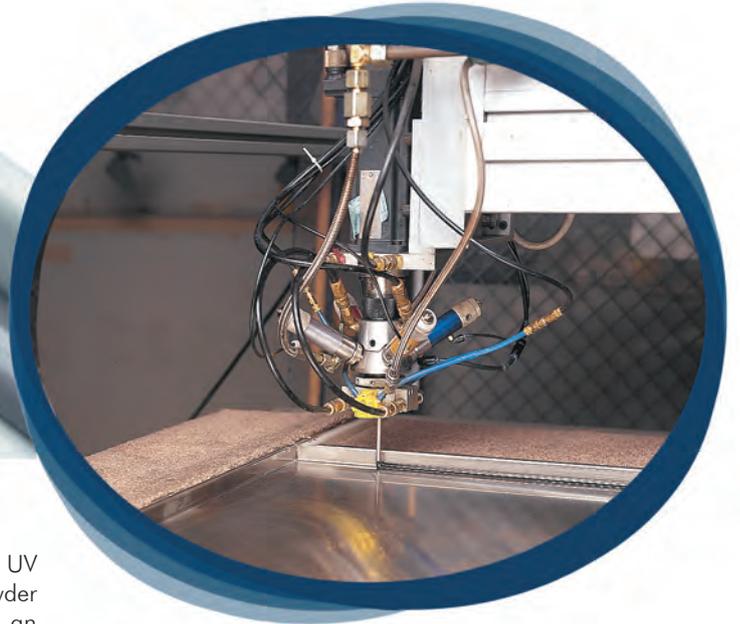


Robotically foamed-in-place door gaskets

Robotic placement of liquid gasket material, cured with UV light and heat, bonds the door gasket to the polyester powder coating for a permanent bond. Have you ever opened an enclosure only to have the gasket strip fall away from the door or stick to the enclosure? Foamed-in-place (FIP) gaskets will not peel away from the powder coating. Unlike conventional strip gasket material, FIP gaskets resist memory effect. Open and close your enclosure thousands of times and maintain a perfect seal.

Plasma welded corners

Plasma welding robots join the seams at the enclosure corners for a rigid, void-free corner with a smooth appearance.



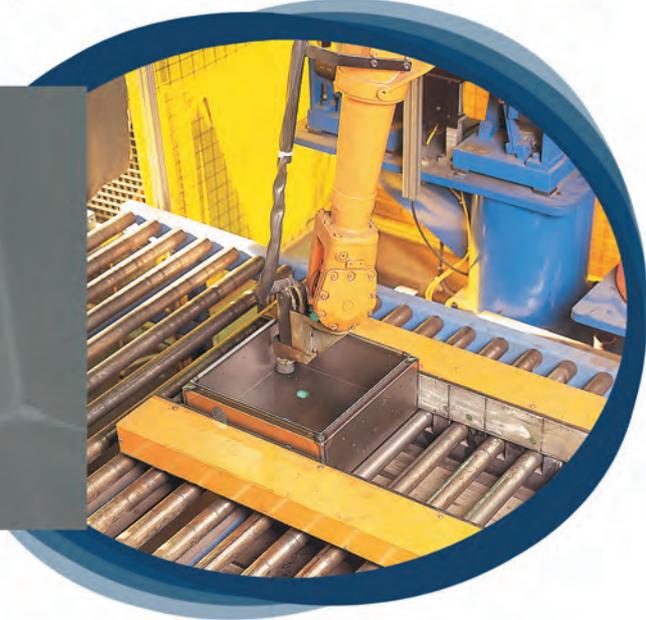
Polyester powder coating

Carbon steel enclosures are phosphate treated prior to powder coating. This super clean surface is then sprayed with an electrostatically charged polyester powder before being cured in an oven. This finish is less likely to scratch than conventional liquid paints. Powder coating is also more UV resistant. This is a great benefit for your outdoor installations. Have you noticed the chalky appearance of outdoor enclosures? This is caused by UV light exposure. Wiegmann enclosures stay attractive longer in outdoor applications.



Precision welded collared studs

Collared studs are precisely placed and welded on the inside of the enclosure. This allows fast, trouble-free mounting of the sub-panel. Remember having to “adjust” the studs with a hammer when mounting sub-panels? Wiegmann sub-panels slide right onto the studs.



Stainless steel hinge pins

Many competitive enclosures use carbon steel hinge pins. These are prone to rust over time, making the door difficult and noisy to open. Wiegmann enclosures use stainless steel hinge pins on continuous hinge enclosure models for years of trouble-free operation.

Company Information

Terminal Blocks

Power Distribution Blocks

Wiring Accessories

ZIPLink Connection System

Multi-wire Connectors

Sensor Cables and Connectors

M12 Junction Blocks

Panel Interface Connectors

Wiring Duct

Cable Ties

Wire

Flexible Cord

Multi-conductor Flex Cable

Data Cables

Wire Management Products

Power Supplies

DC Converters

Transformers and Filters

Circuit Protection

Tools

Test Equipment

Enclosures

Enclosure Climate Control

Safety: Electrical Components

Safety: Protective Wear

Terms and Conditions

Dare to Compare!

5 quick things to look for:

Ours VS. Theirs

-  14 gauge tub, 14 gauge lid
-  Stainless steel hinge pin:
- Rust and corrosion-resistant ensures smooth door operation for many years
- Robotically poured foam-in-place gasket:
-  Provides a great seal and will not peel away from door
- Powder-coated interior and exterior:
-  tough finish resistant to scratches

- 1** 16 gauge tub, 14 gauge lid (thinner metal in tub) 
- 2** Carbon steel hinge pin: 
- Prone to rust and corrosion
- 3** Oil resistant gasket strips held in place with glue and gasket restraining strips 
- 4** Liquid-based paint exterior**:
- Scratches, easier to expose raw metal 

\$184.00* **5**

Hubbell/Wiegmann
N12161208



WIEGMANN

Another Hubbell Electrical Products Brand



**Polyester powder coating on floor mount units

\$432.62* **5**

Hoffman
A-161208LP



CHECK OUT OUR PRICES

Enclosures	AutomationDirect Hubbell/Wiegmann Price/Part Number	VS.	Hoffman Price/Part Number
NEMA 1 wall mount 24 x 24 x 08"	\$177.00 N1C242408LP 		\$338.80 A-24N248LP 
NEMA 12 wall mount 20 x 16 x 08"	\$240.00 N12201608 		\$424.70 A-201608LP 
NEMA 12 free-standing mount 60 x 60 x 12"	\$1,550.00 N12606012 		\$2,457.79 A-606012LP 
NEMA 4 wall mount 20 x 20 x 06"	\$310.00 N4202006 		\$551.03 A-20H20ALP 
NEMA 4X wall mount 20 x 20 x 06"	\$731.00 SSN4202006 		\$1,355.61 A-20H2006SSLP 
NEMA 4/12 wall mount 36 x 24 x 08"	\$307.00 N412362408C 		\$580.40 C-SD36248 
3-hole 30 mm NEMA 12 pushbutton enclosure	\$53.00 PB3 		\$132.10 E-3PB 

*All prices are U.S. published prices. AutomationDirect prices from April 2014 Price List. Hoffman prices are taken from www.newark.com 2/20/2014. Prices may vary by dealer. Many other part numbers are available from all vendors.





How to Select Your Enclosure

1. What kind of environment is your enclosure going to be in and what level of protection do you need?

You need to know your application to make this determination. Is it going to be inside? If so, does it need to be dust, oil, and water tight? If not, a NEMA 1 enclosure will be your most economical option. If you need dust, oil, and moisture protection, a NEMA 4/12 or 12 enclosure is probably your best bet. Harsh environments subjected to pressurized washdown need NEMA 4 protection. The harshest of conditions, where corrosives are present, need the benefits of stainless steel. These applications call for a NEMA 4X enclosure. Most food processing applications also require NEMA 4X.

2. Determine the size enclosure you need.

Physical space for your components is not the only requirement. Considerations like watt loss and ambient environment must be taken into account. First, determine the height and width for your enclosure by laying out the footprint space needed for your control components on a standard sub-panel size. Remember to consider the mounting holes for the sub-panel when planning the required footprint space. The size of the enclosure will determine if you need a single-door, two-door, wall-mount or floor-mount. Next, you'll need to determine your panel depth. Remember that the sub-panel mounting takes up a small portion of the depth. Also, any pushbuttons, operator interfaces, indicators, meters, etc. that you plan to mount on the enclosure door will occupy some enclosure depth. Finally you must allow for heat dissipation (see step 3). If you have estimated component sizes or heat generation, it's always better to oversize the enclosure when you have the available space.

3. Determine your heat dissipation needs.

Your enclosure may be able to dissipate the heat generated by the components inside of it, or you may need additional cooling. You might be able to side-step additional cooling by up-sizing your enclosure. If additional cooling is required, a fan kit and louver combination is your most economical ventilation option. For small enclosures, a vortex cooler using compressed air is another option. A sealed enclosure may require an air conditioner controlling the internal temperature without introducing outside air and its contaminants. The fan, vortex cooler or air conditioner is determined by panel size and heat dissipation requirements. If you need help with these calculations, go to http://support.automationdirect.com/notes/enclosure_environment.html. Unfortunately, we cannot make these determinations for you as all control applications are different. Naturally, conservative choices increase your margin of safety and allow for future changes.

4. Choose your accessories.

Do you need locks or latches, internal enclosure lighting kits, additional braces, feet, manual pockets? AUTOMATIONDIRECT offers a wide range of accessories for our enclosures.

5. Place your order.

Remember to order your sub-panel and any needed accessories when placing your order. Our Wiegmann enclosures do not come with sub-panels unless specified in the product description. If you have a competitor's part number you're currently using, please call us. We can most likely cross reference it for you.

Shipping Notes

Part numbers in the specification tables on the following pages are color-coded as shown below to indicate their shipping schedule.

Enclosure Shipping Schedule			
Same day	1 - 7 days	1 - 10 days	15 days
Color indicates shipping lead time in business days.			

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Power Distribution Blocks

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ZIPLink Connection System

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Sensor Cables and Connectors

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Panel Interface Connectors

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