

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.			

Enclosures Overview



METAL



NEMA 1

Wall-Mount Enclosures

Small, Medium, and Large N1C, 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.)

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

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, 14 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



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

Enclosure Accessories

Fans and filters: WPF_BK, WPF_-_BK, WPFA_BK, WPFPG, WPFM

Vortex coolers: W7

Hole seals: WAS, WAS_SS, WASPB, WASPBG, WASPBSS

Document pockets: WAPPL

Lights kits and accessories: WDL,WKL, LHPC

Feet/support kits: FK SSKF, WAPS, WA_C

Locks and latches: N1C_T series, N1C_TKL series, All N412 series, All WA and WAEK series

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?

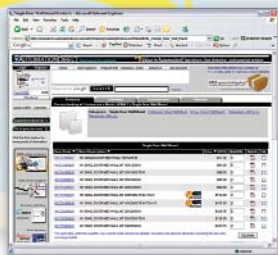
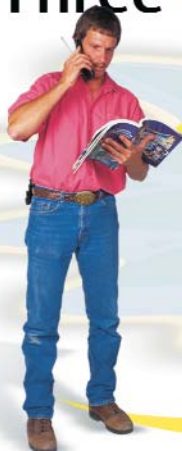
AUTOMATIONDIRECT offers over 1,500 part numbers across NEMA 1, 3, 3R, 3S, 4, 4X, 6P, 12, 13, and 4/12 standards.

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.