# Effective and Economical Protection in Harsh and Corrosive Environments

#### THE CHOICE FOR HARSH ENVIRONMENTS

Designed to safely house electrical and electronic controls in the most punishing environments, non-metallic enclosures offer a combination of high performance and cost-effective protection. Non-metallic enclosure models are available in ABS, polyester, polycarbonate and fiberglass, offering the right levels of protection for your challenge. These robust enclosures are ideal for outdoor and indoor applications in petroleum, chemical processing, water and wastewater treatment, pulp and paper, telecommunications, security and fire, marine and corrosive industrial environments.

#### **KEY FEATURES**

- Corrosion and chemical resistance equivalent to stainless steel and far better than mild steel
- Lightweight material makes handling easier and reduces shipping costs
- Easy on-site modifications
- Many materials are recyclable



#### **SELECTING A MATERIAL**

The charts below provide guidance for determining the feasibility of using certain enclosure materials in environments containing solvents and organics, alkalis and oxidizers, and acids and neutral salts. Materials are rated on a scale of recommended to limited use based upon their performance in resisting corrosion. While strength and corrosion resistance may be primary considerations, other factors such as impact resistance and ease of modification may also factor into a selection. The basic material comparisons chart will further help you select the best non-metallic enclosure material for your application.

	Solvents	Alkalis	Acids
Recommended	Type 304 stainless steel Type 316 stainless steel Fiberglass (compression molded) Aluminum Polyester	ABS Polyester Type 304 stainless steel	ABS Polyester Polycarbonate Fiberglass (spray-up) Type 304 stainless steel Type 316 stainless steel
Satisfactory	Steel (polyester powder coat) Fiberglass (spray-up) Polycarbonate ABS	Type 316 stainless steel Polycarbonate Fiberglass (compression molded) Fiberglass (spray-up)	Fiberglass (compression molded)
Limited Use		Aluminum Steel (polyester powder coat)	Aluminum Steel (polyester powder coat)

Note the enclosure materials listed as "Limited Use" will perform well when exposed to certain specific corrosive agents within the three general classes.

Feature	Fiberglass	Polyester	Polycarbonate	ABS	
UV performance	Excellent	Excellent	Good	Fair	
Chemical resistance*	Excellent	Excellent	Fair	Good	
Impact strength	Good	Excellent	Excellent	Fair	
Rigidity	Very rigid	Flexible/tough	Flexible/tough	Flexible	
Temperature range	-31°F to 266°F (-35°C to130°C)	-40°F to 248°F (-40°C to 120°C)	-31°F to 180°F (-35°C to 82°C)	0°F to 125°F (-18°C to 52°C)	
Weight (12" x 12" x 6")	11 lbs.	5 lbs.	4.1 lbs.	3.5 lbs.	
Flammability	Self extinguishing	Self extinguishing	Self extinguishing	Not self extinguishing	
Water absorption resistance	Good	Excellent	Fair	Fair	
Recyclable	No	Yes	Yes	Yes	
Ease of adding cutouts	Dusty, can be drilled	Low dust, can be drilled/ punched	Low dust, can be drilled/ punched	Low dust, can be drilled/ punched	

<sup>\*</sup> Refer to the Chemical Resistance Charts in the nVent HOFFMAN Specifier's Guide for specific chemical resistance and corrosion information. HOFFMAN offers no guarantee or warranty as to the applicability of these charts for any particular situation as actual conditions of use are beyond our control. Call your local HOFFMAN distributor for assistance.

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## Non-Metallic Enclosures

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### Non-Metallic Enclosures

#### LIGHTWEIGHT CONSTRUCTION, HIGH PERFORMANCE AND JOBSITE MODIFICATION FLEXIBILITY

Material	POLYESTER		FIBERGLASS					POLYCARBONATE					ABS		
Product Line	PCR PolyPro	A80HS Hol-Sealers	A48 Hinged Cover	HJ Overlapping Cover	UX1 Ultrx	A17 Wall-Mount, A17Y Free-Standing	DWS12 WiFi Enclosure	Q41 QLine D Pushbutton	Q41 QLine D	Q41 QLine E	Q41 QLine I	Type 4X	Q41 QLine D	Q41 QLine E	Q41 QLine I
Description	Versatile, harsh environment protection	Seal extra pushbutton holes and conduit and knockout openings	Continuous hinge instrument housing	Instrument housing with multiple cover options	Stylized, world-class wall-mount protection	Wall-mount, flange-mounted disconnect and large single- and double-door enclosures	Secure enclosures for wireless equipment	Contemporary pushbutton alternative	Sleek, compact instrument housing	Stylized instrument housing	Versatile instrument housing	Rugged, cost-effective protection	Sleek, compact instrument housing	Stylized instrument housing	Versatile instrument housing
Key Features	Overlapping cover with durable non-metallic hinges and latches	Innovative 3-in-1 self- centering design, 4 models cover 12 hole sizes	Quick-release latches provide unobstructed access to enclosure	Flat and raised cover options with integral mounting feet	270° door opening for maximum access	3-point latching and flange-mounted disconnect models available	Includes wood panel to allow WiFi and WLAN signals to pass through the cabinet unimpeded	Houses 30.5 mm or 22.5 mm pushbuttons in corrosive environments	Straight side walls permit ganging of multiple enclosures	Contemporary contoured body with flush cover screws	Molded internal rails for mounting an adjustable- depth panel kit	Type 4X-rated with molded- in hinges and stainless steel latch and hinge pins	Economical, ABS versions fo	or applications not subject to in	npact or weather extremes
Size Range (inches)	6 x 4 x 4 to 18 x 16 x 10	Seal openings ranging from 0.86 to 4.5	6 x 6 x 4 to 18 x 16 x 10	6 x 6 x 4 to 18 x 16 x 10	20 x 16 x 9 to 30 x 23 x 17	20 x 16 x 6 to 72 x 49 x 25	6 x 6 x 4 to 24 x 23 x 13	3 x 3 x 3 to 9 x 6 x 3	2 x 2 x 1 to 12 x 9 x 4	5 x 3 x 3 to 10 x 7 x 6	7 x 7 x 5 to 23 x 15 x 7	5.9 x 5.9 x 3.5 to 19.7 x 15.7 x 7.8	2 x 2 x 1 to 12 x 9 x 4	5 x 3 x 3 to 10 x 7 x 6	7 x 7 x 5 to 23 x 15 x 7
Cover Type	Solid or window	N/A	Solid or window	Solid or window	Solid or window	Solid or window (Note: Window not standard on free-standing enclosures)	Solid or window	Solid with pushbuttons 6 hole arrangements	Solid (opaque or clear)	Solid (opaque or clear) Cover includes molded-in hole for wire lead	Solid (opaque or clear) Cover includes molded-in hole for wire lead	Solid (opaque or clear)	Solid (opaque or clear)	Solid (opaque or clear) Cover includes molded-in hole for wire lead	Solid (opaque or clear) Cover includes molded-in hole for wire lead
Cover Attachment	Padlockable latches or screws	N/A	Padlockable, quick-release latches or screws	Padlockable latches or screws	Stainless steel quarter-turn latches	Quick-release latches POWERGLIDE Handle or screws on free-standing enclosures	Quick-release latches or screws	Screws	Screws	Screws	Quick-release latches or screws	Padlockable, quick-release stainless steel latches	Screws	Screws	Quick-release latches or screws
Accessories & Modifications	<ul> <li>Panels</li> <li>Aluminum swing-out panel</li> <li>Stainless steel latches</li> <li>Panel blocks</li> <li>Colors</li> <li>Holes and cutouts</li> <li>Tapped holes</li> <li>Customer branding</li> <li>Optional materials</li> </ul>	N/A	<ul> <li>Panels</li> <li>Threaded panel extenders</li> <li>Quick-release latch kit</li> <li>Swing-out panel kit</li> <li>Terminal block kit assembly</li> <li>Ventilators</li> <li>Mounting brackets</li> <li>Thermal accessories</li> </ul> Colors Holes and cutouts Tapped holes	<ul> <li>Panels</li> <li>Terminal kit assembly</li> <li>Ventilators</li> <li>A48 swing-out panel kit</li> <li>Thermal accessories</li> </ul> Colors Holes and cutouts Tapped holes	<ul> <li>Data pocket</li> <li>DIN type rails</li> <li>Electric heaters</li> <li>Lighting packages</li> <li>Panels</li> <li>Subpanels</li> <li>Rack angles</li> <li>Terminal block kit assembly</li> <li>Touch-up paint</li> <li>Window kits</li> <li>Wiring duct</li> <li>ULTRX accessories</li> </ul> Colors Holes and cutouts Environmental controls	<ul> <li>Panels</li> <li>Subpanels</li> <li>Stainless steel window kit</li> <li>Terminal block kit assembly</li> <li>Thermal accessories</li> <li>Free-standing enclosure accessories:</li> <li>Bottom support kit</li> <li>Casters</li> <li>Electric heater</li> <li>Floor stand kit</li> <li>Folding shelf</li> <li>Rack panels</li> <li>Window kit</li> <li>Wiring duct</li> <li>Colors</li> <li>Holes and cutouts</li> <li>Environmental controls</li> </ul>	<ul> <li>Panels</li> <li>Threaded panel extenders</li> <li>Quick-release latch kit</li> <li>Swing-out panel kit</li> <li>ULTRX accessories</li> </ul>	<ul> <li>DIN rails</li> <li>Hardware kit</li> <li>Hinge kit</li> <li>Mounting foot kit</li> </ul> Colors	<ul> <li>DIN rails</li> <li>Hardware kit</li> <li>Hinge kit</li> <li>Mounting bracket kit</li> <li>Subpanels</li> <li>Colors</li> <li>Holes and cutouts</li> </ul>	<ul> <li>Brass insert kit</li> <li>DIN rails</li> <li>Hardware kit</li> <li>Hinge kit</li> <li>Mounting bracket kit</li> </ul> Colors Holes and cutouts	<ul> <li>Bottom cover kit</li> <li>Brass insert kit</li> <li>Cover screw kit</li> <li>Extension ring</li> <li>Hardware kit</li> <li>Hinge kit</li> <li>Mounting bracket kit</li> <li>Panel depth fitting</li> <li>Subpanels</li> <li>Colors</li> <li>Holes and cutouts</li> <li>Adjustable-depth swing panels</li> </ul>	<ul> <li>Stainless steel keylocking latch</li> <li>Zinc panels</li> <li>Conductive mounting panels</li> <li>Mounting bracket kit</li> <li>H20MIT vent drains</li> </ul>	<ul> <li>DIN rails</li> <li>Hardware kit</li> <li>Hinge kit</li> <li>Mounting bracket kit</li> <li>Subpanels</li> <li>Colors</li> <li>Holes and cutouts</li> </ul>	<ul> <li>Brass insert kit</li> <li>DIN rails</li> <li>Hardware kit</li> <li>Hinge kit</li> <li>Mounting bracket kit</li> <li>Subpanels</li> <li>Colors</li> <li>Holes and cutouts</li> </ul>	<ul> <li>Bottom cover kit</li> <li>Brass insert kit</li> <li>Cover screw kit</li> <li>Extension ring</li> <li>Hardware kit</li> <li>Hinge kit</li> <li>Mounting bracket kit</li> <li>Panel depth fitting</li> <li>Subpanels</li> <li>Colors</li> <li>Holes and cutouts</li> <li>Adjustable-depth swing panels</li> </ul>
Ratings	UL, NEMA & CSA Type 4, 4X, 12, 13 IP66	UL Component Recognized, Type 3R, 4, 4X, 12, 13 CSA Type 3R, 4, 4X, 12, 13 IP66	Type 4, 4X, 12, 13	UL, NEMA & CSA Type 3, 3R, 4, 4X, 12, 13 IP66	UL, NEMA & CSA Type 3, 3R, 4, 4X, 12, 13 IP66	Wall-mount: UL, NEMA & CSA Type 3, 3R, 4, 4X, 12, 13 IP66  Free-standing: UL, cUL Type 3, 3R, 4, 4X, 12 NEMA Type 3, 3R, 4, 4X, 12 NEMA Type 3, 3R, 4, 4X, 12, 13 IP66	UL, NEMA & CSA Type 4, 4X, 12, 13 IP66	UL, NEMA & CSA Type 4, 4X, 12, 13 IP67	UL, NEMA & CSA Type 4, 4X, 12, 13 IP67	UL & NEMA Type 4, 4X, 6, 12, 13 CSA Type 4, 4X, 12, 13 IP67	UL, NEMA & CSA Type 4, 4X, 12, 13 IP66	UL, NEMA/EEMAC Type 4X IP66	NEMA Type 4, 4X, 6, 12, 13 IP67	NEMA Type 4, 4X, 6, 12, 13 IP67	NEMA Type 4, 4X, 12, 13 IP67

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