



Table of Contents

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Circuit Safe® NEMA Enclosures	E2–E11
Circuit Safe® JIC Enclosures	E12–E16
Circuit Safe® Pushbutton Enclosures	E17–E20
Circuit Safe® Enclosure Accessories	E21–E23
Himeline® Enclosures	E24–E40
General Information	E41–E43
Chemical Resistance Data	E44–E47



Circuit Safe® NEMA Enclosures are the flagship product of the Carlton Enclosure offering. Molded in tough, durable polycarbonate resin, these enclosures lead the market in terms of design, durability, aesthetics and economy of use.

Ranging in size from 6 in. x 4 in. x 4 in. to 16 in. x 14 in. x 6 in., all Circuit Safe® NEMA products meet Types 4X, 12 and 13. These enclosures utilize recognized materials that carry an ultraviolet rating of F1, ensuring a very long, stable service life when installed outdoors. In addition, the use of polycarbonate material means that these enclosures enjoy an extremely high impact resistance rating... almost three times more impact resistant than traditional fiberglass enclosures.

Installation of components is made easy with the Panel Adjuster Kits and Swing Out Panel Kits. Sub-panels can be stacked or suspended at any depth within the enclosure, maximizing the space available for component mounting. Machining polycarbonate is also safe and easy. There are no splintering problems or airborne fibers typical when machining traditional fiberglass products.

Lighter, stronger, easier and safer to use and better-looking. Check out Carlton's Circuit Safe® NEMA line today.

Features and Benefits

- 100% non-metallic construction, including hinges
- Sturdy SS latches install without penetration of the enclosure base
- Clear covers are available which eliminates the need for window kits
- All cover screws are captive
- Panel suspension system allows the installation of panels at any depth, including stacking of multiple panels
- Swing panels are also available
- Available in junction boxes, external hinge and hidden hinge versions
- Subpanels are available in steel, PVC, or aluminum
- Nonmetallic mounting rails for easy installation
- Less than half the weight of metal enclosures, 25% lighter than fiberglass, easier to handle and less expensive to ship
- Full modification services are available



Applications

- Any outdoor applications especially where sunlight resistance is an issue
- Applications where water is present
- Applications where damage during shipment or installation or use is an issue
- Any applications where it is necessary to view internal components through a clear cover
- Applications where weight is an issue
- Applications where the ability to pass wireless signals is needed
- Applications where rust and corrosion are an issue

Examples

- Septic and pump controls
- Wireless system component protection
- Marina and sea side installations
- Controls that require through-cover viewing of read outs and dials
- Machine controls/process controls
- Food and beverage process controls
- Security system controls

Standards

- Meets or exceeds NEMA Types 4X, 12 and 13

Circuit Safe® NEMA enclosures are available in three different cover options and a wide range of sizes. From our screw cover style enclosures to our hidden hinge cover style enclosures to our external hinge cover style enclosures, Carlton has a Circuit Safe NEMA enclosure to meet your application-specific need.

Styles

- Screw Cover
- External Hinge
- Hidden Hinge

Cover Colour Options

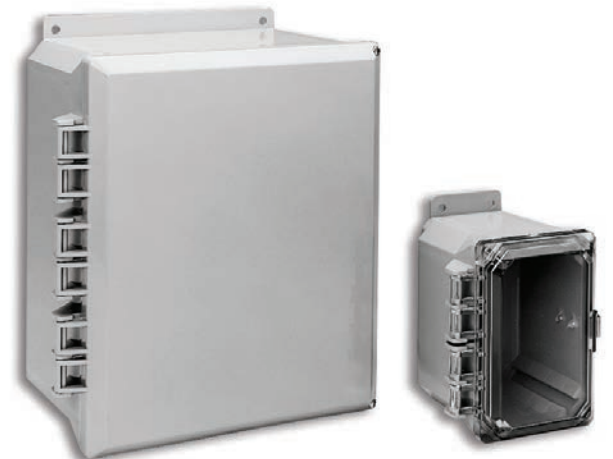
- Opaque
- Clear

Material

- Polycarbonate (Bases and Lids)



Screw Cover



External Hinged Cover



Hidden Hinged Cover

Circuit Safe® NEMA Enclosures

Screw-On Covers

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X and 12



Assembled Enclosures



Opaque Cover* Cat. No.	Clear Cover* Cat. No.	Size (in.)	Back Panels** Steel/PVC	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.) Opaque/Clear
NS644	NV644	6 x 4 x 4	JP64 / JP64P	1	opa. 1.8 / trans 1.9
NS664	NV664	6 x 6 x 4	JP66 / JP66P		opa. 2.4 / trans 2.4
NS864	NV864	8 x 6 x 4	JP86 / JP86P		opa. 2.9 / trans. 2.8
NS884	NV884	8 x 8 x 4	JP88 / JP88P		opa. 3.2 / trans 3.3
NS1084	NV1084	10 x 8 x 4	JP108 / JP108P		opa. 4.0 / trans 3.9
NS1086	NV1086	10 x 8 x 6	JP108 / JP108P		opa. 4.6 / trans 4.5
NS10106	NV10106	10 x 10 x 6	JP1010 / JP1010P		opa. 5.3 / trans 4.9
NS12106	NV12106	12 x 10 x 6	JP1210 / JP1210P		opa. 6.1 / trans 5.2
NS12126	NV12126	12 x 12 x 6	JP1212 / JP1212P		opa. 6.8 / trans 6.1
NS14126	NV14126	14 x 12 x 6	JP1412 / JP1412P		opa. 7.4 / trans 7.0
NS16146	NV16146	16 x 14 x 6	JP1614 / JP1614P		opa. 9.2 / trans 8.1

* Assembled Enclosures include body, lid and mounting rail kit
 ** Order back panels separately



Individual Components

Cat. No.	Enclosure Base*			Enclosure Lids				Back Panels**	
	Enclosure Size (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)	Opaque Lids	Clear Lids	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)	Steel/PVC Cat. No.	Std. Ctn. Qty.
NP644B	6 x 4 x 4	18	21	NS64L	NV64L	16	opa. 6.4 / trans. 5.7	JP64 / JP64P	1
NP664B	6 x 6 x 4	12	17	NS66L	NV66L	12	opa. 6.2 / trans. 5.7	JP66 / JP66P	
NP864B	8 x 6 x 4	12	18	NS86L	NV86L	9	opa. 6 / trans. 2.8	JP86 / JP86P	
NP884B	8 x 8 x 4	14	28	NS88L	NV88L	18	opa. 14 / trans. 11.2	JP88 / JP88P	
NP1084B	10 x 8 x 4	12	26	NS108L	NV108L	12	opa. 13 / trans. 11	JP108 / JP108P	
NP1086B	10 x 8 x 6	8	23	NS1086L	NV1086L	12	opa. 13 / trans. 11	JP108 / JP108P	
NP1010B	10 x 10 x 6	6	20	NS1010L	NV1010L	11	opa. 14 / trans. 12	JP1010 / JP1010P	
NP1210B	12 x 10 x 6	6	23	NS1210L	NV1210L	12	opa. 15 / trans. 15	JP1210 / JP1210P	
NP1212B	12 x 12 x 6	5	22	NS1212L	NV1212L	10	opa. 15 / trans. 14	JP1212 / JP1212P	
NP1412B	14 x 12 x 6	5	24	NS1412L	NV1412L	5	opa. 9 / trans. 9	JP1412 / JP1412P	
NP1614B	16 x 14 x 6	4	31	NS1614L	NV1614L	5	opa. 11 / trans. 11	JP1614 / JP1614P	

* Mounting rails are not included. See "Mounting Rails" listed in the Enclosure Accessories section
 ** Order back panels separately

Circuit Safe® NEMA Enclosures

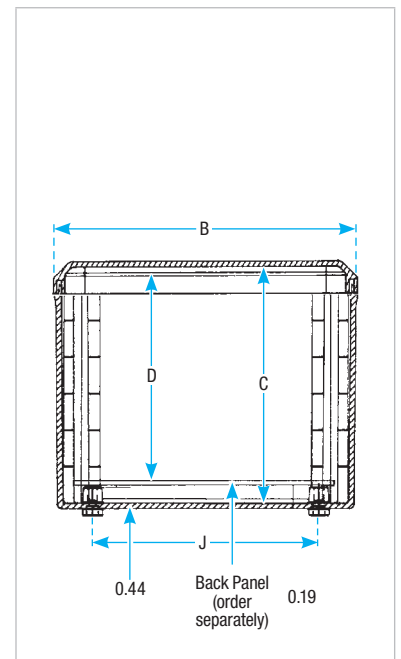
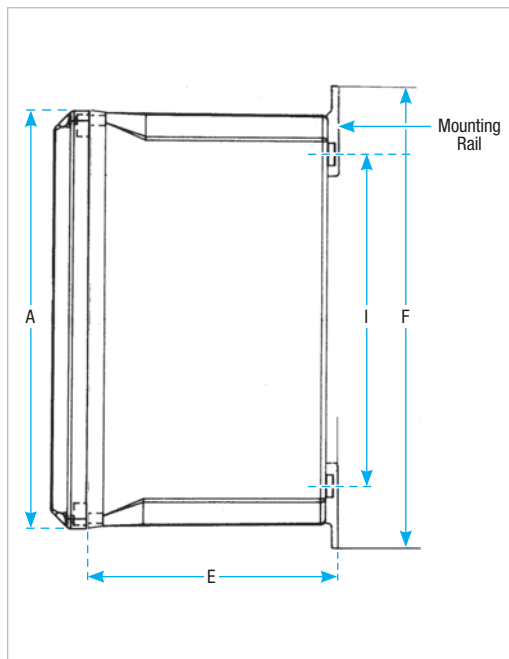
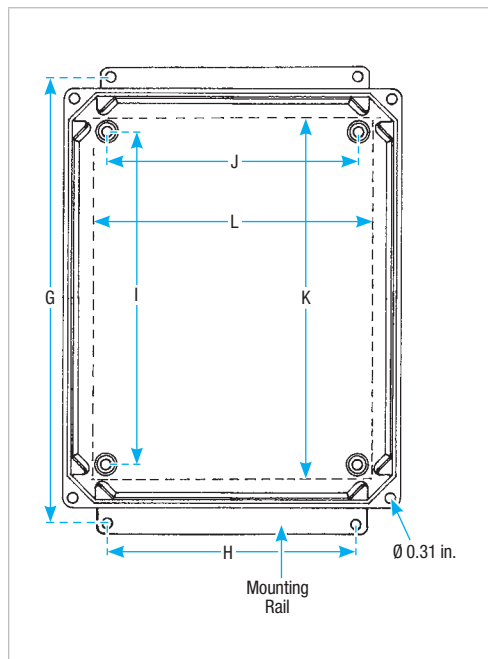
Screw-On Covers

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X and 12

Opaque* Lid Cat. No.	Clear* Lid Cat. No.	Enclosure Size (in.)						Enclosure Mounting Hole Spacing (in.)		Panel Mounting Hole Spacing (in.)		Back Panel Size (in.)		Back Panel** Cat. No.	
		A	B	C	D	E	F	G	H	I	J	K	L	Steel	PVC
NS644	NV644	6.40	4.40	4.49	3.98	5.13	7.69	6.75	2.00	4.25	2.25	4.88	2.88	JP64	JP64P
NS664	NV664	6.40	6.40	4.49	3.98	5.13	7.69	6.75	4.00	4.25	4.25	4.88	4.88	JP66	JP66P
NS864	NV864	8.40	6.40	4.49	3.98	5.13	9.69	8.75	4.00	6.25	4.25	6.75	4.88	JP86	JP86P
NS884	NV884	8.40	8.40	4.49	3.98	5.13	9.69	8.75	6.00	6.25	6.25	6.75	6.88	JP88	JP88P
NS1084	NV1084	10.40	8.40	4.49	3.98	5.13	11.69	10.75	6.00	8.25	6.25	8.75	6.88	JP108	JP108P
NS1086	NV1086	10.40	8.40	6.49	5.98	7.13	11.69	10.75	6.00	8.25	6.25	8.75	6.88	JP108	JP108P
NS10106	NV10106	10.40	10.40	6.49	5.98	7.13	11.69	10.75	8.00	8.25	8.25	8.75	8.88	JP1010	JP1010P
NS12106	NV12106	12.40	10.40	6.49	5.98	7.13	13.69	12.75	8.00	10.25	8.25	10.75	8.88	JP1210	JP1210P
NS12126	NV12126	12.40	12.40	6.49	5.98	7.13	13.69	12.75	10.00	10.25	10.25	10.75	10.88	JP1212	JP1212P
NS14126	NV14126	14.40	12.40	6.49	5.98	7.13	15.69	14.75	10.00	12.25	10.25	12.75	10.88	JP1412	JP1412P
NS16146	NV16146	16.40	14.40	6.49	5.98	7.13	17.69	16.75	12.00	14.25	12.25	14.75	12.88	JP1614	JP1614P

* Assembled Enclosures include body, lid and mounting rail kit

** Order back panels separately. (10/32 – 3/8 Back Panel screws not supplied)



Circuit Safe® NEMA Enclosures

Hidden Hinge Covers

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X and 12



Assembled Enclosures



Opaque Cover* Cat. No.	Clear Cover* Cat. No.	Size (in.)	Back Panels** Steel/PVC	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.) Opaque/Clear
NH644	NI644	6 x 4 x 5 (y)	JP64 / JP64P	1	opa. 2.2 / trans. 2.8
NH664	NI664	6 x 6 x 5	JP66 / JP66P		opa. 2.7 / trans. 3.2
NH864	NI864	8 x 6 x 5	JP86 / JP86P		opa. 3.3 / trans. 3.8
NH884	NI884	8 x 8 x 5	JP88 / JP88P		opa. 3.8 / trans. 3.8
NH1084	NI1084	10 x 8 x 5	JP108 / JP108P		opa. 4.0 / trans. 4.5
NH1086	NI1086	10 x 8 x 7	JP108 / JP108P		opa. 5.2 / trans. 5.1
NH10106	NI10106	10 x 10 x 7	JP1010 / JP1010P		opa. 5.7 / trans. 5.8
NH12106	NI12106	12 x 10 x 7	JP1210 / JP1210P		opa. 6.9 / trans. 6.1
NH12126	NI12126	12 x 12 x 7	JP1212 / JP1212P		opa. 7.7 / trans. 7.2
NH14126	NI14126	14 x 12 x 7	JP1412 / JP1412P		opa. 8.3 / trans. 7.9
NH16146	NI16146	16 x 14 x 7	JP1614 / JP1614P		opa. 10.1 / trans. 9.6

* Assembled Enclosures include body, lid and mounting rail kit

** Order back panels separately

(y) 6 x 4 x 5 size not available with quick-release latches



Individual Components

Cat. No.	Enclosure Base*			Enclosure Lids				Collars			Back Panels**	
	Enclosure Size (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)	Opaque Lids	Clear Lids	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)	Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)	Steel/PVC Cat. No.	Std. Ctn. Qty.
NP644B	6 x 4 x 5 (y)	18	21	NH644	NI644	16	Opa. 6.8 /Clr 6.3	NH64C	1	SSLS	JP64 / JP64P	1
NP664B	6 x 6 x 5	12	17	NH664	NI664	12	Opa. 6.8 /Clr 6.3	NH66C		SSLS	JP66 / JP66P	
NP864B	8 x 6 x 5	12	18	NH864	NI864	9	Opa. 6.3 /Clr 5.7	NH86C		SSLS	JP86 / JP86P	
NP884B	8 x 8 x 5	14	28	NH884	NI884	18	Opa. 16 /Clr 15	NH88C		SSLS	JP88 / JP88P	
NP1084B	10 x 8 x 5	12	26	NH1084	NI1084	12	Opa. 13 /Clr 12	NH108C		SSLS	JP108 / JP108P	
NP1086B	10 x 8 x 7	8	23	NH1086	NI1086	12	Opa. 13 /Clr 12	NH108C		SSLS	JP108 / JP108P	
NP1010B	10 x 10 x 7 (z)	6	20	NH10106	NI10106	11	Opa. 14 /Clr 13	NH1010C		SSLS	JP1010 / JP1010P	
NP1210B	12 x 10 x 7 (z)	6	23	NH12106	NI12106	12	Opa. 17 /Clr 6	NH1210C		SSLS	JP1210 / JP1210P	
NP1212B	12 x 12 x 7 (z)	5	22	NH12126	NI12126	10	Opa. 17 /Clr 16	NH1212C		SSLS	JP1212 / JP1212P	
NP1412B	14 x 12 x 7 (z)	5	24	NH14126	NI14126	5	Opa. 10 /Clr 10	NH1412C		SSLS	JP1412 / JP1412P	
NP1614B	16 x 14 x 7 (z)	4	31	NH16146	NI16146	5	Opa. 13 /Clr 12	NH1614C		SSLS	JP1614 / JP1614P	

* Mounting rails are not included. See "Mounting Rails" listed in the Enclosure Accessories section

** Order back panels separately

(y) 6 x 4 x 5 enclosures are not available with quick-release latches

(z) Sizes 12 x 10 and larger require two (2) latches per enclosure

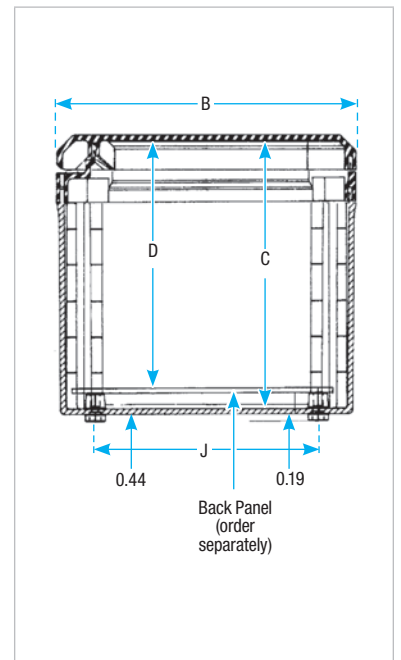
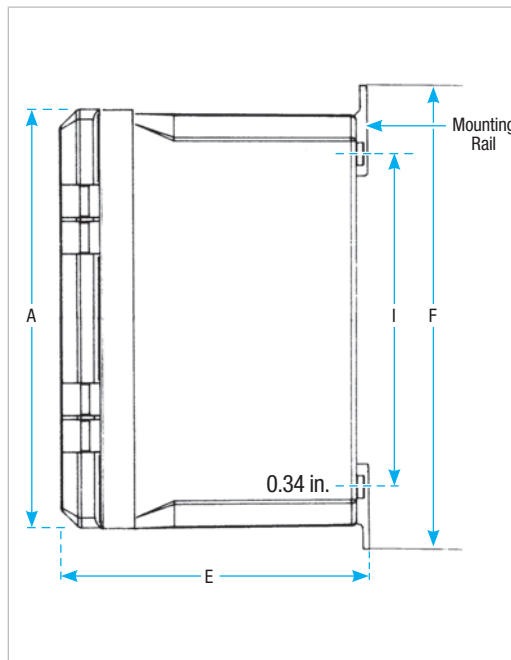
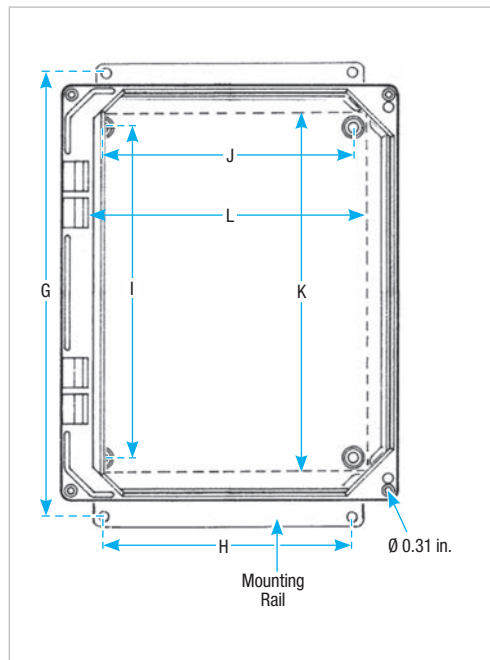
Circuit Safe® NEMA Enclosures

Hidden Hinge Covers

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X and 12

Opaque* Lid Cat. No.	Clear* Lid Cat. No.	Enclosure Size (in.)						Enclosure Mounting Hole Spacing (in.)		Panel Mounting Hole Spacing (in.)		Back Panel Size (in.)		Back Panel** Cat. No.	
		A	B	C	D	E	F	G	H	I	J	K	L	Steel	PVC
NH644	NI644	6.40	4.40	5.30	4.79	5.94	7.69	6.75	2.00	4.25	2.25	4.88	2.88	JP64	JP64P
NH664	NI664	6.40	6.40	5.30	4.79	5.94	7.69	6.75	4.00	4.25	4.25	4.88	4.88	JP66	JP66P
NH864	NI864	8.40	6.40	5.30	4.79	5.94	9.69	8.75	4.00	6.25	4.25	6.75	4.88	JP86	JP86P
NH884	NI884	8.40	8.40	5.30	4.79	5.94	9.69	8.75	6.00	6.25	6.25	6.75	6.88	JP88	JP88P
NH1084	NI1084	10.40	8.40	5.30	4.79	5.94	11.69	10.75	6.00	8.25	6.25	8.75	6.88	JP108	JP108P
NH1086	NI1086	10.40	8.40	7.30	6.79	7.94	11.69	10.75	6.00	8.25	6.25	8.75	6.88	JP108	JP108P
NH10106	NI10106	10.40	10.40	7.30	6.79	7.94	11.69	10.75	8.00	8.25	8.25	8.75	8.88	JP1010	JP1010P
NH12106	NI12106	12.40	10.40	7.30	6.79	7.94	13.69	12.75	8.00	10.25	8.25	10.75	8.88	JP1210	JP1210P
NH12126	NI12126	12.40	12.40	7.30	6.79	7.94	13.69	12.75	10.00	10.25	10.25	10.75	10.88	JP1212	JP1212P
NH14126	NI14126	14.40	12.40	7.30	6.79	7.94	15.69	14.75	10.00	12.25	10.25	12.75	10.88	JP1412	JP1412P
NH16146	NI16146	16.40	14.40	7.30	6.79	7.94	17.69	16.75	12.00	14.25	12.25	14.75	12.88	JP1614	JP1614P

* Assembled Enclosures (except NI1084) include body, lid and mounting rail kit
 ** Order back panels separately. (10/32 – 3/8 Back Panel screws not supplied)



Circuit Safe® NEMA Enclosures

External Hinge Covers

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X and 12

Assembled Enclosures



Opaque Cover

Clear Cover

Opaque Cover*	Clear Cover*	Size (in.)	Back Panels** Steel/PVC	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.) Opaque/Clear
NJ644	NC644	6 x 4 x 4	JP64 / JP64P	1	opa. 1.9 / trans. 1.9
NJ664	NC664	6 x 6 x 4	JP66 / JP66P		opa. 2.4 / trans. 2.4
NJ864	NC864	8 x 6 x 4	JP86 / JP86P		opa. 2.9 / trans. 2.9
NJ884	NC884	8 x 8 x 4	JP88 / JP88P		opa. 3.3 / trans. 3.3
NJ1084	NC1084	10 x 8 x 4	JP108 / JP108P		opa. 4 / trans. 4
NJ1086	NC1086	10 x 8 x 6	JP108 / JP108P		opa. 4.6 / trans. 4.7
NJ10106	NC10106	10 x 10 x 6	JP1010 / JP1010P		opa. 5.6 / trans. 5.3
NJ12106	NC12106	12 x 10 x 6	JP1210 / JP1210P		opa. 6.3 / trans. 5.8
NJ12126	NC12126	12 x 12 x 6	JP1212 / JP1212P		opa. 6.9 / trans. 6.6
NJ14126	NC14126	14 x 12 x 6	JP1412 / JP1412P		opa. 7.7 / trans. 7
NJ16146	NC16146	16 x 14 x 6	JP1614 / JP1614P		opa. 8.2 / trans. 8

* Assembled Enclosures include body, lid and mounting rail kit

** Order back panels separately

Individual Components



Cat. No.	Enclosure Base*			Enclosure Lids				Back Panels**		Latches		
	Enclosure Size (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)	Opaque Lids	Clear Lids	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)	Steel/PVC Cat. No.	Std. Ctn. Qty.	Steel Latch Cat. No.	Nonmetallic Latch Cat. No.	Std. Ctn. Qty.
NL664B	6 x 6 x 4	12	18	NJ66L	NC66L	12	opa. 5.0 / trans. 5.9	JP66 / JP66P	1	SSLS	NPLIS	1
NL864B	8 x 6 x 4	8	14	NJ86L	NC86L	9	opa. 6.0 / trans. 5.3	JP86 / JP86P		SSLS	NPLIS	
NL884B	8 x 8 x 4	14	28	NJ88L	NC88L	18	opa. 15 / trans. 13.5	JP88 / JP88P		SSLS	NPLIS	
NL1084B	10 x 8 x 4	12	32	NJ108L	NC108L	12	opa. 13 / trans. 11.7	JP108 / JP108P		SSLS	NPLIS	
NL1086B	10 x 8 x 6	8	15	NJ108L	NC108L	12	opa. 13 / trans. 11.7	JP108 / JP108P		SSLS	NPLIS	
NL1010B	10 x 10 x 6	6	20	NJ1010L	NC1010L	11	opa. 14 / trans. 13	JP1010 / JP1010P		SSLS	NPLIS	
NL1210B	12 x 10 x 6(z)	6	24	NJ1210L	NC1210L	12	opa. 14 / trans. 15	JP1210 / JP1210P		SSLS	NPLIS	
NL1212B	12 x 12 x 6(z)	5	21.8	NJ1212L	NC1212L	10	opa. 16 / trans. 14	JP1212 / JP1212P		SSLS	NPLIS	
NL1412B	14 x 12 x 6(z)	4	19	NJ1412L	NC1412L	5	opa. 10 / trans. 9	JP1412 / JP1412P		SSLS	NPLIS	
NL1614B	16 x 14 x 6(z)	4	31	NJ1614L	NC1614L	5	opa. 13.5 / trans. 12	JP1614 / JP1614P		SSLS	NPLIS	

* Mounting rails are not included. See "Mounting Rails" listed in the Enclosure Accessories section

** Order back panels separately

(z) Sizes 12 x 10 and larger require two (2) latches per enclosure

Circuit Safe® NEMA Enclosures

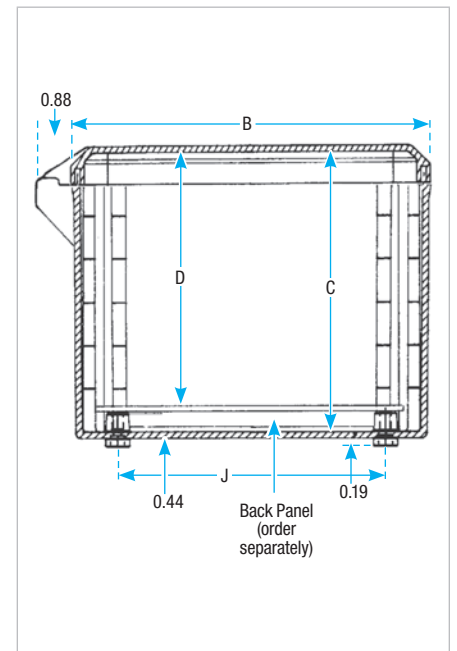
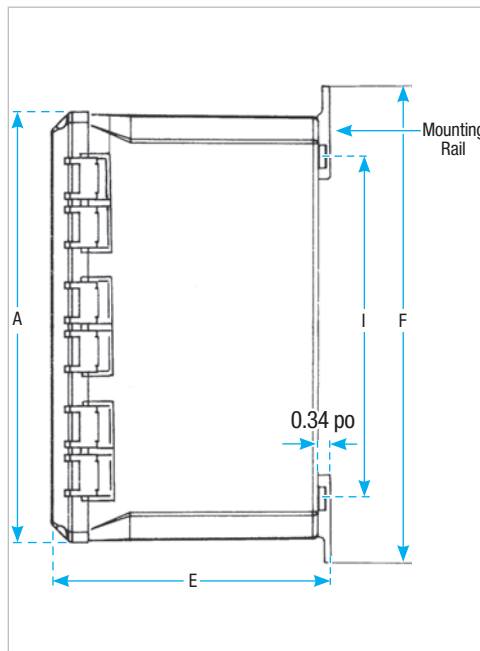
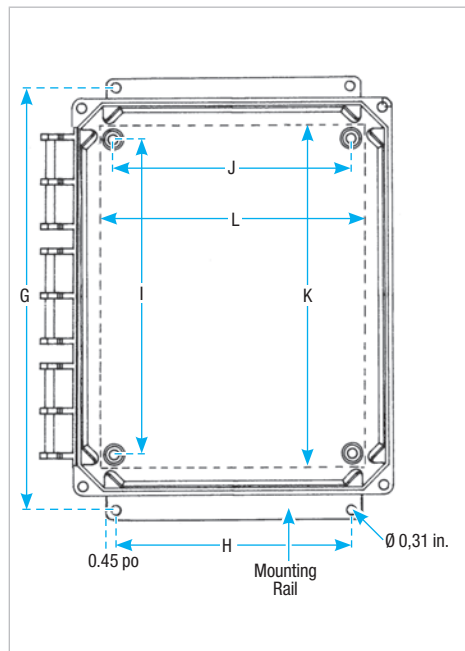
External Hinge Covers

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X and 12

Opaque* Lid Cat. No.	Clear* Lid Cat. No.	Enclosure Size (in.)						Enclosure Mounting Hole Spacing (in.)		Panel Mounting Hole Spacing (in.)		Back Panel Size (in.)		Back Panel** Cat. No.	
		A	B	C	D	E	F	G	H	I	J	K	L	Métal	PVC
NJ644	NC644	6.40	4.40	4.49	3.98	5.13	7.69	6.75	2.00	4.25	2.25	4.88	2.88	JP64	JP64P
NJ664	NC664	6.40	6.40	4.49	3.98	5.13	7.69	6.75	4.00	4.25	4.25	4.88	4.88	JP66	JP66P
NJ864	NC864	8.40	6.40	4.49	3.98	5.13	9.69	8.75	4.00	6.25	4.25	6.75	4.88	JP86	JP86P
NJ884	NC884	8.40	8.40	4.49	3.98	5.13	9.69	8.75	6.00	6.25	6.25	6.75	6.88	JP88	JP88P
NJ1084	NC1084	10.40	8.40	4.49	3.98	5.13	11.69	10.75	6.00	8.25	6.25	8.75	6.88	JP108	JP108P
NJ1086	NC1086	10.40	8.40	6.49	5.98	7.13	11.69	10.75	6.00	8.25	6.25	8.75	6.88	JP108	JP108P
NJ10106	NC10106	10.40	10.40	6.49	5.98	7.13	11.69	10.75	8.00	8.25	8.25	8.75	8.88	JP1010	JP1010P
NJ12106	NC12106	12.40	10.40	6.49	5.98	7.13	13.69	12.75	8.00	10.25	8.25	10.75	8.88	JP1210	JP1210P
NJ12126	NC12126	12.40	12.40	6.49	5.98	7.13	13.69	12.75	10.00	10.25	10.25	10.75	10.88	JP1212	JP1212P
NJ14126	NC14126	14.40	12.40	6.49	5.98	7.13	15.69	14.75	10.00	12.25	10.25	12.75	10.88	JP1412	JP1412P
NJ16146	NC16146	16.40	14.40	6.49	5.98	7.13	17.69	16.75	12.00	14.25	12.25	14.75	12.88	JP1614	JP1614P

* Assembled Enclosures; include body, lid and mounting rail kit

** Order back panels separately. (10/32 – 3/8 Back Panel screws not supplied)



Circuit Safe® NEMA Enclosures

Quick Reference

Screw-On Cover Style

Assembled Enclosures (no Panel or Latches)		Individual Components			Latches Back Panels	
Opaque Lid	Clear Lid	Body	Lid	Mtg. Rails	Steel	PVC
NS644		NP644B	NS64L	NMK4V	JP64	JP64P
	NV644	NP644B	NV64L	NMK4V	JP64	JP64P
NS664		NP664B	NS66L	NMK6V	JP66	JP66P
	NV664	NP664B	NV66L	NMK6V	JP66	JP66P
NS864		NP864B	NS86L	NMK6V	JP86	JP86P
	NV864	NP864B	NV86L	NMK6V	JP86	JP86P
NS884		NP884B	NS88L	NMK8V	JP88	JP88P
	NV884	NP884B	NV88L	NMK8V	JP88	JP88P
NS1084		NP1084B	NS108L	NMK8V	JP108	JP108P
	NV1084	NP1084B	NV108L	NMK8V	JP108	JP108P
NS1086		NP1086B	NS108L	NMK8V	JP108	JP108P
	NV1086	NP1086B	NV108L	NMK8V	JP108	JP108P
NS10106		NP1010B	NS1010L	NMK10V	JP1010	JP1010P
	NV10106	NP1010B	NV1010L	NMK10V	JP1010	JP1010P
NS12106		NP1210B	NS1210L	NMK10V	JP1210	JP1210P
	NV12106	NP1210B	NV1210L	NMK10V	JP1210	JP1210P
NS12126		NP1212B	NS1212L	NMK12V	JP1212	JP1212P
	NV12126	NP1212B	NV1212L	NMK12V	JP1212	JP1212P
NS14126		NP1412B	NS1412L	NMK12V	JP1412	JP1412P
	NV14126	NP1412B	NV1412L	NMK12V	JP1412	JP1412P
NS16146		NP1614B	NS1614L	NMK14V	JP1614	JP1614P
	NV16146	NP1614B	NV1614L	NMK14V	JP1614	JP1614P

External Hinge Cover Style

Assembled Enclosures (no Panel or Latches)		Individual Components			Latches Back Panels		Latches - Qty. Needed	
Opaque Lid	Clear Lid	Body	Lid	Mtg. Rails	Steel	PVC	Steel	Nonmetallic
NJ644		NL644B	NJ64L	NMK4V	JP64	JP64P	SSLS (1)	NPL1S (1)
	NC644	NL644B	NC64L	NMK4V	JP64	JP64P	SSLS (1)	NPL1S (1)
NJ664		NL664B	NJ66L	NMK6V	JP66	JP66P	SSLS (1)	NPL1S (1)
	NC664	NL664B	NC66L	NMK6V	JP66	JP66P	SSLS (1)	NPL1S (1)
NJ864		NL864B	NJ86L	NMK6V	JP86	JP86P	SSLS (1)	NPL1S (1)
	NC864	NL864B	NC86L	NMK6V	JP86	JP86P	SSLS (1)	NPL1S (1)
NJ884		NL884B	NJ88L	NMK8V	JP88	JP88P	SSLS (1)	NPL1S (1)
	NC884	NL884B	NC88L	NMK8V	JP88	JP88P	SSLS (1)	NPL1S (1)
NJ1084		NL1084B	NJ108L	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
	NC1084	NL1084B	NC108L	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
NJ1086		NL1086B	NJ108L	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
	NC1086	NL1086B	NC108L	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
NJ10106		NL1010B	NJ1010L	NMK10V	JP1010	JP1010P	SSLS (1)	NPL1S (1)
	NC10106	NL1010B	NC1010L	NMK10V	JP1010	JP1010P	SSLS (1)	NPL1S (1)
NJ12106		NL1210B	NJ1210L	NMK10V	JP1210	JP1210P	SSLS (2)	NPL1S (2)
	NC12106	NL1210B	NC1210L	NMK10V	JP1210	JP1210P	SSLS (2)	NPL1S (2)
NJ12126		NL1212B	NJ1212L	NMK12V	JP1212	JP1212P	SSLS (2)	NPL1S (2)
	NC12126	NL1212B	NC1212L	NMK12V	JP1212	JP1212P	SSLS (2)	NPL1S (2)
NJ14126		NL1412B	NJ1412L	NMK12V	JP1412	JP1412P	SSLS (2)	NPL1S (2)
	NC14126	NL1412B	NC1412L	NMK12V	JP1412	JP1412P	SSLS (2)	NPL1S (2)
NJ16146		NL1614B	NJ1614L	NMK14V	JP1614	JP1614P	SSLS (2)	NPL1S (2)
	NC16146	NL1614B	NC1614L	NMK14V	JP1614	JP1614P	SSLS (2)	NPL1S (2)

Circuit Safe® NEMA Enclosures

Quick Reference

Hidden Hinge Cover Style

Assembled Enclosures (no Panel or Latches)		Individual Components			Latches Back Panels		Latches – (Qty. needed)	
Opaque Lid	Clear Lid	Body	Lid	Mtg. Rails	Steel	PVC	Steel	Nonmetallic
NH644		NP644B	NH64L	NMK4V	JP64	JP64P	SSLS (1)	NPL1S (1)
	NI644	NP644B	NI64L	NMK4V	JP64	JP64P	SSLS (1)	NPL1S (1)
NH664		NP664B	NH66L	NMK6V	JP66	JP66P	SSLS (1)	NPL1S (1)
	NI664	NP664B	NI66L	NMK6V	JP66	JP66P	SSLS (1)	NPL1S (1)
NH864		NP864B	NH86L	NMK6V	JP86	JP86P	SSLS (1)	NPL1S (1)
	NI864	NP864B	NI86L	NMK6V	JP86	JP86P	SSLS (1)	NPL1S (1)
NH884		NP884B	NH88L	NMK8V	JP88	JP88P	SSLS (1)	NPL1S (1)
	NI884	NP884B	NI88L	NMK8V	JP88	JP88P	SSLS (1)	NPL1S (1)
NH1084		NP1084B	NH108L	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
	NI1084	NP1084B	NI108L	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
NH1086		NP1086B	NH108L	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
	NI1086	NP1086B	NI108L	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
NH10106		NP1010B	NH1010L	NMK10V	JP1010	JP1010P	SSLS (1)	NPL1S (1)
	NI10106	NP1010B	NI1010L	NMK10V	JP1010	JP1010P	SSLS (1)	NPL1S (1)
NH12106		NP1210B	NH1210L	NMK10V	JP1210	JP1210P	SSLS (2)	NPL1S (2)
	NI12106	NP1210B	NI1210L	NMK10V	JP1210	JP1210P	SSLS (2)	NPL1S (2)
NH12126		NP1212B	NH1212L	NMK12V	JP1212	JP1212P	SSLS (2)	NPL1S (2)
	NI12126	NP1212B	NI1212L	NMK12V	JP1212	JP1212P	SSLS (2)	NPL1S (2)
NH14126		NP1412B	NH1412L	NMK12V	JP1412	JP1412P	SSLS (2)	NPL1S (2)
	NI14126	NP1412B	NI1412L	NMK12V	JP1412	JP1412P	SSLS (2)	NPL1S (2)
NH16146		NP1614B	NH1614L	NMK14V	JP1614	JP1614P	SSLS (2)	NPL1S (2)
	NI16146	NP1614B	NI1614L	NMK14V	JP1614	JP1614P	SSLS (2)	NPL1S (2)

Circuit Safe® JIC Enclosures



Manufactured from structural foam thermoplastic, Carlton® Circuit Safe® JIC enclosures provide high impact strength to eliminate dents and deformations along with high dielectric strength, excellent weathering capabilities and excellent resistance to a wide range of corrosive agents, acids, alkalines and salts.

These CSA recognized enclosures also withstand wet and dirty environments, while their thick wall construction make them a particularly good choice wherever condensation is a concern. Rated for use in Type 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13 environments, Carlton Circuit Safe JIC enclosures are suited for virtually all indoor/outdoor industrial, MRO and OEM applications.

They are available in 10 sizes from 6 x 6 x 5 through 30 x 24 x 12 with a choice of screw or hinged design, opaque covers, or clear polycarbonate covers which protect devices from hostile environments while allowing monitoring of instrumentation and/or electrical functions.

Features

- Hinge caps make covers captive
- Nonmetallic molded-in hinges on hinged models
- No rough corners, sharp edges or burrs
- Non conductive – eliminates danger of electrical shock
- Lid design provides greater usable internal volume
- Ample interior space for ease of wiring
- Fully gasketed
- Ultraviolet stabilized for outdoor use

Applications

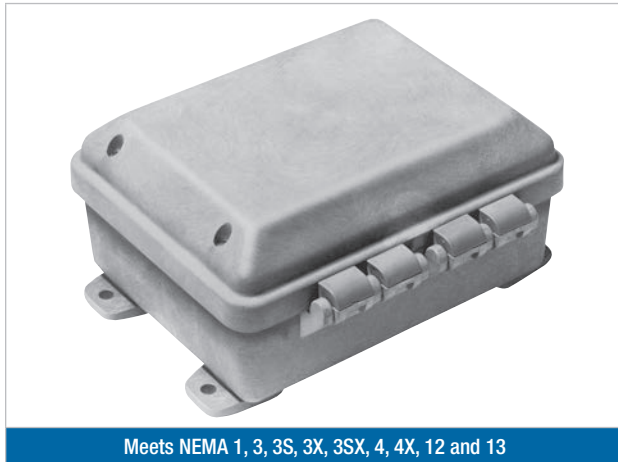
- Instrument case
- Junction and terminal boxes
- Control and switching enclosures
- Splice and pull boxes
- Starter, pushbutton and transformer housings
- Meter and transformer cabinets

Standards

- Meets NEMA Types 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13 as indicated
- CSA Certified
- JIC compliance

Circuit Safe® JIC Enclosures

Hinged Covers



Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13

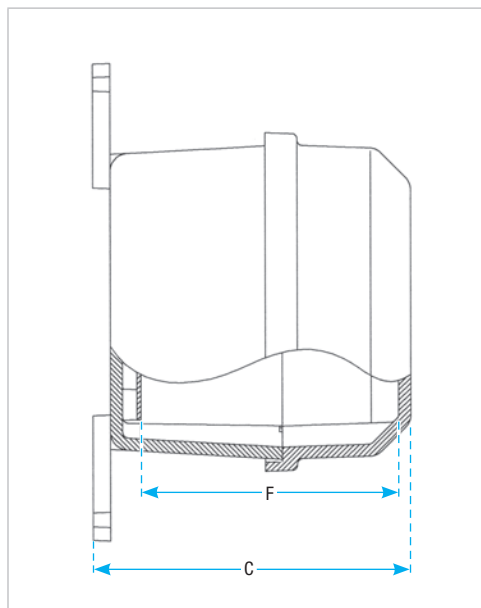
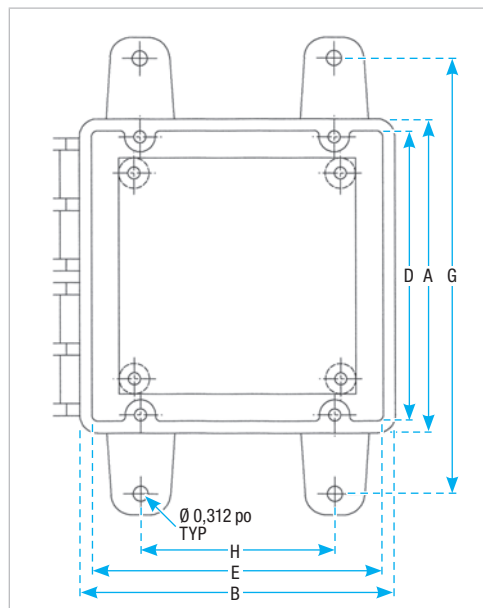
Features

- Nonmetallic mounting feet and all mounting hardware included
- White painted 14 gauge steel or 1/4 in. PVC back panel (order separately)
- 304 (18-8) stainless steel screws (10-32 x 1-1/8 in.)
- Lid design provides greater usable internal volume
- Completely nonmetallic hinges
- Brass screw inserts
- Temperature Range: -34° to 110°C
- Material: polycarbonate molded base and cover

Factory Assembled

Opaque Lid Cat. No.	Clear Lid Cat. No.	External (in.)			Internal (in.)			Mounting (in.)		Std. Wt. (lb.) Opaque/Clear	Back Panel* Cat. No. Steel / PVC	Panel Size (in.)	Std. Wt. (lb.) Steel / PVC
		A	B	C	D	E	F	G	H				
CJ665	CC665	6.50	6.50	6.69	6.00	6.00	5.45	9.00	4.00	1 (opa. 3.5) / 1 (trans. 3.1)	JP66 / JP66P	4.88 x 4.88	1 (1.0) / 1 (0.3)
CJ863	CC863	8.50	6.50	4.49	8.00	6.00	3.25	11.00	4.00	1 (opa. 2.8) / 1 (trans. 3.1)	JP86 / JP86P	6.75 x 4.88	1 (1.0) / 1 (0.78)
CJ1085	CC1085	10.50	8.50	6.69	10.00	8.00	5.45	13.00	6.00	1 (opa. 5.2) / 1 (trans. 5.2)	JP108 / JP108P	8.75 x 6.88	1 (1.5) / 1 (0.7)
CJ12106	CC12106	12.50	10.50	7.69	12.00	10.00	6.45	15.00	8.00	1 (opa. 7.1) / 1 (trans. 8.4)	JP1210 / JP1210P	10.75 x 8.88	1 (2.0) / 1 (1.2)
CJ14126	CC14126	14.50	12.50	7.72	14.00	12.00	6.48	17.00	10.00	1 (opa. 9.0) / 1 (trans. 8.6)	JP1412 / JP1412P	12.75 x 10.88	1 (3.2) / 1 (1.7)
CJ16147	CC16147	16.50	14.50	8.46	16.00	14.00	7.22	19.00	12.00	1 (opa. 10.6) / 1 (trans. 11.9)	JP1614 / JP1614P	14.75 x 12.88	1 (4.7) / 1 (2.3)

*Order back panels separately. Enclosures shipped with mounting feet, hinge caps and screws
For factory installed pad lockable latch (Cat. No. CJTL), contact your Regional Sales Office for price and delivery



Circuit Safe® JIC Enclosures

Screw-On Covers



Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13

Features

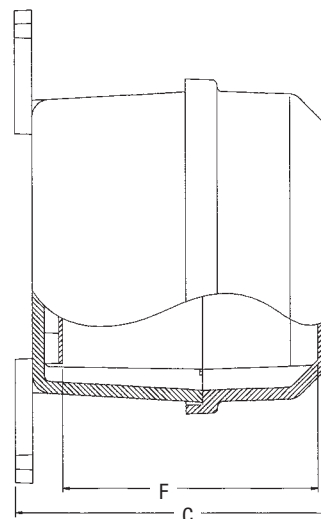
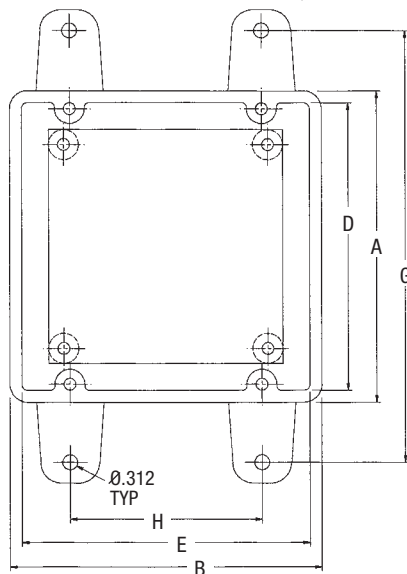
- Nonmetallic mounting feet and all mounting hardware included
- 304 (18-8) stainless steel screws (10-32 x 1-1/8 in.)
- Brass screw inserts
- Clear polycarbonate cover available
- White painted 14 gauge steel or 1/4 in. PVC back panel (order separately)
- Lid design provides greater usable internal volume
- Temperature Range: -34° to 110°C
- Material: polycarbonate molded base and cover

Factory Assembled



Opaque Lid Cat. No.	Clear Lid Cat. No.	External			Internal			Mounting (in.)		Std. Ctn. Qty. (lb.) Opaque/Clear	Back Panel* Cat. No. Steel / PVC	Panel Size (in.)	Std. Ctn. Qty. (lb.) Steel / PVC
		A	B	C	D	E	F	G	H				
CS665	CV665	6.50	6.50	6.69	6.00	6.00	5.45	9.00	4.00	1 (opa. 2.7) / 1 (trans. 2.9)	JP66 / JP66P	4.88 x 4.88	1 (1.0) / 1 (0.3)
CS863	CV863	8.50	6.50	4.49	8.00	6.00	3.25	11.00	4.00	1 (opa. 2.9) / 1 (trans. 2.9)	JP86 / JP86P	6.75 x 4.88	1 (1.0) / 1 (0.78)
CS1085	CV1085	10.50	8.50	6.69	10.00	8.00	5.45	13.00	6.00	1 (opa. 5.0) / 1 (trans. 5.0)	JP108 / JP108P	8.75 x 6.88	1 (1.5) / 1 (0.7)
CS12106	CV12106	12.50	10.50	7.69	12.00	10.00	6.45	15.00	8.00	1 (opa. 6.5) / 1 (trans. 7.2)	JP1210 / JP1210P	10.75 x 8.88	1 (2.0) / 1 (1.2)
CS14126	CV14126	14.50	12.50	7.72	14.00	12.00	6.48	17.00	10.00	1 (opa. 8.0) / 1 (trans. 8.8)	JP1412 / JP1412P	12.75 x 10.88	1 (3.2) / 1 (1.7)
CS16147	CV16147	16.50	14.50	8.46	16.00	14.00	7.22	19.00	12.00	1 (opa. 11.5) / 1 (trans. 10.8)	JP1614 / JP1614P	14.75 x 12.88	1 (4.7) / 1 (2.3)

*Order back panels separately
Enclosures shipped with mounting feet and panel mounting hardware



Circuit Safe® JIC Enclosures

Medium Hinge Covers

Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13



Features

- Nonmetallic mounting feet and all mounting hardware included
- White painted 14 gauge steel or 1/4 in. PVC back panel (order separately)
- 304 (18-8) stainless steel screws (10-32 x 1-1/8 in.)
- Completely nonmetallic hinges
- Brass screw inserts
- Temperature Range: -40° to 85°C
- Material: NORYL base and cover

Factory Assembled

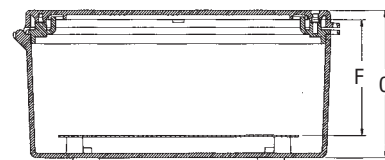
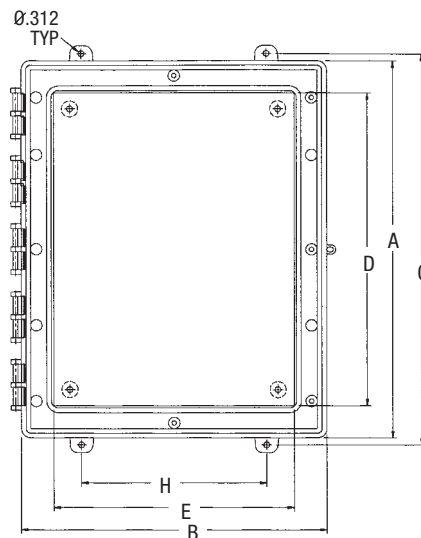
Cat. No.	External			Internal			Mounting (in.)		Std. Ctn. Qty. (lb.)	Back Panel* Cat. No. Steel / PVC	Panel Size	Std. Ctn. Qty. (lb.) Steel / PVC
	A	B	C	D	E	F	G	H				
C2016A4	20.50	16.50	8.36	17.25	13.25	6.28	21.26	10.00	1 (15.1)	NP2016/NP2016P	17 x 13.25	1 (7.0) / 1 (6.1)
C2016B4	20.50	16.50	10.36	17.25	13.25	8.28	21.26	10.00	1 (17.2)	NP2016/NP2016P	17 x 13.25	1 (7.0) / 1 (6.1)
C2016C4	20.50	16.50	12.36	17.25	13.25	10.25	21.26	10.00	1 (19.7)	NP2016/NP2016P	17 x 13.25	1 (7.0) / 1 (6.1)
C2420A4	24.50	20.50	8.36	21.25	17.25	6.28	25.26	14.00	1 (21.5)	NP2420/NP2420P	21 x 17	1 (10.4) / 1 (4.7)
C2420B4	24.50	20.50	10.36	21.25	17.25	8.28	25.26	14.00	1 (24)	NP2420/NP2420P	21 x 17	1 (10.4) / 1 (4.7)
C2420C4	24.50	20.50	12.36	21.25	17.25	10.28	31.26	14.00	1 (24.9)	NP2420/NP2420P	21 x 17	1 (10.4) / 1 (4.7)
C3024A4	30.50	24.50	8.36	27.25	21.25	6.28	31.26	18.00	1 (28.4)	NP3024/NP3024P	27 x 21	1 (18.0) / 1 (9.8)
C3024B4	30.50	24.50	10.36	27.25	21.25	8.28	31.26	18.00	1 (31.4)	NP3024/NP3024P	27 x 21	1 (18.0) / 1 (9.8)
C3024C4	30.50	24.50	12.36	27.25	21.25	10.28	31.26	18.00	1 (33.8)	NP3024/NP3024P	27 x 21	1 (18.0) / 1 (9.8)

Enclosure only available with opaque hinged cover

Enclosures shipped with mounting feet, hinge caps and screws

*Order back panels separately

For factory installed pad lockable latch (Cat. No. CJTL), contact your Regional Sales Office for price and delivery



Circuit Safe® JIC Enclosures

Hinged Window Cover

Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13

Features

- Nonmetallic mounting feet and all mounting hardware included
- 304 (18-8) stainless steel screw (10-32 x 1-1/8 in.)
- White painted 14 gauge steel or 1/4 in. PVC back panel (order separately)
- Completely nonmetallic hinges
- Lid design provides greater usable internal volume
- Brass screw inserts
- Material: polycarbonate molded base and cover

Note: Window material 1/8 in. thick clear polycarbonate is permanently bonded to the cover.



Factory Assembled

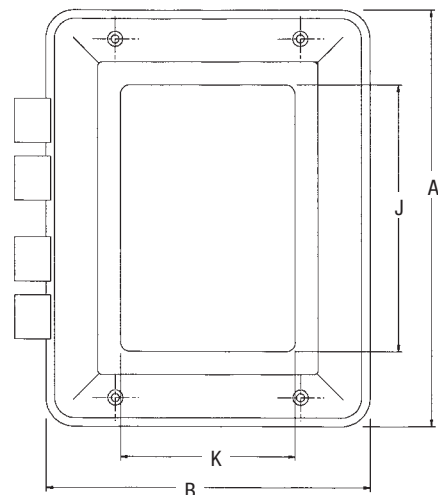
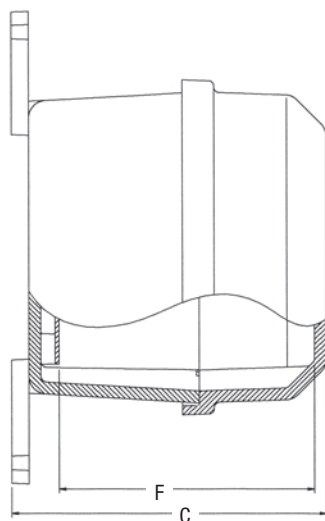
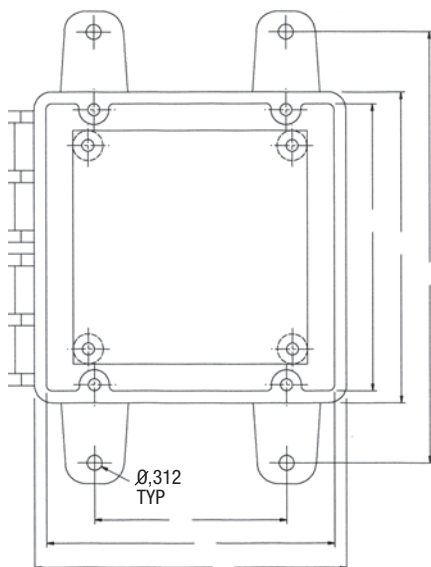


Cat. No.	External				Internal			Mounting (in.)			Std. Ctn. Qty. (lb.)	Back Panel* Cat. No. Steel / PVC	Panel Size (in.)	Std. Ctn. Qty. (lb.) Steel / PVC
	A	B	C	D	E	F	G	H	J	K				
J665W	6.50	6.50	6.69	6.00	6.00	5.45	9.00	4.00	3.75	3.75	1 (3.1)	JP66 / JP66P	4.88 x 4.88	1 (1.0) / 1 (0.3)
J863W	8.50	6.50	4.49	8.00	6.00	3.25	11.00	4.00	3.75	3.75	1 (3.2)	JP86 / JP86P	6.75 x 4.88	1 (1.0) / 1 (0.78)
J1085W	10.50	8.50	6.69	10.00	8.00	5.45	13.00	6.00	7.75	5.75	1 (5.6)	JP108 / JP108P	8.75 x 6.88	1 (1.5) / 1 (0.7)
J12106W	12.50	10.50	7.69	12.00	10.00	6.45	15.00	8.00	6.75	7.75	1 (7.4)	JP1210 / JP1210P	10.75 x 8.88	1 (2.0) / 1 (1.2)
J14126W	14.50	12.50	7.72	14.00	12.00	6.48	17.00	10.00	11.75	9.75	1 (9)	JP1412 / JP1412P	12.75 x 10.88	1 (3.2) / 1 (1.7)
J16147W	16.50	14.50	8.46	16.00	14.00	7.22	19.00	12.00	13.75	11.75	1 (9.3)	JP1614 / JP1614P	14.75 x 12.88	1 (4.7) / 1 (2.3)

Enclosures shipped with mounting feet, hinge caps and screws

*Order back panels separately

For factory installed pad lockable quick-release latch (Cat. No. CJTL), contact your Regional Sales Office for price and delivery



Circuit Safe® Pushbutton Enclosures

Product Overview



Circuit Safe® nonmetallic pushbutton enclosures are molded from engineered thermoplastic material that is resistant to most corrosive agents. Whether predrilled 1-2-3 hole enclosures, blank cover enclosures or enclosures with multiple hole openings, Carlton's pushbutton enclosure series offer high impact strength, chemical resistance, high dielectric strength and excellent durability for the correct application.

Features

- Engineered thermoplastic base and cover
- 304 stainless steel screws
- Brass screw inserts
- High-impact strength
- Temperature range from -40 to 85°C

Applications

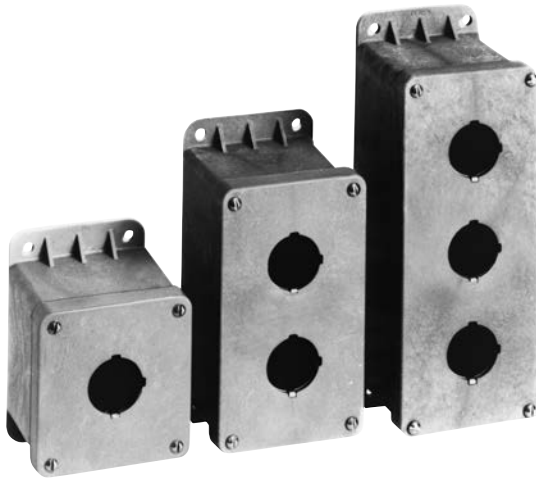
- Standard oil-tight pushbuttons, switches and pilot lights
- Conduit entries
- Junction boxes
- MRO and OEM applications

Standards

- Standards vary by product
- Narrow profile blank screw cover enclosure meet NEMA Type 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13
- Nonmetallic hinged cover enclosures with multiple hole openings are CSA Certified

Circuit Safe® Pushbutton Enclosures

Screw Cover Enclosures with 1-2-3 Hole Openings



Wall mount pushbutton enclosures are molded from grey engineered thermoplastic material that is resistant to most corrosive agents. Universal pushbutton holes are designed to accommodate all standard oil-tight pushbuttons, switches and pilot lights. A grounding plate is included on the cover. Auxiliary devices must be rated for appropriate NEMA applications..

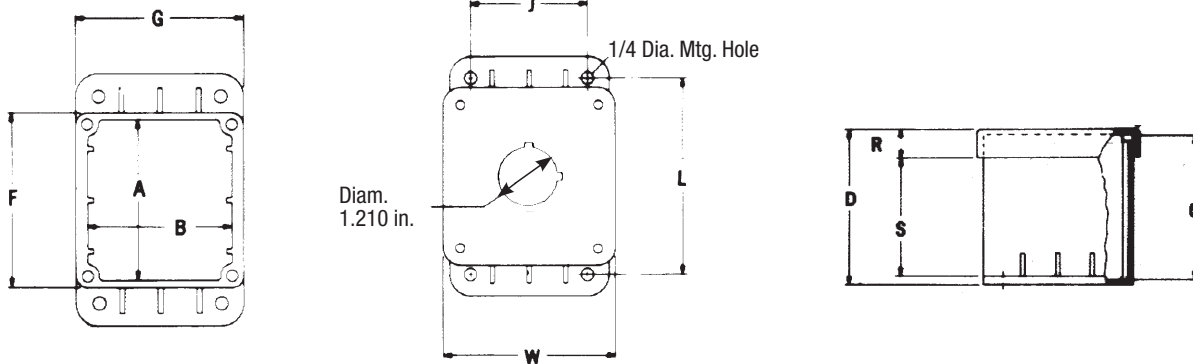
Features

- 30.5 mm keyed pushbutton holes*
- Material: nylon base and cover
- Integrally molded mounting flange
- Brass screw inserts
- 304 (18-8) stainless screws (8-32 x 3/8 in.)
- Temperature range from -40° to 85°C

30.5 mm Pushbutton Enclosures



Cat. No.	Style	Inside Box Size A x B x C (in.)	Mounting L x J	Overall Outside Including Mounting Bracket H x W x D	Dimensions (in.)				Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
					F	G	R	S		
CP100N	One Opening	3.13 x 2.81 x 3	4 x 2.38	4.88 x 3.50 x 3.38	3.38	3.25	0.63	2.5	12	9
CP200N	Two Openings	5.38 x 2.81 x 3	6.25 x 2.38	7.13 x 3.50 x 3.38	5.63	3.25	0.63	2.5	8	8
CP300N	Three Openings	7.38 x 2.81 x 3	8.50 x 2.38	9.38 x 3.50 x 3.38	7.88	3.25	0.63	2.5	6	7.60



22 mm Pushbutton Enclosures *



Cat. No.	Style	Inside Box Size A x B x C	Mounting L x J	Overall Outside Including Mounting Bracket H x W x D	Dimensions (in.)				Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
					F	G	R	S		
PX0010	One Opening	3.13 x 2.81 x 3	4 x 2.38	4.88 x 3.50 x 3.38	3.38	3.25	0.63	2.5	10	8.26
PX0007	Two Openings	5.38 x 2.81 x 3	6.25 x 2.38	7.13 x 3.50 x 3.38	5.63	3.25	0.63	2.5	1	1.31
PX0011	Three Openings	7.38 x 2.81 x 3	8.50 x 2.38	9.38 x 3.50 x 3.38	7.88	3.25	0.63	2.5	6	9.43
PX0008	Four Openings	7.38 x 2.81 x 3	8.50 x 2.38	9.38 x 3.50 x 3.38	7.88	3.25	0.63	2.5	1	1.60

* All Circuit Safe® pushbutton enclosures are furnished with standard hole dimensions: 1-7/32 in. diameter with keyways at 12 o'clock and 3 o'clock. Dimensions are in inches unless marked otherwise. Operators not included

Circuit Safe® Pushbutton Enclosures

Narrow Profile Blank Screw Cover Enclosures for Small Instrumentation and Control Applications



Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13

Blank cover enclosures can be easily drilled with a standard hole saw for conduit entries and pushbuttons. Wall mount enclosures are molded from grey engineered thermoplastic material and are resistant to most corrosive agents.

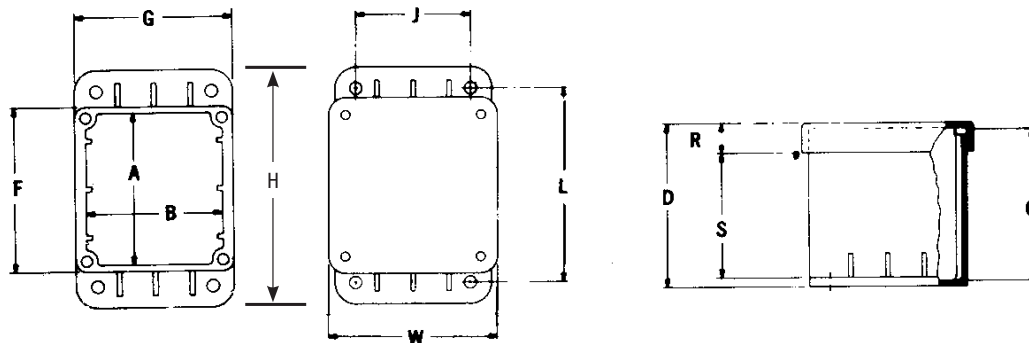
Features

- Brass screw inserts
- Material: engineered thermoplastic
- Integrally molded mounting flange
- 304 (18-8) stainless screws (10-32 x 3/8 in.)
- Temperature range from -40 to 85°C

Blank Screw Cover Enclosures

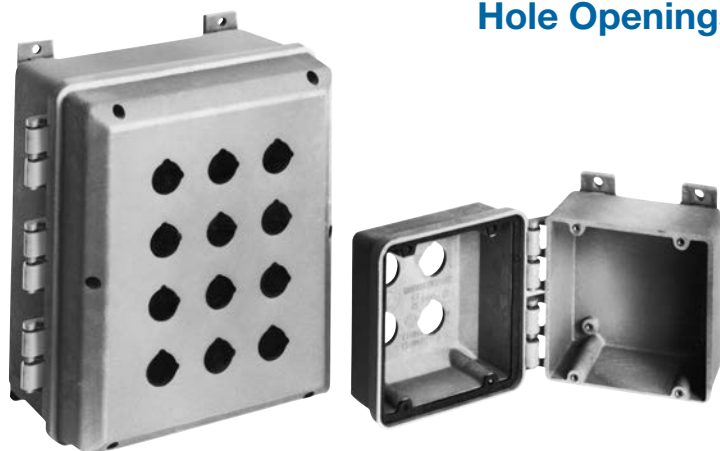


Cat. No.	Style	Inside Box Size A x B x C (in.)	Mounting L x J	Overall Outside Including Mounting Bracket H x W x D	Dimensions (in.)				Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
					F	G	R	S		
CP100NB	Blank Cover	3.13 x 2.81 x 3	4 x 2.38	4.88 x 3.50 x 3.38	3.38	3.25	0.63	2.5	12	9.60
CP200NB	Blank Cover	5.38 x 2.81 x 3	6.25 x 2.38	7.13 x 3.50 x 3.38	5.63	3.25	0.63	2.5	8	8.8
CP300NB	Blank Cover	7.38 x 2.81 x 3	8.50 x 2.38	9.38 x 3.50 x 3.38	7.88	3.25	0.63	2.5	6	8.20



Circuit Safe® Pushbutton Enclosures

Hinged Cover Enclosures with Multiple Hole Openings



Features

- Nonmetallic mounting feet and all mounting hardware included
- White painted 14 gauge steel or 1-1/8 in. PVC back panel (order separately)
- Material: engineered thermoplastic base and cover
- 304 stainless steel screws
- Brass screw inserts
- Lid design provides greater usable volume
- Completely nonmetallic hinges
- Temperature range from -40 to 85°C

Made from engineered thermoplastic material, these enclosures are ideal for applications that require high-impact strength, chemical resistance, high dielectric strength and excellent weathering capabilities, including indoor/outdoor industrial, MRO and OEM applications.

Nonmetallic hinges are an integral part of the mold. Hinge caps make cover captive and removable cover allows for easy field adjustment. Auxiliary devices must be rated for appropriate NEMA applications.

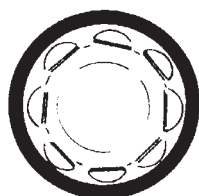
Hinged Cover Pushbutton Enclosures With Multiple 30.5 mm Openings*



Cat. No.	Openings	Inside Box Size (in.)	Weight	Qty.	Panel Cat. No. Steel / PVC	Size Steel / PVC (in.)
J665P	4	6 x 6 x 5,88	2,42	1	JP66 / JP66P	4.88 x 4.88
J863P	6	8 x 6 x 3,63	1,86		JP86 / JP86P	6.75 x 4.88
J1085P	9	10 x 8 x 5,88	3,59		JP108 / JP108P	8.75 x 6.88
J12106P	12	12 x 10 x 6,88	4,29		JP1210 / JP1210P	10.75 x 8.88
J14126P	20	14 x 12 x 6,88	7,19		JP1412 / JP1412P	12.75 x 10.88
J16147P	25	16 x 14 x 7,63	11,20		JP1614 / JP1614P	14.75 x 12.88

* All Circuit Safe® pushbutton enclosures are furnished with standard hole dimensions: 1-7/32 in. diameter with keyways at 12 o'clock and 3 o'clock

Accessories



Gasketed Pushbutton Hole Plug



Cat. No.	Size	Std. Ctn Qty.	Std. Wt. (lb.)
CP900	Standard PB hole	100	2.0

Circuit Safe® Enclosure Accessories

NEMA Accessories

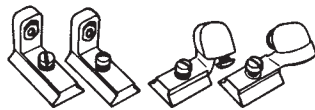
Mounting Rails*



Cat. No.	Size	Std. Ctn. Qty.	Std. Wt. (lb.)
NMK4V	4	25	5
NMK6V	6	24	7.7
NMK8V	8	24	10.25
NMK10V	10	20	13.26
NMK12V	12	20	11.4
NMK14V	14	25	17.76

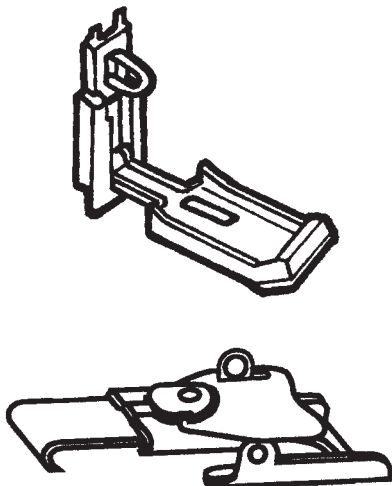
Mounting Rails include 2 rails and 4 stainless steel screws
 Mounting Rails can be mounted on long or short side of enclosure
 Does not apply to 16 in. enclosure

Panel Adjuster Kits



Cat. No.	Product	Description	Std. Ctn. Qty.	Std. Wt. (lb.)
NBPADJ2	Panel Adjuster kit	4 panel adjusters 4 #10-32 screws to mount panel	10 kits	2.07
NBPSWG	180° Swing Out Panel kit	4 panel adjusters 2 hinges 2 #10-32 screws to mount panel	10 kits	2.68
NBPSWG2	Swing Out Panel Adjuster kit	2 hinged adjusters 2 panel adjusters 4 #10-32 screws	10 kits	1.80

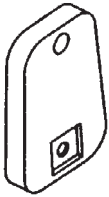
Latch Kits for NEMA hinged enclosures



Cat. No.	Product	Description	Ctn Std Quantité	Ctn Std Poids (lb)
NPL1L	Nonmetallic Quick-release Latch kit	Quick-Release Latch kit for use with hidden hinge enclosure for NH and NI series	25	2.00
NPL1S	Nonmetallic Quick-release Latch kit	Quick-Release Latch kit for use with external hinge enclosure for NJ and NC series	25	2.00
SSLL	304 Stainless steel Quick-Release Latch kit	Quick-Release Latch kit for use with hidden hinge enclosure for NH and NI series	25	4.27
SSLS	304 Stainless steel Quick-Release Latch kit	Quick-Release Latch kit for use with external hinge enclosure for NJ and NC series	25	3.41

Circuit Safe® Enclosure Accessories

NEMA and JIC Accessories



JIC* Latch Kits



Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
CJB159*	As required	0.04

*CJB159 nonmetallic mounting feet provide 1/4 in. standoff and may be used to mount enclosures in horizontal or vertical mode. They are shipped with all Circuit Safe JIC enclosures. No screws are provided when mounting feet are ordered separately

Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
CJTL	1 kit	0.04

*Stainless steel kit includes latch and keeper

*Factory installed. Contact your Regional Sales Office for price and delivery

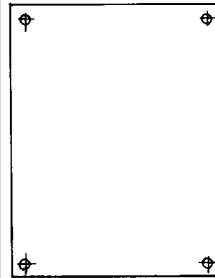
JIC Installation Kits*

Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
CH208	1 nécessaire	0.25

*Installation kit is included as standard equipment with all JIC enclosures. Information listed here for purposes of additional purchase only. Kit includes 4 mounting feet, 8 hinge caps and 8 screws

Steel back panels

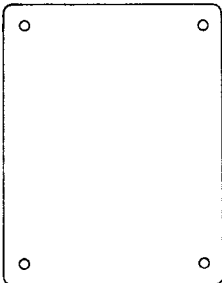
Steel back panels are white painted 14 gauge steel



Cat. No.	Size (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
JP64	4.88 x 2.88	1	0.6
JP66	4.88 x 4.88		1.0
JP86	6.75 x 4.88		1.0
JP88	6.75 x 6.88		1.2
JP108	8.75 x 6.88		1.5
JP1010	8.75 x 8.88		2.3
JP1210	10.75 x 8.88		2.7
JP1212	10.75 x 10.88		3.58
JP1412	12.75 x 10.88		3.8
JP1614	14.75 x 12.88		4.7

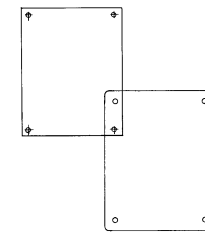
PVC back panels†

PVC back panels are made from 1/4 PVC and meet UL94 V-0



Cat. No.	Size (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
JP64P	4.88 x 2.88	1	0.3
JP66P	4.88 x 4.88		0.3
JP86P	6.75 x 4.88		0.4
JP88P	6.75 x 6.88		0.5
JP108P	8.75 x 6.88		0.7
JP1010P	8.75 x 8.88		0.9
JP1210P	10.75 x 8.88		1.2
JP1212P	10.75 x 10.88		1.5
JP1412P	12.75 x 10.88		1.7
JP1614P	14.75 x 12.88		2.3

Medium NEMA Back Panels†



Cat. No. Steel / PVC	Size (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
NP2016/NP2016P	17 x 13	1	7.0/6.125
NP2420/NP2420P	21 x 17		10.4/4.71
NP3024/NP3024P	27 x 21		18.0/9.781

Air Vents

NEMA 1 Rated only



Cat. No.	Style	Std. Ctn. Qty.
HPVM25	For fitting outside of all enclosures	1
HPVM35	For fitting inside of all enclosures	

Draining Device

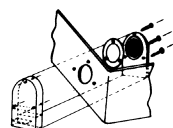
For 3R Rating and condensation build-up



Cat. No.	Std. Ctn. Qty.
HPVEA9	1

Enclosure Ventilator

Allows any size enclosure to breathe, yet remains watertight



Cat. No.	Std. Ctn. Qty.
HVM27	1

† Circuit Safe® NEMA enclosures are not shipped with back panels which must be ordered separately

Circuit Safe® Enclosure Accessories

Window Kits

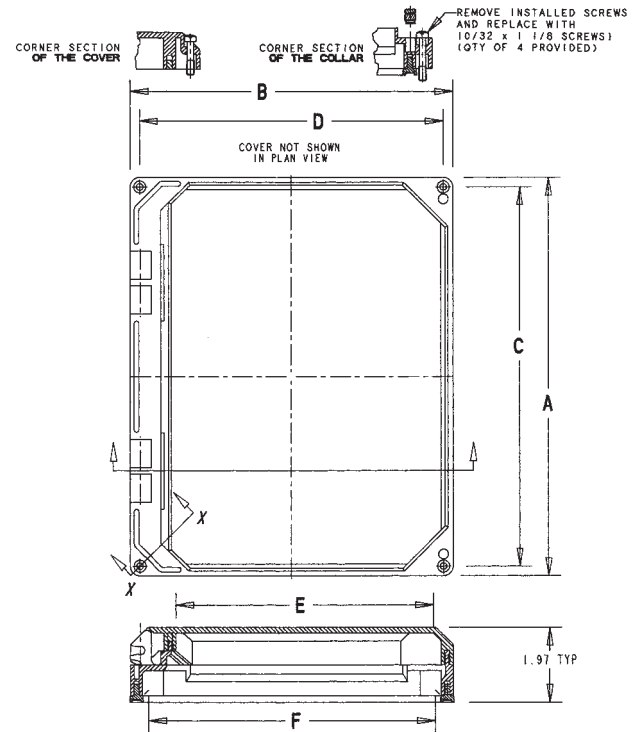
NEMA 4X Rated

Carlton® hinged window kits are used to create a NEMA 4X environment on electronic control panels. Polycarbonate construction and double gaskets ensure environmental integrity



Cat. No.	Size (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
NI64W	6 x 4	1	0.8
NI66W	6 x 6		0.9
NI86W	8 x 6		1.17
NI88W	8 x 8		1.4
NI108W	10 x 8		1.5
NI1010W	10 x 10		1.82
NI1210W	12 x 10		2.12
NI1212W	12 x 12		2.65
NI1412W	14 x 12		2.67
NI1614W*	16 x 14		3.10

* Non-stock factory order only – contact your Regional Sales Office



Features

- High-impact strength
- High dielectric strength
- Suitable for indoor and outdoor use
- Fully gasketed

Applications

- Instrument case
- Junction and terminal boxes
- Control and switching enclosures
- Meter and transformer cabinets
- Small device enclosures
- Surface mounted instruments

Standards

- NEMA Type 4X with the exception of NI1614W. All size are NEMA Type 1 & 12 rated.



Cat. No.	Dimensions in. (mm)					
	A	B	C	D	E	F
NI64W	6.42 (163.1)	4.41 (112.0)	5.92 (150.4)	3.94 (100.0)	2.72 (69.1)	3.80 (96.5)
NI66W	6.42 (163.1)	6.42 (163.1)	5.94 (150.9)	5.94 (150.9)	4.72 (119.9)	5.80 (147.3)
NI86W	8.44 (214.4)	6.42 (163.1)	7.92 (201.2)	5.94 (150.9)	4.72 (119.9)	5.80 (147.3)
NI88W	8.44 (214.4)	8.43 (214.1)	7.95 (201.9)	7.95 (201.9)	6.72 (170.7)	7.80 (198.1)
NI108W	10.46 (265.7)	8.45 (214.6)	9.95 (253.5)	7.96 (202.2)	6.72 (170.7)	7.80 (198.1)
NI1010W	10.45 (265.4)	10.45 (265.4)	9.97 (253.2)	9.97 (253.2)	8.72 (221.5)	9.80 (248.9)
NI1210W	12.46 (316.5)	10.45 (265.4)	11.99 (304.5)	9.97 (253.2)	8.72 (221.5)	9.80 (248.9)
NI1212W	12.50 (317.5)	12.50 (317.5)	12.00 (304.8)	12.00 (304.8)	10.72 (272.3)	11.80 (299.7)
NI1412W	14.50 (368.3)	12.50 (317.5)	14.01 (355.9)	12.00 (304.8)	10.72 (272.3)	11.80 (299.7)
NI1614W	16.52 (419.6)	14.48 (367.8)	16.03 (407.2)	14.02 (356.1)	12.72 (323.1)	13.80 (350.5)

Himeline®* Enclosures

HS, HP and HLA/HLS Series



Features

- High-impact strength
- High dielectric strength
- Suitable for indoor and outdoor use
- Fully gasketed
- Lightweight

Applications

- Instrument case
- Junction and terminal boxes
- Control and switching enclosures
- Meter and transformer cabinets
- Small device enclosures

Standards

- Meets NEMA and IP standards as indicated in appropriate section

Carlton® Himeline®* enclosures are the ideal alternative to expensive stainless steel enclosures.

They have excellent corrosion resistant properties; are impervious to sunlight, dirt and moisture. Available in three series (HS, HP and HLA/HLS), with sizes ranging from 4 x 3 x 2 through 50 x 40 x 17, these enclosures offer choices that include double doors, clear or opaque covers, hinged and screw versions, single or three point closure mechanisms, 4X windows, DIN rail mounting and adjustable depth door in door option that allow you to customize your enclosures by separating power from communications.

* Himeline is a registered trademark of Hispano Mecano Electric, S.A.

Himeline®* Enclosures

HS Series Screw-On Fastened and Hinged Cover Enclosures

- Meets NEMA 1, 3, 3S, 4, 4X, 12 and 13
- Meets IP 65



Himeline®* HS Series enclosures are designed for use as junction boxes, terminal wiring boxes, instrument and control housings and small device enclosure applications.

Molded under high pressure, Himeline®* HS Series enclosures provide high-impact strength, chemical resistance, high dielectric strength and excellent weathering capabilities.

Features

- Standard slotted locking screw
- High impact strength
- Chemical resistance
- High dielectric strength
- Excellent weathering capabilities
- Sealing gasket on all models

Applications

- Junction boxes
- Terminal wiring boxes
- Instrument and control housings
- Small device enclosure applications
- Indoor or outdoor use
- Sunlight resistant

Standards

- Meets NEMA 1, 3, 3S, 4, 4X, 12 and 13 standards as indicated
- Meets IP 65
- cULus Listed

Material

- Opaque/Clear Lid – Polycarbonate
- Base – Fiberglass Reinforced Polyester

* Himeline is a registered trademark of Hispano Mecano Electric, S.A.

Himeline®* Enclosures

HS Series Screw-On Fastened and Hinged Cover Enclosures



Features

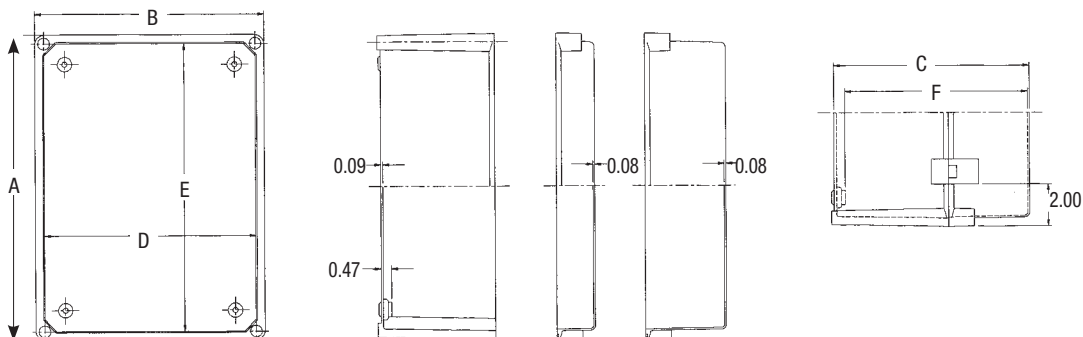
- Molded under high pressure
- High impact strength
- Chemical resistance
- High dielectric strength
- Excellent weathering capabilities
- Clear cover available

Specifications



Opaque Screw-On Cover Cat. No.	Clear Screw-On Cover Cat. No.	Opaque Hinged Cover Cat. No.	Clear Hinged Cover Cat. No.	External			Internal			Opaque Wt. (lb.) each Screw/Hinged	Clear Wt. (lb.) each Screw/Hinged	Std. Pkg.	Back Panel Cat. No.	Dimensions H x W	Thickness	Wt. (lb.)	Std. Ctn. Qty.
				A	B	C	D	E	F								
HS7A7	HS7A7C	HH7A7	HH7A7C	10.63	7.09	7.09	6.26	9.80	6.54	10.7/7	10.9/6.2	4	HS7ABP	5.51 x 9.05	0.08	1.1	1
HS11A7	HS11A7C	HH11A7	HH11A7C	10.63	10.63	7.09	9.80	9.80	6.54	15.2/8.5	14/8	4	HS11ABP	9.05 x 9.05	0.08	1.7	
HS11B7	HS11B7C	HH11B7	HH11B7C	14.17	10.63	7.09	9.80	13.35	6.54	17/4	18/4	4	HS11BBP	9.05 x 12.60	0.08	2.4	
HS11C7	HS11C7C	HH11C7	HH11C7C	21.26	10.63	7.09	9.80	20.43	6.54	13/13	12.5/13	2	HS11CBP	9.05 x 19.68	0.08	3.9	
HS15C7	HS15C7C	HH15C7	HH15C7C	21.26	14.17	7.09	13.35	20.43	6.54	17.7/11	18/11	2	HS15CBP	12.60 x 19.68	0.08	6.6	
HS21C7	HS21C7C	HH21C7	HH21C7C	21.26	21.26	7.09	20.43	20.43	6.54	12.5/13	12/13	1	HS21CBP	19.68 x 19.68	0.08	8.8	
HS11A9	HS11A9C	HH11A9	HH11A9C	10.63	10.63	9.06	9.80	9.80	8.47	15/4	16.6/5	4	HS11ABP	9.05 x 9.05	0.08	1.7	
HS11B9	HS11B9C	HH11B9	HH11B9C	14.17	10.63	9.06	9.80	13.35	8.47	20/6	19/6	4	HS11BBP	9.05 x 12.60	0.08	2.5	
HS11C9	HS11C9C	HH11C9	HH11C9C	21.26	10.63	9.06	9.80	20.43	8.47	14/9	14/9	2	HS11CBP	9.05 x 19.68	0.08	3.9	
HS15C9	HS15C9C	HH15C9	HH15C9C	21.26	14.17	9.06	13.35	20.43	8.47	18.5/11	19/11	2	HS15CBP	12.60 x 19.68	0.08	6.6	
HS21C9	HS21C9C	HH21C9	HH21C9C	21.26	21.26	9.06	20.43	20.43	8.47	13/14	14/14	1	HS21CBP	19.68 x 19.68	0.08	8.8	
HS15D9	HS15D9C	HH15D9	HH15D9C	28.35	14.17	9.06	13.35	27.52	8.47	13/13	13/13	1	HS15DBP	12.60 x 26.77	0.10	9.5	
HS21D9	HS21D9C	HH21D9	HH21D9C	28.35	21.26	9.06	20.43	27.52	8.47	18/18	17/18	1	HS21DBP	19.68 x 26.77	0.10	15.5	

Back panels and mounting feet must be ordered separately
Contact your Regional Sales Office for availability and delivery



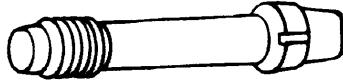
* Himeline is a registered trademark of Hispano Mecano Electric, S.A.

Himeline®* Enclosures

Accessories

Thumb Screws

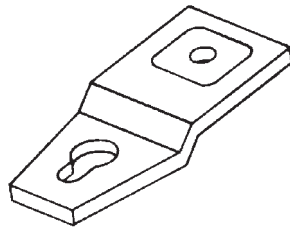
For Himeline®* HS Enclosures



Cat. No.	Std. Ctn Qty.	Std. Ctn. Wt. (lb.)
HSTS4	4	0.10
HSTS6	6	0.15

Mounting Feet

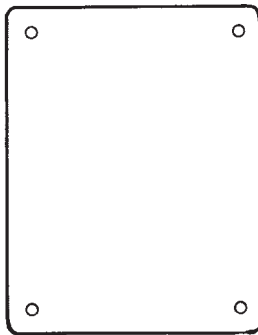
For Himeline®* HS Enclosures



Cat. No.	Description	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HSMFZ	Zinc Dichromated Steel	4/set	0.2
HSMFSS	304 Stainless Steel	4/set	0.2

Back Panels

For Himeline®* HS Enclosures** Metal back panels are white painted 14 gauge steel

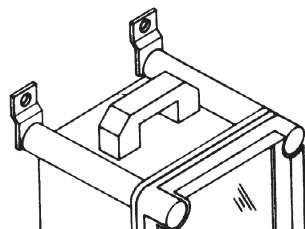


Cat. No.	Size (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HS7ABP	5.51 x 9.05	1	1.2
HS11ABP	9.05 x 9.05	1	2.0
HS11BBP	9.05 x 12.60	1	2.7
HS11CBP	9.05 x 19.68	1	4.3
HS15CBP	12.60 x 19.68	1	7.1
HS21CBP	19.68 x 19.68	1	9.6
HS15DBP	12.60 x 26.77	1	10.2
HS21DBP	19.68 x 26.77	1	16.6

**Himeline®* HS enclosures are not shipped with back panels. Order separately
PVC back panels available upon request. Consult your Regional Sales Office

Nonmetallic Carrying Handle

Converts enclosures to portable units for meters and portable power



Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HSCH	1	0.2

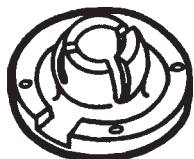
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Himeline®* Enclosures

Accessories

Draining Device

For 3R Rating and condensation build-up



Cat. No.	Std. Ctn. Qty.
HPVEA9	1

Air Vents

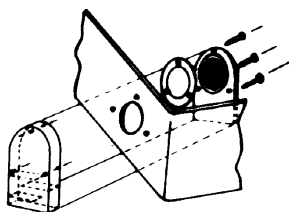
NEMA 1 Rated only



Cat. No.	Style	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HPVM25	For fitting outside of all enclosures	4/set	1
HPVM35	For fitting inside of all enclosures	4/set	1

Enclosure Ventilator

Allows any size enclosure to breathe, yet remains watertight



Cat. No.	Std. Ctn. Qty.
HVM27	1

* Himeline is a registered trademark of Hispano Mecano Electric, S.A.

Himeline®* Enclosures

HP Series Enclosures with Hinged Quick-Release Cover (Fiber Reinforced Polyester)

- Meets NEMA 1, 3, 3S, 4, 4X, 12 and 13
- Meets IP 66



Himeline®* HP Series enclosures for medium sized devices and equipment provide superior performance as junction and terminal wiring boxes, and instrument and control housing applications.

For indoor/outdoor industrial, MRO and OEM applications. HP Series enclosures are resistant to corrosion, sunlight, chemicals, dirt and moisture.

Temperature range from -50°C to 160°C.

Features

- Projections for affixing cover mounted panel
- Door locking mechanism convertible to key lock
- M8x18 studs for back panel mounting (included)
- Hidden hinges open 185° for easy access
- Multipositional DIN rail fixing components
- Removable stainless steel hinge pins
- Single piece construction
- Opaque or tempered glass window option
- Steel, nonmetallic & slotted back panels available
- External & internal venting available
- Hinged variable height inner panel option
- Quick 1/4-turn lock
- Underside grid pattern on inner door panel
- Self-positioning panel depth adjusters
- Pole mounting kit
- Pedestal mounting capability
- Sunlight resistant

Applications

- Junction boxes
- Terminal wiring boxes
- Instrument and control housing
- Indoor or outdoor use

Standards

- NEMA Type 1, 3, 3S, 4, 4X, 12 and 13
- Meets IP 66

Material

- Lids/Bases – Fiberglass reinforced polyester

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Himeline®* Enclosures

HP Series (Fiber Reinforced Polyester)

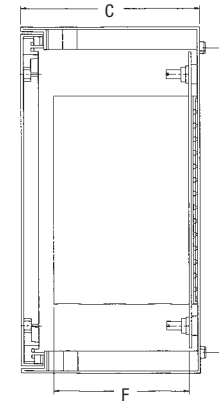
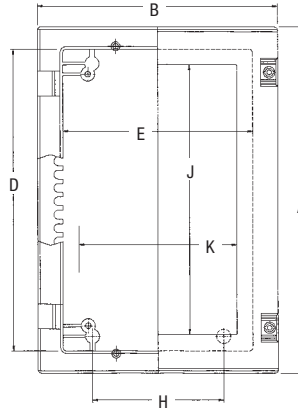
Specifications



Enclosure with Opaque Cover Cat. No.	Std. Ctn. Wt. (lb.)	Enclosure with Clear Window* Cat. No.	Std. Ctn. Wt. (lb.)	Window Dimension (H x W) (in.)	External (in.)			Internal (in.)			Mounting (in.)		Window (in.)		Std. Qty.
					A	B	C	D	E	F	G	H	J	K	
HP1612B	11.04	HC1612B	12.5	11 x 7.87	16.93	12.99	7.87	14.96	10.24	6.61	14.76	5.91	11.02	7.87	1
HP2016B	16.80	HC2016B	17.2	14.96 x 11.81	20.87	16.93	7.87	18.90	14.17	6.61	18.70	9.84	14.96	11.81	
HP2416B	21.13	HC2416C	24.12	18.89 x 11.81	25.47	17.17	9.84	22.83	14.17	8.35	22.67	9.84	18.90	11.81	
HP3020D	32.28	HC3020D**	36.02	22.83 x 15.74	29.41	21.10	11.81	26.77	18.11	10.28	26.57	13.78	22.83	15.75	
HP3325D	39.00	HC3325D**	43.12	26.77 x 19.68	33.35	33.35	11.81	30.77	22.05	10.28	30.51	17.72	26.77	19.69	

* HC Enclosures are IP 65 Rated. Clear window is glass

** This series of enclosures come standard with body, lid and mounting rail kit

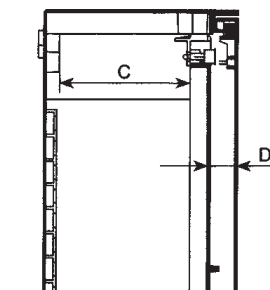
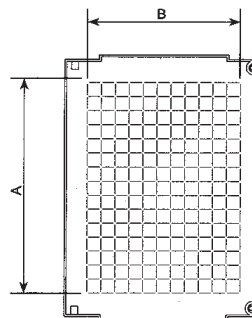


Depth with back panel installed

Hinged Internal Door

- Internal fiberglass reinforced polyester door assembly
- Grid pattern on the inside for quicker positioning of equipment
- Quick locking 1/4-turn entry

Enclosure with Opaque Cover Cat. No.	A		B		C		D		Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	(in.)	(mm)	(in.)	(mm)	(in.)	(mm)	(in.)	(mm)		
HP1612B	12.40	315	18.07	205	5.98	152	1.02	26	1	2.05
HP2016B	16.34	415	12.00	305	5.98	152	1.02	26		3.15
HP2416B	20.28	515	12.00	305	7.64	194	1.26	32		4.50
HP3020D	24.21	615	15.94	405	9.61	244	1.26	32		6.50
HP3325D	28.15	715	19.88	505	9.61	244	1.26	32		8.45



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Himeline®* Enclosures

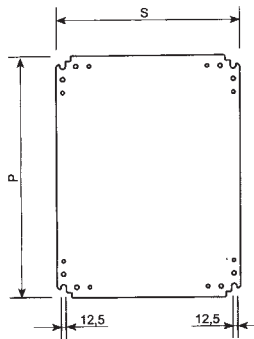
HP Series Accessories

Back Panels Dimensions

A complete range of plates, which can be directly fixed to the enclosure supports or to the adjustable depth supports.

Steel Back Panels

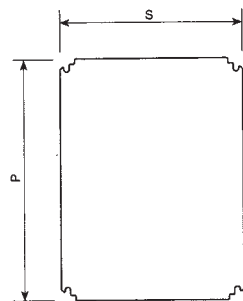
Steel back panels are white painted 14 gauge steel



Cat. No.	To Fit Enclosures	Thickness		Weight		P (in.)	S (in.)
		(in.)	(mm)	(in.)	(mm)		
PMM1612	HP1612B	0.079	2	3.10	1.6	14.37	9.84
PMM2016	HP2016B	0.079	2	6.15	2.5	18.30	13.78
PMM2416	HP2416C	0.079	2	8.00	3.1	22.24	13.78
PMM3020	HP3020D	0.079	2	12.04	4.6	26.18	17.72
PMM3325	HP3325D	0.118	3	20.00	9.9	30.11	21.65

PVC Insulating Back Panels

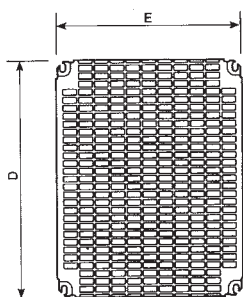
PVC back panels are made from 1/4 in. PVC and meet UL94 V-0



Cat. No.	To Fit Enclosures	Weight		P		S	
		lb.	kg	(in.)	(mm)	(in.)	(mm)
PMB1612	HP1612B	1.10	0.5	14.37	365	9.84	250
PMB2016	HP2016B	2.65	1.2	18.30	465	13.78	350
PMB2416	HP2416C	3.09	1.4	22.24	565	13.78	350
PMB3020	HP3020D	4.63	2.1	26.18	665	17.72	450
PMB3325	HP3325D	6.62	3.0	30.11	765	21.65	550

Slotted Back Panels

Zinc dichromated coated steel plates perforated for addition of electrical circuit



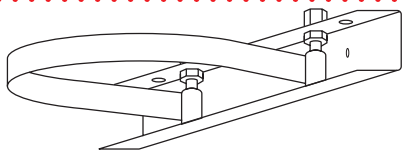
Cat. No.	To Fit Enclosures	Weight		D		E	
		lb.	kg	(in.)	(mm)	(in.)	(mm)
PMR1612	HP1612B	1.54	0.7	13.74	349	9.8	251
PMR2016	HP2016B	2.87	1.3	17.72	450	13.82	351
PMR2416	HP2416C	3.53	1.6	21.85	555	13.82	351
PMR3020	HP3020D	5.07	2.3	25.39	645	17.76	451
PMR3325	HP3325D	7.06	3.2	29.53	750	21.69	551

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Himeline®* Enclosures

HP Series Accessories

Pole Mounting Set



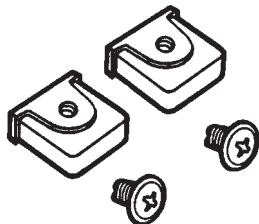
Cat. No.	To Fit Enclosures	Std. Ctn. Qty.
HPPF300	HP1612B	1
HPPF400	HP2016B HP2416C	
HPPF500	HP3020D	
HPPF600	HP3325D	

35 mm Symmetrical DIN Rail



Cat. No.	To Fit Enclosures	Width (in.)	Std. Ctn. Qty.
HPC0300	HP1612B	11.02	1
HPC0400	HP2016B HP2416C	14.96	
HPC0500	HP3020D	18.90	

Rail Mounting Insert



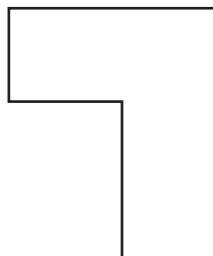
Cat. No.	Features	Std. Ctn. Qty.
HPRFK	Fits all enclosures	1

Wall Mounting Set *(includes brass inserts and installation tools)*



Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HPWMF	4	0.1

Blanking Grommet *(to close off openings on enclosure backs)*



Cat. No.	To Fit Enclosures	Description	Qté Ctn std	Std. Ctn. Wt. (lb.)
HPBNGB	16 x 12 and 20 x 16	Blanking Grommet	Set of 4	1.00
HPBNGC	24 x 16, 30 x 20 and 33 x 25	Blanking Grommet	Set of 4	1.00

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Himeline®* Enclosures

HP Series Accessories

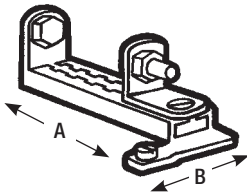
Fixing Accessories For Slotted Plates



Fixing Nut			Fixing Bolt With Washer		
Cat. No.	Type of Thread	Std. Ctn. Qty.	Cat. No.	Length (in.)	Std. Ctn. Qty.
HPFA4	M4	100	HPFB104	0.39	100
HPFA4	M4	100	HPFB164	0.63	100
HPFA5	M5	100	HPFB125	0.47	100
HPFA5	M5	100	HPFB185	0.71	100
HPFA6	M6	100	HPFB126	0.47	100
HPFA6	M6	100	HPFB186	0.71	100

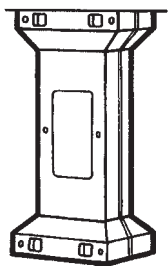
Back Panel Depth Adjustable Supports

Supports designed to fit 7.87 in. (200 mm), 9.84 in. (250 mm), 11.81 in. (300 mm) and 13.78 in. (350 mm) deep enclosures. Self-positioning slots allow for adjustment every 0.49 in. (12.5 mm). Made of zinc dichromated coated steel.



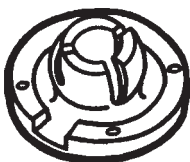
Cat. No.	To Fit Enclosures	A		B		Quantité Carton std
		(in.)	(mm)	(in.)	(mm)	
HPLM200	HP1612B and HP2016B	5.98	152	3.90	99	1 set of 4
HPLM250	HP2416C	8.07	205	4.13	105	1 set of 4
HPLM300	HP3020D and HP3325D	10.04	255	8.07	205	1 set of 4

Pedestal Mount



Cat. No.	To Fit Enclosures	Std. Ctn. Qty.
HPSFS1	HP2016B HP2416C	1

Draining Device (For 3R Rating and condensation build-up)



Cat. No.	Std. Ctn. Qty.
HPVEA9	1

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Himeline®* Enclosures

HP Series Accessories

Air Vents

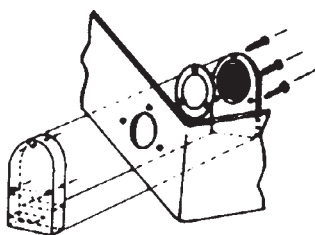
NEMA 1 Rated only



Cat. No.	Description	Std. Ctn. Qty.
HPVM25	Pour installation à l'extérieur de toutes les enceintes	1
HPVM35	Pour installation à l'intérieur de toutes les enceintes	

Enclosure Ventilator

Allows any size enclosure to breathe, yet remains watertight



Cat. No.	Std. Ctn. Qty.
HVM27	1

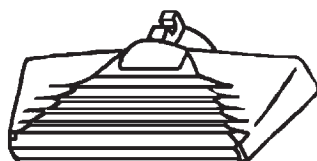
Coupling Frame

For Himeline HP Enclosures HP3020D and HP3325D



Cat. No.	Std. Ctn. Qty.
HPBU	1

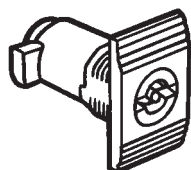
Replacement Standard Handle



Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HPRSH	1	0,05

Locks

For Himeline HP Enclosures



Replacement Door Lock



Cylinder Key Lock (Keyed Alike)



Padlocking Service

Cat. No.	Std. Ctn. Qty.
HPRLA	1

Cat. No.	Std. Ctn. Qty.
HPTPLM	1

Cat. No.	Std. Ctn. Qty.
HPPLH	1

* Himeline is a registered trademark of Hispano Mecano Electric, S.A.

Himeline®* Enclosures

HLA/HLS Series (Fiber Reinforced Polyester)



Carlton® Himeline®* HLA/HLS Series Enclosures are large Fiber Reinforced Polyester Cabinets ranging in sizes 20 x 20 x 17 to 50 x 40 x 17 and 20 x 20 x 12 to 50 x 40 x 12, respectively. They have operating temperatures of – 50° to 150° C and can accommodate large devices and equipment for a wide range of applications including junction and terminal wiring boxes, instruments and control housings. They are ideal for indoor/outdoor industrial, MRO and OEM applications and offer superior strength and high resistance to corrosion, moisture, dust, oil and UV light, enabling them to withstand the harshest of environments.

The HLA/HLS Series Enclosures are fitted with a watertight gasket and are available in one- and two-door configurations. These cabinets have a closed top and bottom and the two-door version includes a central upright to maintain rigidity.

To maintain the watertight seal, the locking mechanism is positioned outside the gasketed area. A wide variety of accessories are available such as steel and nonmetallic back panels, self-positioning panel depth adjusters and ventilator kits.

Features

- Fiber reinforced polyester
- Temperature range of – 50 to 150°C
- Indoor/outdoor applications
- Superior strength
- High resistance to harsh environments
- Watertight gasket seal
- One- and two-door configurations
- Locking mechanism and hinge are outside gasketed area
- Floor or wall mounted

Applications

- Contain large devices and equipment
- Junction and terminal wiring boxes
- Instrument and control housings

Standards

- IP 65 Rating (Single door versions only)
- NEMA Type 4/4X Rated (Single door versions only)
- cULus Listed

* Himeline is a registered trademark of Hispano Mecano Electric, S.A.

Himeline®* Enclosures

HLA/HLS Series Single and Double Hinged Cover Enclosures with Latches

One Door NEMA Types 1, 2, 3, 3R, 4, 4X, 5, 12 and 13



HLA One Door (17 in. Deep)



Cat. No.	Dimensions (in.)			Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	H	W	D		
HLA2020	20	20	17	1	38.3
HLA2030	20	30			53.9
HLA3020	30	20			53.9
HLA3030	30	30			60.7
HLA4020	40	20			63.1
HLA4030	40	30			81.0
HLA5020	50	20			78.7
HLA5030	50	30			96.7

HLS One Door (12 in. Deep)



Cat. No.	Dimensions (in.)			Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	H	W	D		
HLS2020	20	20	12	1	29.80
HLS2030	20	30			40.59
HLS3020	30	20			59.50
HLS3030	30	30			55.10
HLS4020	40	20			56.81
HLS4030	40	30			61.70
HLS5020	50	20			67.56
HLS5030	50	30			76.83

Two Door NEMA Types 1, 2, 12 and 13



HLA Two Door (17 in. Deep)



Cat. No.	Dimensions (in.)			Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	H	W	D		
HLA30402	30	40	17	1	81.0
HLA40402	40	40			114.7
HLA40502	40	50			135.0
HLA50402	50	40			135.0

HLS Two Door (12 in. Deep)



Cat. No.	Dimensions (in.)			Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	H	W	D		
HLS30402	30	40	12	1	62.57
HLS40402	40	40			57.59
HLS40502	40	50			104.28
HLS50402	50	40			104.28

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Himeline®* Enclosures

HLA/HLS Series Accessories – Back Plates (Fiber Reinforced Polyester)

Nonmetallic Thermosetting Plastic (Bakelite)



One Door

Cat. No.	Dimensions (in.)		Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	H	W		
LP2020BP	15,4	14,8	1	2,1
LP3020BP*	25,2	14,8		3,0
LP3030BP	25,2	24,6		6,3
LP4020BP	35,0	14,8		5,2
LP4030BP	35,0	24,6		8,8
LP5020BP	44,3	14,8		6,7
LP5030BP	44,3	24,6		11,2

* Use Back Panel LP3020BP for Enclosures HLA2030, HLA3020, HLS2030 and HLS3020

Two Door

Cat. No.	Dimensions (in.)		Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	H	W		
LP30402BP	25,2	34,4	1	8,8
LP40402BP	35,0	34,4		12,3
LP40502BP	35,0	44,3		16,11
LP50402BP	44,3	34,4		16,11

Metal – Galvanized Steel



One Door

Cat. No.	Dimensions (in.)		Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	H	W		
LA2020BP	15,4	14,8	1	5,6
LA3020BP**	25,2	14,8		8,6
LA3030BP	25,2	24,6		17,6
LA4020BP	35,0	14,8		14,6
LA4030BP	35,0	24,6		24,3
LA5020BP	44,3	14,8		19,4
LA5030BP	44,3	24,6	1	31,9

** Use Back Panel LA3020BP for Enclosures HLA2030, HLA3020, HLS2030 and HLS3020

Two Door

Cat. No.	Dimensions (in.)		Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
	H	W		
LA30402BP	25,2	34,4	1	24,1
LA40402BP	35,0	34,4		33,8
LA40502BP	35,0	44,3		43,4
LA50402BP	44,3	34,4		43,7

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Himeline®* Enclosures

HLA/HLS Series Accessories

Mounting Feet



Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HLAMFSS	1 ea. (set of 4)	0,6

Replacement Handle with Cylinder Key Lock



Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HLATEL	1 ch.	0,41

Panel Adjuster Kit



Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HLABPA4	1 ea. (set of 4)	0,31

Standard Replacement Bar Lock with Key



Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HLATD	1 ch.	0,21

Padlock Device



Cat. No.	Std. Ctn. Qty.
HLAPAD	1

Replacement Handle with Push Button

Cat. No.	Std. Ctn. Qty.	Std. Ctn. Wt. (lb.)
HLAHAN	1	0,40

Air Vents

NEMA 1 Rated only



Cat. No.	Style	Std. Ctn. Qty.
HPVM25	For fitting outside of all enclosures	1
HPVM35	For fitting inside of all enclosures	1

Draining Device

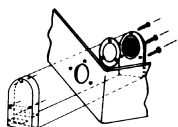
For 3R Rating and condensation build-up



Cat. No.	Std. Ctn. Qty.
HPVEA9	1

Enclosure Ventilator

Allows any size enclosure to breathe, yet remains watertight



Cat. No.	Std. Ctn. Qty.
HVM27	1

* Himeline is a registered trademark of Hispano Mecano Electric, S.A.

Himeline®* Enclosures

HLP Series Enclosure and Pedestal



Himeline®* HLP Enclosures and Pedestals are designed to accommodate all types of electrical equipment for electrical distribution applications.

The enclosure may be directly installed on the ground or on top of a pedestal, and the pedestal is approved for direct burial applications.

Both are manufactured using fiber reinforced polyester to provide high impact resistance and allow effortless modifications. And each have an IP-43 Self-Ventilated and IP-54 Watertight rating and a temperature range of -50 to 150°C .

Features

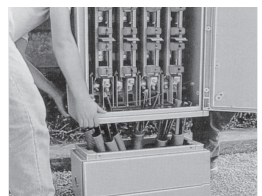
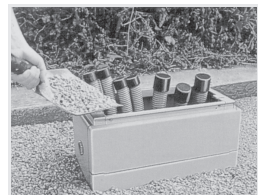
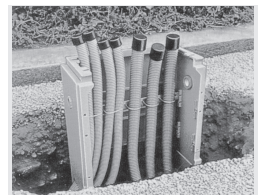
- High impact resistance
- Non-conductive and non-corrosive
- Fits all type of electrical equipment
- IP-43 Self-Ventilated
- IP-54 Watertight
- One and two door configurations
- Install directly on the ground or on a pedestal
- Removable inner hinges for great access
- Doors open 180°

Applications

- Can be direct buried
- Non-conductive and non-corrosive
- Detachable upper front for easy access
- High impact resistance
- Auxiliary outlet on the side
- IP-43 Self-Ventilated
- IP-54 Watertight
- Floor or wall mountable

Material

Fiberglass Reinforced Polyester



* Himeline is a registered trademark of Hispano Mecano Electric, S.A.

Himeline®* Enclosures

HLP Series

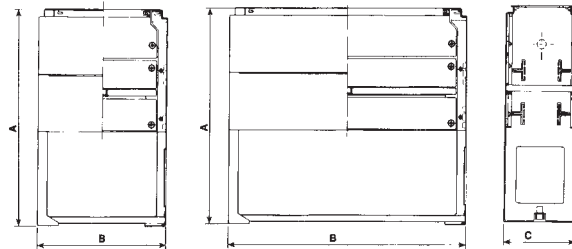
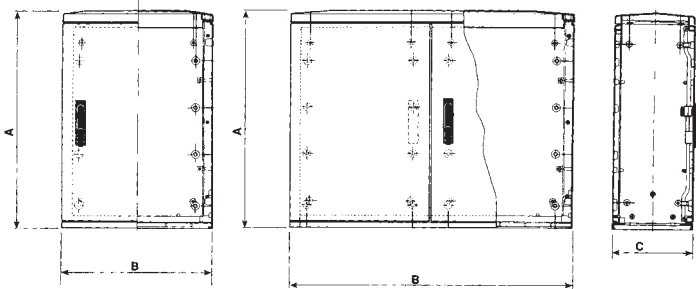
Specifications

Enclosures

Cat. No.	No. of Doors	No. of Locks	A Height (in.)	B Width (in.)	C Depth (in.)	Ctn. Qty.	Wt. (lb.)
HLP3318	1	1	33.46	18.31	12.60	1	40.79
HLP3323	1	1	33.46	23.23	12.60	1	48.50
HLP3331	1	1	33.46	30.91	12.60	1	55.12
HLP33442	2	1	33.46	43.90	12.60	1	77.16
HLP33442L	2	2	33.46	43.90	12.60	1	77.16

Pedestals

Cat. No.	A Height (in.)	B Width (in.)	C Depth (in.)	Ctn. Qty.	Wt. (lb.)
HLPED3318	35.43	18.31	12.20	1	33.10
HLPED3323	35.43	23.23	12.20	1	37.48
HLPED3331	35.43	30.91	12.20	1	44.10
HLPED33442	35.43	43.90	12.20	1	55.12

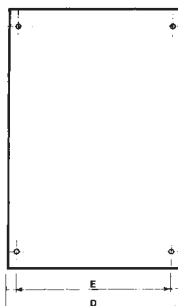


Mounting Plates

Cat. No.	Enclosure Cat. No.	Pedestal Cat. No.	# of Plates per Encl.	D (in.)	E (in.)	Thickness (in.)	Ctn. Qty.	Wt. (lb.)
LA1412BP	HLP3318	HLPED3318	1	14.02	11.97	0.20	1	4.41
LA1816BP	HLP33442L	HLPED33442L	2	17.64	15.59	0.20	1	11.02
LA1916BP	HLP3323	HLPED3323	1	18.94	16.89	0.20	1	6.00
LA2725BP	HLP3331	HLPED3331	1	26.61	24.57	0.20	1	8.38

Accessories

Cat. No.	Size (in.) H x W x D	Ctn. Qty.	Wt. (lb.)
HLP3318G	33 x 18 x 12	1	2.2
HLP3323G	33 x 23 x 12	1	2.2
HLP3331G	33 x 31 x 12	1	2.2
HLP3344G	33 x 44 x 12	1	2.2



* Himeline is a registered trademark of Hispano Mecano Electricas, S.A.

General Information

NEMA Types – Definitions Pertaining to Non-Hazardous Locations

Enclosures for Electrical Equipment



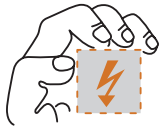







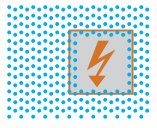
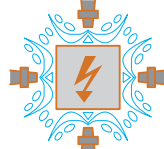
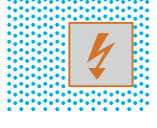
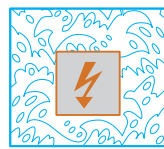
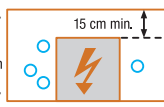
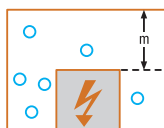
An enclosure is a surrounding case constructed to provide protection from accidental contact with the enclosed equipment and to provide protection to the enclosed equipment from specified environmental conditions. A brief description of the more common types of enclosures used by the electrical industry follows.

- Type 1 Enclosure:** Intended for indoor use primarily to provide protection against contact with enclosed equipment and a degree of protection against falling dirt.
- Type 2 Enclosure:** Intended for indoor use primarily to provide a degree of protection against limited amounts of falling water and dirt.
- Type 3 Enclosure:** Intended for outdoor use primarily to provide a degree of protection against wind-blown dust, rain, sleet and external ice formation.
- Type 3R Enclosure:** Intended for outdoor use primarily to provide a degree of protection against falling rain, sleet and external ice formation.
- Type 3S Enclosure:** Intended for outdoor use primarily to provide a degree of protection against wind-blown dust, rain and sleet, and to provide for operation of external mechanism when ice laden.
- Type 3X Enclosure:** Intended for outdoor use primarily to provide a degree of protection against wind-blown dust, rain, sleet and external ice formation and corrosion.
- Type 3SX Enclosure:** Intended for outdoor use primarily to provide a degree of protection against wind-blown dust, rain, sleet and corrosion, and to provide for operation of external mechanism when ice laden.
- Type 4 Enclosure:** Intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, wind-blown dust and rain, splashing water and hose-directed water.
- Type 4X Enclosure:** Intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, wind-blown dust and rain, splashing water and hose-directed water.
- Type 6 Enclosure:** Intended for indoor or outdoor use primarily to avoid a degree of protection against contact with enclosed equipment, falling dirt, hose-directed water, entry of water during occasional temporary submersion at a limited depth and external ice formation.
- Type 6P Enclosure:** Intended for indoor or outdoor use primarily to avoid a degree of protection against contact with enclosed equipment, falling dirt, hose-directed water, entry of water during prolonged submersion at a limited depth and external ice formation.
- Type 12 Enclosure:** Intended for indoor use primarily to provide a degree of protection against dust falling dirt and dripping non-corrosive liquids.
- Type 13 Enclosure:** Intended for indoor use primarily to provide a degree of protection against dust, spraying of water, oil and non-corrosive coolant.

General Information

International Standards IP Protection Classification Data

The letters IP followed by two characteristic numbers symbolize the degree of protection.

First Digit			Second Digit		
IP	Test	Test	IP	Test	Test
0		No protection	0		No protection
1		Protection against solid bodies larger than 50 mm (for example accidentally touching with the hand)	1		Protection against vertical water drops condensation
2		Protection against solid bodies larger than 12 mm (for example a finger)	2		Protected against water drops at up to 15° from the vertical
3		Protection against solid bodies larger than 2.5 mm (tools, wires)	3		Protected against rain at up to 60° from the vertical
4		Protection against solid bodies larger than 1 mm (tools, small wires)	4		Protected against water splashing from all directions
5		Protection against dust (no harmful deposits)	5		Protected against water sprayed from a hose from all directions
6		Complete protection against dust	6		Protected against water projections similar to sea wave splashes
			7		Protected against the effects of immersion
			8		Protected against effects of prolonged immersion under pressure

General Information

Engineering Properties of Enclosures

Property	Test Method	Opaque Polycarbonate Covers & Boxes	Clear Polycarbonate Cover	FRP	NORYL
Thermal and Mechanical					
Temperature Range (°C)	-	-34 to 110°	-34 to 110°	-50 to 160°	-40 to 85°
Specific Gravity (oz./in ³)	ASTM D792	1.20	1.20	1.79	0.85
Thermal Conductivity (BTU•in./hr•ft ² •°C)	ASTM D177	1.35	1.35	1.68	0.86
Heat Deflection Temperature @ 264 PSI (°C)	ASTM D648	265	260	392	180
Tensile Strength (PSI)	ASTM D638	8,800	9,000	13,000	3,400
Flexural Strength (PSI)	ASTM D790	13,500	14,000	19,000	6,800
Compressive Strength @ 10% Deformation (PSI)	ASTM D695	12,500	12,500	24,000	5,200
Impact Strength IZOD Notched (ft lb./in.)	ASTM D256	12	12	12	-
Water Absorption – 24 hrs. @ 23°C (%)	ASTM D570	0.15	0.15	0.17	0.06
UV Rating	UL 746C	F1	F1	F2	
Electrical					
Dielectric Strength (volts/mil.)	ASTM D149	380	380	467	192
Dielectric Constant	ASTM D150				
60 Hz		3.0	3.0	-	-
100 Hz		-	-	-	2.27
106 Hz		2.96	2.96	-	2.18
Volume Resistivity @ 23°C (ohms-cm)	ASTM D257	>1016	>1016	2.0 x 1015	1.0 x 1016
Arc Resistance (sec.)	ASTM D495	120	120	200+	67

Chemical Resistance Data

Chemical	PVC Opaque Cover w/Base	Polycarbonate Circuit Safe NEMA, Circuit Safe JIC Clear Cover w/Base Himeline HS - Opaque w/Clear Lids	FRP Fiberglass Reinforced Polyester) Himeline HS - Bases Himeline HP, Himeline HLA/HLS Himeline HLP	Noryl Circuit Safe Medium JIC
Acetaldehyde	U	L	-	-
Acetamide	U	U	-	-
Acetate Solvent	U	-	-	U
Acetic Acid	U	G	E	E
Acetic Acid 20%	U	E	E	E
Acetic Acid 80%	L	G	E	E
Acetic Acid, Glacial	U	G	E	E
Acetic Anhydride	U	U	E	U
Acetone	U	U	U	U
Acetyl Bromide	U	-	-	-
Acetyl Chloride (dry)	L	U	-	U
Acetylene	E	U	-	-
Acrylonitrile	G	U	-	-
Adipic Acid	E	-	-	-
Alcohols: Amyl	E	G	-	L
Alcohols: Benzyl	U	-	-	U
Alcohols: Butyl	E	E	-	E
Alcohols: Diacetone	G	-	-	E
Alcohols: Ethyl	L	G	-	E
Alcohols: Hexyl	E	-	-	E
Alcohols: Isobutyl	E	-	-	E
Alcohols: Isopropyl	E	E	-	E
Alcohols: Methyl	E	G	-	E
Alcohols: Octyl	-	-	-	E
Alcohols: Propyl	E	-	-	E
Aluminum Chloride	E	E	E	E
Aluminum Chloride 20%	E	E	-	E
Aluminum Fluoride	E	-	-	E
Aluminum Hydroxide	E	G	-	E
Aluminum Nitrate	E	E	-	-
Aluminum Potassium Sulfate 10%	E	E	-	E
Aluminum Potassium Sulfate 100%	E	E	-	E
Aluminum Sulfate	E	E	E	E
Amines	U	U	-	U
Ammonia 10%	G	U	-	E
Ammonia Nitrate	G	-	-	E
Ammonia, anhydrous	E	U	-	G
Ammonia, liquid	E	U	L	-
Ammonium Acetate	E	-	-	-
Ammonium Bifluoride	E	-	-	E
Ammonium Carbonate	E	-	L	-
Ammonium Caseinate	-	-	-	E
Ammonium Chloride	E	E	E	E
Ammonium Hydroxide	E	U	L	E
Ammonium Nitrate	E	-	L	E
Ammonium Oxalate	E	E	-	-
Ammonium Persulfate	E	-	-	E
Ammonium Phosphate, Dibasic	E	E	-	E
Ammonium Phosphate, Monobasic	E	-	-	E
Ammonium Phosphate, Tribasic	E	-	-	E
Ammonium Sulfate	E	E	E	E
Ammonium Sulfite	E	-	E	E
Amyl Acetate	U	U	L	U
Amyl Alcohol	E	G	L	L
Amyl Chloride	U	-	U	U
Aniline	L	U	U	U
Aniline Hydrochloride	G	U	-	-
Antifreeze	E	-	-	E
Antimony Trichloride	E	E	E	E
Aqua Regia (80% HCl, 20% HNO3)	L	U	-	U

Chemical	PVC Opaque Cover w/Base	Polycarbonate Circuit Safe NEMA, Circuit Safe JIC Clear Cover w/Base Himeline HS - Opaque w/Clear Lids	FRP Fiberglass Reinforced Polyester) Himeline HS - Bases Himeline HP, Himeline HLA/HLS Himeline HLP	Noryl Circuit Safe Medium JIC
Aromatic Hydrocarbons	U	-	-	U
Arsenic Acid	E	E	-	E
Arsenic Salts	E	-	-	-
Asphalt	E	U	-	-
Barium Carbonate	E	E	E	E
Barium Chloride	E	E	E	E
Barium Cyanide	U	-	-	-
Barium Hydroxide	E	U	U	E
Barium Nitrate	E	U	-	E
Barium Sulfate	G	U	E	E
Barium Sulfide	E	-	E	E
Beer	E	E	-	E
Beet Sugar Liquids	E	-	-	E
Benzaldehyde	U	U	U	G
Benzene	L	U	L	E
Benzene Sulfonic Acid	E	U	E	U
Benzoic Acid	E	G	-	G
Benzol	-	U	-	G
Benzonitrile	-	E	-	-
Benzyl Chloride	-	-	-	U
Bleaching Liquors	E	-	-	-
Borax (Sodium Borate)	E	-	-	E
Boric Acid	E	-	E	E
Bromine	L	L	-	E
Butadiene	L	U	-	U
Butane	L	U	-	U
Butanol (Butyl Alcohol)	L	G	-	E
Butyl Amine	U	U	-	U
Butyl Ether	E	-	-	U
Butyl Phthalate	-	U	-	E
Butylacetate	U	U	U	G
Butylene	E	U	-	-
Butyric Acid	G	U	-	U
Calcium Bisulfate	-	U	-	-
Calcium Bisulfide	E	-	-	E
Calcium Bisulfite	G	U	-	E
Calcium Carbonate	E	L	-	E
Calcium Chlorate	G	-	E	-
Calcium Chloride	L	-	E	E
Calcium Hydroxide	G	U	U	E
Calcium Hypochlorite	G	U	L	E
Calcium Nitrate	E	E	E	E
Calcium Oxide	G	-	-	E
Calcium Sulfate	G	E	E	E
Calgon	-	-	-	E
Cane Juice	E	-	-	-
Carbolic Acid (Phenol)	U	U	-	U
Carbon Bisulfide	U	-	L	-
Carbon Dioxide (dry)	E	-	-	E
Carbon Dioxide (wet)	E	-	-	E
Carbon Disulfide	U	U	-	U
Carbon Monoxide	E	-	-	U
Carbon Tetrachloride	U	U	E	U
Carbon Tetrachloride (dry)	-	-	-	U
Carbon Tetrachloride (wet)	-	-	-	U
Carbonated Water	E	-	-	E
Carbonic Acid	E	E	-	E
Catsup	E	-	-	E
Chloric Acid	E	-	-	U
Chlorine (dry)	U	-	-	G

Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

IMPORTANT: These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Ratings listed in this chart apply to a 48-Hour exposure period. (The information in this chart is to be used ONLY as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.)

Chemical	PVC Opaque Cover w/Base	Polycarbonate Circuit Safe NEMA, Circuit Safe JIC Clear Cover w/Base Himeline HS - Opaque w/Clear Lids	FRP Fiberglass Reinforced Polyester) Himeline HS - Bases Himeline HP, Himeline HLA/HLS Himeline HLP	Noryl Circuit Safe Medium JIC
Chlorine Water	E	-	E	L
Chlorine, Anhydrous Liquid	U	L	-	G
Chloroacetic Acid	G	U	-	-
Chlorobenzene (Mono)	U	U	U	U
Chlorobromomethane	U	-	-	-
Chloroform	U	U	-	U
Chlorosulfonic Acid	U	L	-	U
Chocolate Syrup	-	E	-	E
Chromic Acid 10%	E	G	E	E
Chromic Acid 30%	E	L	-	U
Chromic Acid 5%	E	G	-	U
Chromic Acid 50%	U	U	-	E
Chromium Salts	E	-	-	-
Citric Acid	G	E	E	E
Citric Oils	-	-	-	E
Clorox® (Bleach)	E	-	-	E
Copper Chloride	E	-	-	E
Copper Cyanide	E	U	-	E
Copper Fluoborate	E	-	-	-
Copper Nitrate	E	U	-	E
Copper Sulfate >5%	E	E	-	E
Copper Sulfate 5%	E	E	-	E
Cresols	U	U	U	U
Cresylic Acid	U	U	-	-
Cupric Acid	E	E	-	E
Cyclohexane	U	G	-	U
Cyclohexanone	U	U	-	U
Detergents	E	E	-	E
Diacetone Alcohol	U	U	-	-
Dichlorobenzene	U	U	-	-
Dichloroethane	U	U	-	E
Diesel Fuel	E	E	-	U
Diethyl Ether	U	U	-	-
Diethylamine	U	U	-	-
Diethylene Glycol	L	G	-	E
Dimethyl Aniline	U	U	U	U
Dimethyl Formamide	U	U	-	U
Diphenyl Oxide	U	-	-	-
Dyes	G	-	-	E
Epsom Salts (Magnesium Sulfate)	E	E	-	E
Ethane	-	-	-	-
Ethanol	L	G	-	E
Ethanolamine	U	-	-	E
Ether	U	-	L	U
Ethyl Acetate	U	U	L	E
Ethyl Benzoate	U	U	-	E
Ethyl Chloride	U	U	L	U
Ethyl Ether	U	-	U	U
Ethylene Bromide	U	U	-	-
Ethylene Chloride	U	U	-	U
Ethylene Chlorohydrin	U	U	E	-
Ethylene Diamine	U	E	-	U
Ethylene Dichloride	U	U	U	U
Ethylene Glycol	E	G	E	E
Ethylene Oxide	U	L	-	E
Fatty Acids	E	G	-	E
Ferric Chloride	E	E	E	E
Ferric Nitrate	E	E	E	E
Ferric Sulfate	E	E	E	E
Ferrous Chloride	E	U	E	E

Chemical	PVC Opaque Cover w/Base	Polycarbonate Circuit Safe NEMA, Circuit Safe JIC Clear Cover w/Base Himeline HS - Opaque w/Clear Lids	FRP Fiberglass Reinforced Polyester) Himeline HS - Bases Himeline HP, Himeline HLA/HLS Himeline HLP	Noryl Circuit Safe Medium JIC
Ferrous Sulfate	E	E	E	E
Fluoboric Acid	E	-	-	E
Fluorine	U	L	-	-
Fluosilicic Acid	U	E	-	E
Formaldehyde 100%	E	E	-	E
Formaldehyde 40%	E	E	E	E
Formic Acid	E	E	L	E
Freon 113	G	G	-	U
Freon 12	E	-	-	U
Freon 22	E	-	-	G
Freon TF	G	-	-	-
Freon® 11	E	-	-	G
Fuel Oils	E	G	-	G
Furan Resin	E	-	-	-
Furfural	U	U	L	U
Gallic Acid	G	-	-	E
Gasoline (high-aromatic)	E	E	-	G
Gasoline, leaded, ref.	G	E	E	G
Gasoline, unleaded	L	E	-	U
Gelatin	G	-	-	E
Glucose	E	E	E	E
Glue, P.V.A.	L	-	-	-
Glycerin	E	E	E	E
Glycolic Acid	G	-	-	-
Grease	E	-	-	-
Heptane	L	G	E	G
Hexane	G	U	U	G
Hydraulic Oil (Petro)	E	-	-	-
Hydraulic Oil (Synthetic)	E	-	-	-
Hydrazine	-	U	-	-
Hydrobromic Acid 100%	E	-	-	G
Hydrobromic Acid 20%	G	-	-	G
Hydrochloric Acid 100%	U	U	-	E
Hydrochloric Acid 20%	E	G	E	E
Hydrochloric Acid 37%	G	U	L	E
Hydrochloric Acid, Dry Gas	E	-	-	E
Hydrocyanic Acid	G	-	-	E
Hydrocyanic Acid (Gas 10%)	E	G	-	L
Hydrofluoric Acid 100%	L	U	-	U
Hydrofluoric Acid 20%	G	U	-	L
Hydrofluoric Acid 50%	G	U	-	U
Hydrofluoric Acid 75%	L	U	-	U
Hydrofluosilicic Acid 100%	G	-	-	G
Hydrofluosilicic Acid 20%	E	-	-	G
Hydrogen Gas	E	E	-	E
Hydrogen Peroxide 10%	E	E	-	E
Hydrogen Peroxide 100%	E	E	-	E
Hydrogen Peroxide 30%	E	E	E	E
Hydrogen Peroxide 50%	E	E	E	-
Hydrogen Peroxide (aqua)	G	E	-	E
Hydrogen Sulfide (dry)	E	-	-	-
Hydroquinone	G	-	-	-
Hydroxyacetic Acid 70%	U	-	-	-
Ink	L	-	-	-
Iodine	E	-	-	L
Iodine (in alcohol)	E	-	-	-
Iodoform	E	-	-	-
Isooctane	E	G	-	U
Isopropyl Acetate	U	U	-	-
Isopropyl Ether	G	U	-	-

Chemical Resistance Data

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Isotane	E	-	-	-
Jet Fuel (JP3, JP4, JP5)	L	E	-	U
Kerosene	E	U	-	U
Ketones	U	U	-	U
Lacquer Thinners	U	G	-	U
Lacquers	U	U	-	U
Lactic Acid	G	G	E	E
Lard	E	E	-	E
Lead Acetate	G	-	-	E
Lead Nitrate	E	-	-	E
Lead Sulfamate	G	E	-	-
Lime	G	-	-	-
Linoleic Acid	E	-	-	-
Lithium Chloride	U	G	-	-
Lithium Hydroxide	-	U	-	-
Lubricants	G	E	-	L
Lye: Ca(OH)2 Calcium Hydroxide	G	U	-	E
Lye: KOH Potassium Hydroxide	G	U	-	E
Lye: NaOH Sodium Hydroxide	E	U	-	E
Magnesium Bisulfate	E	E	-	-
Magnesium Carbonate	G	E	E	E
Magnesium Chloride	G	E	E	E
Magnesium Hydroxide	E	E	G E	-
Magnesium Nitrate	E	E	-	E
Magnesium Oxide	-	-	-	-
Magnesium Sulfate (Epsom Salts)	E	E	E	E
Maleic Acid	E	-	-	E
Malic Acid	E	-	-	-
Manganese Sulfate	L	E	-	E
Mayonnaise	U	-	-	-
Melamine	U	-	-	-
Mercuric Chloride (dilute)	E	E	-	E
Mercuric Cyanide	E	-	-	-
Mercurous Nitrate	E	E	-	E
Mercury	E	U	-	E
Methane	G	-	-	-
Methanol (Methyl Alcohol)	E	G	L	E
Methyl Acetate	U	U	-	-
Methyl Acetone	U	-	-	-
Methyl Alcohol 10%	E	G	-	E
Methyl Bromide	U	-	-	-
Methyl Butyl Ketone	E	U	-	-
Methyl Cellosolve	U	U	-	-
Methyl Chloride	U	U	-	U
Methyl Dichloride	E	-	-	-
Methyl Ethyl Ketone	U	U	E	U
Methyl Isobutyl Ketone	U	U	-	U
Methyl Isopropyl Ketone	U	U	-	U
Methyl Methacrylate	E	-	-	-
Methylamine	U	-	-	-
Methylene Chloride	U	U	U	U
Mineral Spirits	E	L	-	E
Monochloroacetic acid	-	U	-	-
Monoethanolamine	U	-	-	E
Morpholine	-	U	-	U
Motor oil	G	E	-	E
Naphtha	E	G	E	U
Naphthalene	U	-	-	U
Natural Gas	E	-	-	-
Nickel Chloride	E	E	-	E

Chemical	PVC Opaque Cover w/Base	Polycarbonate Circuit Safe NEMA, Circuit Safe JIC Clear Cover w/Base Himeline HS - Opaque w/Clear Lids	FRP Fiberglass Reinforced Polyester) Himeline HS - Bases Himeline HP, Himeline HLA/HLS Himeline HLP	Noryl Circuit Safe Medium JIC
Nickel Nitrate	E	U	-	E
Nickel Sulfate	E	E	-	E
Nitrating Acid (<15% HNO3)	U	-	-	-
Nitrating Acid (>15% H2SO4)	U	-	-	-
Nitrating Acid (.1% Acid)	U	-	-	-
Nitrating Acid (.15% H2SO4)	U	-	-	-
Nitric Acid (20%)	E	G	G	G
Nitric Acid (50%)	G	G	-	G
Nitric Acid (5-10%)	E	E	-	E
Nitric Acid (Concentrated)	G	L	-	G
Nitrobenzene	U	U	L	U
Nitromethane	G	U	-	U
Nitrous Acid	E	-	-	-
Nitrous Oxide	E	-	-	-
Oils:Aniline	U	-	-	U
Oils:Citric	G	E	-	E
Oils:Creosote	L	-	-	U
Oils:Diesel Fuel (20, 30, 40, 50)	G	-	-	U
Oils:Fuel (1, 2, 3, 5A, 5B, 6)	E	G	-	E
Oils:Hydraulic Oil (Petro)	E	-	-	-
Oils:Hydraulic Oil (Synthetic)	E	-	-	-
Oils:Mineral	G	G	-	E
Oils:Olive	L	E	-	E
Oils:Orange	L	L	-	-
Oils:Pine	U	E	-	-
Oils:Rosin	L	-	-	-
Oils:Silicone	E	-	-	E
Oils:Transformer	G	-	-	-
Oils:Turbine	E	-	-	-
Oleic Acid	L	-	E	E
Oleum 100%	U	-	-	E
Oleum 25%	U	-	-	-
Oxalic Acid (cold)	G	-	E	E
Ozone	G	E	-	-
Palmitic Acid	G	-	-	-
Paraffin	G	E	-	E
Pentane	E	E	-	-
Perchloric Acid	L	-	-	-
Perchloroethylene	L	U	-	U
Petrolatum	G	-	-	-
Petroleum	-	-	-	U
Phenol (10%)	L	G	L	U
Phenol (Carbolic Acid)	U	U	-	U
Phosphoric Acid (>40%)	G	E	-	E
Phosphoric Acid (crude)	G	E	-	E
Phosphoric Acid (molten)	U	-	-	-
Phosphoric Acid (.40%)	G	E	-	E
Phosphoric Acid Anhydride	-	U	-	-
Phosphorus	E	-	-	-
Phosphorus Trichloride	U	L	-	-
Photographic Developer	E	E	-	E
Photographic Solutions	E	E	-	E
Phthalic Anhydride	U	E	-	-
Picric Acid	U	U	-	-
Potash (Potassium Carbonate)	E	-	L	E
Potassium Bicarbonate	E	-	-	E
Potassium Bromide	E	E	-	E
Potassium Chlorate	E	E	-	E
Potassium Chloride	E	E	E	E
Potassium Chromate	E	-	E	E

Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

IMPORTANT: These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Ratings listed in this chart apply to a 48-Hour exposure period. (The information in this chart is to be used ONLY as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.)

Chemical	PVC Opaque Cover w/Base	Polycarbonate Circuit Safe NEMA, Circuit Safe JIC Clear Cover w/Base Himeline HS - Opaque w/Clear Lids	FRP Fiberglass Reinforced Polyester) Himeline HS - Bases Himeline HP, Himeline HLA/HLS Himeline HLP	Noryl Circuit Safe Medium JIC
Potassium Cyanide Solutions	E	-	-	E
Potassium Dichromate	E	E	-	E
Potassium Ferricyanide	E	-	E	E
Potassium Ferrocyanide	E	-	E	E
Potassium Hydroxide (Caustic Potash)	E	U	L	E
Potassium Hypochlorite	G	-	-	-
Potassium Iodide	E	-	-	-
Potassium Nitrate	E	E	E	E
Potassium Oxalate	-	-	-	-
Potassium Permanganate	E	E	E	E
Potassium Sulfate	E	E	E	E
Potassium Sulfide	E	-	-	E
Propane (liquefied)	E	L	-	E
Propylene	G	-	-	-
Propylene Glycol	L	G	-	-
Pyridine	U	U	-	G
Pyrogalllic Acid	E	-	-	-
Resorcinol	L	G	-	-
Rosins	L	-	-	-
Salicylic Acid	G	E	-	-
Salt Brine (NaCl saturated)	E	E	-	E
Sea Water	E	E	-	E
Silicone	E	E	-	E
Silver Bromide	-	-	-	E
Silver Nitrate	E	E	-	E
Soap Solutions	E	E	-	E
Soda Ash (see Sodium Carbonate)	E	E	-	E
Sodium Acetate	G	E	E	E
Sodium Aluminate	-	-	-	E
Sodium Benzoate	G	E	-	-
Sodium Bicarbonate	E	E	E	E
Sodium Bisulfate	E	E	-	E
Sodium Bisulfite	E	E	-	E
Sodium Borate (Borax)	E	E	-	E
Sodium Bromide	G	-	E	E
Sodium Carbonate	E	E	-	E
Sodium Chlorate	E	E	E	E
Sodium Chloride	E	E	E	E
Sodium Chromate	-	E	-	E
Sodium Cyanide	E	-	-	E
Sodium Ferrocyanide	E	-	E	E
Sodium Fluoride	E	-	-	E
Sodium Hydrosulfite	L	-	-	-
Sodium Hydroxide (20%)	E	E	U	E
Sodium Hydroxide (50%)	E	U	U	E
Sodium Hydroxide (80%)	E	U	U	E
Sodium Hypochlorite (<20%)	E	L	L	E
Sodium Hypochlorite (100%)	G	-	-	E
Sodium Metaphosphate	E	-	-	-
Sodium Metasilicate	E	-	-	-
Sodium Nitrate	E	-	U	E
Sodium Perborate	E	-	-	-
Sodium Peroxide	G	E	-	-
Sodium Polyphosphate	E	-	-	E
Sodium Silicate	E	-	-	E
Sodium Sulfate	E	E	-	E
Sodium Sulfide	E	U	U	E
Sodium Sulfite	E	-	E	E
Sodium Tetraborate	E	-	-	E
Sodium Thiosulfate (hypo)	E	U	-	E

Chemical	PVC Opaque Cover w/Base	Polycarbonate Circuit Safe NEMA, Circuit Safe JIC Clear Cover w/Base Himeline HS - Opaque w/Clear Lids	FRP Fiberglass Reinforced Polyester) Himeline HS - Bases Himeline HP, Himeline HLA/HLS Himeline HLP	Noryl Circuit Safe Medium JIC
Stannic Chloride	E	E	-	E
Stannic Fluoroborate	-	-	-	E
Stannous Chloride	E	-	-	E
Stearic Acid	G	E	-	E
Stoddard Solvent	L	E	-	U
Styrene	U	U	-	E
Sulfate (Liquors)	G	-	-	-
Sulfur Chloride	L	-	-	E
Sulfur Dioxide	E	-	-	E
Sulfur Dioxide (dry)	E	E	-	E
Sulfur Hexafluoride	G	-	-	-
Sulfur Trioxide	E	-	-	U
Sulfur Trioxide (dry)	E	-	-	U
Sulfuric Acid (<10%)	E	E	E	E
Sulfuric Acid (10-75%)	E	G	U	E
Sulfuric Acid (75-100%)	U	U	-	E
Sulfuric Acid (cold concentrated)	U	-	-	E
Sulfuric Acid (hot concentrated)	U	U	-	U
Sulfurous Acid	E	-	-	E
Tallow	-	-	-	E
Tannic Acid	E	L	-	E
Tanning Liquors	E	-	-	E
Tartaric Acid	E	-	E	E
Tetrachloroethane	L	-	-	U
Tetrachloroethylene	U	U	-	U
Tetrahydrofuran	U	U	L	U
Tin Salts	E	-	-	-
Toluene (Toluol)	U	U	-	U
Trichloroacetic Acid	G	U	-	-
Trichloroethane	L	U	-	U
Trichloroethylene	U	-	U	U
Trichloropropane	-	-	-	U
Tricresylphosphate	U	-	-	E
Triethylamine	G	-	-	G
Trisodium Phosphate	E	-	-	E
Turpentine	U	U	E	U
Urea	U	U	L	E
Uric Acid	E	-	-	-
Varnish	U	-	-	U
Vinegar	G	E	E	E
Vinyl Acetate	U	-	-	-
Vinyl Chloride	U	-	-	-
Water, Acid, Mine	G	G	-	-
Water, Deionized	E	-	-	E
Water, Distilled	E	E	-	E
Water, Fresh	G	E	-	E
Water, Salt	G	E	-	E
Whiskey & Wines	E	E	-	E
White Liquor (Pulp Mill)	E	-	-	E
White Water (Paper Mill)	E	-	-	U
Xylene	G	U	E	G
Zinc Chloride	G	-	E	E
Zinc Hydrosulfite	-	E	-	E
Zinc Sulfate	E	E	E	E