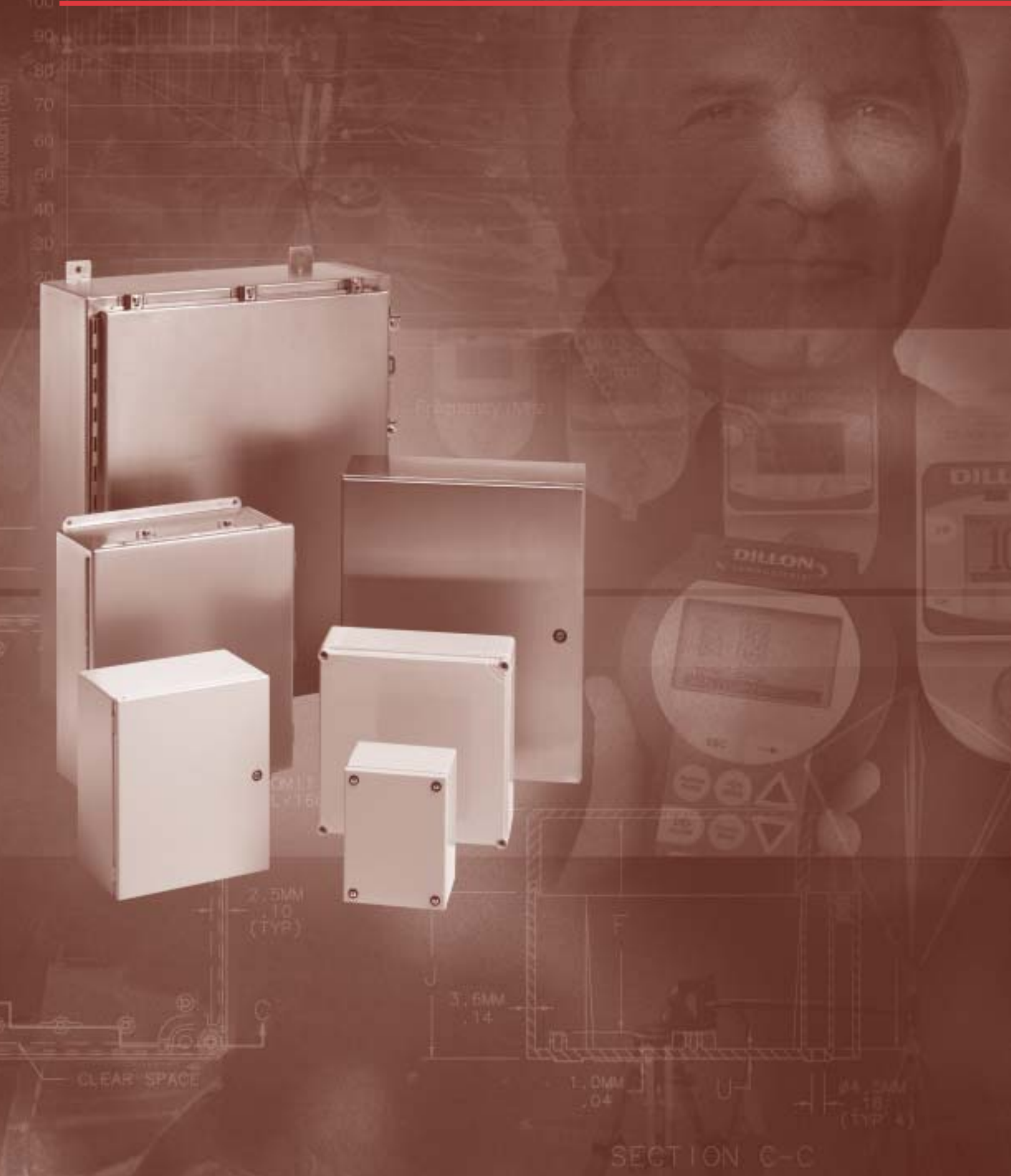
Hoffman®
A Pentair Company

"Most enclosure manufacturers can't even begin to address our electromagnetic shielding issues, but Hoffman can."



*H*offman can shield your controls from unpredictable interference.

Integrated systems for industrial, data, communications and transportation will often require higher levels of EMI protection than standard enclosures provide. The Hoffman EMC designated enclosures provide a higher degree of protection against EMI than standard enclosures because the design has a conductive sealing around the door seams. The environmental UL/CSA rating is still maintained.

Various Hoffman EMC enclosures provide attenuation levels between 40 dB to 100dB. Hoffman has EMC test equipment to measure enclosure-shielding effectiveness, optimize shielding design and establish performance characteristics.

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Non-standard enclosure EMC performance test setup.

Finger Stock Gaskets: Used in combination with foam-in-place gasketing. This conductive format is used with the knife edge flange style of enclosures.

Embedded Foam-In-Place: This patented combination consists of a conductive Monel mesh that has been embedded around the Type 4X seal of foam-in-place gasketing.

Woven Plated Steel Conductive Mesh: Used in combination with a strip gasket. This is used for Type 12 applications of continuous hinge junction boxes and Type 12 and 13 wall-mount enclosures.

EMC ENCLOSURE STYLE	MATERIAL / FINISH	GASKET TYPE	MIN. SIZE (INCH)	MAX. SIZE (INCH)	UL / TYPE	SHIELDING AT 1 GHZ (DB)
PROLINE®	Mild steel / painted, yellow zinc at gasket	Conductive fabric over foam	27.46x23.62x23.62	86.61x39.37x23.62	Type 1	20
INLINE® Mild Steel Screw Cover	Mild steel / painted, yellow zinc at gasket	Conductive fabric over foam	5.91x5.91x4.72	13.78x11.81x7.87	Type 12	>50
INLINE® Mild Steel Hinge Cover	Mild steel / painted, yellow zinc at gasket	Conductive fabric over foam	5.91x5.91x4.72	13.78x11.81x7.87	Type 12	>55
Continuous Hinge Junction Boxes	Mild steel / yellow zinc finish	*Woven plated steel mesh	6.00x4.00x3.00	16.00x14.00x6.00	Type 12	>85
Continuous Hinge Junction Boxes	Stainless steel	*Embedded Monel mesh	6.00x4.00x3.00	16.00x14.00x6.00	Type 4X	>90
CONCEPT®	Mild steel	*Finger stock	12.00x12.00x6.00	36.00x24.00x12.00	Type 4	>35
CONCEPT®	Stainless steel	*Finger stock	12.00x12.00x6.00	36.00x24.00x12.00	Type 4X	>20
Single Door Type 12 and 13 Enclosures	Mild steel / yellow zinc finish	*Woven plated steel mesh	16.00x12.00x6.00	60.00x36.00x12.00	Type 12	>75
Single Door Type 12 and 13 Enclosures	Stainless steel	*Embedded Monel mesh	16.00x12.00x6.00	60.00x36.00x12.00	Type 4X	>85
QLINE®	Polycarbonate	Embedded rope	4.72x3.15x3.35	15.75x7.87x5.20	4X	>40

** Patented. See reference for patent information.*

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PROLINE® Modular EMC Components

Our PROLINE® system of modular components allows you to design your own full-featured enclosures with EMI/RFI shielding.

For added convenience, specify the Hoffman Assemble-To-Order (A-T-O) program and your custom solution will ship pre-assembled.

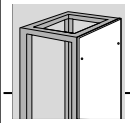
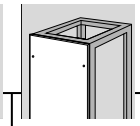
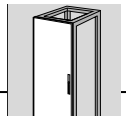
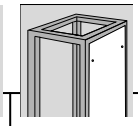
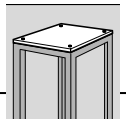
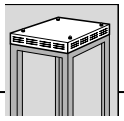
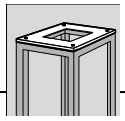
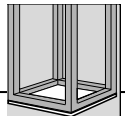
PROLINE® EMI/RFI Enclosures

PROLINE® EMI/RFI shielded frames are welded 12 gauge steel with a zinc plated yellow chromate finish to provide a conductive, corrosion-resistant finishl. EMI/RFI shielded external frame components such as doors, covers, sides, bases, and tops are available for use with the zinc plated frame. All components are painted with RAL 7035 light gray textured polyester powder paint except for conductive gasket surfaces. Components have a conductive zinc finish and EMI/RFI gasketing.

Construction

- Metalized non-woven fabric EMI/RFI material covering UL94HP rated urethane foam gasket
- Frame and external components are plated zinc with yellow chromate per ASATM-8633 class FE/ZN 12 Type 11
- Exterior painted RAL 7035 light gray
- Interior is unpainted, with a zinc plated yellow chromate finish
- Tested in accordance with German Standard VG 95373 and MIL-STD-285
- Shielding effectiveness appropriate for many applications, see attenuation graph on facing page

Component Selection Matrix Steel Sides, Covers, and Door Options

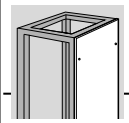









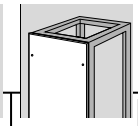
Single-Bay PROLINE® Frame A	B	C	Solid Side	Solid Cover	Solid Door	Barrier Panel	Solid Top	Vented Top	Top with Cutout	0mm Solid Base	100mm Solid Base
700	600	600					PT66HF2	PVT3F66_EMC	PPTHP66EMC	PB066HF2	PB166HF
700	800	600					PT86HF2	PVT3F86_EMC	PPTHP86EMC	PB086HF2	PB186HF
1400	600	500		PCS146HF2	PDS146HF2		PT65HF2		PPTHP65EMC	PB065HF2	PB165HF
1400	600	600	PSS146HF2	PCS146HF2	PDS146HF2		PT66HF2	PVT3F66_EMC	PPTHP66EMC	PB066HF2	PB166HF
1400	600	800		PCS146HF2	PDS146HF2		PT68HF2	PVT3F68_EMC	PPTHP68EMC	PB068HF2	PB168HF
1400	800	500	PSS145HF2				PT85HF2	PVT3F85_EMC	PPTHP85EMC	PB085HF2	PB185HF
1400	800	600	PSS146HF2				PT86HF2	PVT3F86_EMC	PPTHP86EMC	PB086HF2	PB186HF
1400	800	800	PSS148HF2				PT88HF2	PVT3F88_EMC	PPTHP88EMC	PB088HF2	PB188HF
1600	600	400	PSS164HF2								
1600	600	500	PSS165HF2			PBB165EMC		PVT3F65_EMC			
1600	600	600	PSS166HF2			PBB166EMC	PT66HF2	PVT3F66_EMC	PPTHP66EMC	PB066HF2	PB166HF
1600	600	800	PSS168HF2			PBB168EMC	PT68HF2	PVT3F68_EMC	PPTHP68EMC	PB068HF2	PB168HF
1600	700	600	PSS166HF2			PBB166EMC					
1600	700	800	PSS168HF2			PBB168EMC	PT78HF2	PVT3F78_EMC	PPTHP78EMC	PB078HF2	PB178HF
1600	700	900	PSS169HF2								
1600	800	400	PSS164HF2	PCS168HF2	PDS168HF2						
1600	800	500	PSS165HF2	PCS168HF2	PDS168HF2	PBB165EMC					
1600	800	600	PSS166HF2	PCS168HF2	PDS168HF2	PBB166EMC	PT86HF2	PVT3F86_EMC	PPTHP86EMC	PB086HF2	PB186HF
1600	800	800	PSS168HF2	PCS168HF2	PDS168HF2	PBB168EMC	PT88HF2	PVT3F88_EMC	PPTHP88EMC	PB088HF2	PB188HF
1800	600	400		PCS186HF2	PDS186HF2		PT64HF2			PB064HF2	PB164HF
1800	600	500		PCS186HF2	PDS186HF2	PBB185EMC	PT65HF2	PVT3F65_EMC	PPTHP65EMC	PB065HF2	PB165HF
1800	600	600	PSS186HF2	PCS186HF2	PDS186HF2	PBB186EMC	PT66HF2	PVT3F66_EMC	PPTHP66EMC	PB066HF2	PB166HF
1800	600	800	PSS188HF2	PCS186HF2	PDS186HF2	PBB188EMC	PT68HF2	PVT3F68_EMC	PPTHP68EMC	PB068HF2	PB168HF
1800	700	600	PSS186HF2			PBB186EMC	PT76HF2	PVT3F76_EMC	PPTHP76EMC	PB076HF2	PB176HF
1800	700	800	PSS188HF2			PBB188EMC	PT78HF2	PVT3F78_EMC	PPTHP78EMC	PB078HF2	PB178HF
1800	700	900					PT79HF2	PVT3F79_EMC	PPTHP79EMC	PB079HF2	PB179HF
1800	800	400	PSS184HF2	PCS188HF2	PDS188HF2		PT84HF2			PB084HF2	PB184HF
1800	800	500	PSS185HF2	PCS188HF2	PDS188HF2		PT85HF2	PVT3F85_EMC	PPTHP85EMC	PB085HF2	PB185HF
1800	800	600	PSS186HF2	PCS188HF2	PDS188HF2	PBB186EMC	PT86HF2	PVT3F86_EMC	PPTHP86EMC	PB086HF2	PB186HF
1800	800	800	PSS188HF2	PCS188HF2	PDS188HF2	PBB188EMC	PT88HF2	PVT3F88_EMC	PPTHP88EMC	PB088HF2	PB188HF
1800	1000	500	PSS185HF2			PBB185EMC					
1800	1000	600	PSS186HF2			PBB186EMC					
1800	1000	800	PSS188HF2			PBB188EMC					

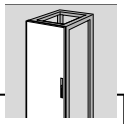
[a] Catalog numbers shown in matrix are for doors with right-hand provision. Doors with left-hand and large cutout provision are also available.

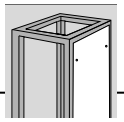
continued

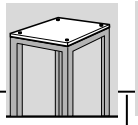
PROLINE® Modular EMC Components

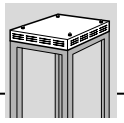


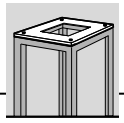


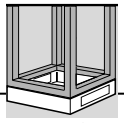




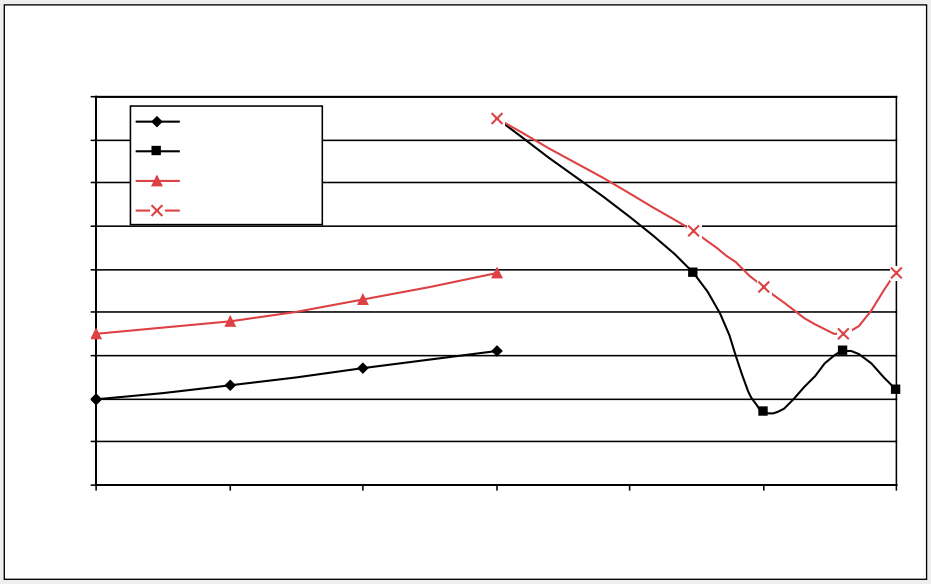








Single-Bay PROLINE® Frame			Solid Side	Solid Cover	Solid Door	Barrier Panel	Solid Top	Vented Top	Top with Cutout	0mm Solid Base	100mm Solid Base
A	B	C									
2000	600	400	PSS204HF2	PCS206HF2	PDS206HF2		PT64HF2			PB064HF2	PB164HF
2000	400	500	PSS205HF2			PBB205EMC				PB045HF2	PB145HF
2000	600	500	PSS205HF2	PCS206HF2	PDS206HF2	PBB205EMC	PT65HF2	PVT3F65_EMC	PPTHP65EMC	PB065HF2	PB165HF
2000	400	600	PSS206HF2			PBB206EMC				PB046HF2	PB146HF
2000	600	600	PSS206HF2	PCS206HF2	PDS206HF2	PBB206EMC	PT66HF2	PVT3F66_EMC	PPTHP66EMC	PB066HF2	PB166HF
2000	600	800	PSS208HF2	PCS206HF2	PDS206HF2	PBB208EMC	PT68HF2	PVT3F68_EMC	PPTHP68EMC	PB068HF2	PB168HF
2000	700	600	PSS206HF2	PCS207HF2	PDS207HF2	PBB206EMC	PT76HF2	PVT3F76_EMC	PPTHP76EMC	PB076HF2	PB176HF
2000	700	800	PSS208HF2	PCS207HF2	PDS207HF2	PBB208EMC	PT78HF2	PVT3F78_EMC	PPTHP78EMC	PB078HF2	PB178HF
2000	700	900	PSS209HF2	PCS207HF2	PDS207HF2		PT79HF2	PVT3F79_EMC	PPTHP79EMC	PB079HF2	PB179HF
2000	800	400	PSS204HF2	PCS208HF2	PDS208HF2		PT84HF2			PB084HF2	PB184HF
2000	800	500	PSS205HF2	PCS208HF2	PDS208HF2	PBB205EMC	PT85HF2	PVT3F85_EMC	PPTHP85EMC	PB085HF2	PB185HF
2000	800	600	PSS206HF2	PCS208HF2	PDS208HF2	PBB206EMC	PT86HF2	PVT3F86_EMC	PPTHP86EMC	PB086HF2	PB186HF
2000	800	800	PSS208HF2	PCS208HF2	PDS208HF2	PBB208EMC	PT88HF2	PVT3F88_EMC	PPTHP88EMC	PB088HF2	PB188HF
2000	800	900	PSS209HF2	PCS208HF2	PDS208HF2		PT89HF2		PPTHP89EMC	PB089HF2	PB189HF
2000	1000	500	PSS205HF2	PCS2010HF2	PDS2010HF2	PBB205EMC	PT105HF2		PPTHP105EMC	PB0105HF2	PB1105HF
2000	1000	600	PSS206HF2	PCS2010HF2	PDS2010HF2	PBB206EMC	PT106HF2		PPTHP106EMC	PB0106HF2	PB1106HF
2000	1000	800	PSS208HF2	PCS2010HF2	PDS2010HF2	PBB208EMC	PT108HF2		PPTHP108EMC	PB0108HF2	PB1108HF
2200	600	600	PSS226HF2	PCS226HF2	PDS226HF2	PBB226EMC	PT66HF2	PVT3F66_EMC	PPTHP66EMC	PB066HF2	PB166HF
2200	600	800	PSS228HF2	PCS226HF2	PDS226HF2	PBB228EMC	PT68HF2	PVT3F68_EMC	PPTHP68EMC	PB068HF2	PB168HF
2200	700	600	PSS226HF2			PBB226EMC	PT76HF2	PVT3F76_EMC	PPTHP76EMC	PB076HF2	PB176HF
2200	700	800				PBB228EMC	PT78HF2	PVT3F78_EMC	PPTHP78EMC	PB078HF2	PB178HF
2200	700	900					PT79HF2	PVT3F79_EMC	PPTHP79EMC	PB079HF2	PB179HF
2200	800	600	PSS226HF2			PBB226EMC	PT86HF2	PVT3F86_EMC	PPTHP86EMC	PB086HF2	PB186HF
2200	800	800	PSS228HF2				PT88HF2	PVT3F88_EMC	PPTHP88EMC	PB088HF2	PB188HF
2200	1000	500					PT105HF2		PPTHP105EMC	PB0105HF2	PB1105HF
2200	1000	600	PSS226HF2			PBB226EMC	PT106HF2		PPTHP106EMC	PB0106HF2	PB1106HF



How to create your own cabinet (See Chapter 1, Modular, for product specifications)

1. Choose frame size that fits your application. (Frames can be joined to form a bank of cabinets.)
2. Outfit the frame with doors, sides, a top and a base (see selection overview abpve and on previous page).
3. Integrate a mounting system.
4. Manage and protect your equipment and cabling with shelving/storage and cable management accessories.
5. Contact your authorized Hoffman DataCom distributor to construct your custom cabinet and to place your order. You may also use our on-line resource iHELPS™ to assist you in your configuration for the A-T-O program.

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Continuous Hinge EMC Boxes

Application

Continuous hinge EMC enclosures are used in installations where electromagnetic compatibility and/or system security is required. These boxes contain stray electromagnetic interference (EMI) signals produced by internal parts and also protect internal equipment from external EMI/RFI. Enclosure protects internal components from dust and light splashing of liquids.

Construction

- 16 gauge or 14 gauge steel (see table)
- Seams continuously welded and ground smooth, no holes or knockouts
- 18 gauge steel continuous hinge
- Bonding provision on door
- Combination woven plated steel mesh and oil-resistant gasket
- Stainless steel cover clamps and screws on three sides of hinged door
- Weldnuts provided for mounting optional panels and terminal kits in size 6.00 x 4.00 in. (152 x 102mm) and larger
- Shielding effectiveness greater than 80 dB at 1 GHz

Finish

Zinc-plated per specification ASTM-B633, Class FE/Zn, Type II yellow, provides corrosion-resistant conductive surfaces for gasket contact areas and conduit entries. Optional panels are white.

Panels are available in conductive zinc-plated steel, white enameled steel, stainless steel, composite, or aluminum. See Chapter 12, General Accessories.

Industry Standards

UL 50, File No. E27567, Type 12 and Type 13
NEMA/EEMAC Type 12 and Type 13
JIC standard EGP-1-1967
CSA, File No. LL42184, Type 12 and Type 13
IEC 60529, IP54

Shielding effectiveness tested in accordance with:
•IEEE 299
•VG 95-373, part 15
•MIL-STD-285

Accessories

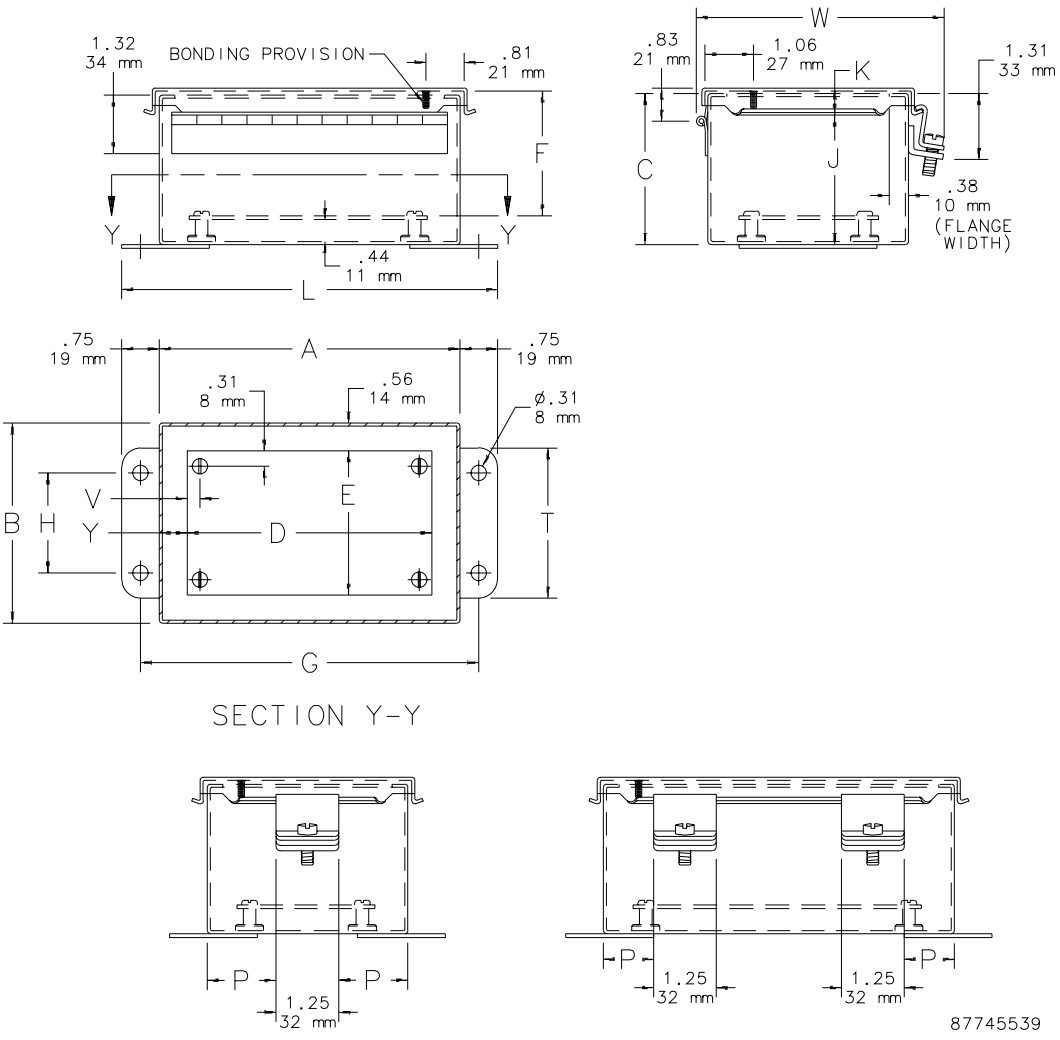
See General Accessories Chapter.

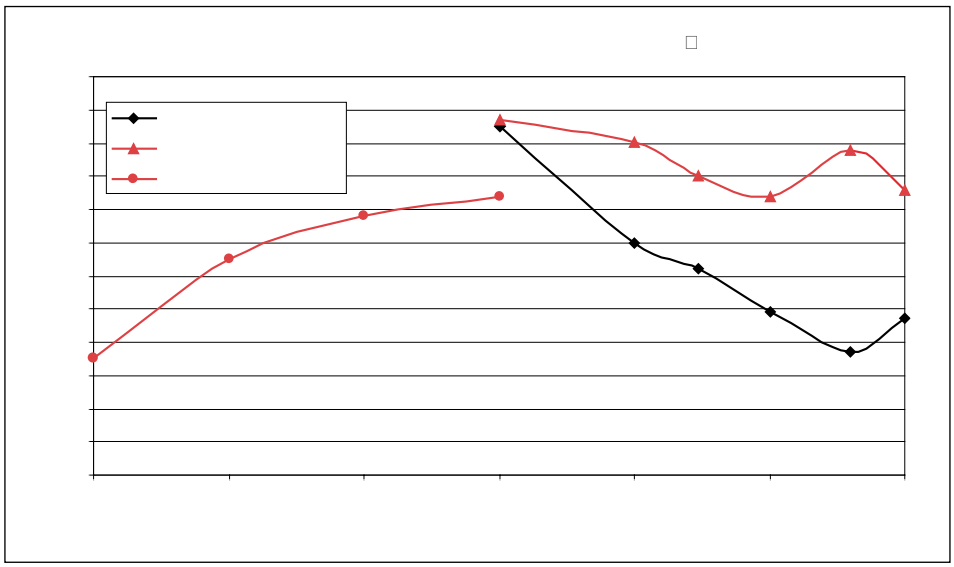
Corrosion Inhibitors
Electrical Interlocks
Fast-Operating Junction Clamp
Lock Kit
Panels (see table)
Swing-Out Panel Kit
Terminal Kit Assembly
Wiring Duct

Standard Sizes Continuous Hinge EMC Boxes

Box Catalog Number	Gauge	Box Size A x B x C	* Panel Catalog Number	Panel Size D x E	Mounting G x H	Overall L x W	F	J	K	T	V	Y
A604CHEMC	16	6.00 x 4.00 x 3.00 (152 x 102 x 76)	**A6P4**	4.88 x 2.88 (124 x 73)	6.75 x 2.00 (171 x 51)	7.50 x 4.81 (191 x 122)	2.53 (64)	2.62 (66)	0.54 (14)	3.00 (76)	0.31 (8)	0.56 (14)
A806CHEMC	14	8.00 x 6.00 x 3.50 (203 x 152 x 89)	**A8P6**	6.75 x 4.88 (171 x 124)	8.75 x 4.00 (222 x 102)	9.51 x 6.81 (241 x 173)	3.03 (77)	3.12 (79)	0.56 (14)	5.00 (127)	0.25 (6)	0.62 (16)
A606CHEMC	16	6.00 x 6.00 x 4.00 (152 x 152 x 102)	**A6P6**	4.88 x 4.88 (124 x 124)	6.75 x 4.00 (171 x 102)	7.50 x 6.81 (191 x 173)	3.53 (90)	3.62 (92)	0.54 (14)	5.00 (127)	0.31 (8)	0.56 (14)
A1008CHEMC	14	10.00 x 8.00 x 4.00 (254 x 203 x 102)	**A10P8**	8.75 x 6.88 (222 x 175)	10.75 x 6.00 (273 x 152)	11.50 x 8.81 (292 x 224)	3.53 (90)	3.62 (92)	0.56 (14)	7.00 (178)	0.25 (6)	0.62 (16)
A1210CHEMC	14	12.00 x 10.00 x 5.00 (305 x 254 x 127)	**A12P10**	10.75 x 8.88 (273 x 226)	12.75 x 8.00 (324 x 203)	13.50 x 10.81 (343 x 275)	4.53 (115)	4.62 (117)	0.56 (14)	9.00 (229)	0.25 (6)	0.62 (16)
A1412CHEMC	14	14.00 x 12.00 x 6.00 (356 x 305 x 152)	**A14P12**	12.75 x 10.88 (324 x 276)	14.75 x 10.00 (375 x 254)	15.50 x 12.81 (394 x 325)	5.53 (140)	5.62 (143)	0.56 (14)	11.00 (279)	0.25 (6)	0.62 (16)
A1614CHEMC	14	16.00 x 14.00 x 6.00 (406 x 356 x 152)	**A16P14**	14.75 x 12.88 (375 x 327)	16.75 x 12.00 (425 x 305)	17.50 x 14.81 (445 x 376)	5.53 (140)	5.62 (143)	0.56 (14)	13.00 (330)	0.25 (6)	0.62 (16)

*Panels must be ordered separately.





Hoffman®
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Stainless Steel Continuous Hinge EMC Boxes

Application

EMC boxes provide unmatched protection for housing electrical components in highly corrosive environments where electromagnetic compatibility and environmental protection are required. These boxes isolate equipment from stray external electromagnetic interference (EMI) and contain EMI that is produced by interior components.

These boxes are used in indoor and outdoor settings that are frequently wet or have constant exposure to water, other liquids, or contaminants.

Construction

- 16 or 14 gauge Type 304 stainless steel
- Seams continuously welded and ground smooth, no holes or knockouts
- Seamless foam-in-place gasket adjacent to monel mesh assures watertight, dust-tight, and EMI seal
- Stainless steel screws and clamps assure watertight seal
- Removable door with continuous hinge
- Weldnuts provided for mounting optional panels and terminal kits

Finish

Enclosures are unpainted. Cover and sides of body have smooth brushed finish. Optional stainless steel panels are unpainted. Optional steel panels are white.

Industry Standards

UL 50, File No. E27567: Type 4, Type 4X, and Type 12 (See table)
UL 508A, 508 File No. E61997: Type 4, Type 4X and
Type 12 (See table)
NEMA/EEMAC Type 4, Type 4X, Type 12, and Type 13
CSA File No. LL42184: Type 4, Type 4X, and Type 12
IEC 60529, IP66

Shielding effectiveness tested in accordance with:
IEEE 299
VG 95373, part 15
MIL-STD-285

Accessories

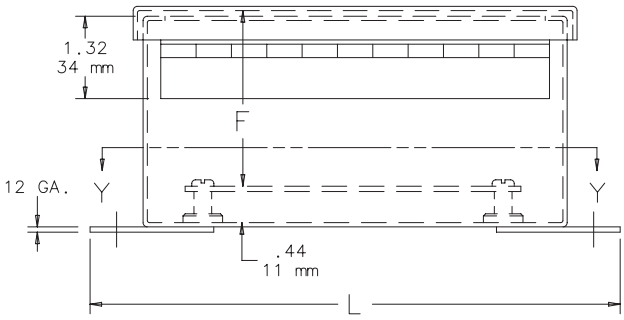
See General Accessories index

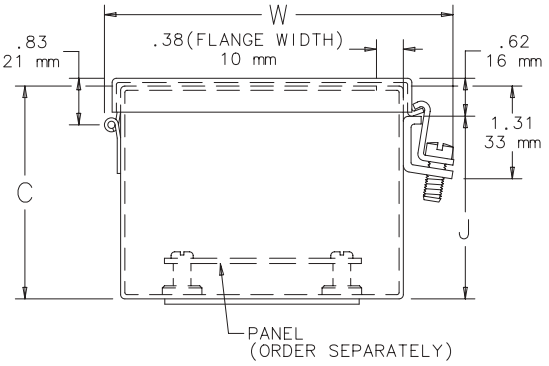
Corrosion Inhibitors
Electrical Interlocks
Fast Operating Junction Box Clamp
Lock Kit
Panels (See table)
Swing-Out Panel Kit
Terminal Kit Assembly
Wiring Duct

Standard Sizes Continuous Hinge EMC CHEMCSS Junction Boxes

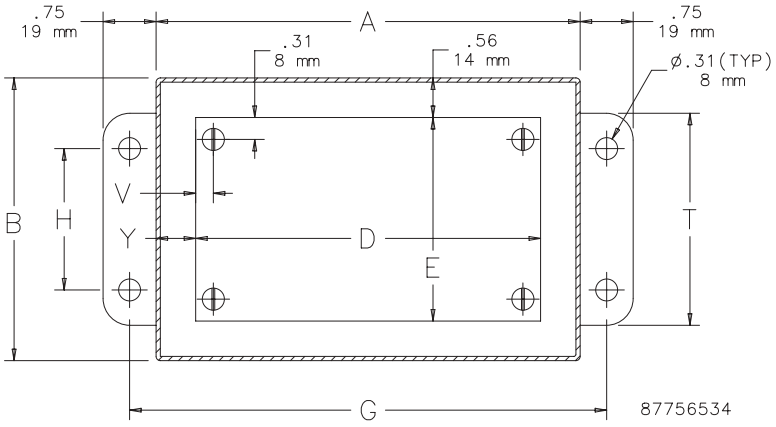
Box Catalog Number Type 304	Body Ga	Cover Ga.	Box Size A x B x C	* Stainless Steel Panel Catalog Number	* Zinc-Plated Steel Panel Catalog Number	Panel Size D x E	Mounting G x H	Overall L x W	F	J	N	T	V	Y
■ A6044CHEMCSS	16	16	6.00 x 4.00 x 4.00 (152 x 102 x 102)	A6P4SS	A6P4G	4.88 x 2.88 (124 x 73)	6.75 x 2.00 (171 x 51)	7.50 x 4.94 (191 x 125)	3.50 (89)	3.62 (92)	2.38 (60)	3.00 (76)	0.31 (8)	0.56 (14)
☐ A606CHEMCSS	16	16	6.00 x 6.00 x 4.00 (152 x 152 x 102)	A6P6SS	A6P6G	4.88 x 4.88 (124 x 124)	6.75 x 4.00 (171 x 102)	7.50 x 6.94 (191 x 176)	3.50 (89)	3.62 (92)	2.38 (60)	5.00 (127)	0.31 (8)	0.56 (14)
☐ A8064CHEMCSS	14	16	8.00 x 6.00 x 4.00 (203 x 152 x 102)	A8P6SS	A8P6G	6.75 x 4.88 (171 x 124)	8.75 x 4.00 (222 x 102)	9.50 x 6.94 (241 x 176)	3.50 (89)	3.62 (92)	1.38 (35)	5.00 (127)	0.25 (6)	0.62 (16)
☐ A1008CHEMCSS	14	16	10.00 x 8.00 x 4.00 (254 x 203 x 102)	A10P8SS	A10P8G	8.75 x 6.88 (222 x 175)	10.75 x 6.00 (273 x 152)	11.50 x 8.94 (292 x 227)	3.50 (89)	3.62 (92)	1.38 (35)	7.00 (178)	0.25 (6)	0.62 (16)
☐ A12106CHEMCSS	14	16	12.00 x 10.00 x 6.00 (305 x 254 x 152)	A12P10SS	A12P10G	10.75 x 8.88 (273 x 225)	12.75 x 8.00 (324 x 203)	13.50 x 10.94 (343 x 278)	5.50 (140)	5.62 (143)	2.38 (60)	9.00 (229)	0.25 (6)	0.62 (16)
☐ A1212CHEMCSS	14	16	12.00 x 12.00 x 6.00 (305 x 305 x 152)	A12P12SS	A12P12G	10.75 x 10.88 (273 x 276)	12.75 x 10.00 (324 x 254)	13.50 x 12.94 (343 x 329)	5.50 (140)	5.62 (143)	2.38 (60)	11.00 (279)	0.25 (6)	0.62 (16)
☐ A1412CHEMCSS	14	16	14.00 x 12.00 x 6.00 (356 x 305 x 152)	A14P12SS	A14P12G	12.75 x 10.88 (324 x 276)	14.75 x 10.00 (375 x 254)	15.50 x 12.94 (394 x 329)	5.50 (140)	5.62 (143)	2.38 (60)	11.00 (279)	0.25 (6)	0.62 (16)
☐ A1614CHEMCSS	14	16	16.00 x 14.00 x 6.00 (406 x 356 x 152)	A16P14SS	A16P14G	14.75 x 12.88 (375 x 327)	16.75 x 12.00 (425 x 305)	17.50 x 14.94 (445 x 379)	5.50 (140)	5.62 (143)	2.38 (60)	13.00 (330)	0.25 (6)	0.62 (16)

Millimeter dimensions ( ) are for reference only; do not convert metric dimensions to inch.
* Panels must be ordered separately.
☐ UL 50 ■ UL 508A, 508



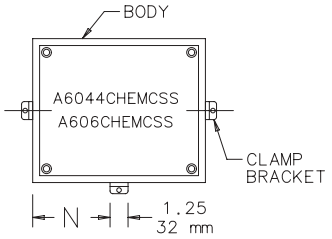


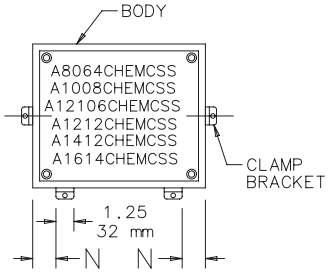
NOTE: 1. Optional panels are 14 gauge steel or stainless steel.
2. Panel screws are No. 10-32 pan head.

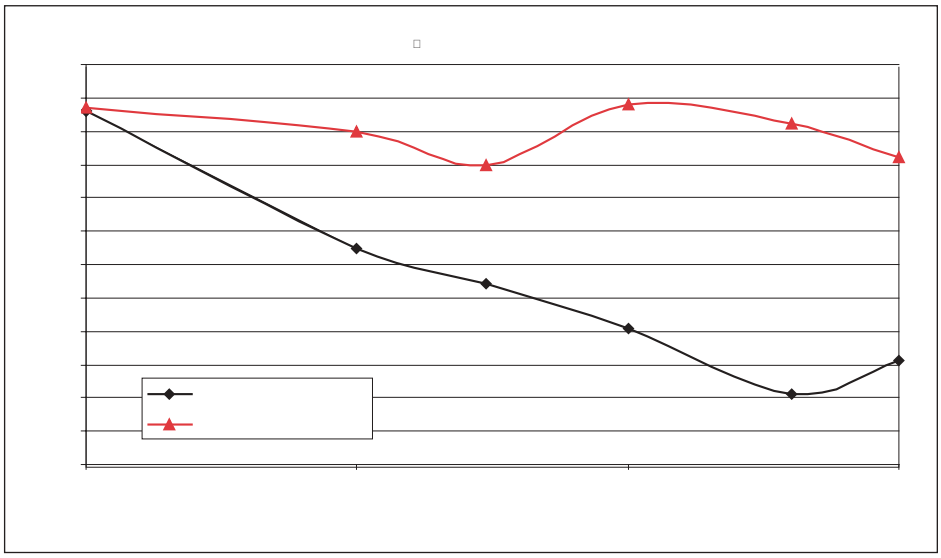


SECTION Y-Y

Clamp Bracket Locations







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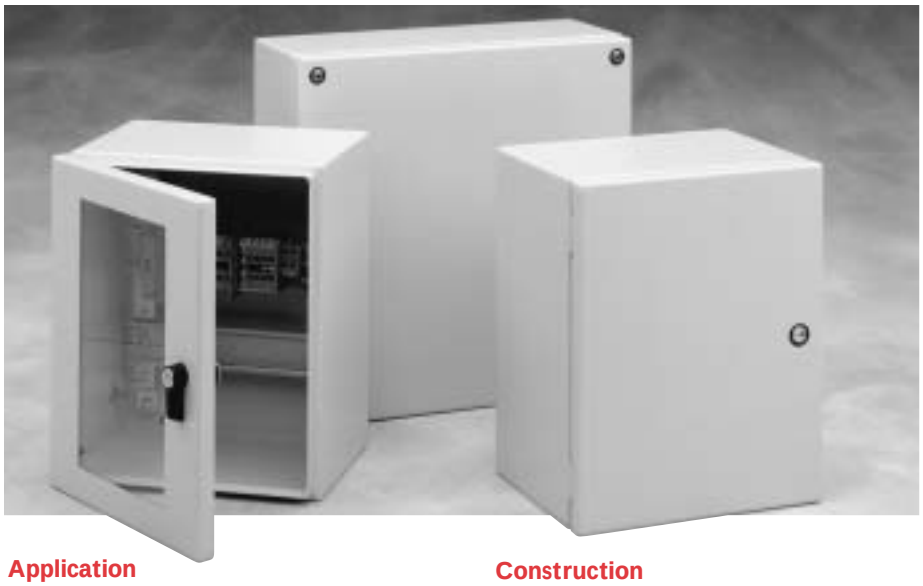
INLINE® EMC Instrumentation Enclosures



Application

INLINE® EMC enclosures house and protect sensitive electrical or electronic components from harsh, dirty environments in installations where electromagnetic compatibility and/or system security is required. For use in installations where dirt, dust, oil, water, or other contaminants are present. Streamlined styling, flush latching, and an attractive durable finish complement high tech electronic equipment.

These boxes contain stray electromagnetic interference (EMI) signals produced by internal parts and also protect internal equipment from external EMI. Enclosure protects internal components from dust and light splashing of liquids.

US Patent 5,683,005: DIN Rail/Panel Mounting Bracket

Construction

- 16 gauge (1.4mm) steel
- Seams continuously welded and ground smooth
- Body flange trough excludes liquids and contaminants; flange directs liquids away from the enclosure opening
- Large perimeter opening facilitates component installation, maintenance, or conversion
- Fastening holes in back of body for direct mounting or optional external mounting brackets
- Seamless foam-in-place gasket provides oil-tight and dust-tight seal against contaminants
- Ground studs (M6) with base flange provided on cover and body
- Conductive fabric over foam gasket to provide EMI/RFI seal and dust-tight seal
- Corrosion-resistant interior surfaces for gasket contact areas and conduit entries
- Shielding effectiveness greater than 50 dB at 1 GHz
- Furnished hardware kit consists of panel mounting screws, grounding hardware, and sealing washers for wall-mounting holes
- Installation instructions for enclosure and accessories are provided
- Optional 12 gauge (2.7mm) panels are available

INLINE® EMC screw cover enclosures
- Captivated cover screws with sealing bushings made of a durable composite material
- Integral compression stops maintain optimal gasket compression

INLINE® EMC hinged cover enclosures
- 180 degree door opening
- Removable solid door with continuous hinge
- Standard self-grounding quarter-turn latch system with double seal provides maximum protection against contamination
- Not available with window door

Finish

Textured RAL 7035 light gray polyester powder coating inside and out over phosphatized surfaces.

Optional steel subpanels are available in conductive galvanized or white enamel finish.

INLINE® EMC enclosures have zinc--plated interior per specification ASTMB633, Class Fe/Zn 5, Type II (yellow)

Industry Standards

INLINE® EMC enclosures
UL 508A, 508 File No. E61997, Type 12
NEMA/EEMAC Type 12
IEC 60529, IP54

Shielding effectiveness tested in accordance with:
- IEEE 299
- VG 95373, part 15
- MIL-STD-285

Accessories

DIN Rail or Panel Mounting Bracket
DIN Rails
Grounding Kit
Key Inserts
Mounting Foot Kit
Panels
Touch-Up Paint (ATPG7035)
Wing Knob Latch

Standard Sizes INLINE® Screw Cover EMC Enclosures

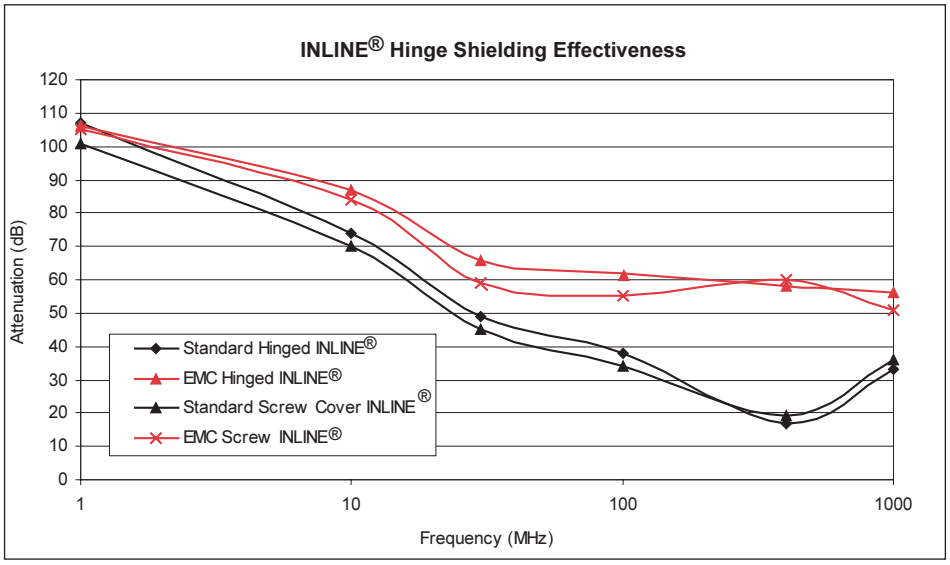
Screw Cover EMC Enclosure Catalog Number	Enclosure Size A x B x C	* Steel Panel Catalog Number	* Galvanized Steel Panel Catalog Number	Panel Size D x E	Mounting G x H	F
LSC151512EMC	150 x 150 x 120 (5.91 x 5.91 x 4.72)	LP1515	LP1515G	131 x 131 (5.16 x 5.16)	132 x 85 (5.20 x 3.35)	105 (4.13)
LSC201512EMC	200 x 150 x120 (7.87 x 5.91 x 4.72)	LP2015	LP2015G	181 x 131 (7.13 x 5.16)	182 x 85 (7.17 x 3.35)	105 (4.13)
LSC252015EMC	250 x 200 x 150 (9.84 x 7.87 x 5.91)	LP2520	LP2520G	231 x 181 (9.09 x 7.13)	232 x 135 (9.13 x 5.31)	135 (5.31)
LSC302515EMC	300 x 250 x 150 (11.81 x 9.84 x 5.91)	LP3025	LP3025G	281 x 231 (11.06 x 9.09)	282 x 185 (11.10 x 7.28)	135 (5.31)
LSC353020EMC	350 x 300 x 200 (13.78 x 11.81 x 7.87)	LP3530	LP3530G	331 x 281 (13.03 x 11.06)	332 x 235 (13.07 x 9.25)	185 (7.28)

Standard Sizes INLINE® Hinged Cover EMC Enclosures

EMC Enclosure Catalog Number	Enclosure Size A x B x C	* Steel Panel Catalog Number	* Galvanized Steel Panel Catalog Number	Panel Size D x E	Mounting G x H	F
LHC151512EMC	150 x 150 x 120 (5.91 x 5.91 x 4.72)	LP1515	LP1515G	131 x 131 (5.16 x 5.16)	132 x 85 (5.20 x 3.35)	105 (4.13)
LHC201512EMC	200 x 150 x 120 (7.87 x 5.91 x 4.72)	LP2015	LP2015G	181 x 131 (7.13 x 5.16)	182 x 85 (7.17 x 3.35)	105 (4.13)
LHC252015EMC	250 x 200 x 150 (9.84 x 7.87 x 5.91)	LP2520	LP2520G	231 x 181 (9.09 x 7.13)	232 x 135 (9.13 x 5.31)	135 (5.31)
LHC302515EMC	300 x 250 x 150 (11.81 x 9.84 x 5.91)	LP3025	LP3025G	281 x 231 (11.06 x 9.09)	282 x 185 (11.10 x 7.28)	135 (5.31)
LHC353020EMC	350 x 300 x 200 (13.78 x 11.81 x 7.87)	LP3530	LP3530G	331 x 281 (13.03 x 11.06)	332 x 235 (13.07 x 9.25)	185 (7.28)

Inch dimensions in ( ).

* Panels must be ordered separately.



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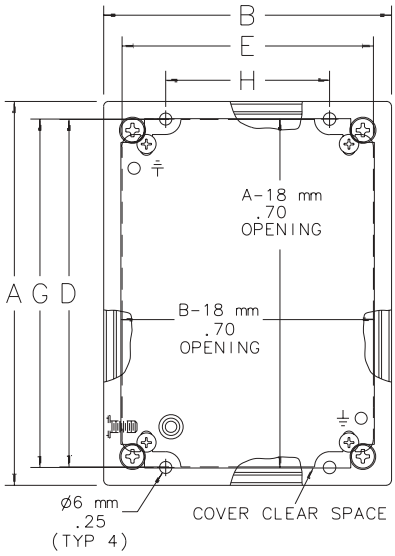
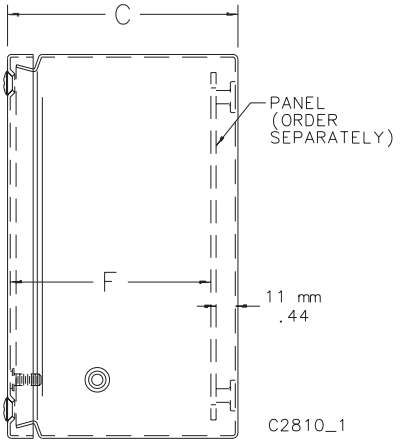
INLINE® EMC Instrumentation Enclosures

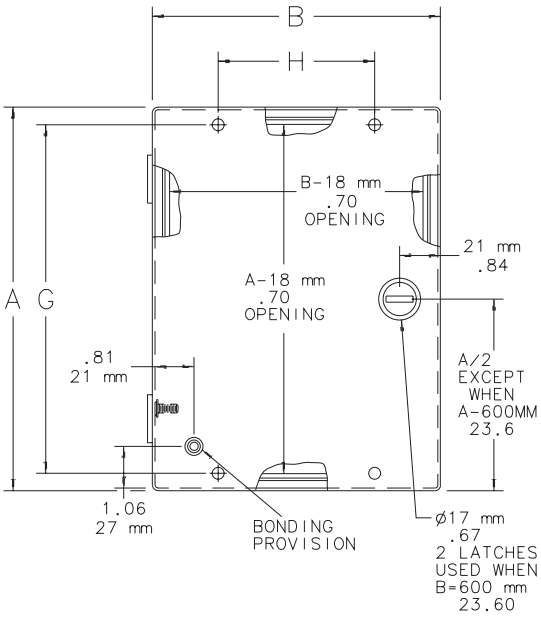
INLINE® EMC Screw Cover Enclosure

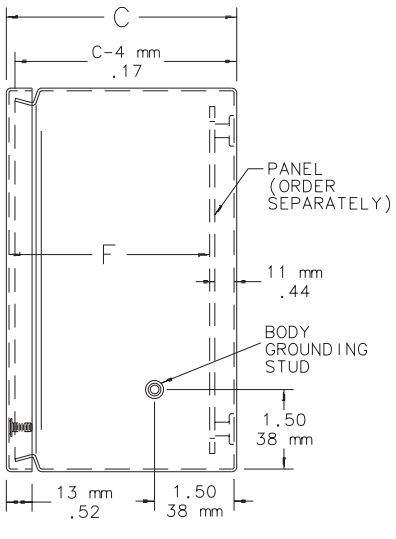




NOTE:
1. Panels are 2.7mm (12 gauge) steel.
2. Panel screws are M5 0.8 pan head.
3. Rear mounting holes will accommodate M6 1.0 or 1/420 UNC mounting screws (supplied by customer).

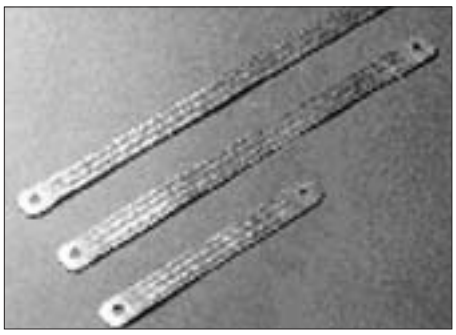
INLINE® EMC Hinged Cover Enclosures





EMC Enclosure Accessories

Rev. A June 2003



Bonding Straps

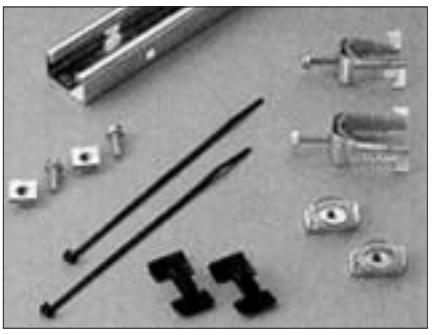
Bonding straps assist in maintaining a constant voltage potential across a ground plane.

Catalog Number	Length in.	mm	Package Quantity
ABS6	6.00	152	3
ABS12	12.00	305	3
ABS18	18.00	457	3

EMC Cable Strain Reliefs

These cable strain reliefs have provisions for grounding the EMC shielding of cables entering an enclosure while maintaining a NEMA 4 seal.

Catalog Number	Cable Diameter in.	mm	Hole Diameter in.	mm
ACSR4EMC	.157 - .236	4 - 6	0.61	16
ACSR6EMC	.236 - .374	6 - 10	0.75	19
ACSR10EMC	.394 - .551	10 - 14	0.91	23
ACSR14EMC	.551 - .650	14 - 17	0.91	23
ACSR117EMC	.669 - .787	17 - 20	1.14	29
ACSR19EMC	.748 - .906	19 - 23	1.48	38
ACSR22EMC	.866 - 1.063	22 - 27	1.48	38
ACSR25EMC	.984 - 1.181	25 - 30	1.87	48
ACSR29EMC	1.142 - 1.260	29 - 32	1.87	48



Base Cable Clamping Accessories

Optional cable clamp mounting rail. Use with cable clamps or ties to manage incoming cable. Rails are zinc plated and include all mounting hardware. Order clamps or ties separately.

Cable Clamp Mounting Rail Catalog Number	Fits
PCL6R	600 or 1200mm wide frames
PCL8R	800 or 1600mm wide frames

Cable Clamps Catalog Number	Fits	Quantity
PCL13	Up to 1/2 in. cable	5 per pkg.
PCL19	1/2 to 3/4 in. cable	5 per pkg.
PCL25	3/4 to 1 in. cable	5 per pkg.
PCL32	1 to 1-1/4 in. cable	5 per pkg.

Cable Ties Catalog Number	Description	Quantity
PCL1U	Universal ties	10 per pkg.

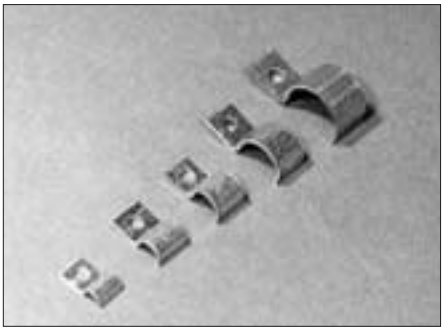
Additional Accessories

See Chapters 4, 6, and 12 for additional accessories that can be used with EMC enclosures.

Cable Clamp Rail Mounting Brackets

These brackets have provision for multiple rail mounting configurations. They provide the conductivity required to ground the shielding on EMC shielded cable when used in conjunction with gland plates. Sold in pairs.

Catalog Number	Quantity
ACCEMC	2



Bonding Cable Clamps

These cable clamps are used when securing cables. They provide the conductivity required to ground the shielding on EMC shielded cable.

Catalog Number	Max. Cable Diameter in.	mm
ABCC6	.25	6
ABCC95	.38	10
ABCC125	.50	13
ABCC19	.75	19
ABCC254	1.00	25

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CONCEPT® EMC Single-Door Wall-Mount Enclosures

Application

Designed to house sensitive electronics and communications equipment in installations where electromagnetic compatibility and environmental protection are required. These boxes contain stray electromagnetic and radio frequency interference produced by interior components and also protect internal equipment from external EMC. Enclosure will protect internal components against windblown dust and water.

Construction

- 16 gauge or 14 gauge steel (see table)
- Seams continuously welded and ground smooth
- Minimum width body flange provides maximum door opening
- Body flange trough excludes liquids and contaminants
- Panel mounting studs fit optional CONCEPT® panels and other accessories
- Mounting holes in back of body for direct mounting or for optional external mounting brackets
- Hidden 210° hinges for clean aesthetic appearance
- Removable door
- Hinge mounting brackets for wire management or optional accessories
- Seamless foam-in-place one piece gasket provides oil-tight and dust-tight seal
- Stainless steel spring finger gasket provides excellent EMI/RFI protection
- Self-grounding latch system with double seal provides maximum protection against leakage
- Integral body grounding stud
- Door bars provided for wire management and bonding
- Furnished hardware kit consists of panel mounting nuts, grounding hardware, and sealing washers for wall mounting holes
- Installation instructions for enclosure and accessories provided

Finish

Exterior and interior painted with RAL 7035 textured light gray polyester powder paint over zinc plating

Industry Standards

NOTE: Mounting brackets required to maintain UL/CSA ratings.

UL 508A, 508 File No. E61997, Type 4 and Type 12
NEMA/EEMAC Type 4, Type 12 and Type 13
CSA, File No. LR42186, Type 4 and Type 12
VDE IP66
IEC 60529, IP66

Shielding effectiveness tested in accordance with:
•IEEE 299
•VG 95373, part 15
•MIL-STD-285

Accessories

See General Accessories: CONCEPT® Enclosure Accessories

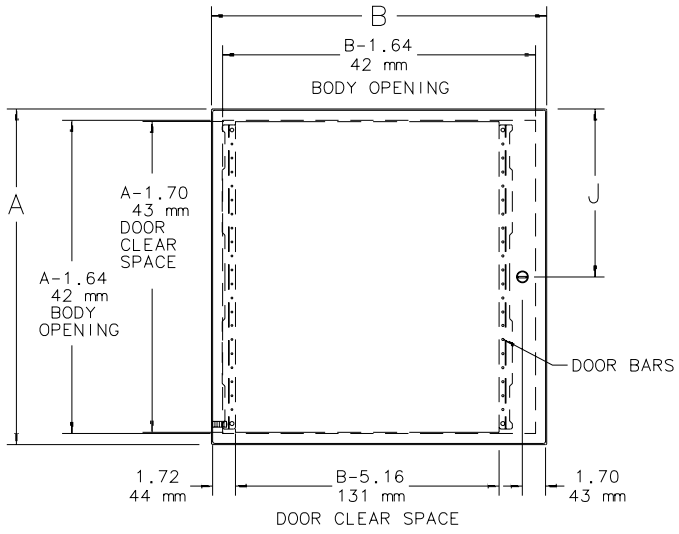
Corrosion Inhibitors
Data Pocket
Dead Front Kit
DIN Rail Kit
Electric Heater
Fan Cooling Products
Grid Straps
Handles and Latches
Hinge Kit
Key Inserts
Lighting Kits
Mounting Channels
Mounting Bracket Kit
Panel Conversion Kit
Panels; zinc-plated, white painted
Panels, NEMA
Pole Mounting Kit
Rack Mounting Angles
Swing-Out Panel Kit
Swing-Out Rack Frames
Terminal Kit Assembly
Touch-Up Paint RAL 7035
Wiring Duct

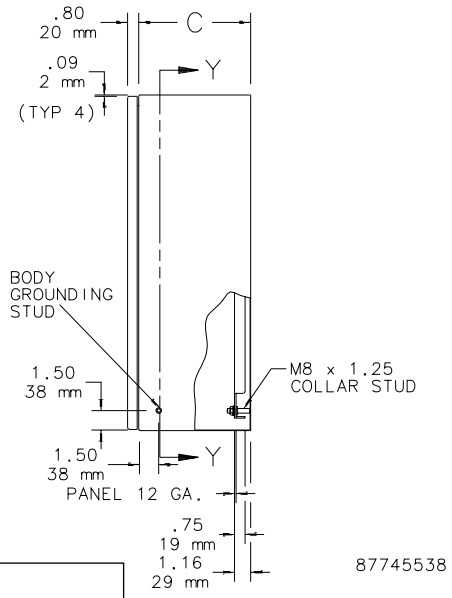
Standard Sizes CONCEPT® EMC Enclosures

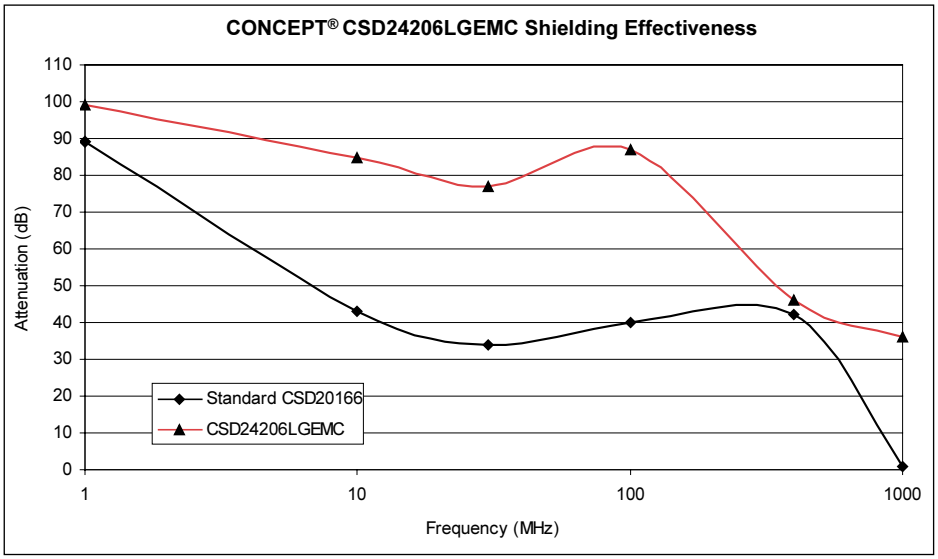
Catalog Number	Door Ga.	Body Ga.	Enclosure Size A x B x C inch	(millimeter)	* CONCEPT Panel Catalog Number	Panel Size D x E inch	(mm)	Mounting G x H inch	(mm)	Latches qty	style	J inch	(mm)
CSD12126LGEMC	16	16	12.00 x 12.00 x 6.00	(305 x 305 x 152)	**CP1212**	10.20 x 10.20	(259 x 259)	10.50 x 10.50	(267 x 267)	1	Qturn.	6.00	(152)
CSD16126LGEMC	16	16	16.00 x 12.00 x 6.00	(406 x 305 x 152)	**CP1612**	14.20 x 10.20	(361 x 259)	14.50 x 10.50	(368 x 267)	1	Qturn.	8.00	(203)
CSD16166LGEMC	16	16	16.00 x 16.00 x 6.00	(406 x 406 x 152)	**CP1616**	14.20 x 14.20	(361 x 361)	14.50 x 14.50	(368 x 368)	1	Qturn.	8.00	(203)
CSD16206LGEMC	16	16	16.00 x 20.00 x 6.00	(406 x 508 x 152)	**CP2016**	18.20 x 14.20	(462 x 361)	14.50 x 18.50	(368 x 470)	1	Qturn.	8.00	(203)
CSD20166LGEMC	16	16	20.00 x 16.00 x 6.00	(508 x 406 x 152)	**CP2016**	18.20 x 14.20	(462 x 361)	18.50 x 14.50	(470 x 368)	1	Qturn.	10.00	(254)
CSD24206LGEMC	16	16	24.00 x 20.00 x 6.00	(610 x 508 x 152)	**CP2420**	22.20 x 18.20	(564 x 462)	22.50 x 18.50	(572 x 470)	1	Qturn.	12.00	(305)
CSD24248LGEMC	14	16	24.00 x 24.00 x 8.00	(610 x 610 x 203)	**CP2424**	22.20 x 22.20	(564 x 564)	22.50 x 22.50	(572 x 572)	2	Qturn.	5.00	(127)
CSD30248LGEMC	14	16	30.00 x 24.00 x 8.00	(762 x 610 x 8.00)	**CP3024**	28.20 x 22.20	(716 x 564)	28.50 x 22.50	(724 x 572)	2	Qturn.	5.00	(127)
CSD36308LGEMC	14	14	36.00 x 30.00 x 8.00	(914 x 762 x 203)	**CP3630**	34.20 x 28.20	(869 x 716)	34.50 x 28.50	(876 x 724)	2	Qturn.	5.00	(127)
CSD242412LGEMC	14	16	24.00 x 24.00 x 12.00	(610 x 610 x 305)	**CP2424**	22.20 x 22.20	(564 x 564)	22.50 x 22.50	(572 x 572)	2	Qturn.	5.00	(127)
CSD362412LGEMC	14	16	36.00 x 24.00 x 12.00	(914 x 610 x 305)	**CP3624**	34.20 x 22.20	(869 x 564)	34.50 x 22.50	(876 x 572)	2	Qturn.	5.00	(127)

Millimeter dimensions ( ) are for reference only; do not convert metric to inch.

* Panels must be ordered separately.







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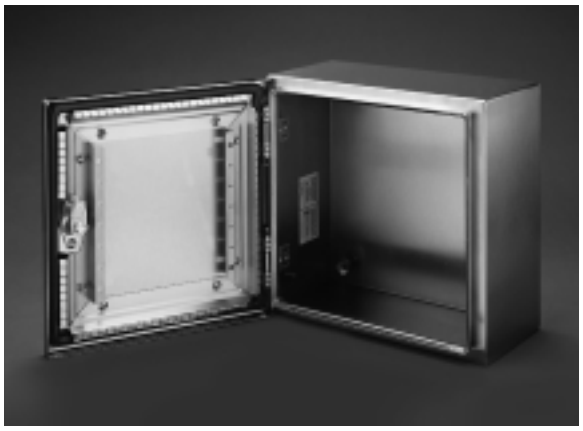
CONCEPT® EMC Stainless Steel Single-Door Wall-Mount Enclosures



Application

The CONCEPT® EMC stainless steel enclosure, with its streamlined design and UL Type 4X rating, is a perfect fit for mounting electrical or high tech electronic equipment in a variety of indoor and outdoor settings. It is typically used in the following areas where corrosion resistance, electromagnetic compatibility, and environmental protection are needed.

These boxes isolate equipment from stray external electromagnetic interference (EMI) and contain EMI that is produced by interior components.

Construction

- Manufactured from 16 or 14 gauge Type 304 stainless steel
- Seams continuously welded and ground smooth
- Minimum width body flange provides maximum door opening
- Body flange trough excludes liquids and contaminants
- Panel mounting studs fit optional CONCEPT® panels and other accessories
- Mounting holes in back of body for direct mounting or for optional external mounting brackets
- Type 304 stainless steel hidden hinges promote clean aesthetic appearance
- Standard full access door opening
- Removable door
- Seamless foam-in-place gasket adjacent to spring finger provides EMI, oil-tight, and dust-tight seal against contaminants
- Provisions on door for thermoplastic data pocket
- Quarter-turn latches furnished with flush slotted insert. Optional handles or inserts are available.
- Hinge mounting brackets for wire management or optional accessories
- Self-grounding latch system with double seal provides maximum protection against leakage
- Integral body grounding stud
- Furnished hardware kit consists of panel mounting nuts, grounding hardware, and sealing washers for wall mounting holes
- Installation instructions for enclosure and accessories are provided

Finish

Enclosures are unpainted. Cover and body have smooth brushed finish.

- Optional CONCEPT® panels are white painted or zinc plated.
- Optional NEMA panels are white painted, zinc plated, aluminum or stainless steel.

Industry Standards

NOTE: Mounting brackets required to maintain UL/CSA ratings.

UL 508A, 508 File No. E61997: Type 4, Type 4X and Type 12
NEMA/EEMAC Type 4, Type 4X, Type 12 and Type 13
CSA File No. LR42186: Type 4, Type 4X and Type 12
VDE IP66
IEC 60529, IP66

Shielding effectiveness tested in accordance with:
IEEE 299
VG 95373, part 15
MILSTD285

Accessories

See General Accessories: CONCEPT® Enclosure Accessories

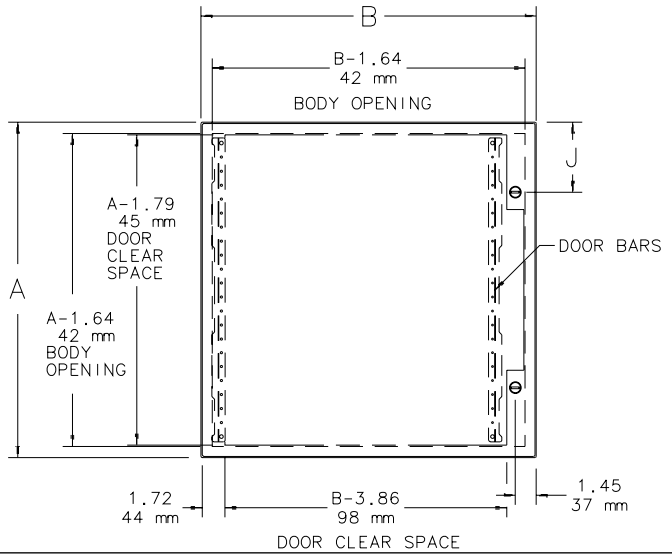
Corrosion Inhibitors
Panels (See table)
Panels, NEMA
Terminal Block Kit Assembly

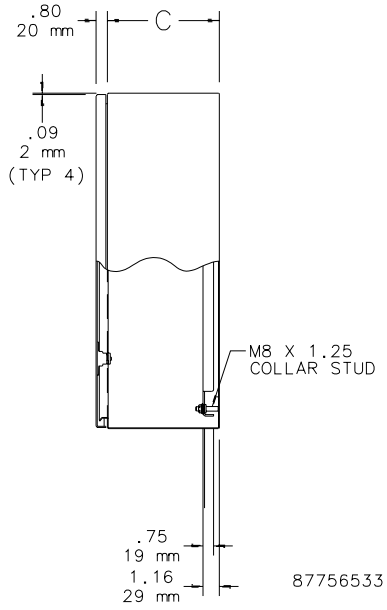
U.S. Patent 5,465,528 and 360,345
German Patent DEM 9405854.7
Other patents pending.

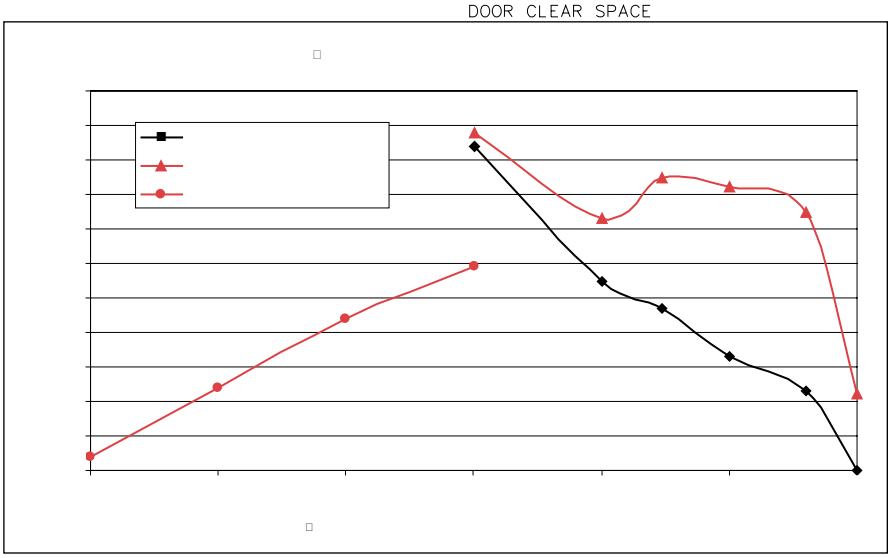
Standard Sizes CONCEPT® EMC Stainless Steel Single-Door Wall-Mount Enclosures

Type 304 EMC Catalog Number	Door Gauge	Body Gauge	Enclosure Size A x B x C	* CONCEPT Panel Catalog Number	Panel Size D x E	Mounting G x H	Latches qty	Latches style	J
CSD12126EMCSS	16	16	12.00 x 12.00 x 6.00 (305 x 305 x 152)	**CP1212G**	10.20 x 10.20 (259 x 259)	10.50 x 10.50 (267 x 267)	1	Quarter-turn	6.00 (152)
CSD16126EMCSS	16	16	16.00 x 12.00 x 6.00 (406 x 305 x 152)	**CP1612G**	14.20 x 10.20 (361 x 259)	14.50 x 10.50 (368 x 267)	1	Quarter-turn	8.00 (203)
CSD16166EMCSS	16	16	16.00 x 16.00 x 6.00 (406 x 406 x 152)	**CP1616G**	14.20 x 14.20 (361 x 361)	14.50 x 14.50 (368 x 368)	1	Quarter-turn	8.00 (203)
CSD20166EMCSS	16	16	20.00 x 16.00 x 6.00 (508 x 406 x 152)	**CP2016G**	18.20 x 14.50 (462 x 361)	18.50 x 14.50 (470 x 368)	1	Quarter-turn	10.00 (254)
CSD16208EMCSS	16	16	16.00 x 20.00 x 8.00 (406 x 508 x 203)	**CP2016G**	18.20 x 14.20 (462 x 361)	14.50 x 18.50 (368 x 470)	1	Quarter-turn	8.00 (203)
CSD24208EMCSS	16	16	24.00 x 20.00 x 8.00 (610 x 508 x 203)	**CP2420G**	22.20 x 18.20 (564 x 462)	22.50 x 18.50 (572 x 470)	1	Quarter-turn	12.00 (305)
CSD24248EMCSS	14	16	24.00 x 24.00 x 8.00 (610 x 610 x 203)	**CP2424G**	22.20 x 22.20 (564 x 564)	22.50 x 22.50 (572 x 572)	2	Quarter-turn	5.00 (127)
CSD30248EMCSS	14	16	30.00 x 24.00 x 8.00 (762 x 610 x 8.00)	**CP3024G**	28.20 x 22.20 (716 x 564)	28.50 x 22.50 (724 x 572)	2	Quarter-turn	5.00 (127)
CSD36308EMCSS	14	14	36.00 x 30.00 x 8.00 (914 x 762 x 203)	**CP3630G**	34.20 x 28.20 (869 x 716)	34.50 x 28.50 (876 x 724)	2	Quarter-turn	5.00 (127)
CSD242412EMCSS	14	14	24.00 x 24.00 x 12.00 (610 x 610 x 305)	**CP2424G**	22.20 x 22.20 (564 x 564)	22.50 x 22.50 (572 x 572)	2	Quarter-turn	5.00 (127)
CSD362412EMCSS	14	14	36.00 x 24.00 x 12.00 (914 x 610 x 305)	**CP3624G**	34.20 x 22.20 (869 x 564)	34.50 x 22.50 (876 x 572)	2	Quarter-turn	5.00 (127)

* Panels must be ordered separately.







NOTE:
Panels have flanges along two sides when the side dimension is more than 21.00 inches (533mm) Panels A24P20 and A24P24 have flanges on all four sides.

Data Pockets for Solid Door Enclosures		
Enclosure Size A	B	Pocket
Any	12.00 (305)	None
<30.00 (762)	<20.00 (508)	Small
>30.00 (762)	>20.00 (508)	Large

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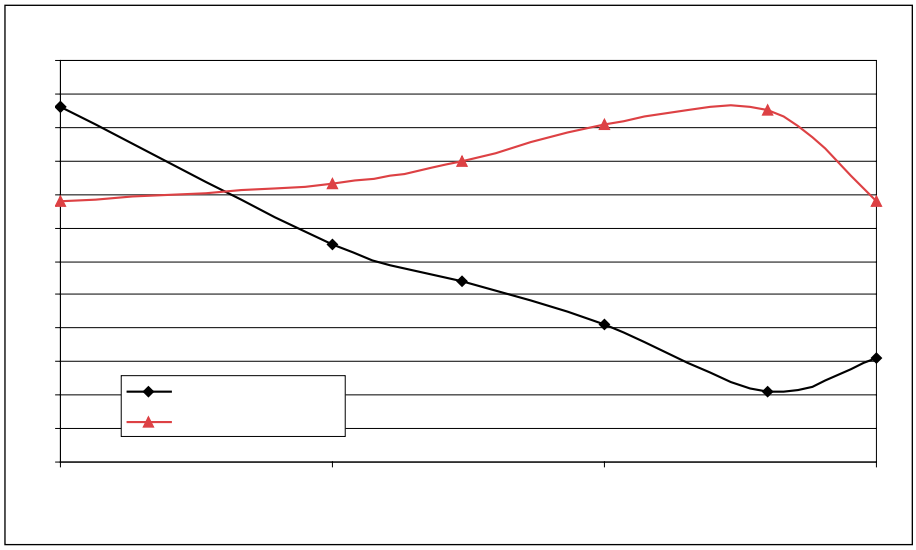
Single-Door Type 12 EMC Enclosures

Application

Designed to house sensitive electronics and communications equipment in installations where electromagnetic compatibility and/or system security is required. These boxes protect equipment which should be isolated from stray electromagnetic and radio frequency interference (EMI/RFI) and also contain stray EMI/RFI signals produced by internal components. Enclosure will protect internal components against dust, dirt, oil, and water.

Construction

- 14 gauge or16 gauge steel (see table)
- Seams continuously welded and ground smooth, no holes or knockouts
- Rolled flange around three sides of door and all sides of enclosure opening keeps liquids and contaminants out and provides wide contact area for shielding gasket
- Combination gasket of woven plated steel mesh and oil-resistant material provides EMI/RFI seal as well as oil-tight and dust-tight seal between door and body
- Gasket held in place by steel retainers
- Stainless steel door clamp assembly on three sides of hinged door provides positive clamping
- Door clamps are quick and easy to operate
- Removable door with continuous hinge
- Hasp and staple provided for padlocking
- Bonding provision on door
- Data pocket is high-impact thermoplastic
- Collar studs provided for mounting optional panels



Finish

Zinc plated inside and out per specification ASTMB633, Class FE/Zn 5, Type II (yellow)

Industry Standards

UL 508A, 508, File No. E61997, Type 12
NEMA/EEMAC Type 12
CSA, File No. LR42186, Type 12
VDE IP66
IEC 60529. IP 54

Shielding effectiveness tested in accordance with:
•IEEE 299
•VG 95373, part 15
•MIL-STD-285

Accessories

See General Accessories index

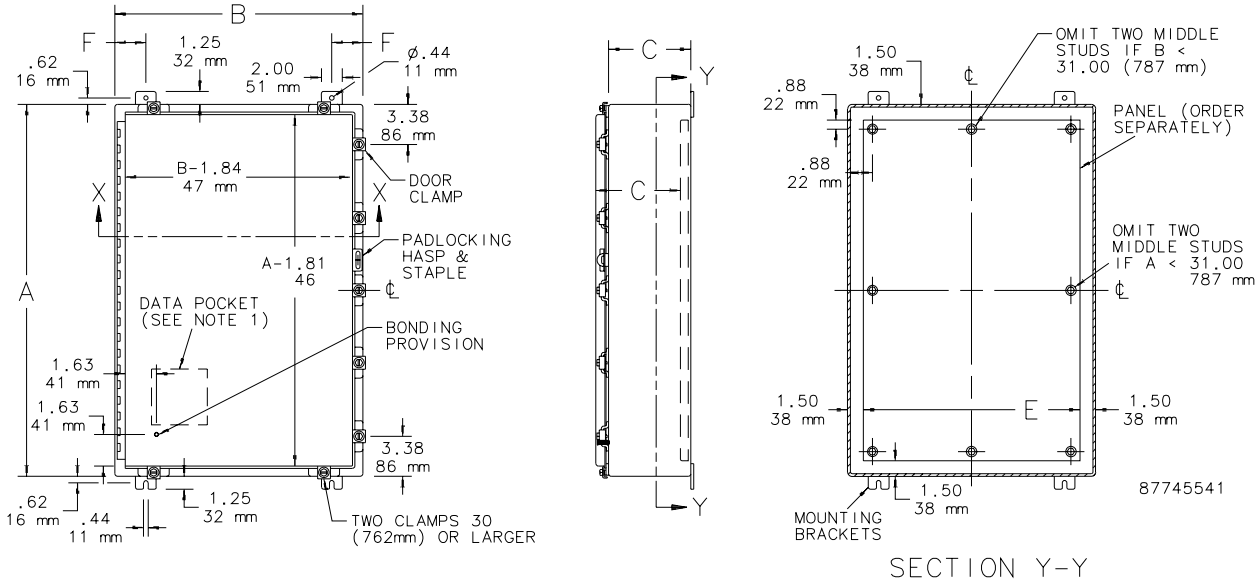
Corrosion Inhibitors
Door Stop Kit
Drip Shield Kit
Electrical Interlocks
Enclosure Stabilizer
Fast Operating Clamp Assembly
Floor Stand Kit
Lighting Kits
Lock Kit
Panel Support Kit
Panels; zinc-plated, white painted, stainless steel, composite, or aluminum
Rack Mounting Angle Kit
Swing-Out Panel Kit
Terminal Block Kit
Wiring Duct

Patent pending: EMC

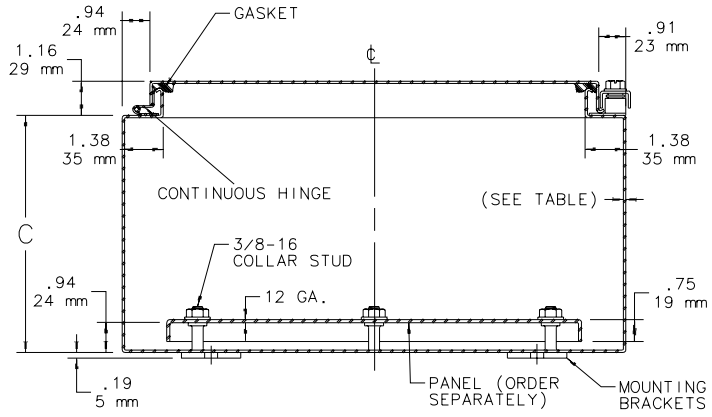
Standard Sizes Single-Door Type 12 EMC Enclosures

Catalog Number	Body Gauge	Door Gauge	Enclosure Size A x B x C	*Panel Catalog Number	Panel Size D x E	F
A161206LPEMC	16	14	16.00 x 12.00 x 6.00 (406 x 305 x 152)	**A16P12**	13.00 x 9.00 (330 x 229)	1.25 (32)
A201606LPEMC	16	14	20.00 x 16.00 x 6.00 (508 x 406 x 152)	**A20P16**	17.00 x 13.00 (432 x 330)	3.00 (76)
A242006LPEMC	16	14	24.00 x 20.00 x 6.00 (610 x 508 x 203)	**A24P20**	21.00 x 17.00 (533 x 432)	3.00 (76)
A242408LPEMC	16	14	24.00 x 24.00 x 8.00 (610 x 610 x 203)	**A24P24**	21.00 x 21.00 (533 x 533)	3.00 (76)
A302408LPEMC	16	14	30.00 x 24.00 x 8.00 (762 x 610 x 203)	**A30P24**	27.00 x 21.00 (686 x 533)	3.00 (76)
A363008LPEMC	14	14	36.00 x 30.00 x 8.00 (914 x 762 x 203)	**A36P30**	33.00 x 27.00 (838 x 686)	3.00 (76)
A483608LPEMC	14	14	48.00 x 36.00 x 8.00 (1219 x 914 x 203)	**A48P36**	45.00 x 33.00 (1143 x 838)	3.00 (76)
A603612LPEMC	14	14	60.00 x 36.00 x 12.00 (1524 x 914 x 305)	**A60P36**	57.00 x 33.00 (1448 x 838)	3.00 (76)

*Panels must be ordered separately. Optional stainless steel, zinc-plated, composite and aluminum panels are available for most sizes. See General Accessories.



SECTION Y-Y



SECTION X-X

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Stainless Steel Type 4X EMC Enclosures

Application

Provides unmatched protection for housing electrical components in highly corrosive environments where electromagnetic compatibility and environmental protection are required. These enclosures are used in indoor and outdoor settings that are frequently wet or have constant exposure to water, other liquids, or contaminants.

These enclosures isolate equipment from stray electromagnetic interference (EMI) and contain EMI that is produced by interior components.

Construction

- 14 gauge Type 304 stainless steel bodies and doors
- Seams continuously welded and ground smooth, no holes or knockouts
- Seamless foam-in-place gasket adjacent to woven monel mesh assures watertight, dust-tight, and EMI seal
- Body stiffener in larger enclosures for extra rigidity
- Rolled lip around three sides of door and all sides of enclosure opening excludes liquids and contaminants
- Stainless steel door clamp assembly assures watertight seal
- Hasp and staple for padlocking
- Removable door with continuous hinge
- Data pocket is high impact thermoplastic
- Collar studs provided for mounting optional panels

Finish

Enclosures are unpainted. Cover, sides, top and bottom have smooth brushed finish. Panels available white painted, zinc plated, and stainless steel.

Industry Standards

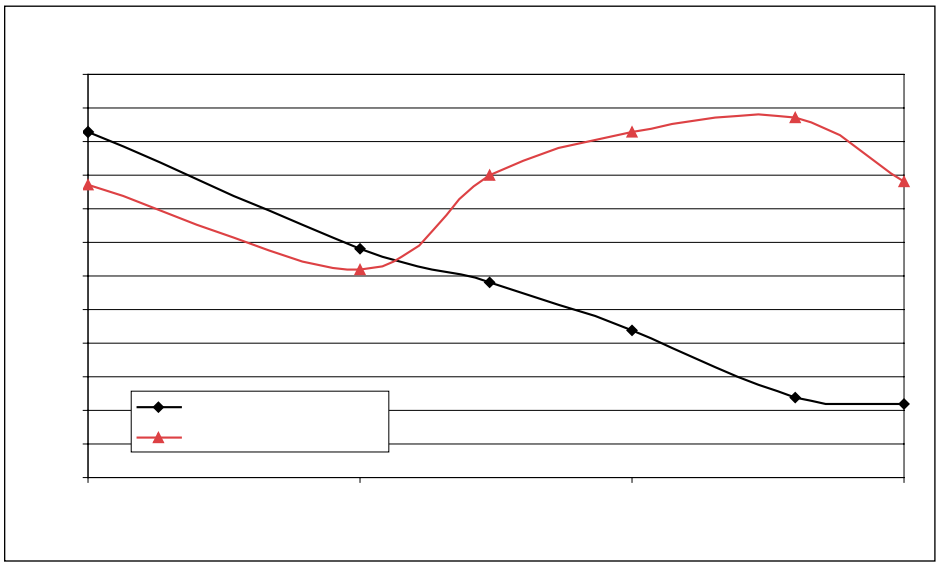
UL 508A, 508 File No. E61997: Type 4, Type 4X, and Type 12
NEMA/EEMAC Type 3, Type 4, Type 4X, Type 12, and Type 13
CSA File No. LR42186: Type 4, Type 4X, and Type 12
IEC 60529, IP66

Shielding effectiveness tested in accordance with:
IEEE 299
VG 95373, part 15
MIL-STD-285

Accessories

Most standard accessories fit these enclosures. See General Accessories index

Electrical Interlocks
Fast Operating Clamp Assembly
Lighting Packages
Panel Support Kit
Panels (See table)
Rack Mounting Angle Kit
Swing-Out Panel Kit
Terminal Block Kit Assembly



US Patent 6, 188,014
US Patent 6,408,506
Other patents pending

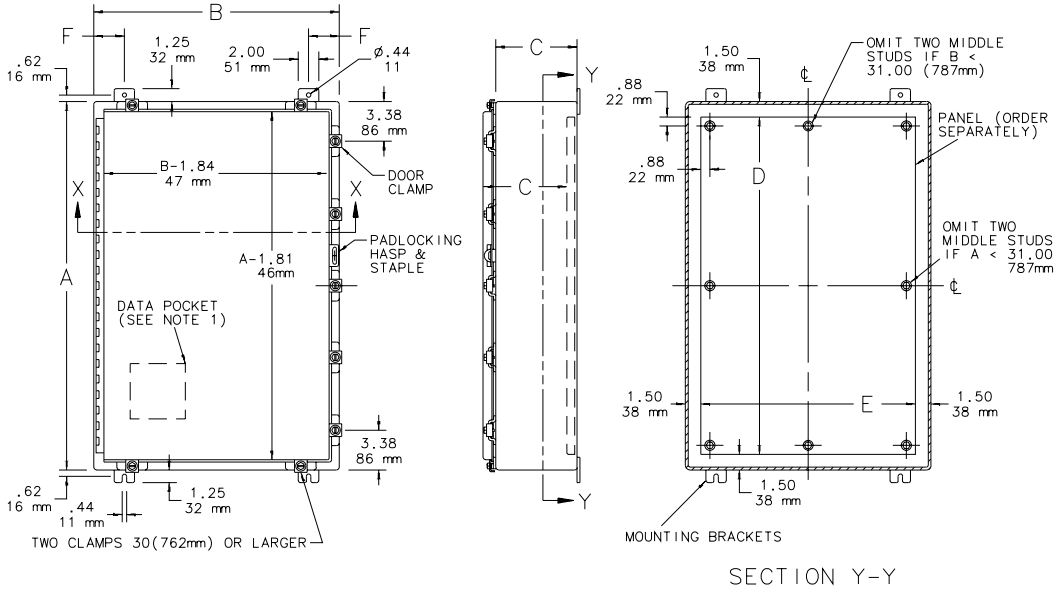
NOTE:
1. Removable data pocket included (see table for size).
   - Large data pocket 12.00 in. x 12.00 in. (305mm x 305mm)
   - Small data pocket 6.00 in. x 6.00 in. (152mm x 152mm)
   - Large data pocket furnished if A= 30.00 in. (762mm) or more and B=20.00 in. (508mm) or more.
2. Maximum spacing between door clamps is15.00 inches (382mm).
3. Panels have flanges along two sides when the side dimension is more than 21.00 inches (533mm) Panels A24P20 and A24P24 have flanges on all four sides.

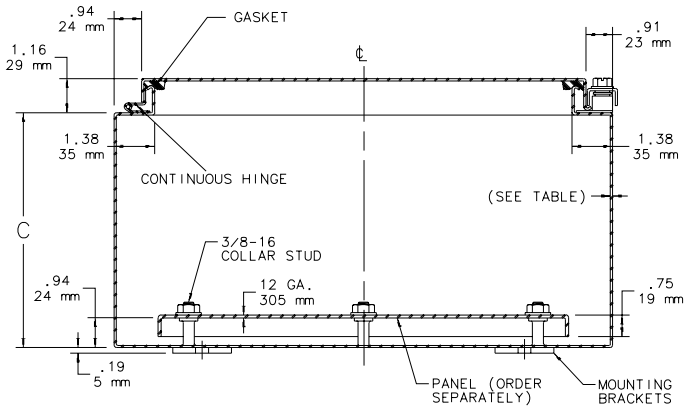
Standard Sizes Stainless Steel Type 4X EMC Enclosures

Catalog Number Type 304	Enclosure Size A x B x C	* Conductive Steel Panel Catalog Number	* Type 316 Stainless Steel Panel Catalog Number	Panel Size D x E	F	Clamps qty	Data Pocket	Stiffener Body
A161206LPEMCSS	16.00 x 12.00 x 6.00 (406 x 305 x 152)	**A16P12G**	**A16P12SS6**	13.00 x 9.00 (330 x 229)	1.25 (32)	4	Small	—
A201606LPEMCSS	20.00 x 16.00 x 6.00 (508 x 406 x 152)	**A20P16G**	**A20P16SS6**	17.00 x 13.00 (432 x 330)	3.00 (76)	4	Small	—
A242006LPEMCSS	24.00 x 20.00 x 6.00 (610 x 508 x 152)	**A24P20G**	**A24P20SS6**	21.00 x 17.00 (533 x 432)	3.00 (76)	5	Small	—
A242408LPEMCSS	24.00 x 24.00 x 8.00 (610 x 610 x 203)	**A24P24G**	**A24P24SS6**	21.00 x 21.00 (533 x 533)	3.00 (76)	5	Small	—
A302408LPEMCSS	30.00 x 24.00 x 8.00 (762 x 610 x 203)	**A30P24G**	**A30P24SS6**	27.00 x 21.00 (686 x 533)	3.00 (76)	5	Large	—
A363008LPEMCSS	36.00 x 30.00 x 8.00 (914 x 762 x 203)	**A36P30G**	**A36P30SS6**	33.00 x 27.00 (838 x 686)	3.00 (76)	7	Large	—
A483608LPEMCSS	48.00 x 36.00 x 8.00 (1219 x 914 x 203)	**A48P36G**	**A48P36SS6**	45.00 x 33.00 (1143 x 838)	3.00 (76)	8	Large	1
A603612LPEMCSS	60.00 x 36.00 x 12.00 (1524 x 914 x 305)	**A60P36G**	**A60P36SS6**	57.00 x 33.00 (1448 x 838)	3.00 (76)	9	Large	1

Millimeter dimensions ( ) are for reference only; do not convert metric dimensions to inch.

* Panels must be ordered separately. Optional aluminum and composite panels are available for most sizes. See General Accessories.





Hoffman®
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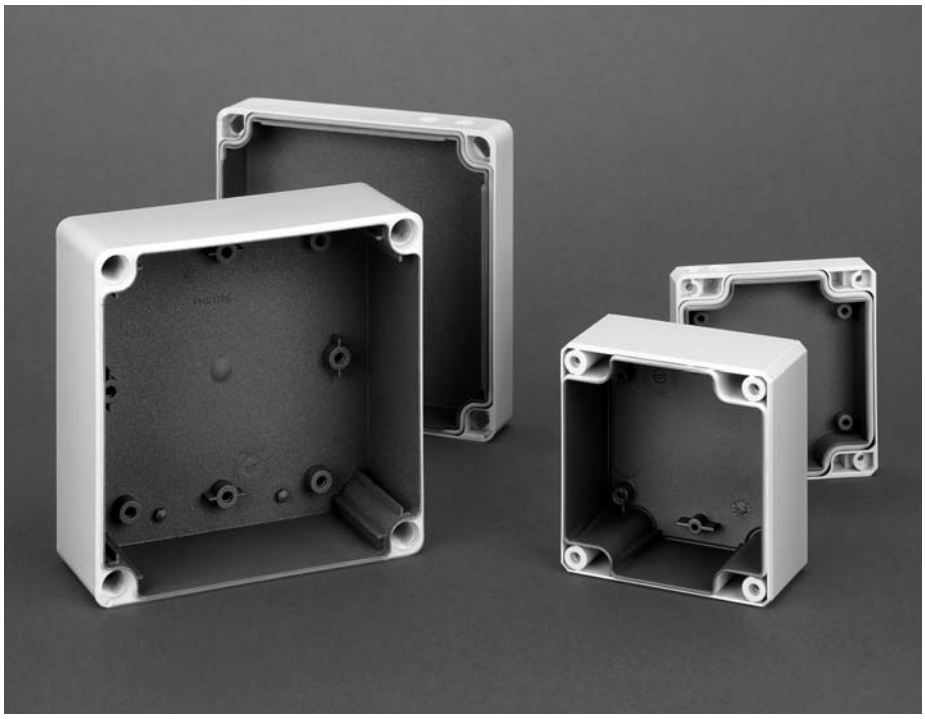
Rev. A October 2004

QLINE® D Polycarbonate EMC Enclosures



- Molded internal rails for mounting adjustable depth panel kit
- Screws provided for mounting optional panel

Industry Standards

UL 508A, 508, E61997 Type 4, Type 4X, Type 12, and Type 13
cUL C22.2 No. 94, Type 4, Type 4X, Type 12, and Type 13
IEC 60529, IP66

Shielding Effectiveness

Tested in accordance with IEEE 299
VG 95-373, part 15
MIL-STD-285

Finish/Color

Optional panels are zinc plated steel.
Enclosures are RAL 7035 light gray outside.

Accessories

The accessories shown for QLINE® D models in Chapter 6 can also be used with QLINE® D EMC models.

Panels
DIN Rails
Hardware Kit
Hinge Kit
Mounting Bracket Kit

Application

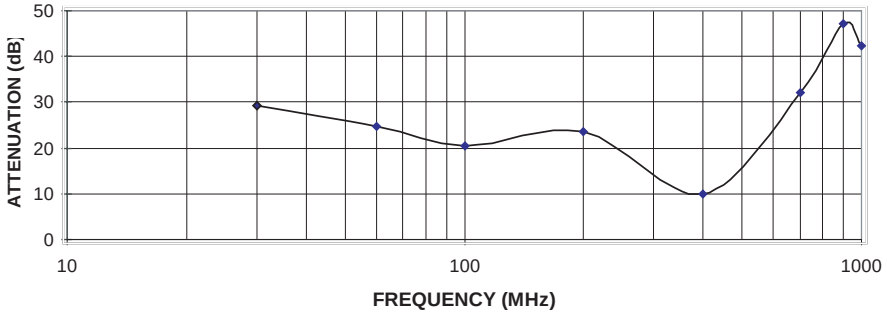
Designed to house sensitive communications equipment, electronics and similar equipment in wet, dusty, and/or corrosive environments where electromagnetic compatibility and/or system security is required.

These enclosures isolate equipment from stray external electromagnetic interference (EMI) and contain EMI produced by interior components.

Construction

- Body is impact-resistant polycarbonate
- Nickel coating in base and cover
- Gasket of silver/silicone
- Mounting holes molded directly under cover screws
- Cross-point captivated cover screws are stainless steel
- Mounting tracks along body side walls and bosses on cover for PC card installation
- Cover screws protected by removable caps that are both aesthetic and provide tamper resistance
- Molded internal pads for mounting optional panels, rails, and other components

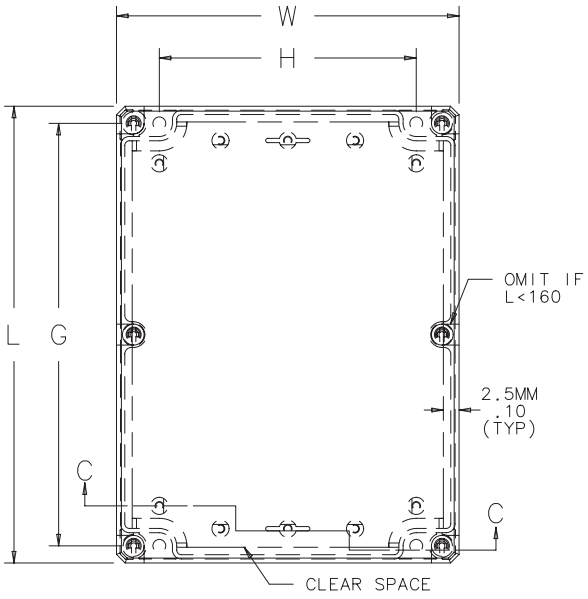
Q1286PCEMC Shielding Effectiveness



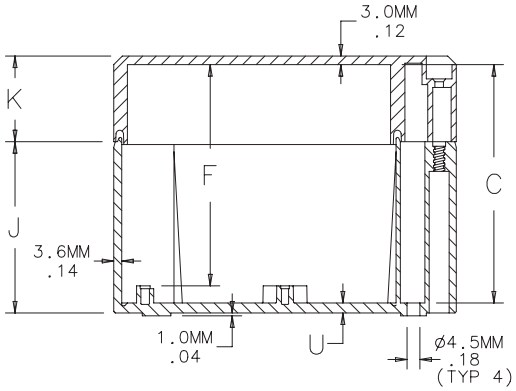
Standard Sizes QLINE D EMC Polycarbonate Enclosures

Enclosure Catalog Number	External Dimensions L x W	Internal Dimensions A x B x C	* Panel Catalog Number	Panel Size D x E	Mounting G x H	F	J	K	P	Q	R	S	T	U
Q1286PCEMC	120 x 80 (4.72 x 3.15)	114 x 74 x 49 (4.47 x 2.89 x 1.93)	Q128PD	91 x 65 (3.58 x 2.56)	108 x 50 (4.25 x 1.97)	42 (1.65)	40 (1.57)	15 (0.59)	58 (2.28)	82 (3.21)	—	96 (3.78)	—	3 (0.12)
Q1289PCEMC	120 x 80 (4.72 x 3.15)	113 x 73 x 79 (4.45 x 2.87 x 3.11)	Q128PD	91 x 65 (3.58 x 2.56)	108 x 50 (4.25 x 1.97)	72 (2.83)	70 (2.76)	15 (0.59)	58 (2.28)	82 (3.21)	—	96 (3.78)	—	3 (0.12)
Q16129PCEMC	160 x 120 (6.30 x 4.72)	153 x 113 x 84 (6.02 x 4.45 x 3.29)	Q1612PD	130 x 100 (5.12 x 3.94)	148 x 90 (5.83 x 3.54)	77.5 (3.05)	60 (2.36)	30 (1.18)	90 (3.54)	120 (4.72)	—	136 (5.35)	—	3 (0.12)
Q1689PCEMC	160 x 80 (6.30 x 3.15)	153 x 73 x 79 (6.02 x 2.87 x 3.11)	Q168PD	131 x 65 (5.16 x 2.56)	148 x 50 (5.83 x 1.97)	72 (2.83)	70 (2.76)	15 (0.59)	58 (2.28)	122 (4.78)	—	136 (5.35)	—	3 (0.12)
Q20129PCEMC	200 x 120 (7.87 x 4.72)	193 x 113 x 79 (7.60 x 4.45 x 3.11)	Q2012PD	170 x 100 (6.69 x 3.94)	188 x 90 (7.40 x 3.54)	72 (2.83)	70 (2.76)	15 (0.59)	90 (3.54)	160 (6.30)	40 (1.57)	176 (6.93)	—	3 (0.12)
Q24169PCEMC	240 x 160 (9.45 x 6.30)	233 x 153 x 83.5 (9.17 x 6.02 x 3.29)	Q2416PD	211 x 148 (8.31 x 5.83)	228 x 130 (8.98 x 5.12)	77.5 (3.05)	75 (2.95)	15 (0.59)	138 (5.43)	202 (7.93)	75 (2.95)	215 (8.46)	—	3.5 (0.14)

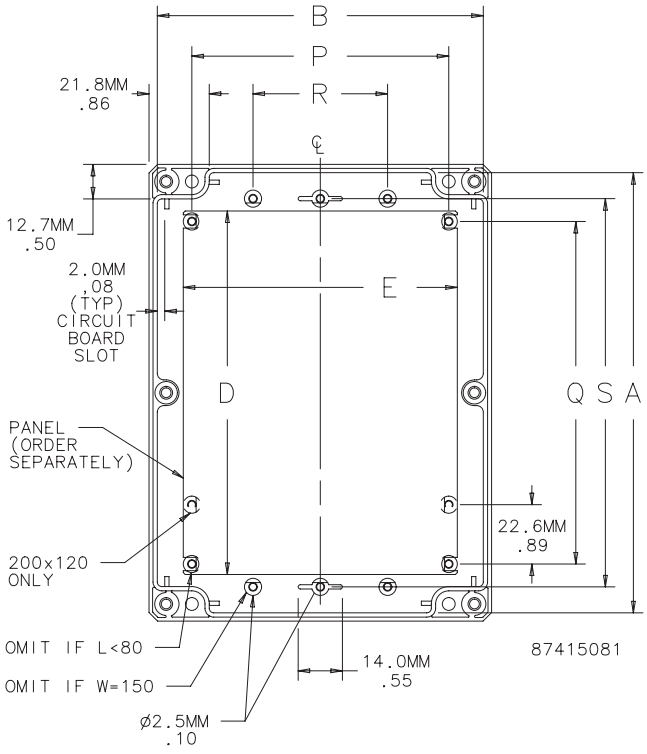
Inch dimensions in ( ). * Panels must be ordered separately.



TOP VIEW



SECTION C-C



TOP VIEW WITH COVER REMOVED

Hoffman®
A Pentair Company

Rev. A October 2004

QLINE® E Polycarbonate EMC Enclosures

Application

Contoured body with flush cover screws provides an attractive and contemporary appearance. Enclosures can be used as insulated electrical junction boxes, terminal wiring boxes, instrument housings, and as housings for electrical controls in wet, dusty, and/or corrosive environments that may also be subject to occasional submersion and where electromagnetic compatibility and/or system security is required.

These enclosures isolate equipment from stray external EMI and contain EMI that is produced by interior components.

Construction

- Body is impact-resistant polycarbonate
- Nickel coating in base and cover
- Gasket of silver/silicone
- Mounting holes molded directly under cover screws
- Screws provided for mounting optional panel
- Polycarbonate material is easily punched, drilled, filed, or sawed
- Cross-point flush cover screws are strong, durable polyamide
- Mounting tracks along body side walls for PC card installation
- Molded internal pads for mounting optional panels, rails, and other components

Industry Standards

UL 508A, 508, E61997 Type 4, Type 4X, Type 12, and Type 13
cUL C22.2 No. 94, Type 4, Type 4X, Type 12, and Type 13
IEC 60529, IP66

Finish/Color

Optional panels are zinc plated steel. Enclosure material is RAL 7035 light gray inside and out.

Shielding Effectiveness

See QLINE D, page 11.20, for an example graph showing shielding effectiveness in QLINE enclosures.

Tested in accordance with IEEE 299
VG 95-373, part 15
MIL-STD-285

Accessories

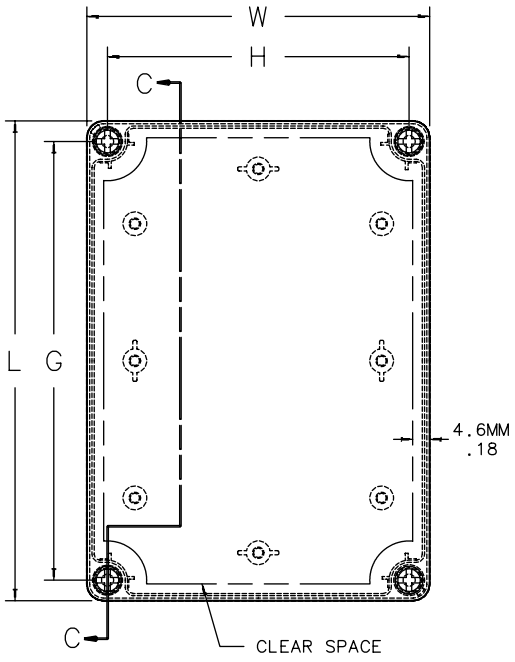
The accessories shown for QLINE E models in Chapter 6 can also be used with QLINE E EMC models.

Panels
Brass Insert Kit
DIN Rails
Hardware Kit
Hinge Kit
Mounting Bracket Kit

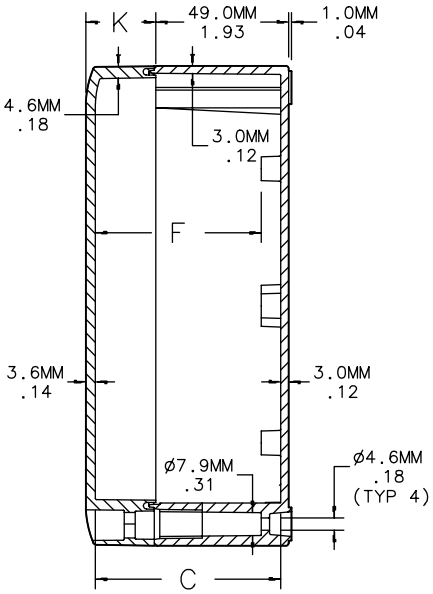
Standard Sizes QLINE E Polycarbonate EMC Enclosures

Enclosure Catalog Number	External Dimensions L x W	Internal Dimensions A x B x C	Panel* Catalog Number	* Panel Size D x E	Mounting G x H	F	K	P	Q	S	T	W	X
Q1388PCEMC	125 x 75 (4.92 x 2.95)	118.5 x 68.5 x 67.4 (4.67 x 2.70 x 2.65)	**Q138PE**	98 x 48) (3.86 x 1.89)	110 x 60 (4.33 x 2.36)	60.5 (2.38)	25 (0.98)	40 (1.57)	75 (2.95)	90 (3.54)	—	—	—
Q13138PCEMC	125 x 125 (4.92 x 4.92)	118.5 x 118.5 x 67.4 (4.67 x 4.67 x 2.65)	**Q1313PE**	98 x 98 (3.86 x 3.86)	110 x 110 (4.33 x 4.33)	60.5 (2.38)	25 (0.98)	90 (3.54)	75 (2.95)	90 (3.54)	—	22.5 (0.89)	—
Q131310PCEMC	125 x 75 (4.92 x 4.92)	118.5 x 68.5 x 92.4 (4.67 x 4.67 x 2.65)	**Q1313PE**	98 x 98 (3.86 x 3.86)	110 x 110 (4.33 x 4.33)	85.5 (3.37)	25 (0.98)	90 (3.54)	75 (2.95)	90 (3.54)	—	22.5 (0.89)	—
Q18138PCEMC	175 x 125 (6.89 x 4.92)	168.5 x 118.5 x 67.4 (6.63 x 4.67 x 2.65)	**Q1813PE**	148 x 98 (5.83 x 3.86)	160 x 110 (6.30 x 4.33)	60.5 (2.38)	25 (0.98)	90 (3.54)	100 (3.94)	140 (5.51)	15 (0.59)	22.5 (0.89)	—
Q181310PCEMC	175 x 125 (6.89 x 4.92)	168.5 x 118.5 x 92.4 (6.63 x 4.67 x 3.64)	**Q1813PE**	148x98 (5.83 x 3.86)	160 x 110 (6.30 x 4.33)	85.5 (3.37)	50 (1.97)	90 (3.54)	100 (3.94)	140 (5.51)	15 (0.59)	22.5 (0.89)	—
Q18188PCEMC	175 x 175 (6.89 x 6.89)	168.5 x 168.5 x 67.4 (6.63 x 6.63 x 2.65)	**Q1818PE**	148 x 148 (5.83 x 5.83)	160 x 160 (6.30 x 6.30)	60.5 (2.38)	25 (0.98)	140 (5.51)	125 (4.92)	140 (5.51)	—	15 (0.59)	35 (1.38)
Q25188PCEMC	250 x 175 (9.84 x 6.89)	243.5 x 168.5 x 67.4 (9.59 x 6.63 x 2.65)	**Q2518PE**	223x148 (8.78 x 5.83)	235 x 160 (9.25 x 6.30)	60.5 (2.38)	25 (0.98)	138.5 (5.45)	201.6 (7.94)	215 (8.46)	15 (0.59)	15 (0.59)	35 (1.38)

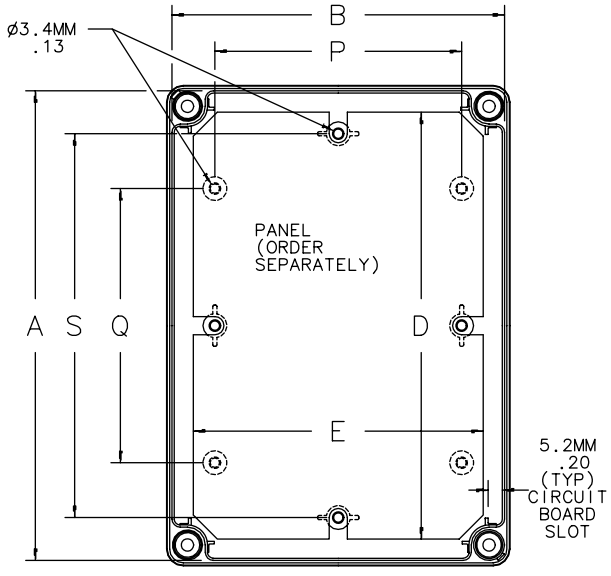
Inch dimensions in ( ).
* Panels must be ordered separately.



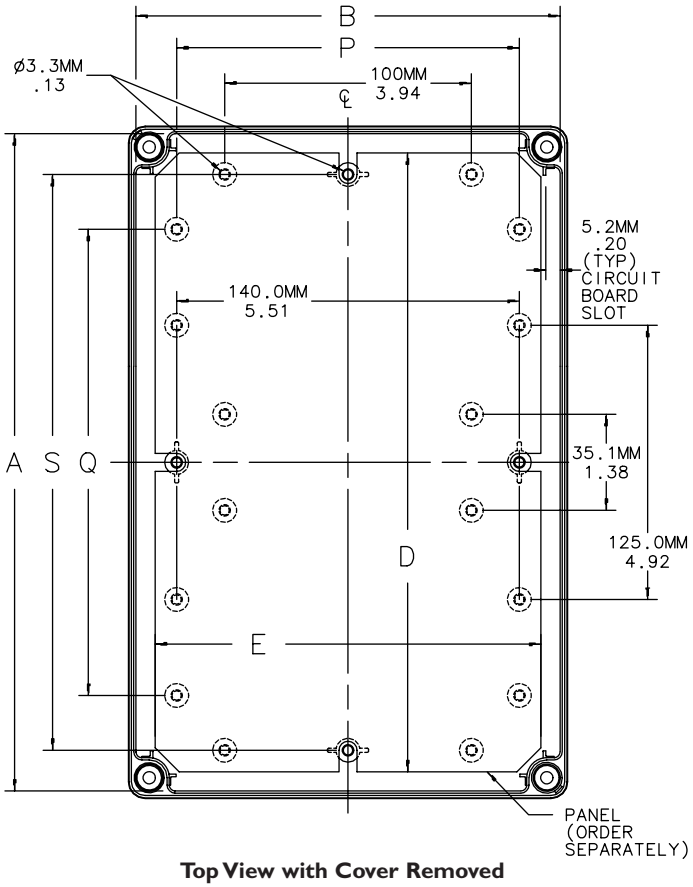
Top View



SECTION C–C



Top View with Cover Removed



Top View with Cover Removed
(when L = 250)

87415077

Hoffman®
A Pentair Company

Rev. A October 2004

QLINE® I Polycarbonate EMC Enclosures

Application

Designed for use as insulated electrical junction boxes, terminal wiring boxes, instrument housings, electrical control boxes, and pushbutton housings in wet, dusty, and corrosive environments, and where electromagnetic compatibility and/or system security is required.

These enclosures isolate equipment from stray external electromagnetic interference (EMI) and contain EMI produced by interior components.

Construction

- Body is impact-resistant polycarbonate
- Polycarbonate material is easily punched, drilled, filed, or sawed
- Nickel coating in base and cover
- Gasket of silver/silicone
- Mounting holes molded directly under cover screws
- Molded internal pads for mounting optional panels, rails, and other components
- Molded internal rails for mounting adjustable depth panel kit
- Screws provided for mounting optional panel
- Optional extension rings are molded polycarbonate
- Easily removable covers attached to body with strong, durable polyamide cross-point cover screws.

Industry Standards

UL 508A, 508, E61997 Type 4, Type 4X, Type 12, and Type 13
cUL C22.2 No. 94, Type 4, Type 4X, Type 12, and Type 13
IEC 60529, IP66

Shielding Effectiveness

See QLINE D, page 11.20, for an example graph showing shielding effectiveness in QLINE enclosures.

Tested in accordance with IEEE 299
VG 95-373, part 15
MIL-STD-285

Finish/Color

Optional panels are zin-plated steel. Enclosure material is RAL 7035 light gray inside and out.

Accessories

The accessories shown for QLINE I models in Chapter 6 can also be used with QLINE I EMC models.

Brass Insert Kit
Cover Screw Kit
DIN Rails
Hardware Kit
Hinge Kit
Mounting Bracket Kit
Panel Depth Fitting
Panel Extenders

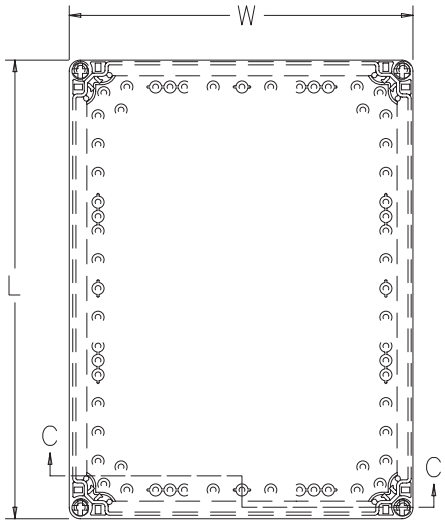
Standard Sizes QLINE I Polycarbonate EMC Screw Cover Enclosures

Enclosure Catalog Number	External Dimensions L x W	Internal Dimensions A x B	* Panel Catalog Number	Panel Size D x E	Mounting G x H	F	P	Q	R	S	T	U	Y	Z
Q202013PCEMC	200 x 200 (7.87 x 7.87)	188 x 188 (7.40 x 7.40)	**Q2020PI**	160 x 160 (6.30 x 6.30)	180 x 180 (7.09 x 7.09)	115 (4.53)	150 (5.91)	150 (5.91)	140 (5.51)	140 (5.51)	120 (4.72)	110 (4.33)	100 (3.94)	100 (3.94)
Q302013PCEMC	300 x 200 (11.81 x 7.87)	288 x 188 (11.34 x 7.40)	**Q3020PI**	260 x 160 (10.24 x 6.30)	280 x 180 (11.02 x 7.09)	115 (4.53)	150 (5.91)	250 (9.84)	140 (5.51)	240 (9.45)	120 (4.72)	210 (8.27)	100 (3.94)	200 (7.87)
Q303013PCEMC	300 x 300 (11.81 x 11.81)	288 x 288 (11.34 x 11.34)	**Q3030PI**	260 x 260 10.24 x 10.24)	280 x 280 (11.02 x 11.02)	115 (4.53)	250 ((9.84)	250 (9.84)	240 (9.45)	240 (9.45)	220 (8.66)	210 (8.27)	200 (7.87)	200 (7.87)
Q402013PCEMC	400 x 200 (15.75 x 7.87)	388 x 188 (15.28 x 740)	**Q4020PI**	360 x 160 (14.17 x 6.30)	380 x 180 (14.96 x 7.09)	115 (4.53)	150 (5.91)	350 (13.78)	140 (5.51)	340 (13.39)	120 (4.72)	310 (12.20)	100 (3.94)	300 (11.81)

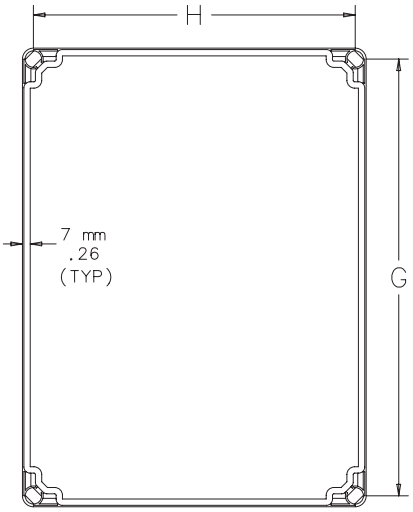
Inch dimensions in ( ).

* Panels must be ordered separately.

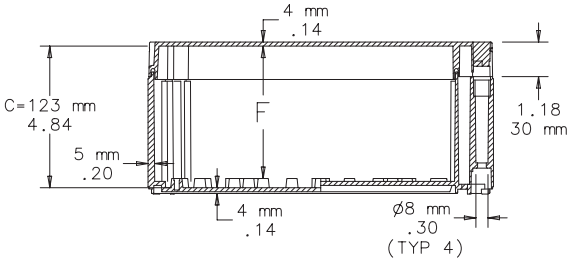
Screw Cover Enclosures



TOP VIEW



BOTTOM VIEW



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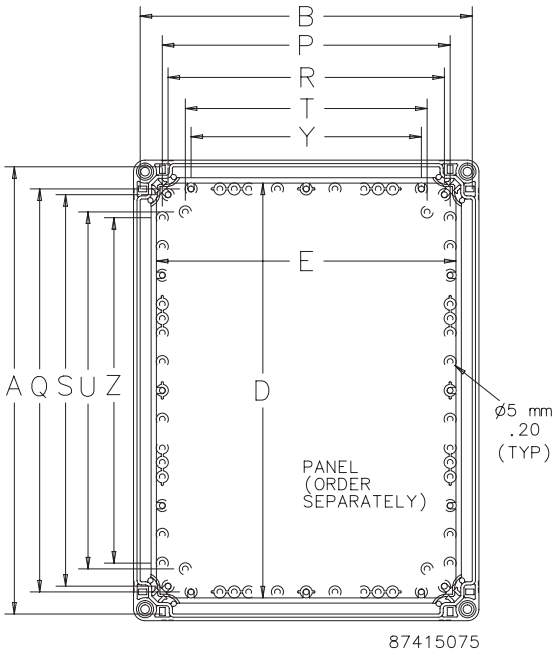
NOTE: Panel screws are MS pan head.



TOP VIEW WITH COVER REMOVED

