ECP ATEX/IEC Ex Explosionproof Enclosures
Installation & Maintenance Information

Crouse-Hinds by EATON

IF 1665

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

APPLICATION

Explosionproof enclosures are used as classified enclosures, pull boxes, or control panels in rigid conduit systems and with metal clad cable rated for hazardous locations.

Explosionproof enclosures are suitable for use indoors or outdoors and are ETL certified for II 2 G Ex d IIB+H2 GB and II 2 D Ex tb IIIC Db. The ATEX and IEC Ex certifications include all ECP enclosures listed in Table 1.

Explosionproof enclosures should be installed, inspected, and maintained by qualified and competent personnel.

INSTALLATION

⚠WARNING

To avoid risk of electrical shock, electrical power must be off before and during installation and maintenance.

1. Select a mounting location that will provide suitable strength and rigidity for supporting all contained wiring and control devices. Figure 1 shows the mounting dimensions.

   Perform visual, electrical, and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks be made at least once a year.

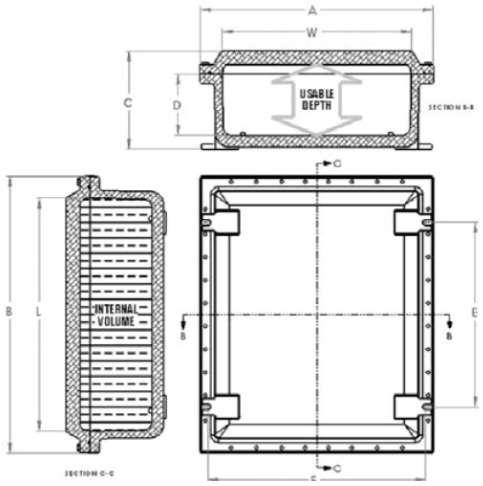

Figure 1

Catalog Number	Inside Nominal Dimensions			Usable Depth *	Overall Dimensions			Mounting		Weight (LB)	Weight (KG)
	W	L	D		A	B	C	E	F		
ECP040604	04	06	04	4-5/8	8-11/32	10-11/32	6-1/8	5	7-1/2	16	7
ECP041604	04	16	04	4-5/8	8-1/2	20-1/2	6-5/32	15	7-1/8	33	15
ECP060804	06	08	04	4-5/8	10-15/32	12-15/32	6-3/16	7	9-1/8	24	11
ECP060806	06	08	06	6-5/8	10-15/32	12-15/32	8-3/16	7	9-1/8	32	15
ECP061204	06	12	04	4-5/8	10-1/2	16-1/2	6-3/16	11	9-1/8	32	15
ECP080806	08	08	06	6-5/8	12-15/32	12-15/32	8-7/32	7	11-1/8	37	17
ECP081006	08	10	06	6-3/4	12-21/32	14-21/32	8-9/16	9	11-1/8	45	20
ECP081204	08	12	04	4-5/8	12-1/2	16-1/2	6-3/8	11	11-1/8	39	18
ECP081206	08	12	06	6-3/4	12-21/32	16-1/2	8-9/16	11	11-1/8	53	24
ECP081208	08	12	08	8-5/8	12-1/2	16-1/2	10-3/8	11	11-1/8	56	25
ECP101006	10	10	06	6-5/8	14-21/32	14-21/32	8-9/16	9	13-1/8	52	24
ECP101008	10	10	08	8-5/8	14-21/32	14-21/32	10-3/8	9	13-1/8	59	27
ECP101406	10	14	06	6-5/8	14-21/32	18-21/32	8-15/32	13	13-1/8	66	30
ECP121204	12	12	04	4-63/64	16-57/64	16-57/64	7-3/16	7	14-15/16	62	28
ECP121206	12	12	06	7	16-27/32	16-27/32	9-1/8	7	15-5/16	68	31
ECP121208	12	12	08	9	16-27/32	16-27/32	11-1/8	7	15-5/16	74	34
ECP121806	12	18	06	6-25/32	17-1/8	23-1/8	8-31/32	12	14-15/16	102	46
ECP121808	12	18	08	8-25/32	17-1/8	23-1/8	11-1/8	12	14-15/16	110	50
ECP122408	12	24	08	8-15/16	17-1/4	29-1/4	11-5/8	18	14-15/16	149	68
ECP122410	12	24	10	10-15/16	17-1/4	29-1/4	13-5/8	18	14-15/16	158	72
ECP123608	12	36	08	8-15/16	17	41-3/64	11-59/64	30	14-15/16	247	112
ECP141406	14	14	06	7	18-7/8	18-7/8	9-3/8	9	17-5/16	93	42
ECP141408	14	14	08	9	18-7/8	18-7/8	11-3/8	9	17-5/16	101	46
ECP141410	14	14	10	11	18-7/8	18-7/8	13-3/8	9	17-5/16	108	49
ECP161606	16	16	06	7-9/16	20-61/64	20-61/64	9-51/64	10	18-15/16	117	53
ECP161608	16	16	08	9-9/16	20-61/64	20-61/64	11-51/64	10	18-15/16	125	57
ECP162408	16	24	08	9-3/8	20-7/8	28-7/8	12-11/16	18	20	195	89
ECP181806	18	18	06	7-3/8	22-7/8	22-7/8	10-7/16	12	21-9/16	153	70
ECP181808	18	18	08	9-1/4	22-7/8	22-7/8	12-7/16	12	21-9/16	164	74
ECP181810	18	18	10	10-15/16	22-7/8	22-7/8	14-7/16	12	21-9/16	175	79
ECP182408	18	24	08	9-7/16	23-13/32	29-13/32	12-5/6	18	22-3/8	223	101
ECP182410	18	24	10	11-7/16	23-13/32	29-13/32	14-5/16	18	22-3/8	235	107
ECP183008	18	30	08	9-3/8	24	36	12-5/8	24	22	304	138
ECP183608	18	36	08	9-11/32	23-21/32	41-21-32	12-39/64	30	22-3/8	355	161
ECP183610	18	36	10	11-21/64	23-21/32	41-21/32	14-57/64	30	22-3/8	376	171
ECP242408	24	24	08	9-7/16	29-21/64	29-21/64	12-17/32	18	28-3/8	279	127
ECP242410	24	24	10	11-7/16	29-21/64	29-21/64	14-17/32	18	28-3/8	301	137
ECP243008	24	30	08	9-1/4	30	36	13-1/8	24	28	428	194
ECP243608	24	36	08	9-1/4	29-15/16	41-15/16	13-1/4	30	29-1/2	481	218
ECP243610	24	36	10	11-1/4	29-55/64	41-55/64	15-1/8	30	29	533	242

Table 1. Enclosure Dimensions

*The usable depth is reduced by 1/2" when adding a mounting plate.

2. Securely fasten enclosure to the mounting location, then attach into cable or conduit system. Install approved conduit sealing fittings when required by any applicable standards.

⚠CAUTION

To avoid risk of ignition:

- Hazardous location information specifying class and group listing of each device is marked on the nameplate of each enclosure. Class and group listing for any device penetrating the enclosure must be suitable for the classification of the location in which the enclosure is installed.
- Unused entries must be plugged using suitably certified suitably certifiedEx d IIC Gb and Ex tb IIIC Db blanking elements
- Entry to the enclosure must be made by suitably certified suitably certified Ex d IIC Gb and Ex tb IIIC Db cable gland or suitably certified conduit seal installed at the enclosure wall.
- In Class I, Division 1, Groups B, C, D locations, conduit sealing fittings MUST be installed in each attached conduit run (within eighteen inches of the enclosure to comply with the latest edition of the National Electrical Code Section 501.15 and or 502.15 plus any other applicable code.

⚠WARNING

To avoid potential personal injury and/or damage to the ground-joint surface, do not remove the hinge bolts prior to loosening cover bolts.

3a. Remove cover bolts securing cover. Firmly grasp the bottom and right side of cover and carefully swing aside to prevent damage to the ground joint surface. Avoid striking cover, or devices in cover, or neighboring enclosures or structures.

3b. To remove cover fully, two methods are recommended. Due to the potential weight of the cover, it must be supported prior to removal of hinge bolts. This can either be achieved by a second installer holding the cover or by utilizing a hoist. If a hoist is to be used, first remove all the cover bolts and locate the 5/8-11 threaded holes. Install eyebolts (not provided) into two opposing threaded holes. It is important that the eyebolts be threaded only part way through the cover, preventing damage to the machined flange on the body.

Loosen and remove the hinge bolts. Carefully remove both sides of hinges. Lift off cover carefully and set it aside to prevent damage to the ground joint and flange gasket.

⚠WARNING

To avoid risk of ignition:

Hammers or prying tools must not be allowed to damage the flat ground-joint surfaces or cover gasket. Do not handle covers roughly, or place them on surfaces that might damage or scratch the flat ground-joint surfaces.

5. Pull wires into enclosure, making sure they are long enough to make the required connections. Make all electrical connections. The internal grounding terminal shall be used as equipment grounding means. The external terminal is only a supplemental bonding connection.

6. Test wiring for correctness with continuity checks and also for unwanted grounds with insulation resistance tester.

⚠WARNING

To avoid risk of ignition:

Clean both ground-joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat ground-joint surfaces. Surfaces must seat fully against each other to provide a proper explosionproof seal.

Catalog Number	Cover Screw	Required Torque	
		Foot-Pounds	Newton-Meters
ECP040604	M8 x 1.25	20-25	27-34
ECP041604	M10 x 1.5	35-40	48-54
ECP060804	M8 x 1.25	20-25	27-34
ECP060806	M8 x 1.25	20-25	27-34
ECP061204	M10 x 1.5	35-40	48-54
ECP080806	M8 x 1.25	20-25	27-34
ECP081006 to ECP101406	M10 x 1.5	35-40	48-54
ECP081206	M10 x 1.5	35-40	48-54
ECP121204 to ECP243610	M12 x 1.75	40-45	55-61

Table 2

7. To install/close cover, make sure cover and body ground-joint surfaces are clean and not scratched. Lift cover to approximate position and line up bolt holes of cover with body. Avoid sliding ground-joint surface of cover over ground-joint sur face of body. Cover/body bolt holes must match up. Hand start corner bolts. Fully tighten all cover bolts to torque values per Table 2. If removed previously, reinstall hinge bolts (Torque to 65-70in.-lbs for sizes 040604 to 081208. Torque to 25-30ft-lbs for sizes 121204-243610.)

8. If cover bolts are damaged, only replace with bolts provided by Crouse-Hinds.

9. Pour sealing compound into sealing fittings (when required) in accordance with the instructions supplied with each of the approved fittings and sealing compound. We recommend Chico® compound and fiber or Chico® SpeedSeal™. Only certified conduit seals may be used.

10. The following are schedule of limitations that must be followed:
    - Rotating machines, or other devices which create turbulence, shall not be incorporated.
    - Oil filled circuit-breakers and contactors shall not be used.
    - The content of the Ex component enclosure equipment may be placed in any arrangement provided that an area of at least 40% of each cross sectional area remains free.
    - Unused entries must be plugged using suitably certified blanking elements.
    - Entry to the enclosure must be made by suitably certified cable gland or suitably certified conduit seal installed at the enclosure wall.
    - Internal earthing connection must be provided by the end user.
    - Primary and secondary cells and batteries shall only be used when suitably certified and additional assessment is carried out against the requirements of EN60079-1:2007 Annex E
    - "Drilling and tapping of holes is only permitted by the enclosure manufacturer"

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