

ELECTRICAL CODE REQUIREMENTS

A selection of Canadian Electrical Code requirements are listed below along with Hubbell product information.

CEC CLAUSE 12-3012, OUTLET BOX SUPPORTS

- (4) Where boxes are mounted on metal studs, additional support shall be provided to prevent the movement of the boxes after the drywall is installed.

All Hubbell steel stud boxes provide this additional support.

- (5) Mounting nails or screws shall not pass through the interior of an outlet box unless:
 - (a) The nails or screws are located so as not to be more than 6.4 mm from the back or ends of the box; and
 - (b) The nails or screws are located so they will not interfere with conductors or connectors.

The location of mounting holes on Hubbell boxes meet this requirement.

CEC CLAUSE 12-3034, CONDUCTORS IN BOXES, CABINETS OR FITTINGS

- (1) Conductors which are connected to different power or distribution transformers or other different sources of voltage shall not be installed in the same box, cabinet or fitting unless:
 - (a) A barrier of sheet steel not less than 0.0516 inch (No. 18 MSG) thick or a flame-retardant nonmetallic insulating material not less than 0.0625 inch in thickness is used to divide the space into separate compartments for the conductors of each system;

Hubbell offers a number of partitions (barriers) which meet this requirement. The 1104-P can be used with the 1104 and 2104 series boxes, and is installed in our power/communication boxes (4204 series); MBD-P and MBS-P are designed for use with our masonry boxes (MBD and MBS series); LVP is designed for use with our pre-ganged boxes (GSB series).

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Maximum Number of Conductors in a Box

The table below, based on clause 12-3034 of the Canadian Electrical Code, lists the maximum number of conductors permitted in a box. It is assumed that the box contains no more than 1 wire connector, and no fixture studs, hickeys or flush devices.

Capacity per gang in ³ (ml)	Box series	Maximum Number of Conductors*			
		14 AWG	12 AWG	10 AWG	8 AWG
4.5 (73)	DS	3	2	2	-
5 (90)	56111, OBEX	3	2	2	1
8 (131)	1100	5	4	3	2
10 (163)	1102, 775, EZ101	6	5	4	3
11.5 (188)	2018	7	6	5	4
12 (196)	3102	8	6	5	4
12.5 (204)	1104, 2104, 4204	8	7	5	4
14 (229)	2020, MBS	9	8	6	5
15 (245)	1004, 1504, 54151, 55151	10	8	6	5
15.7 (257)	1204	10	8	6	5
16 (262)	3104	10	9	7	5
16.5 (270)	1110, 1111	11	9	7	6
18 (294)	1804, 54521, 3004	12	10	8	6
18.5 (303)	1151	12	10	8	6
20.25 (331)	MBS-HV	13	11	9	7
21 (334)	52151, 53151, 54171, 55171, MBD	14	12	9	7
22.25 (344)	MBD-HV	14	12	9	8
24 (393)	54531	16	13	10	8
30 (491)	52171, 53171, 54541, 72151, 73151	20	17	13	10
36 (589)	54551	24	20	16	13
42 (688)	54561, 72171, 73171	28	24	18	15

* The maximum number of conductors is reduced in each of the following cases:

- One conductor if the box contains one or more fixture studs or hickeys.
- One conductor for every pair of wire connectors (no deduction for one wire connector, deduct one conductor for 2 or 3 wire connectors, two conductors for 4 or 5 wire connectors, etc.).
- Two conductors if the box contains one or more flush devices mounted on a single strap. If a flush device is greater than 1" thick, reduce the box capacity by 5 cubic inches X the thickness of the device.

The maximum number of conductors listed is per gang. Multiply the number listed by the number of gangs (where applicable) to obtain the maximum number of conductors in the box.

Refer to the Canadian Electrical Code for complete information.