HUBBELL CIRCUIT-LOCK™

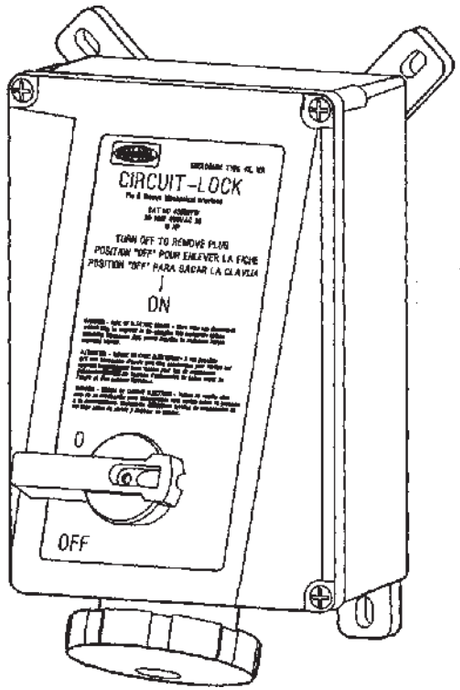
U.S. Patent No. 5,298,701

20 AMP PIN & SLEEVE MECHANICAL INTERLOCK

English

GENERAL INFORMATION

1. **NOTICE**: For installation by a qualified electrician in accordance with national and local electrical codes and the following instructions.
2. **CAUTION: RISK OF ELECTRIC SHOCK. Disconnect power before installing. More than one disconnect switch may be required to de-energize this equipment before servicing. Disconnect ALL power supplies to enclosure before exposing interior.**
3. **NOTICE**: Separate overcurrent protection must be provided in accordance with National Electrical Code® Article 220 or Canadian Electrical Code, Section B, as appropriate. Overcurrent protection MUST NOT exceed the ampere rating of the receptacle [ref.: National Electrical Code® section 430-42(c) or Canadian Electrical Code, Part 1, Rule 28-602(3)(c)(i)].
4. Suitable for use on a circuit capable of delivering not more than 10,000 rms symmetrical amperes at the voltage rating of the receptacle.
5. This enclosure includes a lockout provision to isolate the receptacle and connected equipment from the power supplied to the enclosure as a method of compliance to OSHA Lockout/Tagout Regulation 29, CFR Part 1910.147. The **ON-OFF** control knob (in the **OFF** position) accepts up to 5/16 inch (8 mm)) diameter shackle of a suitable padlock or Lockout device. This feature does NOT isolate the power supplied to the enclosure during internal servicing of the enclosure.
6. **NOTICE**: This enclosure must NOT be used as a junction box for feed-through connections.
7. WARNING: RISK OF ELECTRIC SHOCK. Bonding between conduits must be provided.



BOTTOM FEED

(RECOMMENDED METHOD OF ENTRY)

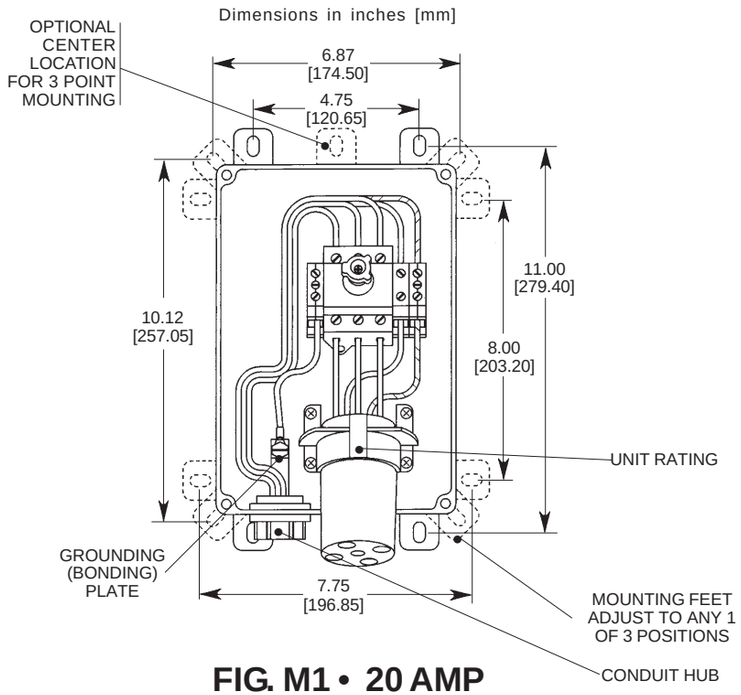


FIG. M1 • 20 AMP

INSTALLATION INSTRUCTIONS

A. Mounting Instructions:

1. This enclosure must always be mounted vertically with receptacle end down.
2. This enclosure may be mounted for top, bottom or back conduit entrances. Bottom feed is recommended whenever possible, Fig M1. Back feed is permitted in Type 4X applications only. Fig. M3.
3. For Type 4X and Type 12 applications, enclosure must be mounted by means of mounting feet. DO NOT drill, punch or nail mounting holes through the enclosure.
4. Mount the feet to the enclosure using the screws provided. Tighten to 10-12 lb•in (1.2 - 1.4 N•m).
5. Mounting feet will accept up to 5/16 inch (8 mm) diameter screws (not provided). Mounting pattern is shown in Fig. M1.
6. Remove the four (4) cover mounting screws and remove cover. Switch handle must be in "**OFF**" position to remove cover.
7. Drill or punch hole at the desired conduit entry location:
   a. 1-3/8 inch (34.9 mm) diameter for 1 inch trade size conduit hub.
   Molded drill spots on the outside top, bottom and back surface show the locations. Fig. M3.
8. Use ONLY Listed/Certified conduit hub rated for Type 4X and Type 12 applications (one supplied) such as:
   RACO #1704 for 1 inch trade size
9. Install the conduit hub. Be sure that the "O" ring is properly seated in its groove.
10. Install the grounding (bonding) plate under the conduit nut. Tighten nut securely for a watertight seal and grounding continuity.
11. Any unused conduit entrance holes must be sealed with Listed/Certified closure plugs rated Type 4X and type 12. (Hubbell Cat. No. MICPK30).
12. **NOTE**: The metal closure plug must be grounded (bonded) back to the inside green & yellow grounding buss. Grounding (bonding) wire connection required.
13. Use of user-installed conduit entrances above the switch are not recommended in applications where condensation may be present in the conduit (high humidity and extreme temperature change locations). When using the top feed conduit entrance, drip loops must always be formed as indicated in fig. M2.

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INSTALLATION INSTRUCTIONS (CONTINUED)

B. Wiring Instructions

1. Select conductors having 90°C or higher rated insulation and sufficient ampacity in accordance with the 60°C column of the National Electrical Code® Table 310-16 or Canadian Electrical Code Table 2.
2. **CAUTION**: USE COPPER CONDUCTORS ONLY.
3. DO NOT TIN CONDUCTORS.
4. Make sure the connected equipment rating does not exceed the rating of this device. See General Information #4 regarding overcurrent protection.
5. Terminal capacity as indicated in Table 1
6. Strip conductor insulation ½ inch (13 mm).
7. Select proper wiring diagram. Loosen terminal screws. Insert conductors fully into proper terminal.
8. Tighten terminal screws to torque indicated in Table 2:
9. **TAKE CAUTION THAT THERE ARE NO STRAY WIRE STRANDS.**
10. Tighten the grounding buss mounting screw to 10-12 lb•in (1.2-1.4 N•m).
11. Reinstall the cover. The handle must be in the **OFF** position. Make sure the rope gasket is properly seated in the groove. Tighten the four cover screws to 10-12 lb•in (1.2-1.4 N•m).
12. Consult factory for auxiliary contact availability.

TABLE 1	20A
Switch	#8 to #14 AWG
Ground	#8 to #22 AWG
Neutral	#8 to #22 AWG
Auxiliary contact	#14-18 AWG

TABLE 2	20A
Switch	12 lb•in (1.4N•m)
Ground	16-18 lb•in (1.8-2.0 N•m)
Neutral	13-15 lb•in (1.5-1.7 N•m)
Auxiliary contact	10-12 lb•in (1.2-1.4 N•m)

FIG. M2 • TOP FEED

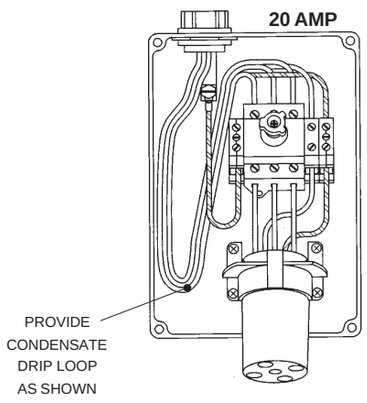
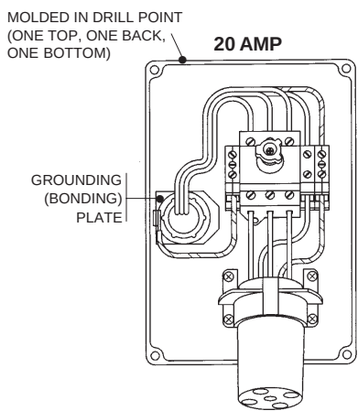


FIG. M3 • BACK FEED
(TYPE 4X INSTALLATIONS ONLY)

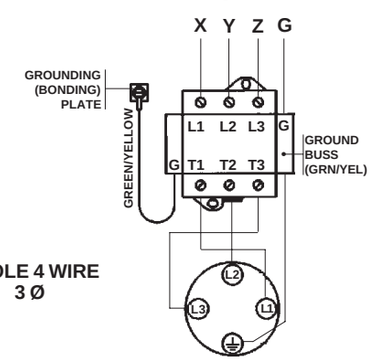


THIS DEVICE CARRIES A MAXIMUM RATING OF:

CAT. NOS.	AMPS	RATING	HORSEPOWER [kW]	USE PIN & SLEEVE PLUG CAT. NO.	WIRE PER FIG.
HBL420MI5W	20	600VAC 3Ø	10 [7.45]	HBL420P5W	W1
HBL420MI7W	20	480VAC 3Ø	10 [7.45]	HBL420P7W	W1
HBL420MI9W	20	240VAC 3Ø	5 [3.73]	HBL420P9W	W1
HBL420MI12W	20	120 / 240VAC	2 (208-240VAC, L-L) [1.5]	HBL420P12W	W2

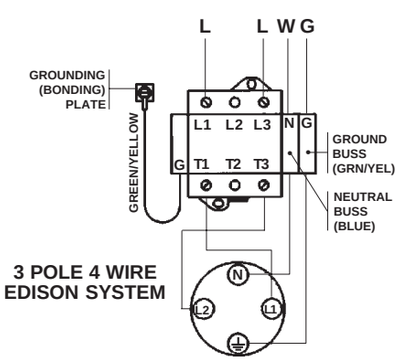
WIRING DIAGRAMS

FIG. W1



3 POLE 4 WIRE
3 Ø

FIG. W2



3 POLE 4 WIRE
EDISON SYSTEM