Section E
Pin and Sleeve

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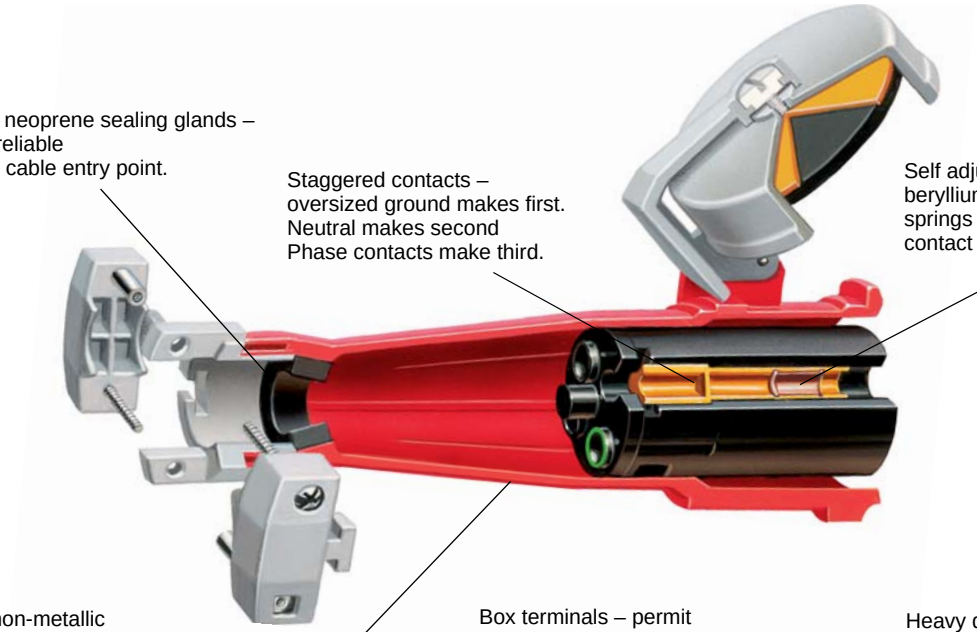
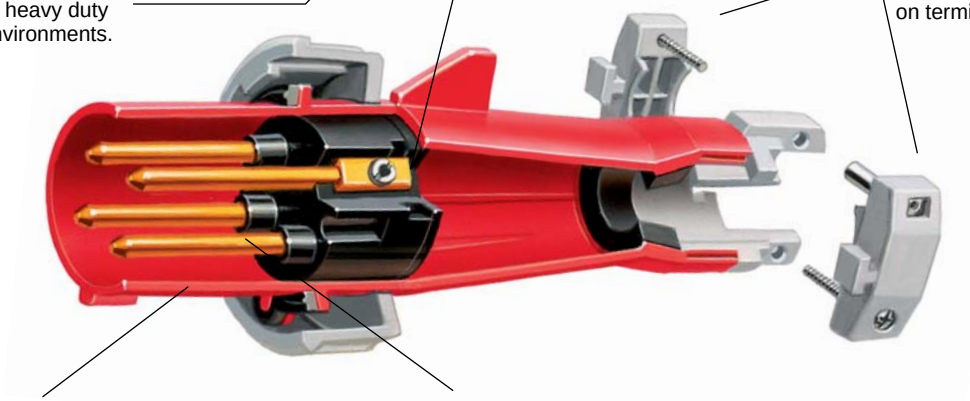
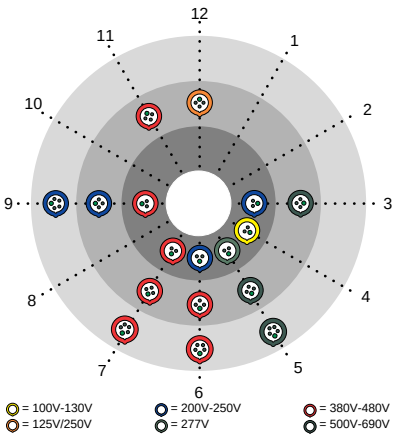
Pin and Sleeve Watertight Devices

Pin and Sleeve
Watertight Devices
Features and Benefits







Singly Rated Configurations
Every non-metallic Hubbell Pin and Sleeve product is designed and manufactured to meet the International Standard IEC 60309-1 and IEC 60309-2. This device standard calls out a singly rated, non-interchangeable configuration for every voltage and type of service throughout the world.

Voltage
The voltage is determined by the location of the female ground contact relative to the housing key-way. Simply by manufacturing the device with a ground contact in a certain “clock” position, the device will be rated for a particular voltage system. The diagram shows the keying position and the color coding that is associated with each voltage.

Pin and Sleeve

Watertight Devices Ordering Information

20 and 30 Ampere – North American Ratings
16 and 32 Ampere – International Ratings

Amps	Poles and Wires	Configuration Recep./ Conn.	Configuration Plug/ Inlet	IP67 Suitability Voltage	Watertight Devices: Receptacle	Watertight Devices: Plug	Watertight Devices: Connector	Watertight Devices: Inlet	Back Boxes: Non-Metallic	Back Boxes: Metallic	Replacement Interior Kits: Conn. Recep.	Replacement Interior Kits: Plugs Inlets
16	2P 3W			100-130	HBL316R4W	HBL316P4W	HBL316C4W	HBL316B4W†	BB2030N	BB201W BB301W	IN320BF	IN320BM
	2P 3W			220-240	HBL316R6W	HBL316P6W	HBL316C6W	HBL316B6W	BB2030N	BB201W BB301W	IN320BF	IN320BM
	3P 4W			380-415	HBL416R6W	HBL416P6W	HBL416C6W	HBL416B6W†	BB2030N	BB201W BB301W	IN420DF	IN420DM
	4P 5W			220/380 240/415	HBL516R6W	HBL516P6W	HBL516C6W	HBL516B6W	BB2030N	BB201W BB301W	IN520EF†	IN520EM
20	2P 3W			125	HBL320R4W	HBL320P4W	HBL320C4W	HBL320B4W	BB2030N	BB201W BB301W	IN320AF	IN320AM
	2P 3W			250	HBL320R6W	HBL320P6W	HBL320C6W	HBL320B6W	BB2030N	BB201W BB301W	IN320BF	IN320BM
	2P 3W			480	HBL320R7W	HBL320P7W	HBL320C7W	HBL320B7W	BB2030N	BB201W BB301W	IN320BF	IN320BM
	3P 4W			125/250	HBL420R12W	HBL420P12W	HBL420C12W	HBL420B12W	BB2030N	BB201W BB301W	IN420CF	IN420CM
	3P 4W			3Ø250	HBL420R9W	HBL420P9W	HBL420C9W	HBL420B9W	BB2030N	BB201W BB301W	IN420DF	IN420DM
	3P 4W			3Ø480	HBL420R7W	HBL420P7W	HBL420C7W	HBL420B7W	BB2030N	BB201W BB301W	IN420DF	IN420DM
	3P 4W			3Ø600	HBL420R5W	HBL420P5W	HBL420C5W	HBL420B5W	BB2030N	BB201W BB301W	IN420DF	IN420DM
	4P 5W			3ØY120/208	HBL520R9W	HBL520P9W	HBL520C9W	HBL520B9W	BB2030N	BB201W BB301W	IN520EF†	IN520EM
	4P 5W			3ØY277/480	HBL520R7W	HBL520P7W	HBL520C7W	HBL520B7W	BB2030N	BB201W BB301W	IN520EF†	IN520EM
	4P 5W			3ØY347/600	HBL520R5W	HBL520P5W	HBL520C5W	HBL520B5W	BB2030N	BB201W BB301W	IN520EF†	IN520EM
30	2P 3W			125	HBL330R4W	HBL330P4W	HBL330C4W	HBL330B4W	BB2030N	BB201W BB301W	IN330AF	IN330AM
	2P 3W			250	HBL330R6W	HBL330P6W	HBL330C6W	HBL330B6W	BB2030N	BB201W BB301W	IN330BF	IN330BM
	2P 3W			480	HBL330R7W	HBL330P7W	HBL330C7W	HBL330B7W	BB2030N	BB201W BB301W	IN330BF	IN330BM
	3P 4W			125/250	HBL430R12W	HBL430P12W	HBL430C12W	HBL430B12W	BB2030N	BB201W BB301W	IN430CF	IN430CM
	3P 4W			3Ø250	HBL430R9W	HBL430P9W	HBL430C9W	HBL430B9W	BB2030N	BB201W BB301W	IN430DF	IN430DM
	3P 4W			3Ø480	HBL430R7W	HBL430P7W	HBL430C7W	HBL430B7W	BB2030N	BB201W BB301W	IN430DF	IN430DM
	3P 4W			3Ø600	HBL430R5W	HBL430P5W	HBL430C5W	HBL430B5W	BB2030N	BB201W BB301W	IN430DF	IN430DM
	4P 5W			3ØY120/208	HBL530R9W	HBL530P9W	HBL530C9W	HBL530B9W	BB2030N	BB201W BB301W	IN530EF	IN530EM
	4P 5W			3ØY277/480	HBL530R7W	HBL530P7W	HBL530C7W	HBL530B7W	BB2030N	BB201W BB301W	IN530EF	IN530EM
	4P 5W			3ØY347/600	HBL530R5W	HBL530P5W	HBL530C5W	HBL530B5W	BB2030N	BB201W BB301W	IN530EF	IN530EM
32	2P 3W			100-130	HBL332R4W†	HBL332P4W†	HBL332C4W†	HBL332B4W†	BB2030N	BB201W BB301W	IN330BF	IN330BM
	2P 3W			220-240	HBL332R6W	HBL332P6W	HBL332C6W	HBL332B6W	BB2030N	BB201W BB301W	IN330BF	IN330BM
	3P 4W			380-415	HBL432R6W	HBL432P6W	HBL432C6W	HBL432B6W	BB2030N	BB201W BB301W	IN430DF	IN430DM
	3P 4W			380V 50Hz 440V 60Hz	HBL432R3W	HBL432P3W	HBL432C3W	–	BB2030N	BB201W BB301W	IN430DF	IN430DM
	4P 5W			220/380 240/415	HBL532R6W	HBL532P6W	HBL532C6W	HBL532B6W	BB2030N	BB201W BB301W	IN530EF	IN530EM

Notes: See page E-6, E-7 for accessories. See page E-8, E-9 for product dimensions. See page E-10, E-11 for product specifications. Closure caps purchased separately, see page E-7.

† Consult factory.

Pin and Sleeve

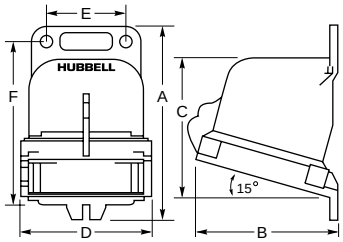
Watertight Devices Ordering Information

60 and 100 Ampere – North American Ratings
63 and 125 Ampere – International Ratings

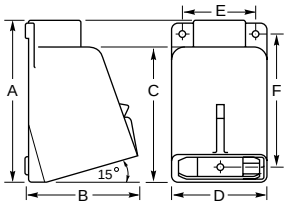
Amps	Poles and Wires	Configuration Recep./ Conn.	Configuration Plug/ Inlet	IP67 Suitability Voltage	Watertight Devices: Receptacle	Watertight Devices: Plug	Watertight Devices: Connector	Watertight Devices: Inlet	Back Boxes: Non-Metallic	Back Boxes: Metallic	Replacement Interior Kits: Conn. Recep.	Replacement Interior Kits: Plugs Inlets
60	2P 3W			125	HBL360R4W	HBL360P4W	HBL360C4W	HBL360B4W	BB60N	BB601W BB602W	IN360AF	IN360AM
	2P 3W			250	HBL360R6W	HBL360P6W	HBL360C6W	HBL360B6W	BB60N	BB601W BB602W	IN360BF	IN360BM†
	2P 3W			480	HBL360R7W	HBL360P7W	HBL360C7W	HBL360B7W	BB60N	BB601W BB602W	IN360BF	IN360BM†
	3P 4W			125/250	HBL460R12W	HBL460P12W	HBL460C12W	HBL460B12W	BB60N	BB601W BB602W	IN460CF	IN460CM
	3P 4W			3Ø250	HBL460R9W	HBL460P9W	HBL460C9W	HBL460B9W	BB60N	BB601W BB602W	IN460DF	IN460DM
	3P 4W			3Ø480	HBL460R7W	HBL460P7W	HBL460C7W	HBL460B7W	BB60N	BB601W BB602W	IN460DF	IN460DM
	3P 4W			3Ø600	HBL460R5W	HBL460P5W	HBL460C5W	HBL460B5W	BB60N	BB601W BB602W	IN460DF	IN460DM
	4P 5W			3ØY120/208	HBL560R9W	HBL560P9W	HBL560C9W	HBL560B9W	BB60N	BB601W BB602W	IN560EF	IN560EM†
	4P 5W			3ØY277/480	HBL560R7W	HBL560P7W	HBL560C7W	HBL560B7W	BB60N	BB601W BB602W	IN560EF	IN560EM†
	4P 5W			3ØY347/600	HBL560R5W	HBL560P5W	HBL560C5W	HBL560B5W	BB60N	BB601W BB602W	IN560EF	IN560EM†
63	2P 3W			220-240	HBL363R6W	HBL363P6W	HBL363C6W	HBL363B6W	BB60N	BB601W BB602W	IN360BFS	IN360BMS†
	3P 4W			380-415	HBL463R6W	HBL463P6W	HBL463C6W	HBL463B6W	BB60N	BB601W BB602W	IN460DFS	IN460DMS
	4P 5W			220/380 240/415	HBL563R6W	HBL563P6W	HBL563C6W	HBL563B6W	BB60N	BB601W BB602W	IN560EFS†	IN560EMS
100	2P 3W			125	HBL3100R4W	HBL3100P4W	HBL3100C4W	HBL3100B4W	BB100N	BB1001W BB1002W	IN3100AF	IN3100AM
	2P 3W			250	HBL3100R6W	HBL3100P6W	HBL3100C6W	HBL3100B6W	BB100N	BB1001W BB1002W	IN3100BF	IN3100BM†
	2P 3W			480	HBL3100R7W	HBL3100P7W	HBL3100C7W	HBL3100B7W	BB100N	BB1001W BB1002W	IN3100BF	IN3100BM†
	3P 4W			125/250	HBL4100R12W	HBL4100P12W	HBL4100C12W	HBL4100B12W	BB100N	BB1001W BB1002W	IN4100CF†	IN4100CM
	3P 4W			3Ø250	HBL4100R9W	HBL4100P9W	HBL4100C9W	HBL4100B9W	BB100N	BB1001W BB1002W	IN4100DF	IN4100DM
	3P 4W			3Ø480	HBL4100R7W	HBL4100P7W	HBL4100C7W	HBL4100B7W	BB100N	BB1001W BB1002W	IN4100DF	IN4100DM
	3P 4W			3Ø600	HBL4100R5W	HBL4100P5W	HBL4100C5W	HBL4100B5W	BB100N	BB1001W BB1002W	IN4100DF	IN4100DM
	4P 5W			3ØY120/208	HBL5100R9W	HBL5100P9W	HBL5100C9W	HBL5100B9W	BB100N	BB1001W BB1002W	IN5100EF	IN5100EM
	4P 5W			3ØY277/480	HBL5100R7W	HBL5100P7W	HBL5100C7W	HBL5100B7W	BB100N	BB1001W BB1002W	IN5100EF	IN5100EM
	4P 5W			3ØY347/600	HBL5100R5W	HBL5100P5W	HBL5100C5W	HBL5100B5W	BB100N	BB1001W BB1002W	IN5100EF	IN5100EM
125	2P 3W			220-240	HBL3125R6W	HBL3125P6W	HBL3125C6W	HBL3125B6W	BB100N	BB1001W BB1002W	IN3100BFS †	IN3100BMS †
	3P 4W			380-415	HBL4125R6W	HBL4125P6W	HBL4125C6W	HBL4125B6W	BB100N	BB1001W BB1002W	IN4100DFS	IN4100DMS
	4P 5W			220/380 240/415	HBL5125R6W	HBL5125P6W	HBL5125C6W	HBL5125B6W	BB100N	BB1001W BB1002W	IN5100EFS	IN5100EMS

Notes: All 63A and all 125A devices have pilot pins or contacts.
See page E-6, E-7 for accessories. See page E-8, E-9 for product dimensions. See page E-10, E-11 for product specifications.
Closure caps purchased separately, see page E-7.
† Consult factory.

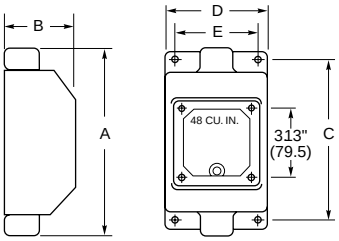
Pin and Sleeve
Watertight Device Accessories



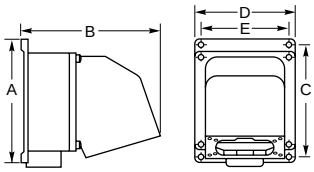
Non-Metallic Back Box



Metallic Angle Box



Metallic Feed-Thru Box



Metallic Four-Way Box

HBL2030AP

AA2030PS

Non-Metallic Back Box

Description	N.P.T. Hub Size	A Inch (mm)	B Inch (mm)	C Inch (mm)	D Inch (mm)	E Inch (mm)	F Inch (mm)	Cubic Inch Capacity	Catalog Numbers
Back box for 20 & 30A devices.	1" *	5.67" (144.0)	4.44" (112.8)	4.05" (102.9)	3.91" (99.3)	2.35" (59.7)	4.92" (125.0)	30.00"	**BB2030N**
Back box for 60A devices.	1 1/4" **	7.76" (197.0)	5.16" (131.0)	5.87" (149.0)	4.72" (120.0)	2.99" (76.0)	6.94" (176.0)	70.00"	**BB60N**
Back box for 100A devices.	1 1/2" ***	8.21" (209.0)	6.23" (158.0)	6.31" (160.3)	5.71" (145.0)	3.99" (101.0)	7.41" (188.0)	120.00"	**BB100N**

*Notes: *Hub is not included; order one of the following Raco part numbers: *1" = 1704, **1 1/4" = 1705, ***1 1/2" = 1706.*
These boxes meets IP 67 requirement and Type 4X requirements when installed with a watertight conduit hub.

Metallic Back Box

Description	N.P.T. Hub Size	A Inch (mm)	B Inch (mm)	C Inch (mm)	D Inch (mm)	E Inch (mm)	F Inch (mm)	Cubic Inch Capacity	Catalog Numbers
Back box for 16, 20, 30 & 32A devices.	3/4"	5.12" (130.2)	4.00" (101.6)	4.19" (106.4)	3.75" (95.3)	3.00" (76.2)	4.00" (101.6)	30.00"	**BB201W**
Back box for 16, 20, 30 & 32A devices.	1"	5.12" (130.2)	4.00" (101.6)	4.19" (106.4)	3.75" (95.3)	3.00" (76.2)	4.00" (101.6)	30.00"	**BB301W**
Back box for 60A devices.	1 1/4"	7.25" (184.2)	5.25" (133.4)	6.00" (152.4)	4.50" (114.3)	3.75" (95.3)	6.19" (157.2)	80.00"	**BB601W**
Back box for 60A devices.	1 1/2"	7.25" (184.2)	5.25" (133.4)	6.00" (152.4)	4.50" (114.3)	3.75" (95.3)	6.19" (157.2)	80.00"	**BB602W**
Back box for 100A devices.	1 1/2"	8.12" (206.4)	6.75" (171.5)	6.88" (174.6)	5.50" (139.7)	4.75" (120.7)	6.94" (176.2)	130.00"	**BB1001W**
Back box for 100A devices.	2"	8.12" (206.4)	6.75" (171.5)	6.88" (174.6)	5.50" (139.7)	4.75" (120.7)	6.94" (176.2)	130.00"	**BB1002W**
Feed thru box for 16, 20, 30 & 32A devices.	3/4"	8.25" (209.6)	3.06" (77.8)	7.14" (181.4)	4.50" (114.3)	3.75" (95.3)	–	48.00"	**FT202W**
Feed thru box for 16, 20, 30 & 32A devices.	1"	8.25" (209.6)	3.06" (77.8)	7.14" (181.4)	4.50" (114.3)	3.75" (95.3)	–	48.00"	**FT302W**
Four-way box for 60 & 100A devices.	1 1/2"	8.75" (222.3)	9.75" (247.7)	7.75" (196.9)	6.75" (171.5)	6.00" (152.4)	–	210.00"	**FW60100**

Note: These boxes are cast aluminum, suitable for IP54 requirements and are finished with enamel paint. These boxes withstand a 500-hour salt spray test as well as UL rain tight and external icing test.

Straight Wall Box Adapter

Description	Catalog Numbers
Adapts 16, 20, 30 & 32A Watertight IEC Pin and Sleeve devices to two gang, device mount, FD boxes.	**HBL2030AP**

Angle Wall Box Adapter

Description	Catalog Numbers
Adapts 16, 20, 30 & 32A Watertight IEC Pin and Sleeve devices to standard wall boxes.	**AA2030PS**

Note: Adapts 20 and 30A Watertight Pin and Sleeve receptacle to single, two gang standard wall box and 4" or 4 11/16" square.

Pin and Sleeve
Watertight Device Accessories

Closure Caps
Cap assemblies provide watertight sealing to a disconnected male IEC Pin and Sleeve plug or inlet. Manufactured out of the same tough non-metallic material as the watertight IEC Pin and Sleeve devices for corrosion and abuse resistance.

Description	Catalog Numbers
Fits all 20A 3 wire plugs and inlets.	**PC320**
Fits all 20A 4 wire plugs and inlets.	**PC420**
Fits all 20A 5 wire plugs and inlets.	**PC520**
Fits all 30A 3 and 4 wire plugs and inlets.	**PC3430**
Fits all 30A 5 wire plugs and inlets.	**PC530**
Fits all 60A plugs and inlets.	**PC60**
Fits all 100A plugs and inlets.	**PC100**

PC3430

Cover Assemblies
Replacement cover assemblies for use with watertight connector bodies and receptacles. Kit contains cover, arm assembly and installation tool.

Description	Catalog Numbers
Fits all 20A 3 wire watertight female devices.	**CA320**
Fits all 20A 4 wire watertight female devices.	**CA420**
Fits all 20A 5 wire watertight female devices.	**CA520**
Fits all 30A 3 and 4 wire watertight female devices.	**CA3430**
Fits all 30A 5 wire watertight female devices.	**CA530**
Fits all 60A watertight female devices.	**CA60**
Fits all 100A watertight female devices.	**CA100**

CA3430

Locking Ring and Cord Clamp
Replacement locking ring and cord clamp for use with IEC plug and connector.

Description	Catalog Numbers	
Fits all 20A 3 wire plugs and connectors.	**CC320**	**LR320***
Fits all 20A 4 wire plugs and connectors.	**CC420**	**LR420***
Fits all 20A 5 wire plugs and connectors.	**CC520†**	**LR520***
Fits all 30A 3 and 4 wire plugs and connectors.	**CC3430**	**LR3430***
Fits all 30A 5 wire plugs and connectors.	**CC530†**	**LR530***
Fits all 60A plugs and connectors.	**CC60**	**LR60***
Fits all 100A plugs and connectors.	**CC100**	**LR100***

** Locking Ring Only*

CC3430

Liquidtight Adapters
Machined aluminum adapters are available to provide a means for attaching flexible liquidtight metal conduit to rear of a Hubbell Pin and Sleeve plug or connector. To install, remove cord grip and two gland cap screws. Use screws to attach adapter. Kellems® liquidtight conduit connectors are available to control arc of bend and to prevent conduit pull-out where vibration, motion or strain is present. These grips interface directly with Hubbell's liquidtight adapters and are available in a wide variety of N.P.T. sizes and configurations. Consult your local code grounding requirements before using liquidtight adapters.

Rating of Hubbell Pin & Sleeve Device	Liquidtight Conduit Size	Hubbell Liquidtight Adapter Cat. No.	Optional Kellems Liquidtight Conduit Grip Catalog Numbers
16 & 20 Amp	1/2" NPT	**SAA12**	**074093402**
3 & 4 Wire	3/4" NPT	**SAA34**	**074093403**
16 & 20 Amp 5 Wire	1/2" NPT	**SAB12**	**074093402**
and 30 & 32 Amp	3/4" NPT	**SAB34**	**074093403**
3 & 4 Wire	1" NPT	**SAB100**	**074093404**
30 & 32 Amp 5 Wire	3/4" NPT	**SAC34**	**074093403**
30 & 32 Amp 5 Wire	1" NPT	**SAC100**	**074093404**
and 60 & 63 Amp (all)	1 1/4" NPT	**SAC125**	**074093405**
100 & 125 Amp (all)	1 1/4" NPT	**SAD125**	**074093405**
	1 1/2" NPT	**SAD150**	**074093406**

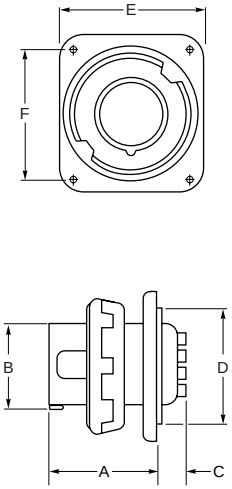
SAB34

† Consult factory

Dimensions in Inches (mm)

Pin and Sleeve
Watertight Device Dimensions

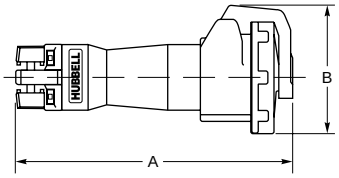
Inlet



Inlet Dimensions

Type	A	B	C	D	E	F
HBL320B	2.54” (64.5)	1.85” (47.0)	1.14” (29.0)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL420B	2.54” (64.5)	2.11” (53.6)	1.14” (29.0)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL520B	2.54” (64.5)	2.41” (61.2)	1.14” (29.0)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL330B	2.99” (76.0)	2.49” (63.2)	1.04” (26.5)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL430B	2.99” (76.0)	2.49” (63.2)	1.04” (26.5)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL530B	2.99” (76.0)	2.75” (69.9)	1.04” (26.5)	2.80” (71.0)	3.75” (95.3)	3.13” (79.5)
HBL360B, HBL460B, HBL560B	4.04” (102.6)	2.97” (75.5)	1.18” (30.0)	3.46” (88.0)	4.50” (114.3)	3.88” (98.5)
HBL3100B, HBL4100B, HBL5100B	4.53” (115)	3.44” (87.5)	1.95” (49.5)	3.94” (100.0)	5.50” (139.7)	4.88” (124.0)

Connector Body



Connector Body Dimensions

Type	A	B	Cord Grip Range
HBL320C	7.49” (190.3)	3.33” (84.6)	.330”-.830” (8.4-21.1)
HBL420C	7.90” (200.6)	3.66” (93.0)	.375”-1.250” (9.5-31.8)
HBL520C	8.54” (216.9)	3.94” (100.0)	.375”-1.250” (9.5-31.8)
HBL330C	9.05” (229.9)	4.27” (108.5)	.375”-1.250” (9.5-31.8)
HBL430C	9.05” (229.9)	4.27” (108.5)	.375”-1.250” (9.5-31.8)
HBL530C	9.68” (245.8)	4.70” (119.5)	.500”-1.450” (12.7-36.8)
HBL360C, HBL460C, HBL560C	11.15” (283.2)	5.10” (129.5)	.500”-1.450” (12.7-36.8)
HBL3100C, HBL4100C, HBL5100C	13.57” (344.7)	5.71” (145)	1.065”-1.940” (27.1-49.3)

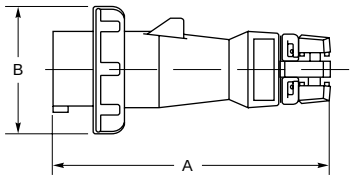
Note: 20, 30, 60 and 100A devices are dimensionally equivalent to 16, 32, 63 and 125A devices, respectively.

Pin and Sleeve
Watertight Device Dimensions

Plug Dimensions

Type	A	B	Cord Grip Range
HBL320P	6.61” (167.8)	2.87” (73.0)	.330”-.830” (8.4-21.1)
HBL420P	7.00” (177.8)	3.19” (81.0)	.375”-1.250” (9.5-31.8)
HBL520P	7.65” (194.3)	3.50” (89.0)	.375”-1.250” (9.5-31.8)
HBL330P	8.05” (204.5)	3.74” (95.0)	.375”-1.250” (9.5-31.8)
HBL430P	8.05” (204.5)	3.74” (95.0)	.375”-1.250” (9.5-31.8)
HBL530P	8.54” (216.9)	4.02” (102.0)	.500”-1.450” (12.7-36.8)
HBL360P HBL460P HBL560P	10.15” (257.8)	4.49” (114.0)	.500”-1.450” (12.7-36.8)
HBL3100P HBL4100P HBL5100P	12.63” (320.8)	4.92” (125.0)	1.065”-1.940” (27.1-49.3)

Plug

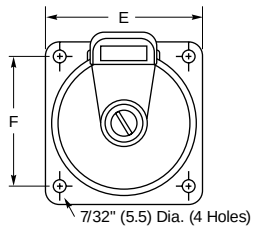


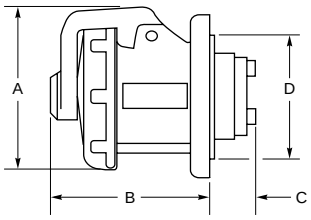
Receptacle Dimensions

Type	A	B	C	D	E	F
HBL320R	3.33” (84.5)	2.78” (70.6)	1.02” (26.0)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL420R	3.66” (93.0)	2.78” (70.6)	1.02” (26.0)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL520R	3.94” (100.0)	2.78” (70.6)	1.02” (26.0)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL330R	4.27” (108.5)	3.09” (78.5)	1.16” (29.5)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL430R	4.27” (108.5)	3.09” (78.5)	1.16” (29.5)	2.72” (69.0)	3.75” (95.3)	3.13” (79.5)
HBL530R	4.70” (119.4)	3.09” (78.5)	1.16” (29.5)	2.83” (71.9)	3.75” (95.3)	3.13” (79.5)
HBL360R, HBL460R, HBL560R	5.71” (145)	4.23” (107.4)	1.69” (43.0)	3.46” (88.0)	4.50” (114.3)	3.88” (98.6)
HBL3100R, HBL4100R, HBL5100R	5.71” (145)	4.23” (107.4)	2.46” (62.5)	3.94” (100.0)	5.50” (139.7)	4.88” (123.9)

Note: 20, 30, 60 and 100A devices are dimensionally equivalent to 16, 32, 63 and 125A devices, respectively.

Receptacle





Pin and Sleeve

Watertight Listings

IEC Pin and Sleeve Inlet, Connector Body, Plug and Receptacle

Listed to standard UL1682/CSA C22.2 No. 182.1, Plugs, Receptacles and cable connectors of the Pin and Sleeve Type.

UL Classified to IEC Standards 60309-1 and 60309-2 (Plugs, Socket Outlets, and Couplers for Industrial Purposes) for both Series I (European) and Series II (North American) rated voltages and services.

When used with cord, these devices require no further investigation by UL for equipment Classification to IEC 435 or IEC 380.

Watertight Materials

Part	Material
Inlet	
Housing	Zytel® 101 Nylon
Locking Ring	Rynite® SST35
Mounting Flange	Zytel 101 Nylon
Mounting Screws	Stainless Steel (300 Series)
Contact Carrier	High-Impact Thermoset
Retainer	High-Impact Thermoset
Ground, Phase Pins	Brass
Terminal Screws	Stainless Steel (300 Series)
Assembly Screws (2)	Stainless Steel (300 Series)
Gaskets	Solid Neoprene
Connector Body	
Housings	Zytel ST801 Nylon
Cord Clamps	Rynite SST35
Glands	Solid Neoprene
Cover Arms	Rynite SST35
Arm Springs	Stainless Steel (17-7 type)
Covers	Rynite SST35
Cover Screw	Nickel-plated brass
Rotating Sealing Disc	Polycarbonate
Gaskets	Solid Neoprene
Contact Carrier	High-Impact Thermoset
Retainer	High-Impact Thermoset
Phase, Ground Sleeves	Brass
Sleeve Spring	20A and 30A Stainless Steel (300 Series); others are Beryllium Copper multi-contact inserts w/silver plating
Terminal Screws	Stainless Steel (300 Series)
Assembly Screws	Stainless Steel (300 Series)
Plug	
Housing	Zytel ST801 Nylon
Locking Ring	Rynite SST35
Sealing Gasket	Solid Neoprene
Cord Clamp	Rynite SST35
Gland Cap	Rynite SST35
Gland	Solid Neoprene
Cord Clamp Screws	Stainless Steel (300 Series)
Clamp Nut	Nickel-plated Brass
Gland Clamp Screws	Stainless Steel (300 Series)
Contact Carrier	High-Impact Thermoset
Retainer	High-Impact Thermoset
Ground, Phase Pins	Brass
Terminal Screws	Stainless Steel (300 Series)
Assembly Screws	Stainless Steel (300 Series)
Receptacle	
Housings	Zytel 101 Nylon
Mounting Flange	Zytel 101 Nylon
Arm Spring	Stainless Steel (17-7 type)
Cover Arm	Rynite SST35
Cover	Rynite SST35
Cover Screw	Nickel-plated brass
Rotating Sealing Disc	Polycarbonate
Gaskets	Solid Neoprene
Mounting Screws	Stainless Steel (300 Series)
Terminal Screws	Stainless Steel (300 Series)
Phase, Ground Sleeves	Brass
Sleeve Spring	20A and 30A Stainless Steel (300 Series); others are Beryllium Copper multi-contact inserts w/silver plating

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Pin and Sleeve
Watertight Specification

Specifications

Typical Specification	
Manufacturer's Identification	Hubbell HBL520P9W.
Description	Plug, Power Supply.
Type	3 Pole + Neutral + Earth.
Rating	20A, 120/208V AC, 3 Phase WYE.
Configuration	UL 1686 C2, IEC 60309-2, Clock Position 9, Watertight.
Certification	UL Listed, File E146032 Receptacles & Inlets, E146033 Plugs & Connectors, UL Standard UL1682 & UL 1686C2, CSA Certified File LR280C for Plugs, Connectors Inlets and LR285C for Receptacle CSA Standard C22.2 No. 182.1, UL Classified to IEC 60309-1 IEC 60309-2.

Performance

Electrical	
Dielectric Withstand Voltage	3000V AC.
Max. Working Voltage	600V RMS (i.e., minimum creepage distance 10 millimeters, minimum clearance 8 millimeters, per IEC 60309-1 for devices rated over 500V).
Current Interrupting	Certified for current interrupting at full rated current.
Temperature Rise	Max. 30°C temperature rise at full rated current after 50 cycles of overload at 150% of rated current at a power factor of 75%.
Endurance	5,000 connect and disconnect cycles with load for 16A and 20A, 1,000 cycles with load and 1,000 cycles w/o load for 30A, 32A, 60A and 63A, and 250 cycles with load and 250 cycles w/o load for 100A and 125A.

Mechanical	
Impact Resistance	Per CSA C22.2 No. 182.1 / UL1682.
Cord Grip Cable Retention	Per CSA C22.2 No. 182.1 / UL1682.
Cord Accommodation	Round portable service cords of diameters commensurate with the device rating as defined in UL Standard 62, CSA C22.2 No. 49 and the harmonized <HAR> European Standards.
Terminal Identification	Terminals identified in accordance with North American and IEC conventions.
Product Identification	Identification and ratings are a permanent part of the device housing.

Environmental	
Moisture Resistance	Watertight per IEC 60309-1.
Ingress Protection	IP67 Suitability
Flammability	HB or better per UL 94 or CSA C22.2 No. 0.17.
Operating Temperatures	Maximum Continuous 75° C; Minimum - 40°C w/o impact.

Materials	
Housings	Nylon.
All other materials	Resistant to corrosion and chemical attack (per tabulation on this page).

Note: Specification sheets for all other Pin and Sleeve catalog numbers are available upon request.

Watertight Application Guide

Industry	Watertight
Agriculture	Outdoor for fans, heaters, pumps, etc.
Chemical Processing	Where subject to water, corrosion and rough use.
Construction	Outdoors subject to severe weather conditions.
Entertainment	Outdoors subject to severe weather.
Food Processing	Where subject to water, corrosion and rough use.
Food Service	Areas subject to wash downs & heavy cleaning.
Light Manufacturing	Subjected to cleaning, solvents & chemicals.
Manufacturing	Where subject to water, corrosion and rough use (i.e., mills).
Military	Outdoor construction or maintenance subject to severe weather.

Low Profile

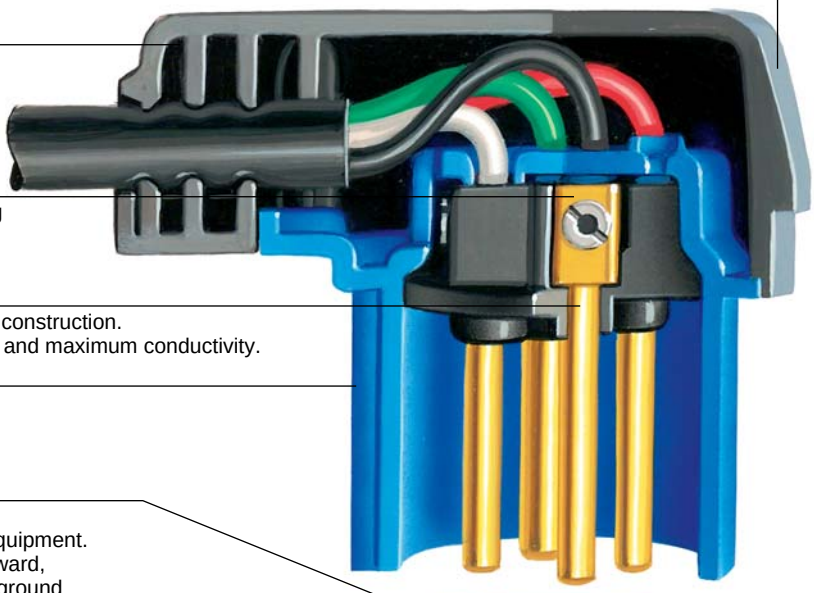
Pin and Sleeve

20,30 & 60A Low Profile

Features and Benefits

Product Identification – Ratings and certification are molded into the nylon housing.
Benefit: Easy identification for reorder.

Integrated Cord Grip – Limits strain on terminals, keeps cord connected.

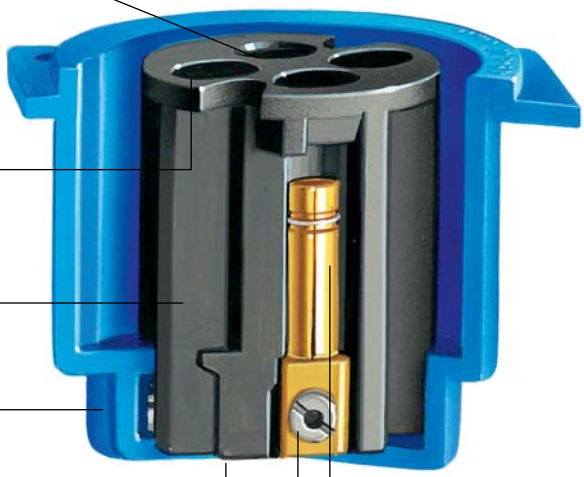


Brass Box Terminal – Permit high clamping pressure on conductors without damaging wire strands for best electrical conductivity.

Solid Pins – Dependable solid (not slotted) construction.
Benefit: Long life, reliable electrical contact and maximum conductivity.

Shrouding – Recessed pins are protected from impact and abuse.

Staggered Contacts
– In female devices, assure protection of equipment.
– Oversized Ground Contact is farthest forward, assuring first make and last break of the ground for safety of personnel and equipment.
– Neutral Contact is next, to prevent the possibility of an “open neutral” condition that could result in an over-voltage conduction at equipment.
– Phase Contact is farthest back, making it last to make, first to break.



Singly Rated IEC Configurations – Female oversized ground contacts are located at specific “clock” positions to the housing key (at 6 o’clock position) allowing singly rated non-interchangeable configurations for each voltage and type of service.

Nylon Construction – Both interior and exterior are made of tough, durable nylon.

Color Coding – Quick, easy visual identification of mating devices.

Terminal Identification – Large markings for easy recognition results in ease of wiring on the assembly line or in the field.

Stainless Steel Terminal Screws – Resist rust and corrosion.

Split Sleeves – Split sleeves with self-adjusting stainless steel springs assure constant contact pressure (20A & 30A). On 60A devices, Beryllium Copper insert with multiple contact points assures easy insertion and a tight fit.

Pin and Sleeve

Low Profile

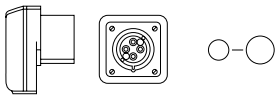
20A, 30A, 60A North American Rating

Order Information and Specifications

Application Guide

Agriculture	Indoor location & maintenance.
Chemical Processing	Indoor location & maintenance.
Construction	Indoors for added safety and abuse resistance.
Entertainment	Indoor location & maintenance.
Food Service	Food service areas where aesthetics and space are concerns.
Light Manufacturing	Indoor locations & maintenance.
Manufacturing	Light assembly areas, stamping operations, and maintenance areas.
Military	Warehouse and maintenance areas.

Low Profile



Amps	Poles and Wires	Configuration Recep./ Conn.	Plug/ Inlet	Voltage	Plug	Receptacle	Cord Diameter Min. Max.
20	3P 4W			3Ø250	**L420P9**	**L420R9**	.350”-.710” (8.3-15.9)
30	3P 4W			125/250	**L430P12**	**L430R12**	.390”-.775” (9.9-19.7)
30	3P 4W			3Ø250	**L430P9**	**L430R9**	.390” -.775” (9.9-19.7)
60	3P 4W			3Ø250	**A460P9**	**A460R9**	.75”-1.25” (19.0- 31.8)

Materials

Part	Materials
Plug	
Case	Zytel® 101 Nylon
Shroud	Zytel 101 Nylon
Pin Carrier 20 & 30A	Zytel 101 Nylon
Pin & Carrier 60A	High-Impact Thermoset
Pins	Brass CDA#360
Assembly Screws	Stainless Steel (300 series)
Terminal Screws	Stainless Steel (300 series)
Receptacle	
Body	Zytel 101 Nylon
Sleeve Carrier 20 & 30A	Zytel 101 Nylon
Sleeve Carrier 60A	High-Impact Thermoset
Sleeves	Brass CDA #360
Assembly Screws	Stainless Steel (300 series)
Terminal Screws	Stainless Steel (300 series)
Adapter Plate 20 & 30A	Galvanized Steel
Adapter Plate 60A	Aluminum
Wall Trim Plate	Zytel 101 Nylon
Panel Mount Trim Plate	Stainless Steel (300 series)

Note: See page E-15 for product dimensions.

Specifications

Electrical	
Dielectric Withstand Voltage	3000V AC.
Max. Working Voltage	250V RMS.
Current Interrupting	Certified for current interruption at full rated current.
Temperature Rise	Max. 30 C temperature rise at full rated current after 50 cycles of overload at 150% of rated current at a power factor of 75%.
Endurance	Up to 5,000 connect and disconnect cycles at full rated current and voltage.
Mechanical	
Impact Resistance	Per CSA C22.2 No. 182.1 / UL1682.
Cord Grip Cable Retention	Per CSA C22.2 No. 182.1 / UL1682
Cord Accommodation	Round portable service cords of diameters commensurate with the device rating as defined in UL Standard 62, CSA C22.2 No. 49 and the <HAR> European Standards.
Terminal Identification	Terminals identified in accordance with North American convention.
Product Identification	Ratings are a permanent part of the device housing.
Environmental	
Flammability	HB or better per UL 94 or CSA C22.2 No. 0.17.
Ingress Protection	IP22 Suitability
Operating Temperatures	Maximum Continuous 75° C; Minimum - 40°C w/o impact.

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Pin and Sleeve
Low Profile
Low Profile Dimensions

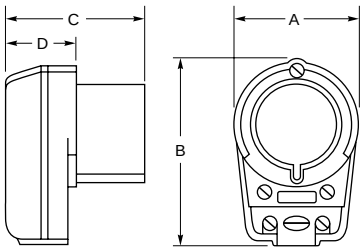
Plug Dimensions

Type	A	B	C	D	Cord Range Dia.
L430P12	2.97” (75.4)	4.18” (106.2)	3.50” (88.9)	1.71” (43.4)	.390”-.775” (9.9-19.7)
A460P9	3.38” (85.9)	4.25” (108.0)	7.00” (177.8)		.75”-1.25” (19.0- 31.8)

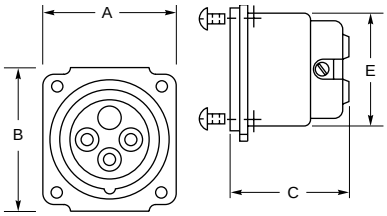
Wall Mount Receptacle Dimensions

Type	A	B	C	D	E
L430R12	3.12” (79.2)	3.12” (79.2)	2.77” (70.4)		2.76” (70.1)
A460R9	4.50” (114.3)	4.50” (114.3)	4.48” (113.8)	3.62” (91.9)	

Plugs

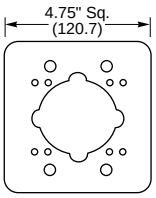


Wall Mount Receptacles

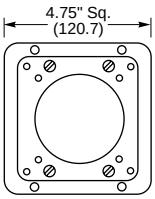


20 & 30A

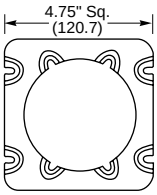
Adapter Plate (included)



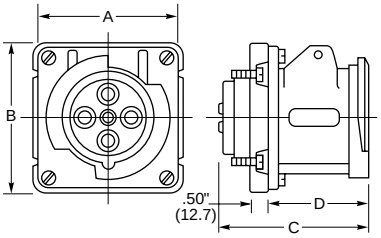
20A



30A

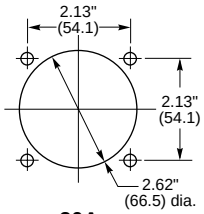


60A

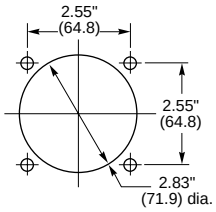


60A

Panel Cutout



20A



30A

Pin and Sleeve

INSULGRIP® Pin & Sleeve Devices

The interchangeable product line featuring metallic where you want it and nonmetallic where you need it.

Insulgrip® Pin and Sleeve

Pin and Sleeve

INSULGRIP® Pin & Sleeve Devices

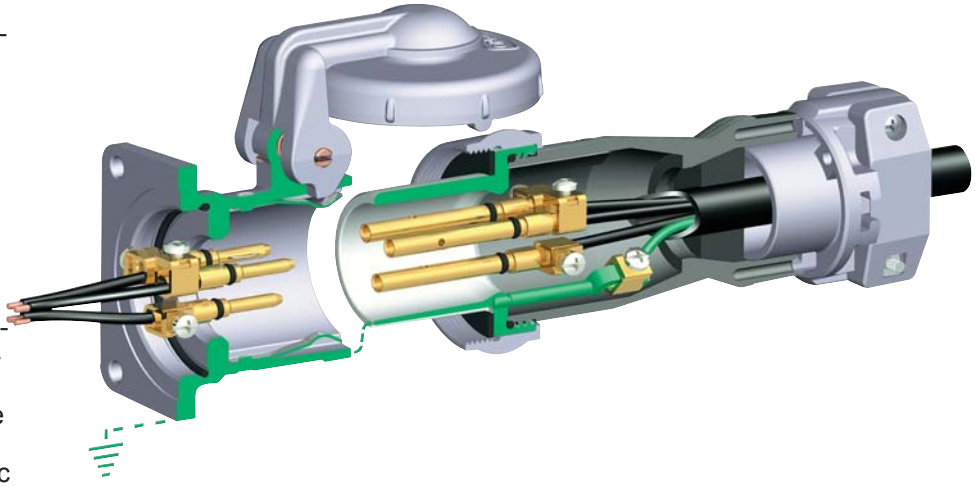
Features and Benefits, Hubbell Offers Two Approaches

Ground Path

To reduce the likelihood of electrical shock, the National Electrical Code requires that non-current carrying metallic components be grounded. Insulgrip Pin & Sleeve wiring devices offer two styles of grounding.

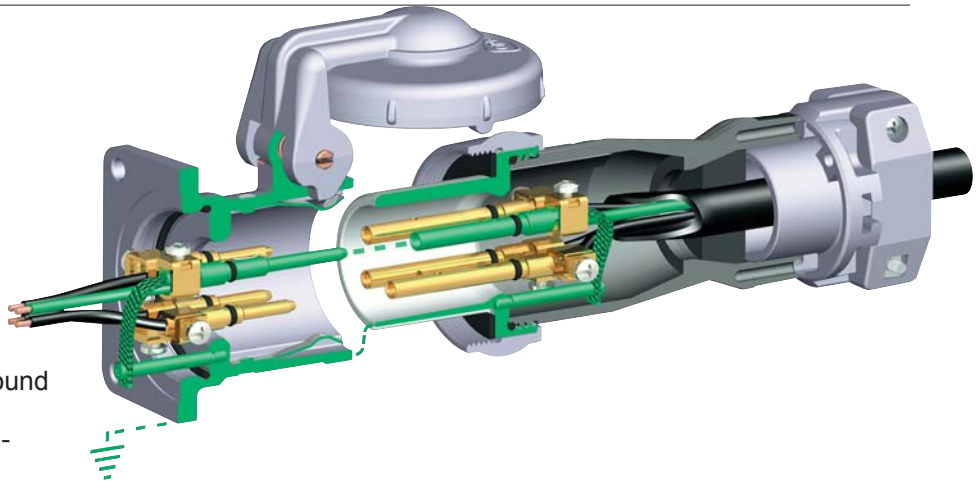
Style I

Receptacles achieve grounding by attaching the ground conductor to the ground screw inside the back box and utilizing the metallic receptacle shell as a ground source (see 3P4W Style I illustration). Plugs and connectors establish grounding by means of connecting the flexible cable ground conductor to a ground terminal within each device, which, in turn, is grounded through the metallic plug or connector shroud. Any exposed metallic components are suitably grounded in the Style I offering.



Style II

The Style II ground path offers two means of achieving the proper ground path. In addition to utilizing the same grounding method as in the Style I product, the Style II version incorporates a separate ground pin and sleeve (see 3P4W Style II illustration). This provides a second ground path. The ground pin on Style II devices is longer than other pins, meaning that they “make first” and “break last,” assuring protection for people and equipment.



Pin and Sleeve

INSULGRIP® Pin & Sleeve Devices

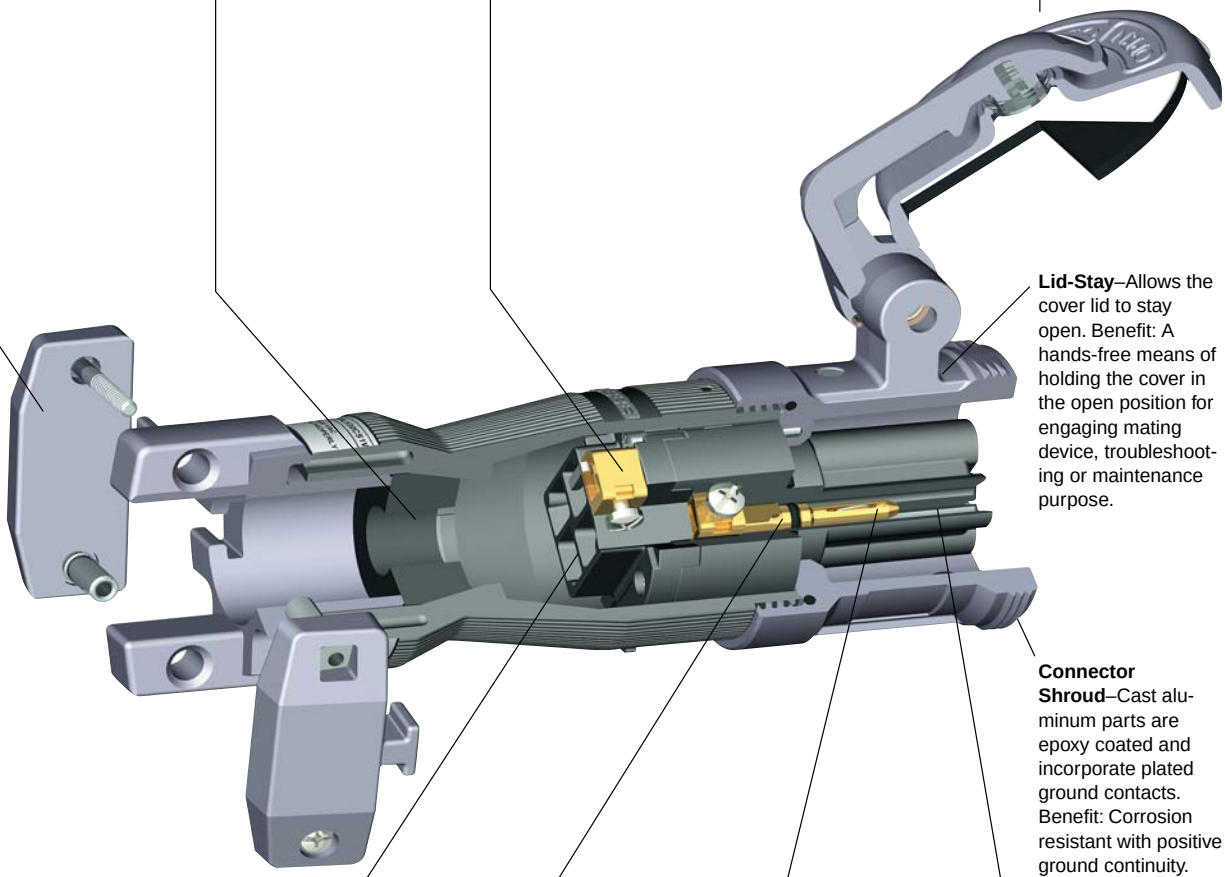
Features and Benefits

Heavy-Duty Cable Grips–Handle a wide range of cable sizes to limit conductor movement that can cause strain on the terminals. Benefit: Terminations are kept secure under adverse environmental conditions.

Watertight Neoprene Sealing Glands–Provide a reliable seal at the cable entry point. They are provided in graduated sizes for use with varying cable sizes. Benefits: Customized gland to ensure a watertight seal.

Anti-Vibration Box Terminals–Provide high-clamping pressure on conductors while restricting the terminations from loosening. Protects stranded conductors. Benefit: Risk of heat rise is minimized by vibration-resistant terminations.

Spring-Loaded, Gasketed Cover–Provides a UL Type 4X watertight, dust-tight seal on connectors and receptacles. Benefit: Keeps contamination out.



Lid-Stay–Allows the cover lid to stay open. Benefit: A hands-free means of holding the cover in the open position for engaging mating device, troubleshooting or maintenance purpose.

Connector Shroud–Cast aluminum parts are epoxy coated and incorporate plated ground contacts. Benefit: Corrosion resistant with positive ground continuity.

Terminal Pockets–Provide wide, easy access to wiring chamber. Benefit: Faster, easier wiring for the installer.

Pin O-Ring Seal–Provides a watertight and dust-tight seal around the pins. Benefit: Assures that contamination will not enter wire chamber.

Beryllium Copper Spring Pins–Maintain high unit pressure on mating sleeves. Benefit: Ensures reliable electrical contact while minimizing heat rise due to normal pin wear over time.

Pin Chamber–Confines arcing within the interior chamber during make and break cycle of mating devices. Benefit: Minimizes arc tracking.

Pin & Sleeve

INSULGRIP® Pin & Sleeve Devices

Features and Benefits

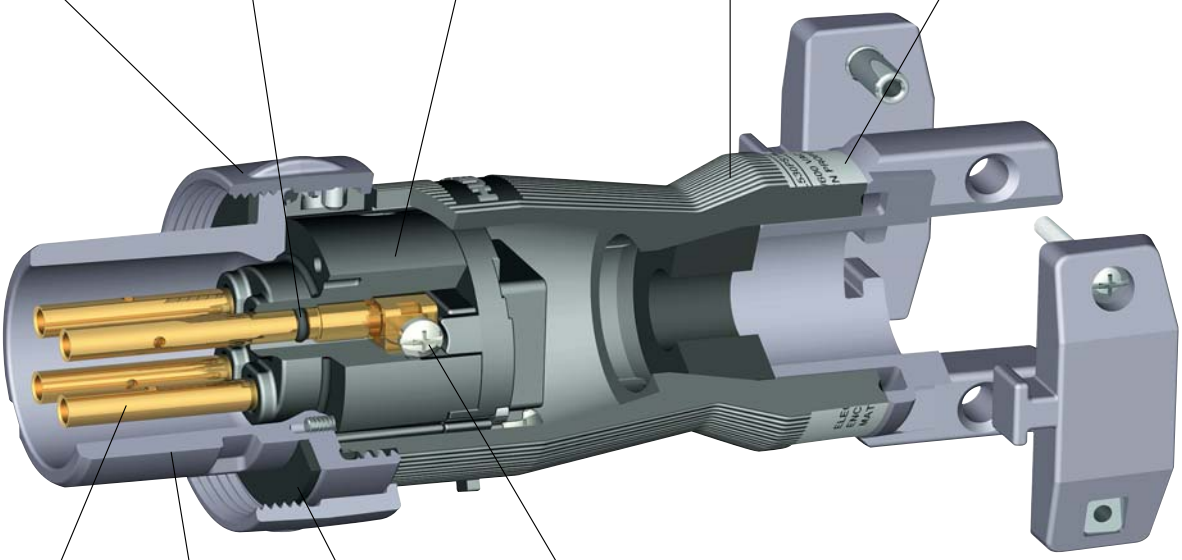
Locking Ring– Provides a UL Type 4X watertight and dust-tight seal when the male and female devices are connected. Benefit: Ensures devices are properly mated and protected from outside environment.

Sleeve O-Ring Seal– Provides a watertight and dust-tight seal around the sleeves. Benefit: Assures that contamination will not enter wire chamber.

Thermoset Polyester Contact Carrier– Resists arcing and heat build-up. Benefit: Minimizes damage in the event of overheating. All devices are rated for make and break under full-rated current and voltage, in case of emergency.

Thermoplastic Non-metallic Housing– Provides excellent insulating, impact, corrosion, and UV resistant properites. Benefit: Protects users and devices in the roughest of environments.

Product Marking– Catalog number and rating visible while in use. Markings are color coded differentiating Style I and Style II devices. Benefit: Helps user to easily identify product and rating.



All-Brass Sleeve Contacts–Provide reliable electrical contact with mating pins. Benefit: Ensures reliable electrical contact with minimum heat build-up over time.

Shrouding–Sleeves are recessed within the shrouded housing. Benefit: Sleeves are protected against impact and abuse, reducing the potential for a shock hazard.

Shroud/Housing Seal– Provides a watertight and dust-tight seal at the component part interface. Benefit: Keeps contamination out.

Terminal Screws– Combination phillips/slotted head design. Benefit: Accommodates various field assembly tools.

Pin and Sleeve

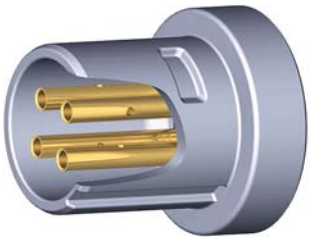
INSULGRIP® Pin & Sleeve Devices

Features and Benefits

Non-Metallic Housing–The non-metallic housing is not only abuse and corrosion resistant it offers additional protection as insulation against electrical shock hazard.

Watertight Cord Entrance–The tapered bore of the cord entrance creates high compression forces on sealing gland, allowing the cord grip assembly to be secured in place. Hubbell Pin & Sleeve devices are supplied with individual solid neoprene glands to match a full range of cord sizes and ensure a UL Type 4X watertight performance.

Powerful Mechanical Cord Grip–Hubbell's design incorporates two molded-in teeth to securely grip not only the outer cable jacket, but also minimizes conductor slippage and strain on terminations. Captive barrel nuts ease assembly and allow higher tightening torque to be easily attained for maximum effectiveness. The large 300 series combination Phillips/slotted stainless steel screws readily accept common-size screwdrivers, and the molded-in cavity guides the screwdriver for easy tightening. The cord grip accommodates North American wire sizes, even when the cord is derated one size.



Shrouded Sleeves–The shroud protects contact sleeves from deforming from physical abuse. The design protects the user from the possibility of touching live contacts during insertion and withdrawal of mating parts.

Pin and Sleeve

INSULGRIP® Pin & Sleeve Devices

Features and Benefits

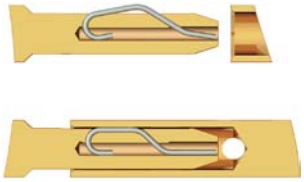
Thermoset Polyester Contact Carrier–Molded thermoset polyester provides high resistance to electrical tracking. Withstands higher temperatures which may result from overload or arcing. Thermoset properties provide dimensional stability for this critical assembly.

Sealed Pins and Sleeves–Each pin and sleeve is sealed against the environment with individual O-rings. This ensures that contaminants will not enter the wiring chamber.

Anti-Vibration Terminals–Interlocking box terminals ensure that terminal screws remain secure and cannot loosen. The floating box is designed to obtain high-torque values without damaging stranded conductors.

Terminal Entrance Holes–Large, square funneled entrance holes isolate each conductor to protect against shorts due to stray conductor strands. Tapered hole provides a fast and easy guide into the termination chamber.

Identification–Large markings allow for easy recognition. Identification is molded in, so that it's permanently legible.



Spring-Pin Design (Patented)–The design provides and maintains high unit pressure on mating sleeves to minimize temperature rise.

Pin & Sleeve

INSULGRIP® Pin & Sleeve Devices Ordering Information

30, 60, 100 and 200 Ampere, 600/250 Voltage AC/DC

Ordering Information

Style I

Amps	Poles and Wires	Receptacle/ Connector Configuration	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Replacement Interiors Connectors & Receptacles	Plugs
30	2P 3W		600/250	**HBL330RS1W**	**HBL330PS1W**	**HBL330CS1W**	**IN330FS1**	**IN330MS1**
30	3P 4W		600/250	**HBL430RS1W**	**HBL430PS1W**	**HBL430CS1W**	**IN430FS1**	**IN430MS1**
30	4P 5W		600/250	**HBL530RS1W**	**HBL530PS1W**	**HBL530CS1W**	**IN530FS1**	**IN530MS1**
60	2P 3W		600/250	**HBL360RS1W**	**HBL360PS1W**	**HBL360CS1W**	**IN360FS1**	**IN360MS1**
60	3P 4W		600/250	**HBL460RS1W**	**HBL460PS1W**	**HBL460CS1W**	**IN460FS1**	**IN460MS1**
60	4P 5W		600/250	**HBL560RS1W**	**HBL560PS1W**	**HBL560CS1W**	**IN560FS1**	**IN560MS1**
100	2P 3W		600/250	**HBL3100RS1W**	**HBL3100PS1W**	**HBL3100CS1W**	**IN3100FS1**	**IN3100MS1**
100	3P 4W		600/250	**HBL4100RS1W**	**HBL4100PS1W**	**HBL4100CS1W**	**IN4100FS1**	**IN4100MS1**
100	4P 5W		600/250	**HBL5100RS1W**	**HBL5100PS1W**	**HBL5100CS1W**	**IN5100FS1**	**IN5100MS1**
200	3P 4W		600/250	**HBL4200RS1W**	**HBL4200PS1W**	**HBL4200CS1W**	**IN4200FS1†**	**IN4200MS1†**
200	4P 5W		600/250	**HBL5200RS1W**	**HBL5200PS1W**	**HBL5200CS1W**	**IN5200FS1†**	**IN5200MS1†**

Style II

Amps	Poles and Wires	Receptacle/ Connector Configuration	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Replacement Interiors Connectors & Receptacles	Plugs
30	2P 3W		600/250	**HBL330RS2W**	**HBL330PS2W**	**HBL330CS2W**	**IN330FS2**	**IN330MS2**
30	3P 4W		600/250	**HBL430RS2W**	**HBL430PS2W**	**HBL430CS2W**	**IN430FS2**	**IN430MS2**
60	2P 3W		600/250	**HBL360RS2W**	**HBL360PS2W**	**HBL360CS2W**	**IN360FS2**	**IN360MS2**
60	3P 4W		600/250	**HBL460RS2W**	**HBL460PS2W**	**HBL460CS2W**	**IN460FS2**	**IN460MS2**
100	2P 3W		600/250	**HBL3100RS2W**	**HBL3100PS2W**	**HBL3100CS2W**	**IN3100FS2**	**IN3100MS2**
100	3P 4W		600/250	**HBL4100RS2W**	**HBL4100PS2W**	**HBL4100CS2W**	**IN4100FS2**	**IN4100MS2**
200	2P 3W		600/250	**HBL3200RS2W**	**HBL3200PS2W**	**HBL3200CS2W**	**IN3200FS2†**	**IN3200MS2†**
200	3P 4W		600/250	**HBL4200RS2W**	**HBL4200PS2W**	**HBL4200CS2W**	**IN4200FS2†**	**IN4200MS2†**

† Consult factory.

Catalog Numbering System EXAMPLE: HBL430RS2W

Manufacturer	No. of Wires	Amperage	Device Type	Grounding Style	Environment	Specialized
HBL=Hubbell	3=2P 3W **4=3P 4W** 5=4P 5W	**30=Amp** 60=Amp 100=Amp 200=Amp	**R=Receptacle** P=Plug C=Connector	S1=Style I **S2=Style II**	**W=Watertight, UL Type 4X**	R=Reversed Service (See E-26)

New Pole & Wire Terminology

Style I			Style II		
New	Old	No. of Contacts	New	Old	No. of Contacts
2P 3W	2W 2P	2	2P 3W	2W 3P	3
3P 4W	3W 3P	3	3P 4W	3W 4P	4
4P 5W	4W 4P	4			

Pin and Sleeve

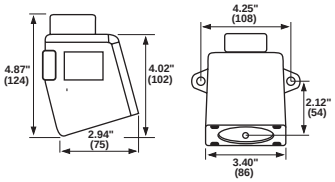
INSULGRIP® Pin & Sleeve Device Accessories

Ordering Information

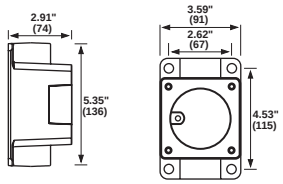
Insulgrip Pin & Sleeve Back Box

Description	Amps	Hub Size	Catalog Numbers
15° angle.	30	3/4" NPT	**MB301W**
15° angle.	30	1" NPT	**MB302W**
Straight feed through.	30	3/4" NPT	**MB303W**
Straight feed through.	30	1" NPT	**MB304W**
15° angle.	60	1" NPT	**MB601W**
15° angle.	60	1 1/4" NPT	**MB602W**
15° angle.	60	1 1/2" NPT	**MB603W**
Straight feed through.	60	1" NPT	**MB604W**
Straight feed through.	60	1 1/4" NPT	**MB605W**
Straight feed through.	60	1 1/2" NPT	**MB606W**
Four way 15° angle.	60/100	1 1/4" NPT	**MB601002W**
Four way 15° angle.	60/100	1 1/2" NPT	**MB601003W**
Four way 15° angle.	60/100	2" NPT	**MB601004W**
Four way feed through, 15° angle.	60/100	1 1/4" NPT	**MB601006W**
Four way feed through, 15° angle.	60/100	1 1/2" NPT	**MB601007W**
Four way feed through, 15° angle.	60/100	2" NPT	**MB601008W**
Four way 15° angle.	200	2" NPT	**MB2003W**
Four way 15° angle.	200	2 1/2" NPT	**MB2004W**

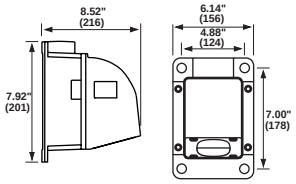
30 A Angle



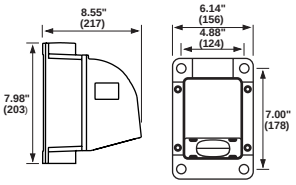
30 A Straight Feed Thru



60/100 A Four-Way Angle



60/100 A Four-Way Feed Thru Angle



Replacement Cord Clamp Kits

Description	Catalog Numbers
Fits all 30A plugs and connectors.	**CC3430**
Fits all 60A plugs and connectors.	**CC60**
Fits all 100A plugs and connectors.	**CC100**

CC3430

Insulgrip Pin & Sleeve Liquidtight Adapter

Rating of device	Liquidtight Conduit-size	Hubbell Liquidtight Adapter Catalog Numbers	Optional Kellems Liquidtight Conduit Grip Catalog Numbers
30 Amp	1/2" NPT	**SAB12**	**074093402**
	3/4" NPT	**SAB34**	**074093403**
	1" NPT	**SAB100**	**074093404**
60 Amp	1" NPT	**SAC100**	**074093404**
	1 1/4" NPT	**SAC125**	**074093405**
100 Amp	1 1/4" NPT	**SAD125**	**074093405**
	1 1/2" NPT	**SAD150**	**074093406**

074093403

SAB34

PLUGOUT®

Description	Catalog Number
Electrical plug lockout device accepts all major brands of metallic and non-metallic pin and sleeve devices up to and including 60 Amp (and up to 100 Amp Insulgrip Pin & Sleeve devices) as a method of compliance to OSHA regulation 29 CFR 1910.147.	**HLD2**

HLD2

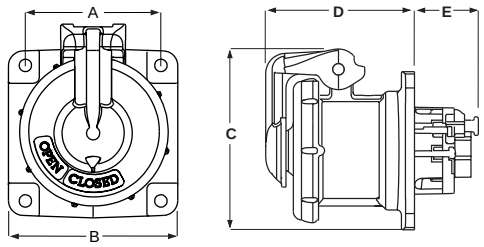
Pin and Sleeve

INSULGRIP® Pin & Sleeve Device Dimensions

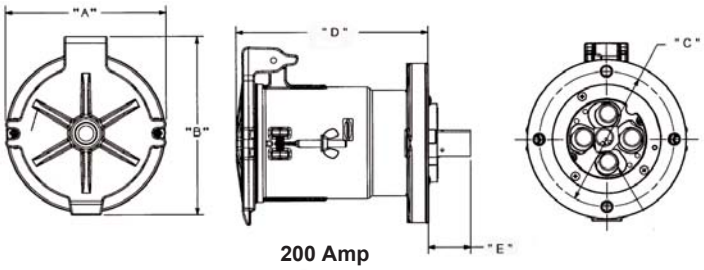
Dimensions

Receptacle Dimensions – Inches (mm)

		A		B		C		D		E	
Amps	**Type**	**Style I**	**Style II**	**Style I**	**Style II**	**Style I**	**Style II**	**Style I**	**Style II**	**Style I**	**Style II**
30	330R	2.72 (69)	2.72 (69)	3.40 (86)	3.40 (86)	3.89 (99)	3.89 (99)	3.19 (81)	3.19 (81)	1.37 (35)	1.37 (35)
	430R	2.72 (69)	2.72 (69)	3.40 (86)	3.40 (86)	3.89 (99)	3.89 (99)	3.19 (81)	3.19 (81)	1.37 (35)	1.37 (35)
	530R	2.72 (69)		3.40 (86)		3.89 (99)		3.19 (81)		1.37 (35)	
60	360R	3.50 (89)	3.50 (89)	4.25 (108)	4.25 (108)	4.66 (118)	4.66 (118)	4.42 (112)	4.42 (112)	1.54 (39)	1.54 (39)
	460R	3.50 (89)	3.50 (89)	4.25 (108)	4.25 (108)	4.66 (118)	4.66 (118)	4.42 (112)	4.42 (112)	1.54 (39)	1.54 (39)
	560R	3.50 (89)		4.25 (108)		4.66 (118)		4.42 (112)		1.54 (39)	
100	3100R	3.50 (89)	3.50 (89)	4.25 (108)	4.25 (108)	4.70 (119)	4.70 (119)	5.30 (135)	5.30 (135)	1.54 (39)	1.54 (39)
	4100R	3.50 (89)	3.50 (89)	4.25 (108)	4.25 (108)	4.70 (119)	4.70 (119)	5.30 (135)	5.30 (135)	1.54 (39)	1.54 (39)
	5100R	3.50 (89)		4.25 (108)		4.70 (119)		5.30 (135)		1.54 (39)	
200	3200R		6.50 (165)		7.00 (177)		5.63 (143)		7.76 (197)		.99 (25)
	4200R	6.50 (165)	6.90 (170)	7.00 (177)	7.39 (187)	5.63 (143)	5.63 (143)	7.76 (197)	7.76 (197)	.99 (25)	.99 (25)
	5200R	6.90 (170)		7.39 (187)		5.63 (143)		7.76 (197)		.99 (25)	



30, 60 & 100 Amp



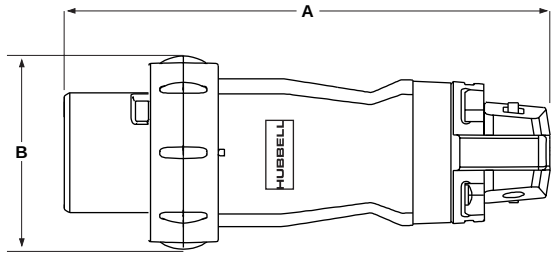
200 Amp

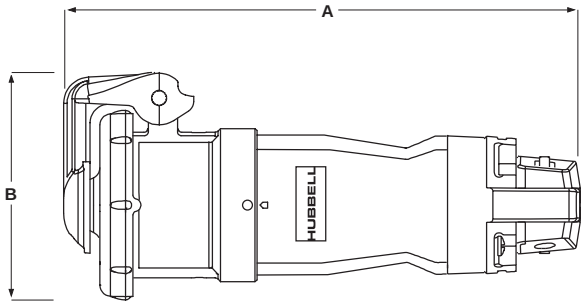
Plug Dimensions – Inches (mm)

		A		B		
Amps	**Type**	**Style I**	**Style II**	**Style I**	**Style II**	**Cord Grip Range**
30	330P	7.53 (191)	7.53 (191)	3.00 (76)	3.00 (76)	.375-1.20 (9.5-30.5)
	430P	7.53 (191)	7.53 (191)	3.00 (76)	3.00 (76)	.375-1.20 (9.5-30.5)
	530P	7.53 (191)		3.00 (76)		.375-1.20 (9.5-30.5)
60	360P	9.40 (239)	9.40 (239)	3.40 (86)	3.40 (86)	.500-1.45 (12.7-36.8)
	460P	9.40 (239)	9.60 (244)	3.40 (86)	3.70 (94)	.500-1.45 (12.7-36.8)
	560P	9.60 (244)		3.70 (94)		.500-1.45 (12.7-36.8)
100	3100P	10.70 (272)	10.70 (272)	3.70 (94)	3.70 (94)	.925-1.94 (27.0-49.3)
	4100P	10.70 (272)	10.90 (277)	3.70 (94)	4.00 (102)	.925-1.94 (27.0-49.3)
	5100P	10.90 (277)		4.00 (102)		.925-1.94 (27.0-49.3)
200	3200P		11.13 (282)		6.35 (161)	1.00-2.50 (25.4-63.5)
	4200P	11.13 (282)	11.13 (282)	6.35 (161)	6.70 (170)	1.00-2.50 (25.4-63.5)
	5200P	11.13 (282)		6.70 (170)		1.00-2.50 (25.4-63.5)

Connector Body Dimensions – Inches (mm)

		A		B		
Amps	**Type**	**Style I**	**Style II**	**Style I**	**Style II**	**Cord Grip Range**
30	330C	8.38 (213)	8.38 (213)	3.74 (95)	3.74 (95)	.375-1.20 (9.5-30.5)
	430C	8.38 (213)	8.38 (213)	3.74 (95)	3.74 (95)	.375-1.20 (9.5-30.5)
	530C	8.38 (213)		3.74 (95)		.375-1.20 (9.5-30.5)
60	360C	9.90 (251)	9.90 (251)	3.50 (89)	3.50 (89)	.500-1.45 (12.7-36.8)
	460C	9.90 (251)	10.10 (256)	3.50 (89)	3.80 (96)	.500-1.45 (12.7-36.8)
	560C	10.10 (256)		3.80 (96)		.500-1.45 (12.7-36.8)
100	3100C	11.70 (297)	11.70 (297)	4.50 (114)	4.50 (114)	.925-1.94 (27.0-49.3)
	4100C	11.70 (297)	11.90 (302)	4.50 (114)	4.70 (119)	.925-1.94 (27.0-49.3)
	5100C	11.90 (302)		4.70 (119)		.925-1.94 (27.0-49.3)
200	3200C		13.65 (346)		7.00 (177)	1.00-2.50 (25.4-63.5)
	4200C	13.65 (346)	13.65 (346)	7.00 (177)	7.39 (187)	1.00-2.50 (25.4-63.5)
	5200C	13.65 (346)		7.39 (187)		1.00-2.50 (25.4-63.5)





INSULGRIP® Pin & Sleeve Device Listings

Materials (30, 60, 100, 200 Amp)

Part	Material
Plug	
Housing	Valox® 357 (200A Aluminum).
Plug Shroud	Aluminum.
Cord Clamps	Rynite® SST35 (200A Aluminum).
Clamp Nut	Nickel Plated Brass.
Gland Cap	Rynite SST35.
Gland	Neoprene.
O-Rings, Gaskets & Seals	Neoprene.
Contact Carrier	Thermoset Polyester.
Retainer	Thermoset Polyester.
Sleeves	Brass.
Box Terminal	Heat Treated & Zinc Plated Steel.
Screws (Terminal, Assembly & Set)	Stainless Steel (300 Series).
Ground Standoff	Brass.
Ground Bracket	Nickel Plated Spring Bronze.
Locking Ring	Epoxy Painted Aluminum.
Connector Body	
Housing	Valox 357 (200 Amp Aluminum).
Connector Shroud	Epoxy Painted Aluminum.
Cord Clamps	Rynite SST35.
Clamp Nut	Nickel Plated Brass.
Gland Cap	Rynite SST35 (200A Aluminum).
Gland	Neoprene.
O-Rings, Gaskets & Seals	Neoprene.
Contact Carrier	Thermoset Polyester.
Retainer	Thermoset Polyester.
Pin	Brass.
Pin Spring	Beryllium Copper.
Box Terminal	Heat Treated & Zinc Plated Steel.
Screws (Terminal, Assembly & Set)	Stainless Steel (300 Series).
Ground Standoff	Brass.
Ground Bracket	Nickel Plated Spring Bronze.
Cover	Epoxy Painted Aluminum.
Cover Arm	Epoxy Painted Aluminum.
Spring Guide	Stainless Steel (300 Series).
Springs (Arm & Wave)	Stainless Steel (300 Series).
Spring Washer	Stainless Steel (300 Series).
Hinge Bushing	Aluminum.
Rivet	Aluminum.
Receptacle	
Housing/Flange	Epoxy Painted Aluminum.
O-Rings, Gaskets & Seals	Neoprene.
Contact Carrier	Thermoset Polyester.
Retainer	Thermoset Polyester.
Pin	Brass.
Pin Spring	Beryllium Copper.
Box Terminal	Heat Treated & Zinc Plated Steel.
Screws (Terminal, Assembly & Set)	Stainless Steel (300 Series).
Ground Standoff	Brass.
Ground Bracket	Steel.
Cover	Epoxy Painted Aluminum.
Cover Arm	Epoxy Painted Aluminum.
Spring Guide	Stainless Steel (300 Series).
Springs (Arm & Wave)	Stainless Steel (300 Series).
Spring Washer	Stainless Steel (300 Series).
Hinge Bushing	Aluminum.
Rivet	Aluminum.

® Valox is a registered Trademark of GE Corp.
® Rynite is a registered Trademark of Dupont Corp.

Typical Specification

Manufacturer's Identification Hubbell HBL430PS2W.
Description Plug, Power Supply.
Type 3 Pole + Earth.
Max. Rating 30 Amp, 250V DC, 600V AC.
Configuration UL 1686, Watertight, C1 Configuration.
Certification UL Listed, UL Standard 1682, UL 50, and UL 1010 (plugs only), CSA Certified to CSA Spec. C22.2 No. 182.1, No. 94 and No. 159 (plugs only), UL Listed and CSA Certified Type 4X.

Performance

Electrical	
Dielectric Voltage	Withstands 3,000V AC.
Max. Working Voltage	600V AC RMS (i.e., minimum creepage and clearance distance of 6.4 millimeters, per UL 1682).
Current Interrupting	Certified for current interrupting at full rated current.
Temperature Rise	Max. 30° C temperature rise at full rated current after 50 cycles of overload at 150% of rated current.
Endurance	Up to 1,000 connect and disconnect cycles at full rated current and voltage.
Mechanical	
Impact Resistance	Per CSA C22.2, No. 182.1, UL 1682.
Cord Grip Cable Retention	Per CSA C22.2, No. 182.1, UL 1682.
Cord Accommodation	Round portable service cords of diameters commensurate with the device rating as defined in UL. Standard 62, CSA C22.2 No. 49 and the harmonized <HAR> European Standards.
Terminal Identification	Terminals identified in accordance with UL 1686 (1, 2, 3, Green).
Product Identification	Identification and ratings are permanently fastened to the device housing.
Environmental	
Hose Down & Moisture Resistance	Type 3, 4, 4X per UL 50 and CSA 22.2, No. 94.
Flammability (Enclosure)	UL 94V-0 and CSA C22.2 No. 0.17.
Operating Temperatures	Maximum Continuous 75°C; Minimum 40° C w/o impact -25° w/impact.
Hazardous Location (plug only)	Class I, Division I & II, Groups B, C & D and Class II, Division I & II, Groups F & G per UL 1010 & CSA 22.2, No. 159.
Materials	
Housings	Valox 357 (200A Aluminum).
All Other Materials	Resistant to corrosion and chemical attack.

Watertight Application Guide

Industry	Watertight
Agriculture	Outdoor for fans, heaters, pumps, etc.
Chemical Processing	Where subject to water, corrosion.
Construction	Outdoors subject to severe weather conditions.
Entertainment	Outdoors subject to severe weather.
Food Processing	Where subject to water, corrosion.
Food Service	Areas subject to wash downs & heavy cleaning.
Light Manufacturing	Subjected to cleaning, solvents & chemicals.
Manufacturing	Where subject to water, corrosion.
Military	Outdoor construction or maintenance.

Pin & Sleeve

INSULGRIP® Reversed Service Pin & Sleeve Devices Ordering Information

30, 60, 100 and 200 Ampere, 600/250 Voltage AC/DC

Ordering Information

Style I

Amps	Poles and Wires	Receptacle/ Connector Configuration	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Replacement Interiors Connectors & Receptacles	Plugs
30	2P 3W		600/250	HBL330RS1WR	HBL330PS1WR	HBL330CS1WR	IN330MS1	IN330FS1
30	3P 4W		600/250	HBL430RS1WR	HBL430PS1WR	HBL430CS1WR	IN430MS1	IN430FS1
30	4P 5W		600/250	HBL530RS1WR	HBL530PS1WR	HBL530CS1WR	IN530MS1	IN530FS1
60	2P 3W		600/250	HBL360RS1WR	HBL360PS1WR	HBL360CS1WR	IN360MS1	IN360FS1
60	3P 4W		600/250	HBL460RS1WR	HBL460PS1WR	HBL460CS1WR	IN460MS1	IN460FS1
60	4P 5W		600/250	HBL560RS1WR	HBL560PS1WR	HBL560CS1WR	IN560MS1	IN560FS1
100	2P 3W		600/250	HBL3100RS1WR	HBL3100PS1WR	HBL3100CS1WR	IN3100MS1	IN3100FS1
100	3P 4W		600/250	HBL4100RS1WR	HBL4100PS1WR	HBL4100CS1WR	IN4100MS1	IN4100FS1
100	4P 5W		600/250	HBL5100RS1WR	HBL5100PS1WR	HBL5100CS1WR	IN5100MS1	IN5100FS1
200	3P 4W		600/250	HBL4200RS1WR	HBL4200PS1WR	HBL4200CS1WR	Consult Factory	
200	4P 5W		600/250	HBL5200RS1WR	HBL5200PS1WR	HBL5200CS1WR	Consult Factory	

Style II

Amps	Poles and Wires	Receptacle/ Connector Configuration	Maximum Voltage AC/DC	Receptacle	Plug	Connector	Replacement Interiors Connectors & Receptacles	Plugs
30	2P 3W		600/250	HBL330RS2WR	HBL330PS2WR	HBL330CS2WR	IN330MS2	IN330FS2
30	3P 4W		600/250	HBL430RS2WR	HBL430PS2WR	HBL430CS2WR	IN430MS2	IN430FS2
60	2P 3W		600/250	HBL360RS2WR	HBL360PS2WR	HBL360CS2WR	IN360MS2	IN360FS2
60	3P 4W		600/250	HBL460RS2WR	HBL460PS2WR	HBL460CS2WR	IN460MS2	IN460FS2
100	2P 3W		600/250	HBL3100RS2WR	HBL3100PS2WR	HBL3100CS2WR	IN3100MS2	IN3100FS2
100	3P 4W		600/250	HBL4100RS2WR	HBL4100PS2WR	HBL4100CS2WR	IN4100MS2	IN4100FS2
200	2P 3W		600/250	HBL3200RS2WR	HBL3200PS2WR	HBL3200CS2WR	Consult Factory	
200	3P 4W		600/250	HBL4200RS2WR	HBL4200PS2WR	HBL4200CS2WR	Consult Factory	

Catalog Numbering System EXAMPLE: HBL430RS2WR

Manufacturer	No. of Wires	Amperage	Device Type	Grounding Style	Environment	Specialized
HBL=Hubbell	3=2P 3W **4=3P 4W** 5=4P 5W	**30=Amp** 60=Amp 100=Amp 200=Amp	**R=Receptacle** P=Plug C=Connector	S1=Style I **S2=Style II**	**W=Watertight, UL Type 4X**	**R=Reversed Service**

Dimensions in Inches (mm)

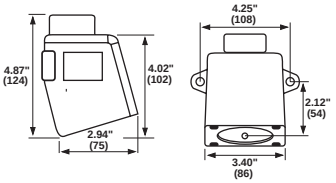
Pin and Sleeve

INSULGRIP® Reversed Service Pin & Sleeve Device Accessories

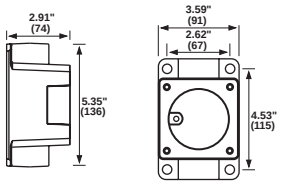
Insulgrip Pin & Sleeve Back Box

Description	Amps	Hub Size	Catalog Numbers
15° angle.	30	3/4" NPT	**MB301W**
15° angle.	30	1" NPT	**MB302W**
Straight feed through.	30	3/4" NPT	**MB303W**
Straight feed through.	30	1" NPT	**MB304W**
15° angle.	60	1" NPT	**MB601W**
15° angle.	60	1 1/4" NPT	**MB602W**
15° angle.	60	1 1/2" NPT	**MB603W**
Straight feed through.	60	1" NPT	**MB604W**
Straight feed through.	60	1 1/4" NPT	**MB605W**
Straight feed through.	60	1 1/2" NPT	**MB606W**
Four way 15° angle.	60/100	1 1/4" NPT	**MB601002W**
Four way 15° angle.	60/100	1 1/2" NPT	**MB601003W**
Four way 15° angle.	60/100	2" NPT	**MB601004W**
Four way feed through, 15° angle.	60/100	1 1/4" NPT	**MB601006W**
Four way feed through, 15° angle.	60/100	1 1/2" NPT	**MB601007W**
Four way feed through, 15° angle.	60/100	2" NPT	**MB601008W**
Four way 15° angle.	200	2" NPT	**MB2003W**
Four way 15° angle.	200	2 1/2" NPT	**MB2004W**

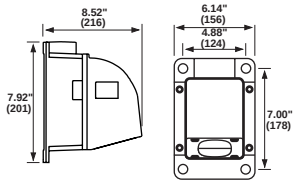
30 A Angle



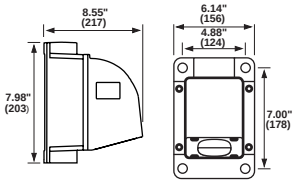
30 A Straight Feed Thru



60/100 A Four-Way Angle



60/100 A Four-Way Feed Thru Angle



Replacement Cord Clamp Kits

Description	Catalog Numbers
Fits all 30A plugs and connectors.	**CC3430**
Fits all 60A plugs and connectors.	**CC60**
Fits all 100A plugs and connectors.	**CC100**

CC3430

Insulgrip Pin & Sleeve Liquidtight Adapter

Rating of device	Liquidtight Conduit-size	Hubbell Liquidtight Adapter Catalog Numbers	Optional Kellems Liquidtight Conduit Grip Catalog Numbers
30 Amp	1/2" NPT	**SAB12**	**074093402**
	3/4" NPT	**SAB34**	**074093403**
	1" NPT	**SAB100**	**074093404**
60 Amp	1" NPT	**SAC100**	**074093404**
	1 1/4" NPT	**SAC125**	**074093405**
100 Amp	1 1/4" NPT	**SAD125**	**074093405**
	1 1/2" NPT	**SAD150**	**074093406**

074093403

SAB34

PLUGOUT®

Description	Catalog Number
Electrical plug lockout device accepts all major brands of metallic and non-metallic pin and sleeve devices up to and including 60 Amp (and up to 100 Amp Insulgrip Pin & Sleeve devices) as a method of compliance to OSHA regulation 29 CFR 1910.147.	**HLD2**

HLD2

Dimensions in Inches (mm)

Pin and Sleeve

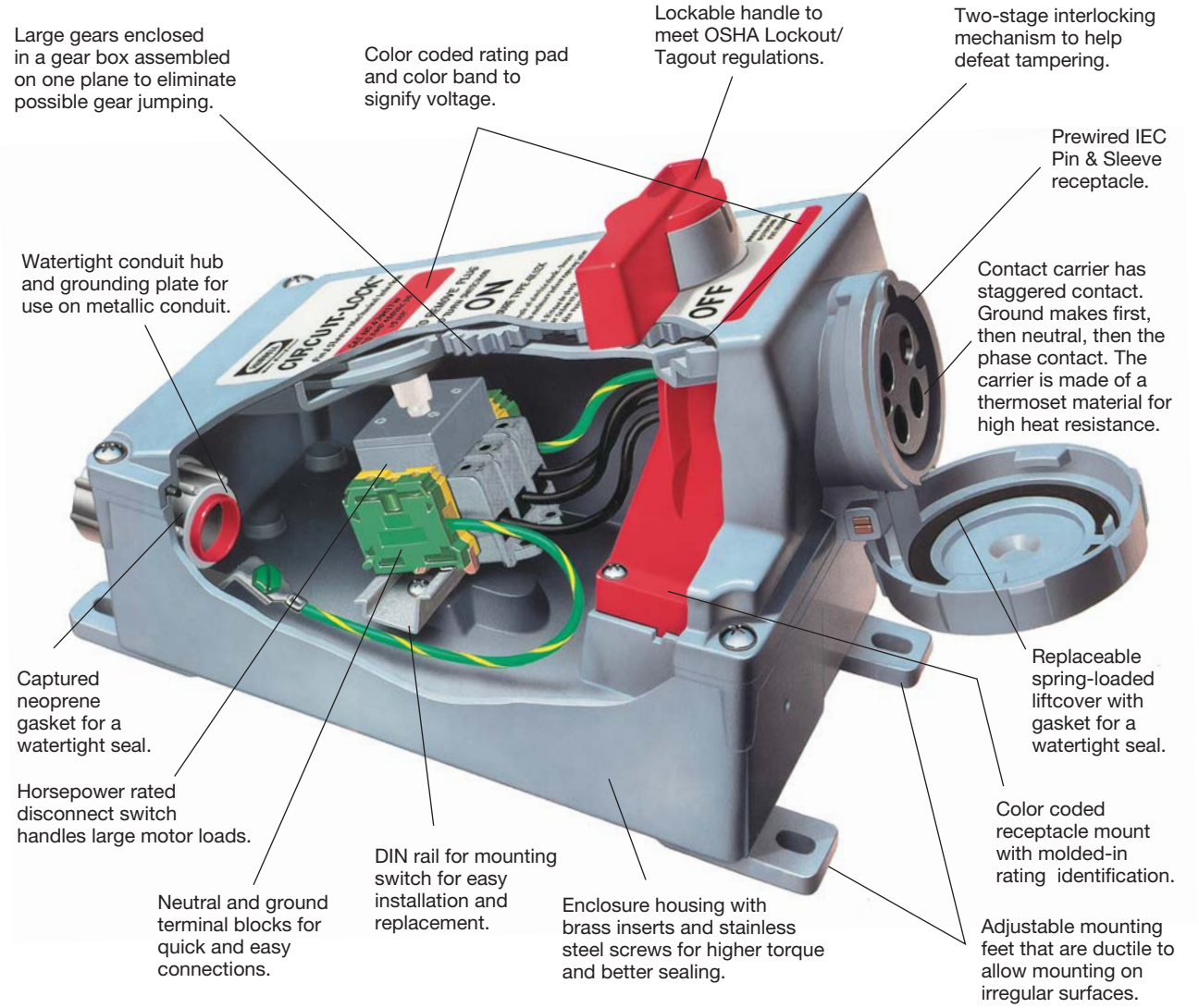
CIRCUIT-LOCK® Pin and Sleeve Interlocks

CIRCUIT-LOCK® Interlocks

Pin and Sleeve

Unfused CIRCUIT-LOCK® Pin and Sleeve Mechanical Interlocks

Features and Benefits



Hubbell Circuit-Lock Mechanical Interlocks
The National Electrical Code requires a separate disconnect means within sight of all motor loads. The NEC requires the disconnecting means in a motor-circuit be listed as “Suitable as Motor Disconnect” if the motor is rated greater than 2 HP. Hubbell’s revolutionary Circuit-Lock interlock incorporates the disconnect switch and receptacle in one compact non-metallic and economical unit.
At the same time, it eliminates the possibility of making or breaking the circuit under load or making a casual or “lazy” connection. The switch cannot be turned “ON” until the plug is inserted properly, and the plug cannot be removed until the switch is turned “OFF.” The non-metallic enclosure can be connected to metallic conduit and not interfere with the ground continuity.

In addition, these new horsepower rated units are durable, watertight and easy to install. And they’re compatible with IEC 60309-2 plugs.

The use of these interlocks can upgrade your facility to a complete Pin and Sleeve system. All Circuit-Lock mechanical interlocks can be locked out as a method of compliance with the OSHA Lockout/Tagout regulation.

These Circuit-Lock units are available in 30, 60 and 100A models, and in 3, 4 and 5 wire configurations that are designed to the IEC 60309-1 and 60309-2 standards.

Pin and Sleeve

Unfused CIRCUIT-LOCK® Ordering Information

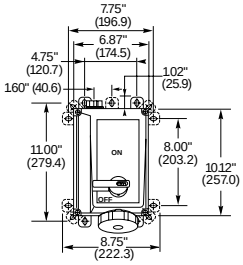
30, 60 and 100 Ampere – North American Ratings

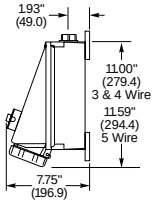
32 Ampere – International Rating

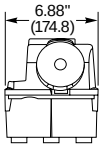
UL Listed, CSA Certified to Type 4, 4X, & Type 12 Enclosure Rating

Dimensions

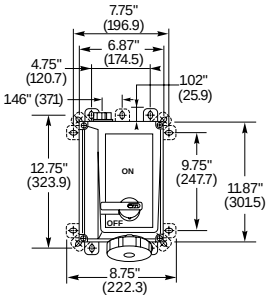
30 and 32A

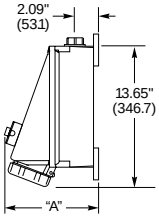


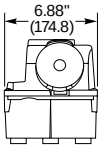




60 and 100A







Rating	"A" Dimension	Hub Size
30A	7.75" (196.9)	1" NPT
60A	8.60" (218.4)	1 1/4" NPT
100A	9.30" (236.2)	1 1/4" NPT

Watertight Closure Plug Kits

Description	Catalog Numbers
For 30A Circuit-Lock unfused and fused Pin & Sleeve mechanical interlock.	**MICPK30**
For 60A and 100A Circuit-Lock unfused and fused Pin & Sleeve mechanical interlock.	**MICPK60**

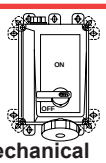
Ground Block

For 30A switches.	**HBL30RGB**
For 60 & 100A switches	**HBL60100RGB**

Neutral Block

For 30A switches.	**HBL30RNB**
For 60 & 100A switches	**HBL60100RNB**

IP67 SUITABILITY



Amps	Poles and Wires	Configuration: Recep./ Conn.	Configuration: Plug/ Inlet	Voltage	Mechanical Interlock
30	2P 3W			120	**HBL330MI4W**
	2P 3W			240	**HBL330MI6W**
	2P 3W			480	**HBL330MI7W**
	3P 4W			120/240	**HBL430MI12W**
	3P 4W			3Ø240	**HBL430MI9W**
	3P 4W			3Ø480	**HBL430MI7W**
	3P 4W			3Ø600	**HBL430MI5W**
	4P 5W			3Ø Y 120/208	**HBL530MI9W**
	4P 5W			3Ø Y 277/480	**HBL530MI7W**
	4P 5W			3Ø Y 347/600	**HBL530MI5W**
32	3P 4W			380 50HZ-440 60Hz	**HBL432MI3W**
60	2P 3W			120	**HBL360MI4W**
	2P 3W			240	**HBL360MI6W**
	2P 3W			480	**HBL360MI7W**
	3P 4W			120/240	**HBL460MI12W**
	3P 4W			3Ø240	**HBL460MI9W**
	3P 4W			3Ø480	**HBL460MI7W**
	3P 4W			3Ø600	**HBL460MI5W**
	4P 5W			3Ø Y 120/208	**HBL560MI9W**
	4P 5W			3Ø Y 277/480	**HBL560MI7W**
	4P 5W			3Ø Y 347/600	**HBL560MI5W**
100	2P 3W			240	**HBL3100MI6W**
	3P 4W			3Ø240	**HBL4100MI9W**
	3P 4W			3Ø480	**HBL4100MI7W**
	3P 4W			3Ø600	**HBL4100MI5W**
	4P 5W			3Ø Y 120/208	**HBL5100MI9W**

Auxiliary Contacts for 30, 60 & 100A switch, A600 pilot duty.

Break after break.	**HBLAC1**
Break before break.	**HBLAC2**

Replacement Switches

For 30A switches.	**HBL30MIRS**
For 60 & 100A switches	**HBLDS60100RS**

Note: 30A- 1" NPT hub, 60 & 100A- 1 1/4" NPT hub.

Pin and Sleeve

Unfused CIRCUIT-LOCK® Specifications

Typical Specifications

Manufacturer's Description	Identification Hubbell HBL430MI7W Circuit-Lock Pin and Sleeve Mechanical Interlock.
Electrical Type	3 Pole + Earth.
Rating	30A, 480V AC, 3 Phase.
Configuration	IEC 60309-2, UL1686 C2, Clock position 7.
Enclosure Type	Outdoor-4X (Watertight, Washdown) Indoor-12 (Dusttight, Falling Dirt and Noncorrosive Liquids)
Ingress Protection	IP67 Suitability.
Enclosure Material	Non-metallic, enclosure suitable for metallic conduit.
Certification	UL Listed, CSA Certified.

This device provides on/off switched control of a plug connected load and includes an interlocking feature to prevent the plug from being disconnected while the receptacle is energized. The switch cannot be turned "ON" until the plug is inserted properly, and the plug cannot be removed until the switch is turned "OFF."

Materials

Part	Materials	Part	Materials
Base	Valox®	Top	Valox
Handle	Valox	Conduit Hub	Zinc Watertight
Enclosure Gasket	Neoprene	Shaft	Valox
Shaft Seal	Neoprene	Ground Plate	Galvanized Steel
Enclosure Screws	Stainless Steel 300 Series	Enclosure Inserts	Brass
Hinge Pins	Nickel Plated Brass	Hinge Spring	Stainless Steel 300 Series.

Performance

Electrical

Dielectric Voltage	Withstands 3,000V AC Min.
Max. Working Voltage	600V AC RMS.
Current Interrupting	Certified for current interrupting at full rated current and voltage.
Short Circuit Withstand Rating	Suitable for use on a circuit capable of delivering not more than 10,000 RMS symmetrical amperes at the voltage rating of the receptacle.
Operations	Mechanical 10,000 cycles, electrical 6,000 cycles.

Mechanical

Impact Resistance	In accordance with UL 746C.
Terminal Identification	In accordance with UL, CSA and international conventions.
Product Identification	Identification and ratings are part of the external label and molded into the receptacle mount.
Mounting	External adjustable feet.

Environmental

Moisture Resistance	Outdoor - 4X (Watertight, Washdown) Indoor - 12 (Dusttight, Falling Dirt and Noncorrosive Liquids).
Ingress Protection	IP67 Suitability.
Flammability	UL94-5VA and V-0 Classification.
Operating Temperature	Max. Continuous +75°C; Min. Continuous -40°C.
UV Resistance	All materials are UV stabilized.

Horsepower Ratings

Catalog Numbers	Amps	Rating	Horsepower	Use Pin & Sleeve Plug Catalog No.
HBL330MI4W	30	120V AC	2	**HBL330P4W**
HBL330MI6W	30	240V AC	3 (208-240V AC)	**HBL330P6W**
HBL330MI7W	30	480V AC	7.5	**HBL330P7W**
HBL430MI12W	30	120/240V AC	3 (208-240V AC)	**HBL430P12W**
HBL430MI5W	30	3Ø 600V AC	20	**HBL430P5W**
HBL430MI7W	30	3Ø 480V AC	15	**HBL430P7W**
HBL430MI9W	30	3Ø 250V AC	7.5	**HBL430P9W**
HBL530MI5W	30	3ØY347/600V AC	20	**HBL530P5W**
HBL530MI7W	30	3ØY277/480V AC	15	**HBL530P7W**
HBL530MI9W	30	3ØY120/208V AC	5	**HBL530P9W**
HBL432MI3W	32	380V AC 50Hz – 440V AC 60Hz	15 (440V AC 3Ø 60Hz)	**HBL432P3W**
HBL360MI4W	60	120V AC	3	**HBL360P4W**
HBL360MI6W	60	240V AC	7.5 (208-240V AC)	**HBL360P6W**
HBL360MI7W	60	480V AC	20	**HBL360P7W**
HBL460MI12W	60	120/240V AC	7.5 (208-240V AC)	**HBL460P12W**
HBL460MI5W	60	3Ø 600V AC	40	**HBL460P5W**
HBL460MI7W	60	3Ø 480V AC	30	**HBL460P7W**
HBL460MI9W	60	3Ø 250V AC	15	**HBL460P9W**
HBL560MI5W	60	3ØY347/600V AC	40	**HBL560P5W**
HBL560MI7W	60	3ØY277/480V AC	30	**HBL560P7W**
HBL560MI9W	60	3ØY120/208V AC	15	**HBL560P9W**
HBL3100MI6W	100	240V AC	15 (10 @ 208V AC)	**HBL3100P6W**
HBL4100MI5W	100	3Ø 600V AC	50	**HBL4100P5W**
HBL4100MI7W	100	3Ø 480V AC	50	**HBL4100P7W**
HBL4100MI9W	100	3Ø 250V AC	25 (208-240V AC)	**HBL4100P9W**
HBL5100MI9W	100	3ØY120/208V AC	20	**HBL5100P9W**

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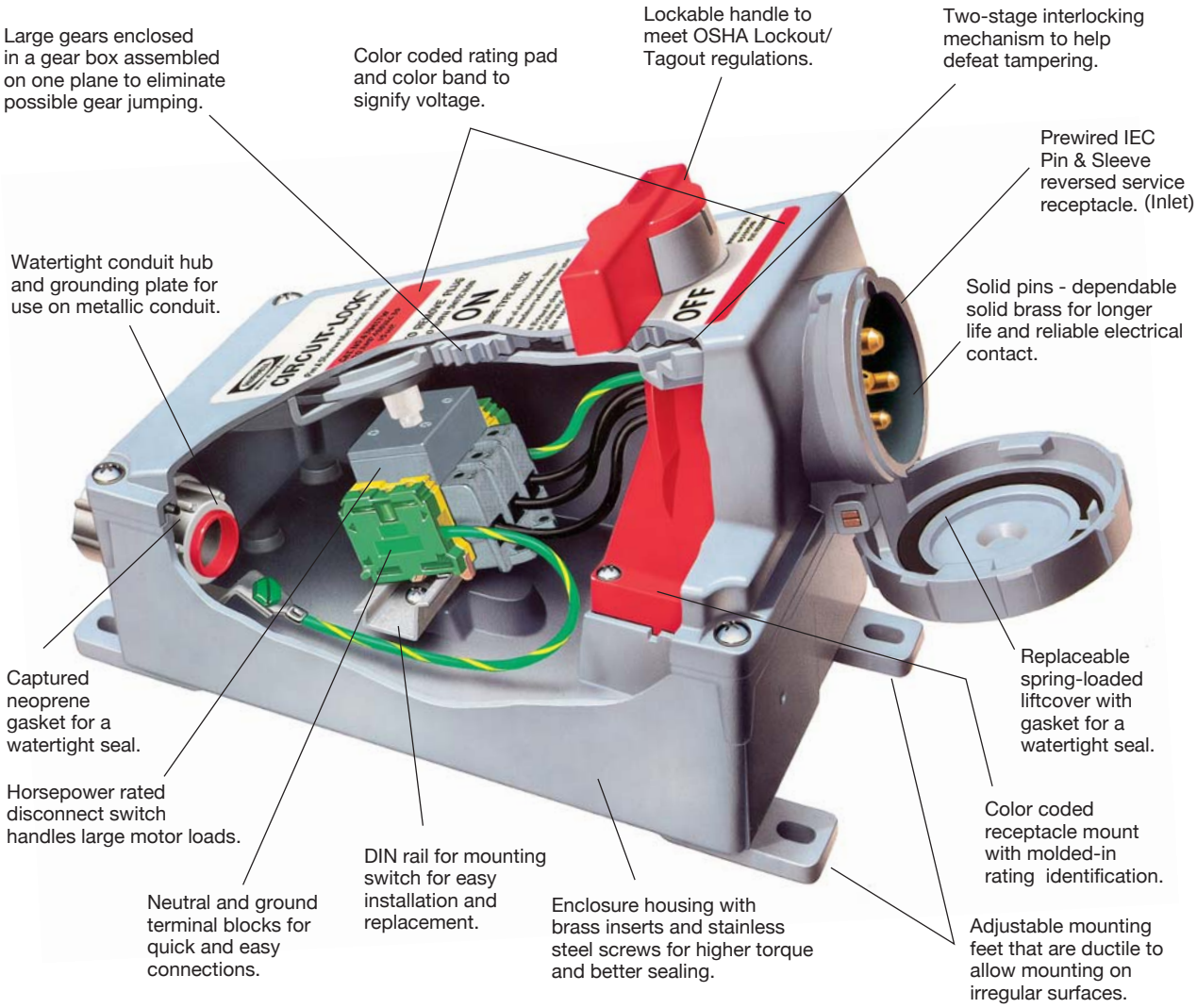
Pin and Sleeve

CIRCUIT-LOCK® Unfused Pin and Sleeve Reverse Service Mechanical Interlock



Hubbell Circuit-Lock Reverse Service Mechanical Interlocks
The National Electric Code requires a separate disconnect means within sight of all motor loads. The NEC requires the disconnecting means in a motor-circuit be listed as “Suitable as Motor Disconnect” if the motor is rated greater than 2 HP. Hubbell’s Circuit-Lock Reverse Service Mechanical Interlock incorporates the disconnect switch and reversed service receptacle (inlet) in one compact non-metallic and economical unit.

At the same time, It eliminates the possibility of making or breaking the circuit under load or making a casual or “lazy” connection. The switch cannot be turned “ON” until the reversed service plug has been inserted properly, and the reversed service plug cannot be removed until the switch is turned “OFF”.

The non-metallic enclosure can be connected to metallic conduit and not interfere with the ground continuity.

These new horsepower rated units are durable, watertight and easy to install and all Circuit-Lock Reverse Service Mechanical Interlocks can be locked out as a method of compliance with OSHA Lockout/Tagout regulation.

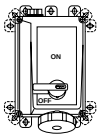
These new Circuit-Lock units are available in 30, 60 and 100A, 4 wire configurations.

Pin and Sleeve

Unfused CIRCUIT-LOCK® Reverse Service Mechanical Interlock

30, 60 and 100 Ampere – North American Ratings

IP67 SUITABILITY



Amps	Poles and Wires	Configuration Recep./ Conn.	Configuration Plug Inlet	Voltage	Mechanical Interlock
30	3P 4W			3Ø240	HBL430MI9WR
	3P 4W			3Ø480	HBL430MI7WR
	3P 4W			3Ø600	HBL430MI5WR
60	3P 4W			120/240	HBL460MI12WR
	3P 4W			3Ø240	HBL460MI9WR
	3P 4W			3Ø480	HBL460MI7WR
	3P 4W			3Ø600	HBL460MI5WR
100	3P 4W			120/240	HBL4100MI12WR
	3P 4W			3Ø240	HBL4100MI9WR
	3P 4W			3Ø480	HBL4100MI7WR
	3P 4W			3Ø600	HBL4100MI5WR

Auxiliary Contacts- for 30, 60 & 100A switch, A600 pilot duty.

Break after break.	HBLAC1
Break before break.	HBLAC2

Ground Block

For 30A switches.	HBL30RGB
For 60 & 100A switches.	HBL60100RGB

Neutral Block

For 30A switches.	HBL30RNB
For 60A switches.	HBL60RNB
For 100A switches.	HBL100RNB

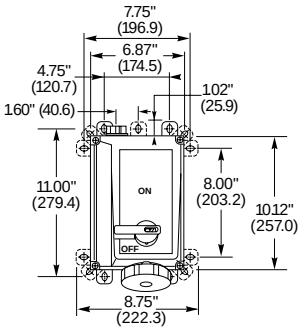
Replacement Switch

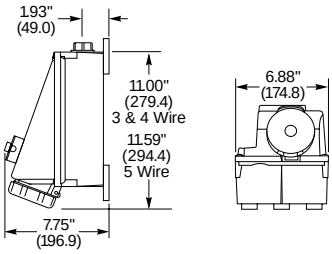
For 30A switches.	HBL30MIRS
For 60 & 100A switches.	HBLDS60100RS

UL Listed, CSA Certified to Type 4, 4X, & Type 12 Enclosure Rating

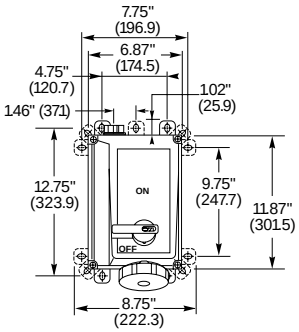
Dimensions

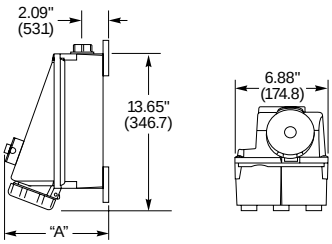
30A





60A and 100A





Rating	Dimension "A"
60A	8.60 (218.4)
100A	9.30 (236.2)

Pin and Sleeve
Unfused CIRCUIT-LOCK Reverse Service Specifications

Specifications

Typical Specifications

Manufacturer's Description	Identification Hubbell HBL460MI7WR Circuit-Lock Pin & Sleeve Reverse Mechanical Interlock.
Electrical Type	3 Pole + Earth.
Rating	60A, 480V AC 3 Phase.
Configuration	IEC 60309-2 Clock position 7.
Enclosure Type	Outdoor-4X (Watertight, Washdown) Indoor-12 (Dusttight, Falling Dirt and Noncorrosive Liquids).
Ingress Protection	IP67.
Enclosure Material	Non-metallic, enclosure suitable for metallic conduit.
Certification	UL Listed, CSA Certified.
Materials	UV resistant thermoplastic Valox® top and base. High heat thermoset interiors, 300 series stainless steel enclosure screws, zinc watertight 300 stainless steel conduit hub.

Performance

Electrical

Dielectric Voltage	Withstands 3,000V AC Min.
Max. Working Voltage	600V AC RMS.
Current Interrupting	Certified for current interrupting.
Short Circuit Withstand Rating	Suitable for use on a circuit capable of delivering not more than 10,000 RMS symmetrical amperes at the voltage rating of the receptacle.
Operations	Mechanical 10,000 cycles, electrical 6,000 cycles.

Mechanical

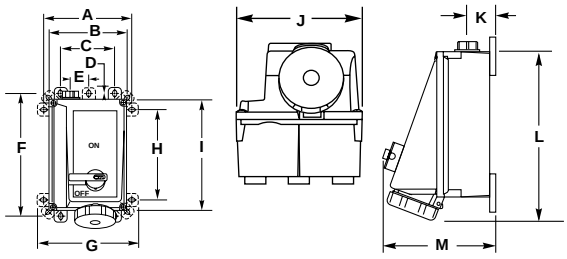
Impact Resistance	In accordance with UL 746C.
Terminal Identification	In accordance with UL, CSA and international conventions.
Product Identification	Identification and rating are part of the external label and molded into the receptacle mount.
Mounting	External adjustable feet.

Environmental

Moisture Resistance	Outdoor-4X (Watertight, Washdown) Indoor-12 (Dusttight, Falling Dirt and Noncorrosive Liquids).
Ingress Protection	IP67.
Flammability	UL94-5VA and V-0 Classification.
Operating Temperature	Max. Continuous 75°C; Min. Continuous -40°C.
UV Resistance	All materials are UV stabilized.

Dimensions

KEY	30A Inches	30A (mm)	60A Inches	60A (mm)	100A Inches	100A (mm)
A	7.75	(196.9)	7.75	(196.9)	7.75	(196.9)
B	6.87	(174.5)	6.87	(174.5)	6.87	(174.5)
C	4.75	(120.7)	4.75	(120.7)	4.75	(120.7)
D	1.02	(25.9)	1.02	(25.9)	1.02	(25.9)
E	1.60	(40.6)	1.46	(37.1)	1.46	(37.1)
F	11.00	(279.4)	12.75	(323.9)	12.75	(323.9)
G	8.75	(222.3)	8.75	(222.3)	8.75	(222.3)
H	8.00	(203.2)	9.75	(247.7)	9.75	(247.7)
I	10.12	(257.0)	11.87	(301.5)	11.87	(301.5)
J	6.88	(174.8)	6.88	(174.8)	6.88	(174.8)
K	1.93	(49.0)	2.09	(53.1)	2.09	(53.1)
L	11.00	(279.4)	13.65	(346.7)	13.65	(346.7)
M	7.75	(196.9)	8.60	(218.4)	9.30	(236.2)
HUB SIZE	1.00" NPT		1.25" NPT		1.25" NPT	



Horsepower Ratings

Catalog Numbers	Poles & Wires	Amps	Rating	Horsepower	Reverse Service Plug Catalog Numbers
HBL430MI9WR	3P 4W	30	3Ø 240V AC	7.5	**HBL430P9WR**
HBL430MI7WR	3P 4W	30	3Ø 480V AC	15	**HBL430P7WR**
HBL430MI5WR	3P 4W	30	3Ø 600V AC	20	**HBL430P5WR**
HBL460MI12WR	3P 4W	60	120/240V AC	7.5	**HBL460P12WR**
HBL460MI9WR	3P 4W	60	3Ø 240V AC	15	**HBL460P9WR**
HBL460MI7WR	3P 4W	60	3Ø 480V AC	30	**HBL460P7WR**
HBL460MI5WR	3P 4W	60	3Ø 600V AC	40	**HBL460P5WR**
HBL4100MI12WR	3P 4W	100	120/240V AC	15	**HBL4100P12WR**
HBL4100MI9WR	3P 4W	100	3Ø 240V AC	25	**HBL4100P9WR**
HBL4100MI7WR	3P 4W	100	3Ø 480V AC	50	**HBL4100P7WR**
HBL4100MI5WR	3P 4W	100	3Ø 600V AC	50	**HBL4100P5WR**

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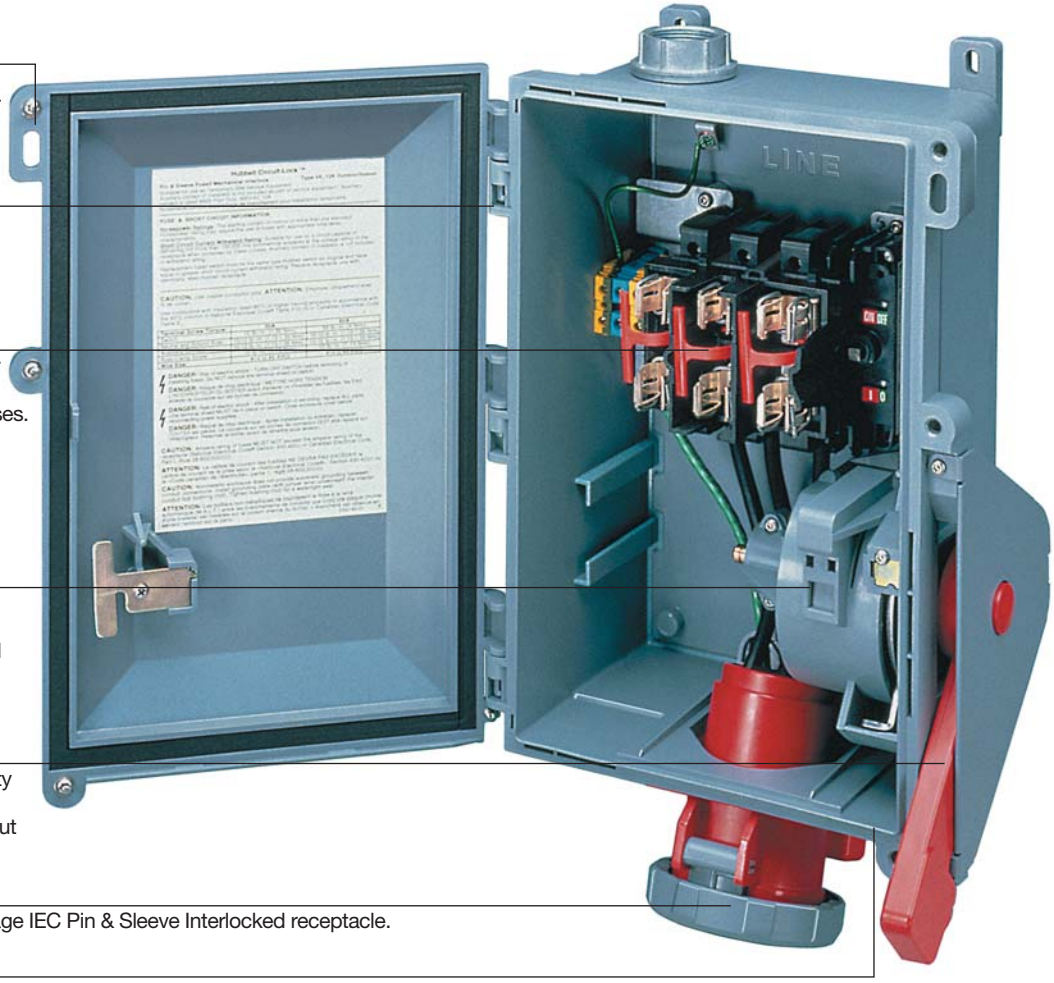
Pin and Sleeve

Fused CIRCUIT-LOCK® Safety Interlocks

Features and Benefits



Stainless steel 1/4" turn fasteners for easy, quick access to fuses.

Removable door for fast and easy wiring.

Compact fuse holder and switch design handles Class "J" fuses.

PLUG-CHECK™ mechanism detects presence of plug and activates switch.

Lockable high visibility red handle to meet OSHA Lockout/Tagout regulations.

Color-coded by voltage IEC Pin & Sleeve Interlocked receptacle.

Non-Metallic Type 4X (washdown, corrosion resistant) enclosure.

Hubbell Circuit-Lock Fused Mechanical Interlocks

The Fused Mechanical Interlocks incorporate an inter-locking receptacle and fused switch in a non-metallic enclosure that meetsType 4X (Washdown, Corrosion Resistant) requirements.

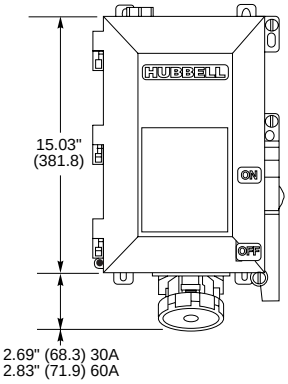
Like the unfused version, it eliminates the possibility of making and breaking the circuit under load. The revolutionary patented PLUG-CHECK™ mechanism detects the presence of the plug; if the plug is inserted properly, the switch engages and turns “ON”. If the plug is incorrectly mated, the handle will not engage the switch, therefore eliminating abuse and handle breakage due to heavily applied forces. This new system is unlike any other in the industry.

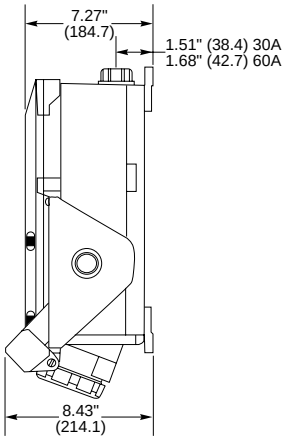
Pin and Sleeve

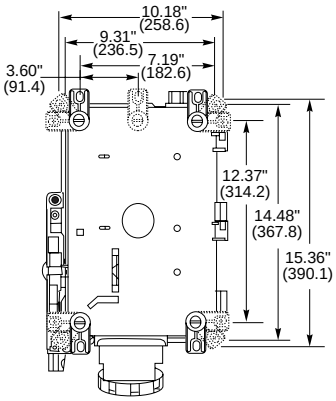
Fused CIRCUIT-LOCK® Ordering Information

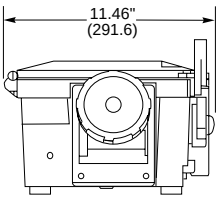
30 and 60 Ampere – North American Ratings

Dimensions









IP67 SUITABILITY

Amps	Poles and Wires	Configuration Recep./ Conn.	Plug Inlet	Voltage	Mechanical Interlock
30	3P 4W			120/240	**HBL430MIF12W**
	3P 4W			3Ø240	**HBL430MIF9W**
	3P 4W			3Ø480	**HBL430MIF7W**
	3P 4W			3Ø600	**HBL430MIF5W**
	4P 5W			3Ø Y 277/480	**HBL530MIF7W**
	4P 5W			3Ø Y 347/600	**HBL530MIF5W**
60	3P 4W			120/240	**HBL460MIF12W**
	3P 4W			3Ø240	**HBL460MIF9W**
	3P 4W			3Ø480	**HBL460MIF7W**
	3P 4W			3Ø600	**HBL460MIF5W**

Note: 30A Unit comes standard with 3/4" NPT Hub
60A Unit comes standard with 1 1/4" NPT Hub

Auxiliary Contacts

Description	Catalog Numbers
Auxiliary contact, normally open, A600 pilot duty.	**ACFSNO**
Auxiliary contact, normally closed, A600 pilot duty.	**ACFSNC**

Water Tight Closure Plug Kits

Description	Catalog Numbers
For 30A Circuit-Lock unfused and fused Pin & Sleeve mechanical interlock.	**MICPK30**
For 60A Circuit-Lock unfused and fused Pin & Sleeve mechanical interlock.	**MICPK60**

Pin and Sleeve

Fused CIRCUIT-LOCK® Specifications

Specifications

Typical Specifications	
Manufacturer's Identification	Hubbell HBL460MIF7W.
Description	Fused Circuit-Lock Pin and Sleeve Mechanical Interlock.
Electrical Type	3 Pole + Earth.
Rating	60A, 480V AC, 3 Phase.
Configuration	IEC 60309-2, UL1686C2, Clock Position 7.
Enclosure Type	Outdoor-4X (Watertight, Washdown) Indoor 12K (Dust Tight, Falling Dirt).
Certification	UL Listed, CSA Certified.

This device provides fused switched control of a plug connected load and includes an interlocking feature to prevent the plug from being disconnected or the fuse door opened while the receptacle is energized. The switch cannot be turned on until the plug is inserted properly.

Materials

Part	Materials
Base	Valox®.
Top	Valox.
Handle	Valox.
Conduit Hub	Zinc Watertight, 30A-1", 60A-1 1/4" NPT.
Enclosure Gasket	Neoprene.
Shaft	Brass.
Shaft Seal	Neoprene.
Ground Plate	Galvanized Steel.
Enclosure Screws	Stainless Steel.
Mounting Inserts	Brass.
Hinge Pin	Nickel-Plated Brass.
Hinge Spring	Stainless Steel.

Performance

Electrical	
Dielectric Voltage	Withstands 3,000V AC Min.
Max. Working Voltage	600V AC.
Current Interrupting	Certified for current interrupting at full rated current and voltage.
Short Circuit Withstand Rating	Suitable for use on a circuit capable of delivering not more than 100,000 RMS symmetrical amperes at the voltage rating of receptacle.
Operations	Mechanical 10,000 cycles minimum.
Mechanical	
Impact Resistance	In accordance with UL 746C.
Terminal Identification	In accordance with UL, CSA and international conventions.
Product Ratings	Ratings are part of the external label and molded into the receptacle mount and color-coded.
Mounting	External adjustment feet.
Environmental	
Moisture Resistance	Outdoor-4X (Watertight, Washdown); Indoor - 12K (Dusttight, Falling dirt).
Ingress Protection	IP67.
Flammability	UL94-5VA and V-0 Classification.
Operating Temperatures	Max. Continuous +75°C; Min. Continuous-40°C.
UV Resistance	All materials are UV stabilized.
Fuse Types	UL Listed Class "J". CSA Certified HRCI-J.

Horsepower Ratings

Catalog Numbers	Amps	Rating	Horsepower	Use Pin & Sleeve Plug Catalog Numbers
HBL430MIF5W	30	3Ø 600V AC	20	**HBL430P5W**
HBL430MIF7W	30	3Ø 480V AC	15	**HBL430P7W**
HBL430MIF9W	30	3Ø 240V AC	7.5	**HBL430P9W**
HBL430MIF12W	30	120/240V AC	3.0+	**HBL430P12W**
HBL530MIF7W	30	3ØY 277/480V AC	15	**HBL530P7W**
HBL530MIF5W	30	3ØY 347/600V AC	20	**HBL530P5W**
HBL460MIF5W	60	3Ø 600V AC	40	**HBL460P5W**
HBL460MIF7W	60	3Ø 480V AC	30	**HBL460P7W**
HBL460MIF9W	60	3Ø 240V AC	15	**HBL460P9W**
HBL460MIF12W	60	120/240V AC	7.5+	**HBL460P12W**

+ 208-240V AC L-L.

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Pin & Sleeve Devices

Technical Information

Catalog Number Explanation
Terminal Identification

■ Typical IEC Pin and Sleeve Catalog Number

HBL4100C12-W

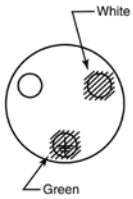
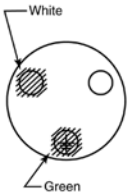
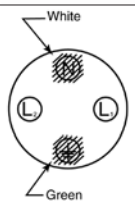
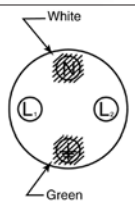
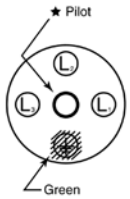
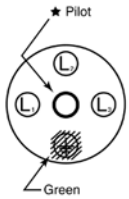
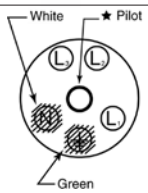
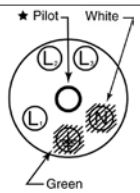
4 100 C 12 W

- 4 Wire
- 100 Amp
- "C" Connector
- Ground Sleeve @ "12" O'Clock (125/250V)
- Watertight™

Explanation

1 First Digit	2 Next Series Of Digits	3 Letter	4 Last Digit(s)	5 Letter: W
3-3 wire 4-4 wire 5-5 wire	Preceding a letter 20-20 Amp 30-30 Amp 60-60 Amp 100-100 Amp	P-Plug R-Receptacle C-Connector B-Inlet MI-Mechanical Interlock MIF-Mechanical Interlock Fused	After the letter. This denotes the position of the ground sleeve and the assigned voltage in the receptacle as it relates to the hours of the clock. This is done to eliminate interchangeability between devices with different voltages.	Watertight

■ IEC Pin and Sleeve Terminal Identification - Rear View

Description	Rating: Domestic	Rating: International	Terminal Marking Pattern: Receptacle & Connector	Terminal Marking Pattern: Plug & Inlet
3 wire	125V AC 277V AC	110V AC		
3 wire	250V AC 480V AC 600V AC	240V AC 380-415V AC		
4 wire	125/250V AC			
4 wire	(3Ø Δ) 250V AC 480V AC 600V AC	380-415V AC		
5 wire	(3ØY) 120/208V AC 277/480V AC 347/600V AC	220/380V AC 240/415V AC 50/600V AC, 50-600V AC, 400 Hz		

★ *Pilot contacts supplied on all 63 & 125 Amp international rated devices.*
Note: For Insulgrip Pin & Sleeve catalog number explanation, see page E-22.