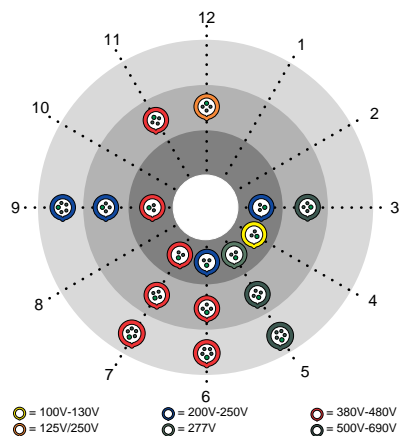
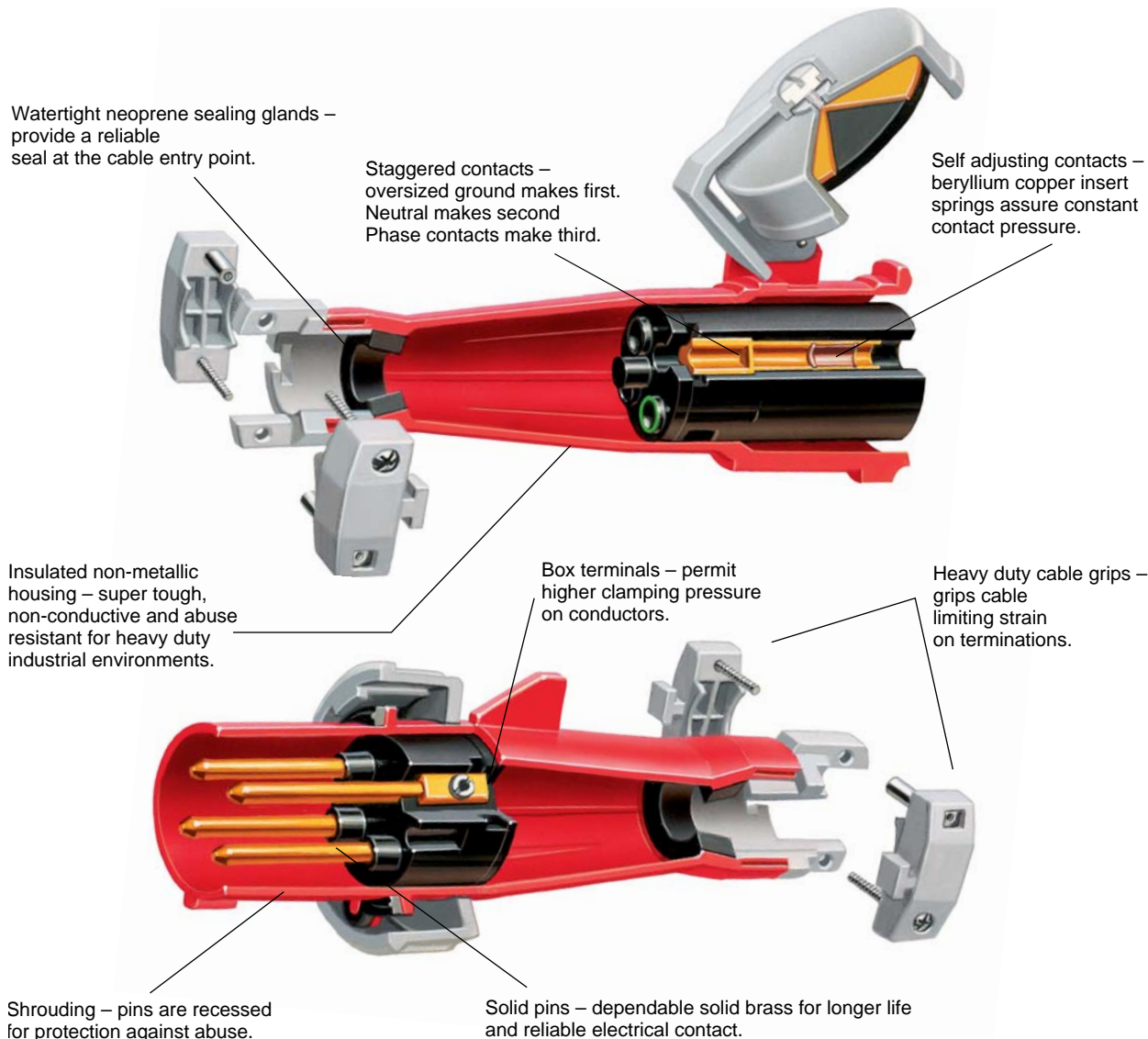


Pin and Sleeve Watertight Devices

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

60 and 100 Ampere – North American Ratings

63 and 125 Ampere – International Ratings

UL SF	Poles and Wires	Configuration Recep./ Plug/ Inlet	IP67 Suitability	Watertight Devices				Back Boxes		Replacement Interior Kits		
				Voltage							Conn. Recep.	Plugs Inlets
					Receptacle	Plug	Connector	Inlet	Non-Metallic	Metallic		
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 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.