



MERC0001

Mercotac

The Cavotec Group

Cavotec is the name of a group of companies specialized in power supply technology for cranes and other industrial equipment. It is formed by 6 manufacturing companies located in Australia, France, Germany, Italy, Sweden and U.S.A., as well as by 18 Cavotec sales companies which, together with a network of distributors, serve more than 30 countries in five continents.

Each manufacturing company, no matter where it is located, aims at being a market leader in its field by providing innovative and reliable products to Group customers. Although they manufacture different products in different countries, they are globally supported and coordinated by the Cavotec Group in their product development and marketing activities. Each sales company, and each distributor, has a policy aiming at better serving its local market with the full support of the Cavotec Group.

Our aim is to be local everywhere

Great emphasis is put on providing the highest quality not only in the selected products, but also in service and backing to their customers. Our philosophy in fact is to be local everywhere.

Our fields of activity are



**Mining,
tunnelling**



Steel Mills



Forestry



**Ports,
Terminals**



**Robots,
Automation**



Offshore



Constructions

Cavotec Sales Companies

The products manufactured by Mercotac Inc. described in the following pages, as well as other quality products in the field of crane and power technology, are distributed around the world by the Cavotec sales companies and by a network of selected Distributors.

The Mercotac Company

Mercotac Inc. was founded in 1978 to manufacture unique, high quality but low cost rotating electrical connectors. Since then, the design and manufacturing process has been continually improved and the product line expanded. Mercotac Rotating Electrical Connectors have been developed to meet the needs of a large variety of industrial machinery applications. The demand for Mercotac Connectors continues to expand with the increasing use of electronics and computer controls and the necessity for always improving slip ring technology. By utilizing the latest technology equipment available, together with time-tested quality control measures, the company guarantees high-quality and reliable connectors.

Mercotac Inc. is an established name in the market, providing customers with uniquely designed rotating electrical connectors that guarantee satisfaction every time.

The Mercotac headquarters in California



VAR100091

The product

Mercotac® designs and manufactures a range of unique rotating electrical connectors. Ideal for transmitting signal and control circuits, in applications where high revolutions per minute, low (electrical) noise, and low resistance prohibit the use of conventional slip rings. This durable, compact, maintenance free ball bearing construction is useful in many areas such as:

- computers
 - instrumentation
 - thermocouples
 - cable reels
 - strain gauges
 - packaging equipment
 - robotics
 - turntables
 - advanced lighting
 - wind mills
 - video and telephone
 - testing and control devices
- and in many others applications.

Helpful hints

The connector can be held or mounted by the body or the plastic collar and is not designed to carry mechanical loads. One end should be allowed to float, attached only by the connecting wires. In most cases it is preferable to mount the connector with the body rotating to reduce mechanical loads on the bearing. Limit mounting eccentricity to .005" (13mm).

The connector contains plastic materials which are sensitive to heat. Overheating will cause reduced life or connector failure. Provide thermal insulation where necessary to prevent temperature of the unit from exceeding 140°F (60°C).

Do not solder on connector or bend tabs as such misuse may cause connector failure and will void the warranty.

Vibration or mechanical shock will reduce life or cause connector failure. Some installations may require a shock isolating mounting.

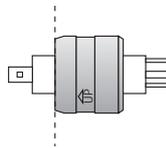
In food and packaging applications

Mercotac® connectors contain mercury and other fluids. Isolate connector from any possibility of leakage contaminating the product. Short circuit failure in connection with a Mercotac® connector may result in leakage. The use of a protective enclosure is recommended.

Recycling

Mercotac® connectors contain metallic mercury and should be disposed of properly through recycling or mercury recovery programs. Mercotac, Inc. offers to forward spent connectors for you to a mercury recovery facility. Wrap and package items in accordance with local, state and federal regulations. Please state on your paperwork "For Recycling" and identify shipments with Ph/Fax numbers.

Plane between the rotating part and the stationary part



Reversible unit will operate in any position ("UP" arrow not to point below horizontal).

Specifications

	Model No.	Code	Conductors	Voltage Range AC/DC	Current Rating 240 VAC AMP.	Power Rating Max. Amps KW	Max Freq. MHz	Mercury Contact Resist.	Max RPM	Operating Temp. Max. / Min. °C / °C	Rotation Torque (x10 ³ Nm)	Circuit Separation
MODULAR												
	1250	MM01-12500-00	1	n/a	250	60	200	<1mΩ	1200	60 / -29	250	—
	230	MM02-02300-00	2	0-250	30	7.2	200	<1mΩ	1800	60 / -29	200	>25MΩ
	330	MM03-03300-00	3	0-250	30	7.2	100	<1mΩ	1200	60 / -20	300	>25MΩ
					sm./lg. tab	sm./lg. tab						
	331	MM03-03310-00	3	0-250	4 / 30	1 / 7.2	100	<1mΩ	1800	60 / -29	200	>25MΩ
	430	MM04-04300-00	4	0-250	4 / 30	1 / 7.2	100	<1mΩ	1200	60 / -29	400	>25MΩ
	435	MM04-04350-00	4	0-500	30	1 / 7.2	100	<1mΩ	300	60 / -29	850	>25MΩ
	630	MM06-06300-00	6	0-250	4 / 30	1 / 7.2	100	<1mΩ	300	60 / -29	700	>25MΩ
830	MM08-08300-00	8	0-250	4 / 30	1 / 7.2	100	<1mΩ	200	60 / -29	1000	>25MΩ	
COAXIAL												
	110	MM01-01100-00	1	—	10	2.4	200	<1mΩ	3600	60 / -29	35	—
	110-L	MM01-0110L-00	1	—	10	2.4	200	<1mΩ	1200	60 / -29	10	—
	110-T	MM01-0110T-00	1	—	10	2.4	200	<1mΩ	3600	60 / -29	35	—
	110-TL	MM01-0110TL-00	1	—	10	2.4	200	<1mΩ	1200	60 / -29	10	—
	205	MM205-02050-00	2	0-250	4	1	200	<1mΩ	2000	60 / 7	75	>25MΩ
	205-L	MM205-0205L-00	2	0-250	4	1	200	<1mΩ	1200	60 / -29	20	>25MΩ
	205-H	MM205-0205H-00	2	0-250	4	1	200	<1mΩ	3600	60 / 7	35	>25MΩ
	305	MM305-03050-00	3	0-250	4	1	200	<1mΩ	1800	60 / 7	100	>25MΩ

NOTE: Model numbers with suffix "SS" denote Stainless Steel ball bearing

Modular series

Hole diameter for Collar Mount for:

230 - 331:	12,7mm	10,16mm DEEP*
330 - 430:	15,87mm	10,16mm DEEP*
630:	22,22 mm	10,16mm DEEP*
830:	28,57 mm	10,16mm DEEP*
1250 threaded stud:3/8 - 16 UNC	20,57mm DEEP*	

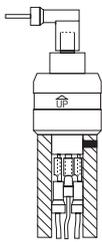
Hole diameter for Body Mount for:

230 - 331:	25,34 mm	10,16mm DEEP*
330 - 430 - 1250:	31,69 mm	10,16mm DEEP*
630:	40,00 mm	10,16mm DEEP*
830:	45,00 mm	10,16mm DEEP*

*Minimum additional depth for disconnects: 25,4mm

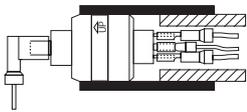
Suggested Mounting Methods

Mount by plastic collar



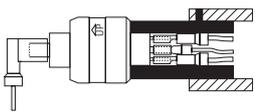
Reversible units will operate in any position; ("UP" arrow not pointing below horizontal). Mounting of connector can be by the body or the smaller diameter collar using set screws.

Mount by body



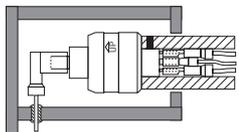
Soft-mounting with rubber type material may be needed when unit will be subjected to vibration.

Typical bushing mount



Mounting with an insulating bushing may be required to insulate connector from conducted heat.

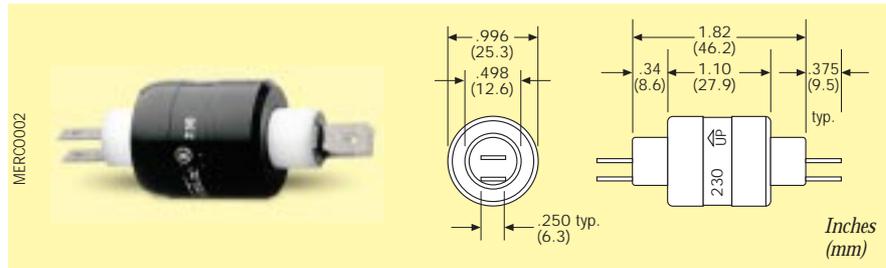
Protective enclosure



Suggested for food or consumer product applications.

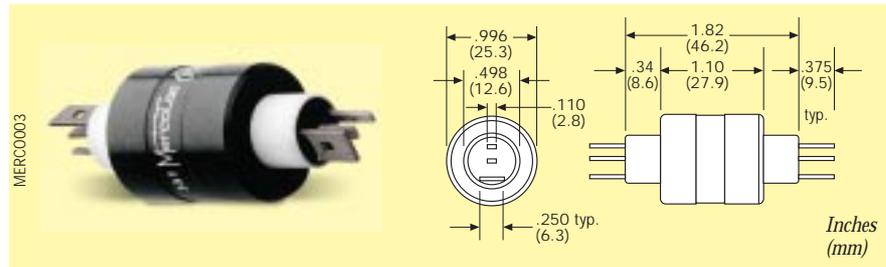
230 / 230 SS* 2 conductor, 30 Amp. Disconnects included: 4 lg.

230 230 SS*
MM02-02300-00|MM02-02300-S0



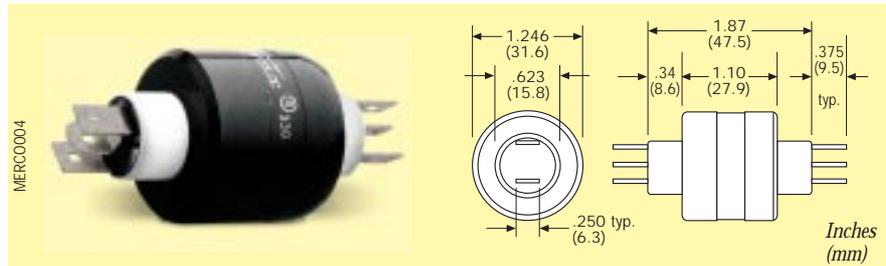
331 / 331 SS* 3 conductor, 2x4 Amp. + 1x30 Amp. Disconnects included: 4 sm., 2 lg.

331 331 SS*
MM03-03310-00|MM03-03310-S0



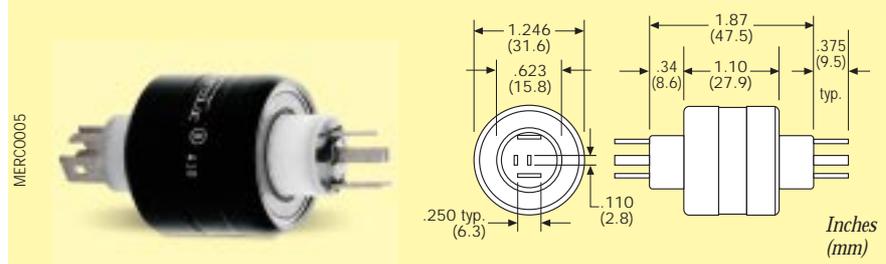
330 / 330 SS* 3 conductor, 30 Amp. Disconnects included: 6 lg.

330 330 SS*
MM03-03300-00|MM03-03300-S0



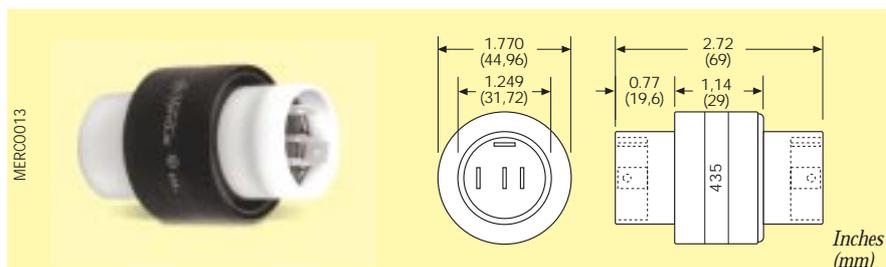
430 / 430 SS* 4 conductor, 2x4 Amp. + 2x30 Amp. Disconnects included: 4 sm., 4 lg.

430 430 SS*
MM04-04300-00|MM04-04300-S0



435/435 SS* 4 conductor, 30 Amp. Disconnects included: 14-16 awg. wire.

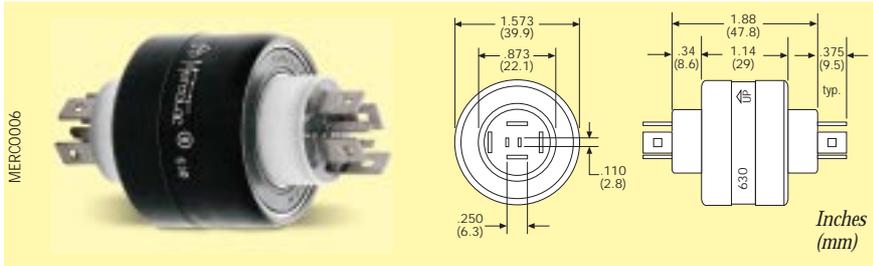
435 435 SS*
MM04-04350-00|MM04-04350-S0



*SS indicates Stainless Steel ball bearing

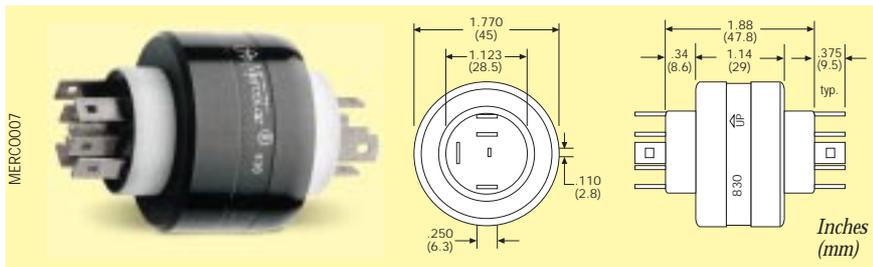
630 / 630 SS*
 6 conductor, 2x4 Amp. + 4x30 Amp.
 Disconnects included: 4 sm., 8 lg.

630 630 SS*
 MM06-06300-00 | MM06-06300-S0



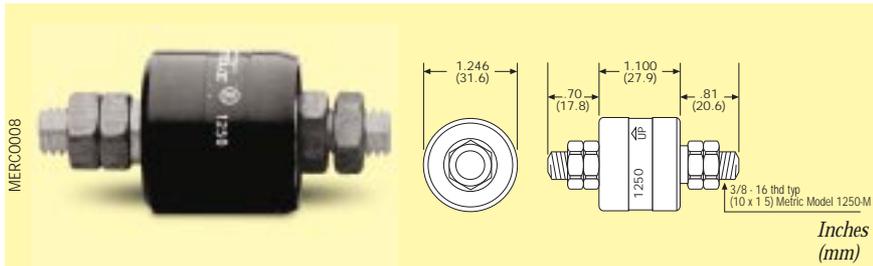
830 / 830 SS*
 8 conductor, 2x4 Amp. + 6x30 Amp.
 Disconnects included: 4 sm., 12 lg.

830 830 SS*
 MM08-08300-00 | MM08-08300-S0



1250 / 1250 SS* / 1250 M
 1 conductor, 250 Amp.
 Available with metric threads (1250-M) 4 Jam Nuts included

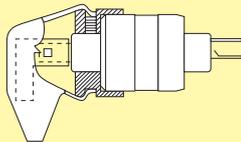
1250 1250 SS* 1250 M
 MM01-12500-00 | MM01-12500-S0 | MM01-12500-M0



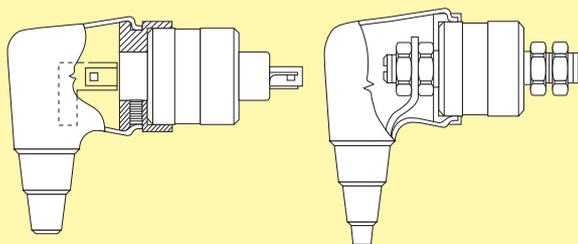
*SS indicates Stainless Steel ball bearing

Accessories

For Mercotac® models:
 230 order BOOT KIT # 57230
 331 order BOOT KIT # 57230



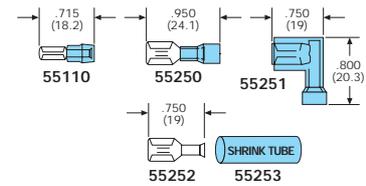
For Mercotac® models:
 1250 order BOOT KIT # 57125
 330 order BOOT KIT # 57430
 430 order BOOT KIT # 57430
 435 order BOOT KIT # 57435
 630 order BOOT KIT # 57630
 830 order BOOT KIT # 57830



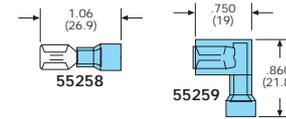
Appropriate disconnects supplied with boot kits for 630 and 830 models.

Modular Model Disconnects

Appropriate disconnects supplied with modular units.

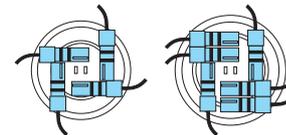


Small disconnect (55110) for 18-22 awg. wire.
 Larger disconnects (55250, 51, 52) for 14-16 awg. wire.
 Order extras by part number.



Heavy duty disconnects (55258, 59) for 10-12 awg. wire.
 Order heavy duty by part number.

Provide overcurrent protection (fuse) on wires attached to connector. Use standard wire of ample length and flexibility to avoid mechanical loads.



Configuration of right angle disconnects on models 630 and 830.

Generally the wires are sufficient to restrain the turning of the connector. A floating "torque arm" attached to the stationary end may be used if the wires are not sufficiently stiff. Never rigid mount both ends of the connector. This will "work" the bearing and cause connector failure.

Boot Kits

A rubber Boot Kit with an attaching plastic bushing can give good protection to the wire terminals against spray water, oil and dirt.

NOTE: this Boot Kit is not water-tight nor intended for water-proofing.

A protection rating of IP51 can be achieved due to the close fit of the bushing. The design allows the use of a Boot Kit on either end of a Mercotac® Modular unit.

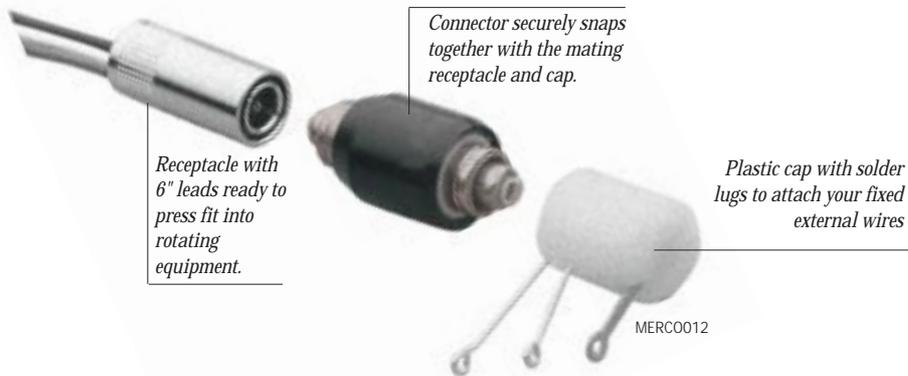
Tip of boot can be cut off to accommodate wires.

For corrosive atmospheres or where subject to water splash the stainless steel ball bearing is also recommended. Units with stainless steel bearings are designated by the "SS" after the part number.

Coaxial series

Coaxial design models

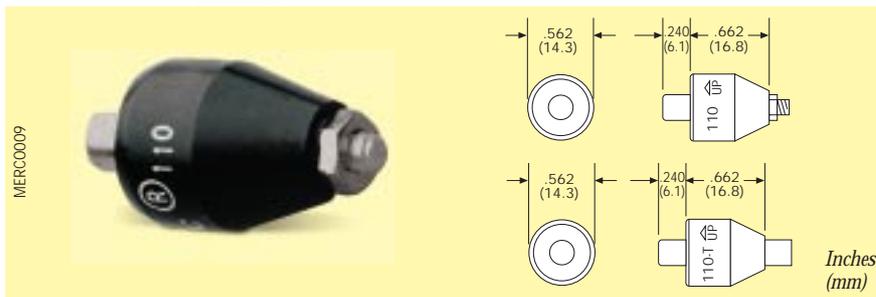
Light duty, compact, one, two and three conductor models provide inexpensive and trouble-free connection for rotating instrumentation, thermocouple, strain gauge, plating and testing equipment.



110 / 110 SS* / 110 L
1 conductor, 10 Amps.

110 T / 110 TL
1 conductor, 10 Amps.

110	110 SS*	110 L
MM01-01100-00	MM01-01100-S0	MM01-0110L-00
110 T	110 TL	
MM01-0110T-00	MM01-0110TL-00	



205 / 205 H / 205 L / 205 SS*
2 conductor, 4 Amps.

205	205 H	205 L	205 SS*
MM02-02050-00	MM02-0205H-00	MM02-0205L-00	MM02-02050-S0



305 / 305 SS
3 conductor, 4 Amps.

305	305 SS*
MM03-03050-00	MM03-03050-S0

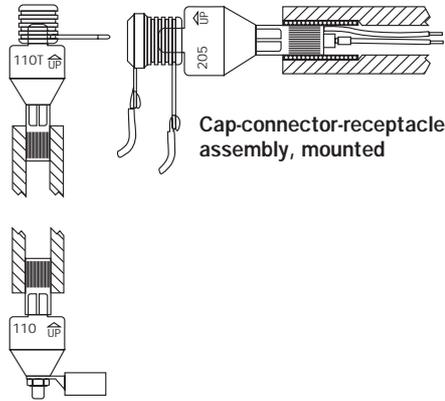


*SS indicates Stainless Steel ball bearing

Single conductor units available in two styles.

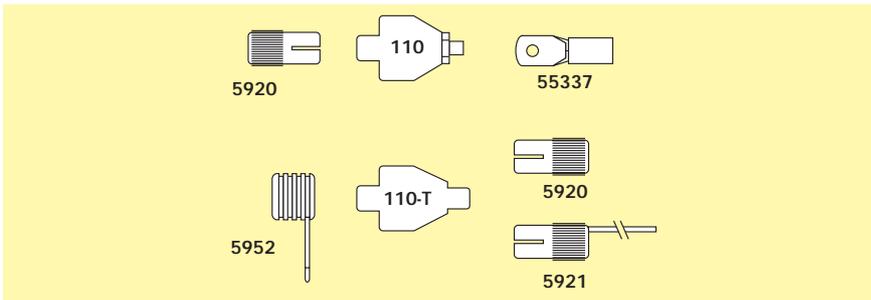
The 110-T (top) will work in any position. ("UP" arrow not to point below horizontal).

The 110 with the threaded 6-32 stud, specially designed for bottom mount, can also be used horizontally.



Coaxial series accessories

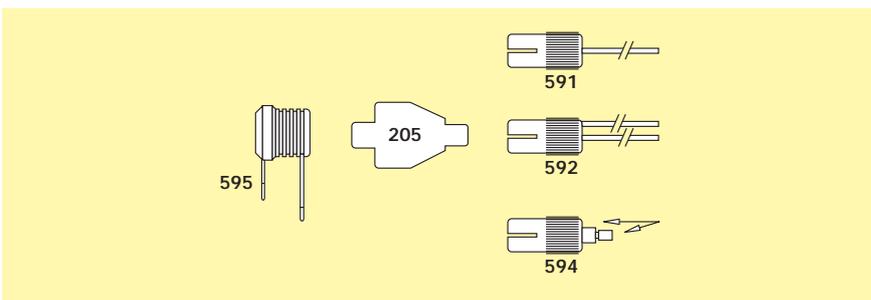
Order accessories separately by part number. Connectors are reversible (except 110) which allows several possible arrangements.



Ring Connector
(55337)

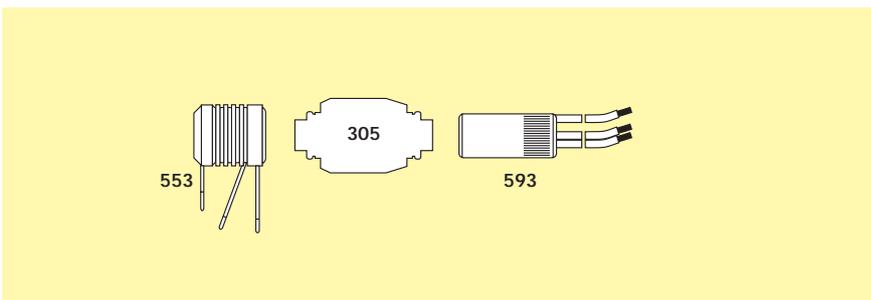
One-contact receptacles:
(5920) W/0 wire
(5921) W/6" lead

One-contact cap
(5952) W/Solder lug



Two-contact cap
(595) W/Two solder lugs

Two-contact receptacles:
(591) W/One 6" lead
(592) W/Two 6" leads
(594) W/Two Solder
Holes for users' wires.



Three-contact cap
(553) W/Three Solder lugs
Three-contact receptacle:
(593) W/Three 6" leads

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our home page on the Internet:
www.cavotec.com

E-commerce sites:
www.cavotecshop.com
www.flexiblecables.com

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Singapore

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