



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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VEAM

CIR Series



ITT

ENGINEERED FOR LIFE

ITT Corporation is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for industrial end-markets in energy infrastructure, electronics, aerospace and transportation. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life. Founded in 1920, ITT is headquartered in White Plains, N.Y., with employees in more than 30 countries and sales from a total of 125 countries which generated a 2011 revenue of \$2.1 billion.

Our award-winning connector portfolio continues to be an industry innovator, offering a reliable and cost effective range of interconnect solutions with the brands of Cannon, VEAM and BIW Connector Systems. Continuous investment in technology and research & development have enabled ITT to provide new, innovative products and solutions to markets including:

- Automotive
- Computer & Consumer Electronics
- Industrial/Instrumentation
- Military & Aerospace
- Oil & Gas
- Telecommunications/Wireless Handheld Devices
- Transportation

When you specify a Cannon, VEAM or BIW Connector Systems connector, you can rely on products that are designed, developed, and manufactured to the highest quality and reliability standards. This tradition of excellence is based on ITT's corporate culture of operating its businesses under the principles of Six Sigma. At ITT, Six Sigma is not just a quality philosophy but a complete corporate culture that drives the entire business. Our Value Based Management and Value Based Product Development systems are two cornerstones that allow for the development of both leadership and product engineering principles, ensuring our industry leading products are developed to the accepted market driven lead times. These principles have allowed ITT to become the market leader in all of our business portfolios.

Six Sigma Manufacturing

ITT operates manufacturing facilities in the United States, Germany, Italy, Mexico, China, Japan and the UK, all of which have particular product area strengths allowing ITT to offer a truly global footprint to our customers. Our facilities are world

class and accommodate full vertical integration utilizing the latest manufacturing technologies including: manufacturing cells, Kanban pull systems, and automated electrical, mechanical, and optical test and inspection equipment. The combination of our manufacturing strength and our advanced manufacturing facilities allows ITT to offer products at market driven prices. Our capabilities, especially in robotics, computerized precision tooling, Kaizen Project Management, Six Sigma tools, and testing, give ITT the most optimized global manufacturing footprint in the interconnect industry.

The Custom Difference

As the industry leader in harsh environment interconnect applications, ITT's world class engineering teams will work directly with our customers to design and develop cost effective solutions for their applications. In many cases we may modify one of our standard designs to ensure a highly reliable solution where timing is critical. Yet, in those cases where a complete custom interconnect solution is required, ITT will work with our customer's Engineers to design an interconnect solution which will be cost effective yet highly reliable. Our Engineering teams will provide a thorough systems and mechanical analysis of any proposed solution. These analyses provide our customers with sophisticated electrical signal and mechanical characterizations to determine the best solution for their application.

RoHS Compliance Information

ITT has implemented a strict parts control plan for all ITT electronics plants worldwide that allows the Cannon, VEAM, and BIW Connector Systems product portfolios to meet the requirements of the European Union Directive 2002/95/EC better known as the Reduction of Hazardous Substances initiative. As appropriate, specific Cannon, VEAM, and BIW Connector Systems products may be ordered with an R prefix number which insures our customers will receive RoHS compliant parts for their commercial electronics applications and equipment. Since most RoHS hazardous substances center around specific metal plating and lead solder coatings, ITT's products for RoHS compliance are available in the following plating finishes: electroless nickel, stainless steel, anodize over aluminum and gold plating. It should be noted that gold plating would be recommended as the replacement for tin-lead solder when ordering board mount connectors.



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While the information in this publication is believed to be accurate and reliable, all data presented is subject to change without notice. VEAM disclaims responsibility for any damages resulting from application or any incompleteness or inaccuracies presented. Consult factory for specific information on the latest design specifications.

Interconnect Solutions for Transportation

Offering the broadest selection of transportation interconnect solutions, ITT is the one stop source for design, development, manufacturing, and testing.

ITT offers Cannon, VEAM, and BIW Connector Systems product lines designed specifically for transit applications. These product lines come in a large style of shell sizes and contact arrangements to meet the most demanding applications, both electrical and optical. Inserts to meet low smoke/zero halogen and RoHS requirements are also available. ITT provides complete harnessing solutions and junction boxes.

As the industry leader in harsh environment interconnect applications, ITT's world class engineering teams will work directly with our customers to design and develop cost effective solutions for their applications. In many cases we may modify one of our standard designs to ensure a reliable solution where timing is critical. Yet, in those cases where a complete custom interconnect solution is required, ITT will work with our customer's Engineers to design an interconnect solution which will be cost effective yet highly reliable.



VEAM VBN

Circular connectors with rigid insert according to NF F 61030 regulations. Field configurable, allows easy and quick harnessing. Suitable both for signal and power.



VEAM CIR High Temperature Connector

The new European standards series CEN/TS 45545 for fire rail safety regulations requires a connector able to withstand for 15 minutes when exposed to the ISO 834-1 heating curve (max Temperature 800°C). The VEAM CIR High Temp connector meets this standard.

Applications

- Critical control signals
- Fire resistant applications



Cannon CA Bayonet

VG/CA-Bayonet signal and power connectors provide superior performance in extreme environmental conditions. They offer exceptional sealing against the ingress of fluids and will withstand the effects of high vibration. In accordance to VG95234.

Applications

- Control panel connections
- Intervehicle applications
- Communications equipment
- CCTV equipment



VEAM CIR and FRCIR Standard

Multipurpose bayonet circular connectors. 1 up to 159 solder or crimp contacts. Both for signal and power. In accordance to VG95234.

Applications

- Control switchboard connections
- Control panel connections



VEAM FRMGCIR

Multipurpose bayonet circular connectors, completely covered with fire-resistant rubber.

Applications

- Power connections
- Signal connections
- Intervehicle applications



VEAM FRCIR-WCML Series

Multipole connector with group shielding contact for several cables. IP67, waterproof.

Applications

- Intervehicle connections
- Power and signal connections

VEAM FRCIR for databus and power

FRCIR for databus and power applications.

Applications

- Intervehicle applications
- Databus applications



VEAM FRCIR/VBN connector series with grounding system

Grounding system to ground the connector shell.

Applications

- Air conditioning
- Lighting
- Converters

Optical Products



Multi-channel Fiber Optic Connectors

Typical applications in automation and control systems.

Applications

- Intervehicle applications
- CCTV equipment
- Entertainment



VEAM PCB Optical Connections

PCB version optical connection system according to DIN41612 STYLE E, 16 channels. Active contacts are removable for quick and easy repair.

Applications

- Power conversion control panel

Rack and Panel



Cannon Trident Multiway

The Multiway range is an extremely reliable and robust series of rack and panel connectors. The design is based on the requirements of MIL-C-28748 and will accept any of the Trident signal or coax contacts. It is available in 6 arrangements ranging from 14 to 75 ways, together with a wide range of accessories and mounting hardware.

Applications

- Trackside signalling
- Test equipment



VEAM Rack and Panel connector

Push pull connector for power and signal applications. Typical applications in power conversion panels.

Applications

- Power conversion
- Power connections

Junction Boxes



Junction Box

Junction box with CIR Connectors.

Applications

- Controls
- Tilting systems
- CCTV equipment



Junction Boxes for Optical Connections

Applications

- Controls
- Tilting systems
- CCTV equipment

Signal Connectors



VEAM FRCIR M12

4 ethernet lines connector M12 type for harsh applications used in signal networks.

Applications

- Intervehicle connections
- Databus applications



VEAM FRCIR for MVB lines

FRCIR for MVB databus with shielding.

Applications

- Intervehicle connections
- Databus applications



VEAM FRCIR RJ45

FRCIR with 2 RJ45 connector for ethernet applications.

Applications

- Intervehicle connections
- Databus applications



VEAM D Sub WCML Series Backshell

Backshell to connect the shield in D Sub series.

Applications

- Internal signal lines
- Databus applications



Cannon Combo D Sub

Combo D, D*M connector series offers the advantages of an industry standard shield I/O interconnect, with the flexibility of a customized special, designed for any application.

Applications

- Control systems
- Trackside signalling
- Communications equipment



Hermetic Connector

High performance through-wall hermetic connector (vacuum: 6x10 x -3 bar Max. Ermeticity: <10 x-7 m bar l/sec. temperature range: -40°C +90° C)

Applications

- GTO Control
- Power Conversion

Power Connectors



VEAM FRCIR 290

Circular bayonet connector for both power and data connections. IP67, waterproof.

Applications

- Intervehicle power connections
- Motor supply



VEAM VPLABB Series

Single pole power connector up to 660A for traction applications.

Applications

- High current connections
- Power conversion

Introducing the most versatile multipin connector in the world...

The **VEAM CIR Series** is the most versatile electrical, optical and pneumatic multipin connector available today. Designed originally for the hostile environment of Transit applications, CIR has earned acceptance in Military, Commercial, Medical, Geophysical, Entertainment, Nuclear, Aerospace. Ground support and comparable areas requiring nearly non-destructible cable or wire terminations.

The electrical design parameters of CIR were based on MIL-DTL-5015. However, its unique positive lock, quick disconnect coupling surpasses the environmental requirements of this military specification. To enhance service life, CIR connectors feature stainless steel anti-wear rings at the critical point of the receptacle coupling ramps. The CIR design has been adopted by NATO as the "standard connector for Ground Fighting Vehicles" and is used extensively in U.S. and European military programs: Based on standard VG 95234.

COAXIAL CIR

Coaxial contacts for CIR arrangements accept most popular RG cables.

FIBEROPTIC CIR

CIR connectors are available with single or multiple fiber termini.

FUEL RESISTANT CIR

CIR inserts/grommets can be molded in Fluoroelastomer (Viton*) for superior resistance to fuel oils, solvents and elevated temperatures.

HERMETIC CIR

CIR connectors can be supplied with glass to metal seals in lieu of elastomeric inserts. A wide choice of wire terminations are available.

HIGH VOLTAGE

High Voltage CIR connectors are available. For voltage ratings consult factory.

TWINAXIAL, TRIAXIAL CIR

Size 4 or 8 contact cavities will accept these versatile contacts.

RFI/EMI CIR

Unique grounding fingers on plug connectors provide superior plug to receptacle (360°) shield integrity.

THERMOCOUPLE CIR

CIR connectors are available with various thermocouple material contacts including; chromel, alumel, copper, constantan and iron.

PNEUMATIC CIR

Various insert arrangements with size 4, 8, or 12 cavities will accept pneumatic contacts to pass liquid or air - at pressures up to 110 PSI. Flow valves available.

FILTERED CIR

Available with Tubular or Planar filter networks.

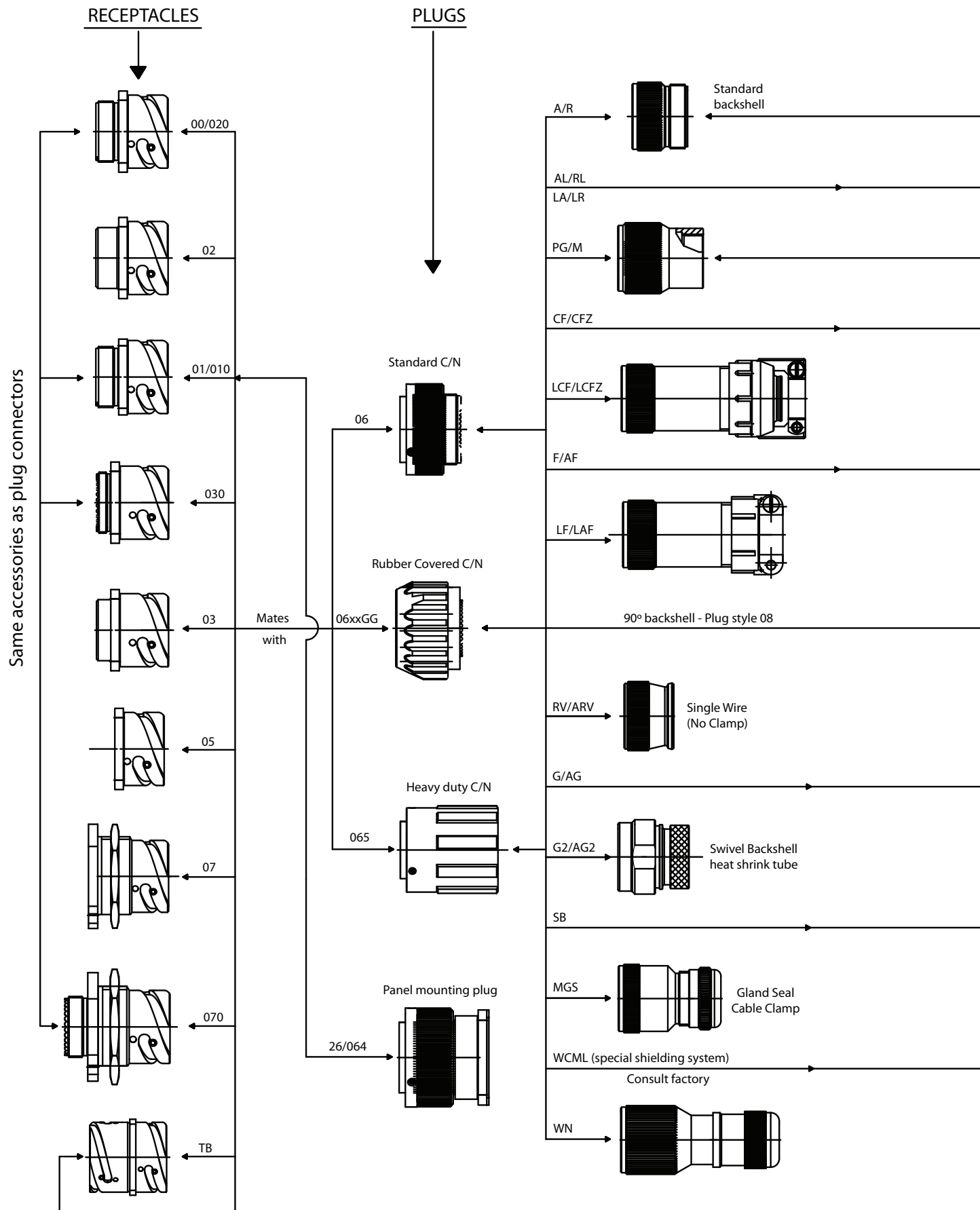
*Trademark-DuPont

1. Quick coupling and uncoupling 120° coupling nut rotation.
2. High shock **50 g's** and vibration resistance **20 g's** - Lockwires not required.
3. No coupling threads to gall or bind due to wear or contamination
4. Audible, Visual, and Tactile indication of full coupling.
5. **Waterproof to 10 meters** (33 ft.)
12 Hours (14.7 PSI)
6. **2,000 couplings min.**
7. Elastomer temperature ranges:
 - 55° C. to + 125° C. Neoprene
 - 55° C. to + 200° C. Silicone
 - 25° C. to + 200° C. Viton*
 - 40° C. to + 125° C. FR (flame retardant)

General Specifications

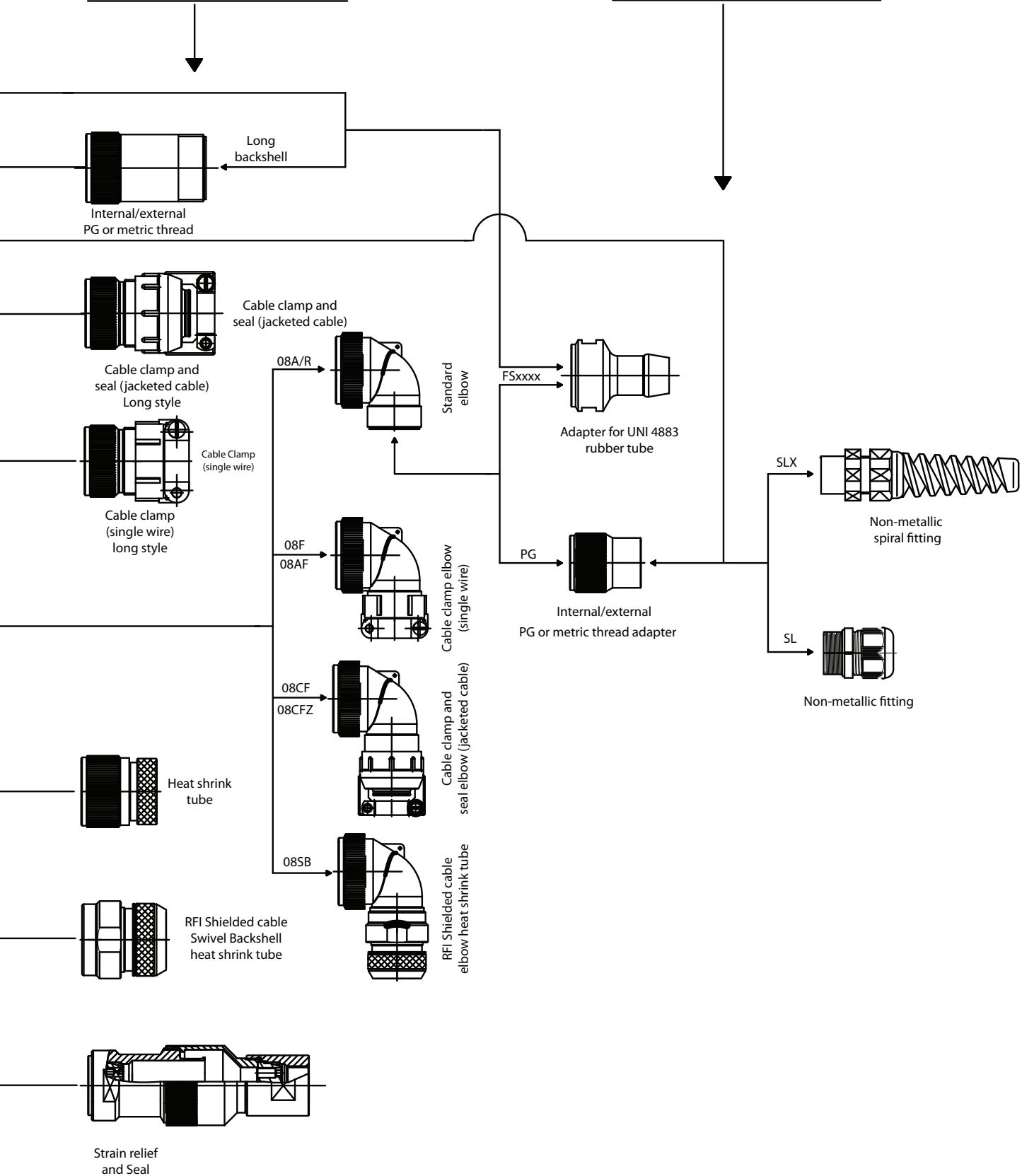
Shell	Material: Aluminum alloy. Options include stainless steel, bronze and plastic composite.
	Finish: Hard Black Anodize (T89), Non-cadmium (Green-T100), (Black-T108) Electroless Nickel (T29), Cadmium-olive drab (T3), Epoxyurethane Varnish (T39).
	For other materials and finishes, consult our Customer Service Department.
Insert	Material: Polychloroprene (Neoprene). Options include silicone, fluorocarbon (Viton*) and FR (Flame Retardant) rubber.
Contacts	Material: Copper alloy or thermocouple alloys.
	Finish: Silver (T9), gold (standard - T12, heavy -T112) and Rhodium plating.
<p>VEAM CIR Series Connectors are produced in accordance with NATO Standard VG95234, which is based on MIL-DTL-5015 for physical size, layout and environmental requirements.</p>	
<p>* <i>Trademark-Dupont</i></p>	

Note: CIR connectors are available with cadmium free and lead free materials.



BACKSHELL AND ACCESSORIES

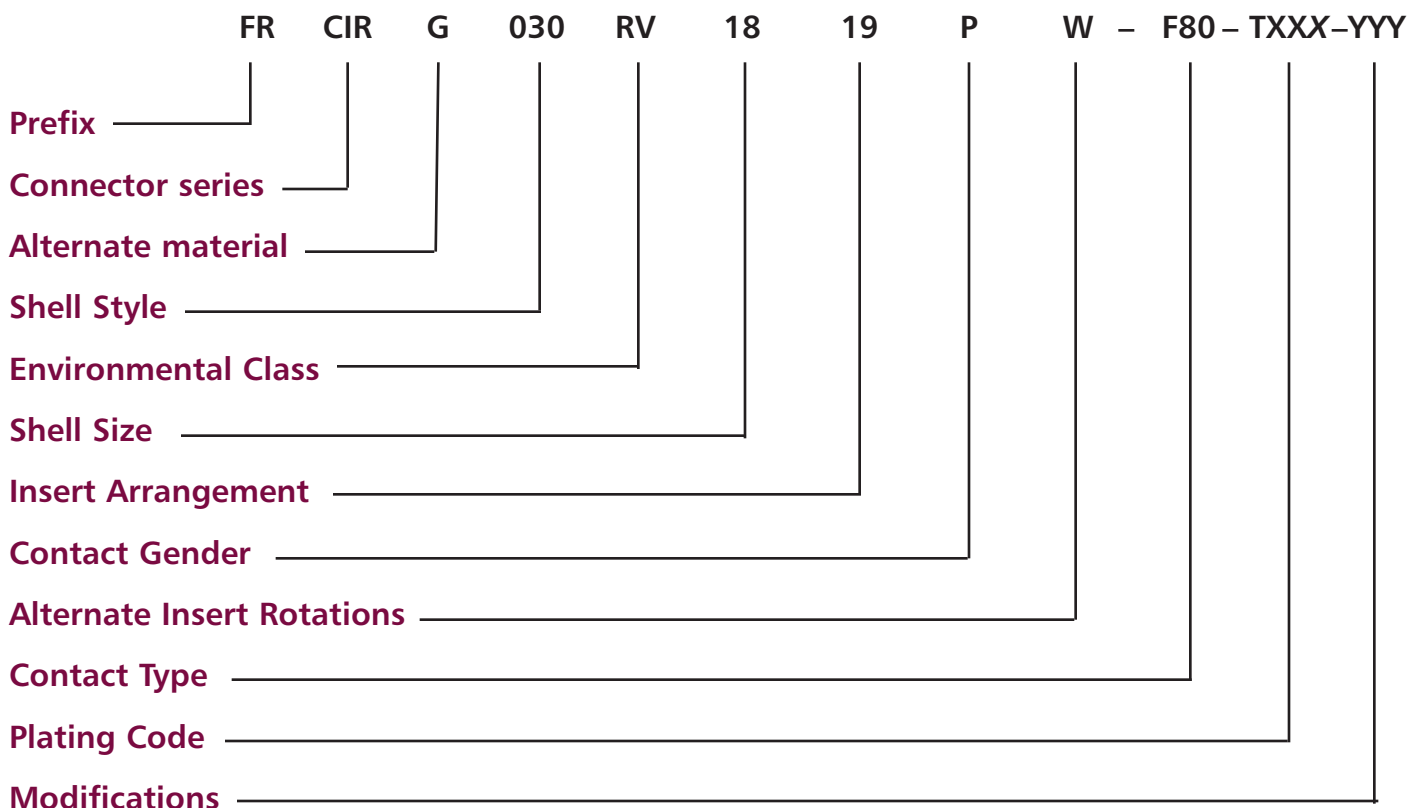
ADAPTERS AND CABLE CLAMPS



Specifications and dimensions subject to change
 Dimensions shown in mm.

www.ittcannon.com

Standard Part Number Generation - Line Configurator



PREFIX

FR.....Flame retardant materials

CONNECTOR SERIES

CIR....Bayonet coupling

ALTERNATE MATERIAL

G.....Plug with RFI grounding

V.....Fluoroelastomers

P..... Plastic connector shells

SP.... Plastic receptacle shell without ramp rings

SHELL STYLE

01/010.....In-line receptacle-Round flange with flats

020/00.....Front panel mount receptacle, rear thread

02.....Front panel mount receptacle, no rear thread

03.....Rear panel mount receptacle, no rear thread

030.....Rear panel mount receptacle, rear thread

038.....Rear/Front mount receptacle with 90° backshells

05.....Dummy receptacle

07.....Single hole mount jamnut receptacle, no rear thread

070.....Single hole mount jamnut receptacle, rear thread

078.....Single hole mount jamnut receptacle with 90° backshells

TB.....Thru-bulkhead receptacle

06.....Straight plug connector

065.....Straight plug connector with heavy duty coupling nut

26/064PP....Panel plug

08.....90 degree plug connector

ENVIRONMENTAL CLASS

Different classes are based on the type of backshell, sealing capability and accessories. Refer to pages 53 - 63.

SHELL SIZE

10SL, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36, 40

INSERT ARRANGEMENT

Defined by the quantity and size of the contacts.

For the layouts refer to pages 37-50

For the service rating and other electrical data refer to page 12

CONTACT GENDER

P..... Male contacts

S..... Female contacts

PS.....Thru-bulkhead contacts (female-male)

PP - Thru-bulkhead contacts (male-male)

ALTERNATE INSERT POSITION

W, X, Y, Z, Q - Refer to page 23

CONTACT TYPE

F80.....Crimp for AWG wire (used in F80 insert)

CR.....Crimp for metric wire (used in metric insert)

CR1.....Crimp for AWG wire (used in metric insert)

PC.....Pneumatic contacts

VO.....Contacts not supplied

NO SUFFIX.....Solder (standard class)

PLATING CODE OF SHELLS

T29.....Electroless Nickel

T39.....Black epoxyurhethanic varnish

T89.....Black hard anodize

T100.....Zinc/cobalt Ecogreen

T108.....Zinc/cobalt Ecoblack

Other plating available. Please consult the factory.

MODIFICATIONS

VO.....Supplied less contacts

Consult factory

Connector and Contact Ratings

Insert Arrangement Service Rating

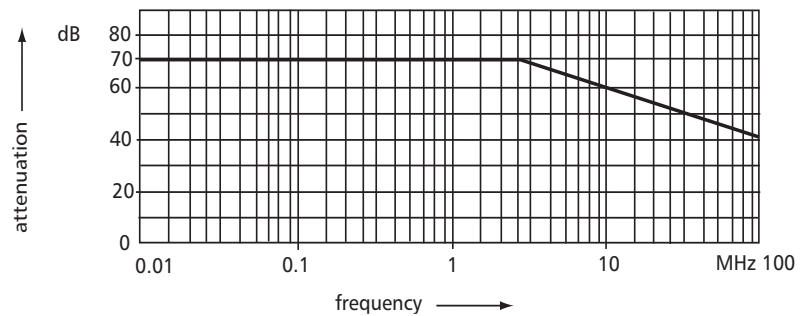
Service Rating	Operating Voltage DC (at sea level)	Operating Voltage AC (at sea level)
I	250 V	200 V
A	700 V	500 V
D	1250 V	900 V
E	1750 V	1250 V
B	2450 V	1750 V
C	4200 V	3000 V

Dielectric Strength (Standard at Sea Level Conditions)

Service Rating	Minimum Flashover ac rms	Test Voltage ac rms *
I	1.400 V	1.000 V
A	2.800 V	2.000 V
D	3.600 V	2.800 V
E	4.500 V	3.500 V
B	5.700 V	4.500 V
C	8.500 V	7.000 V

* According to MIL-DTL-5015 the connectors do not show any signs of breakdown when the test voltage indicated in the table is applied for one minute between the two closest contacts and between the shell and any of the contacts to the shells

Shielding Characteristics

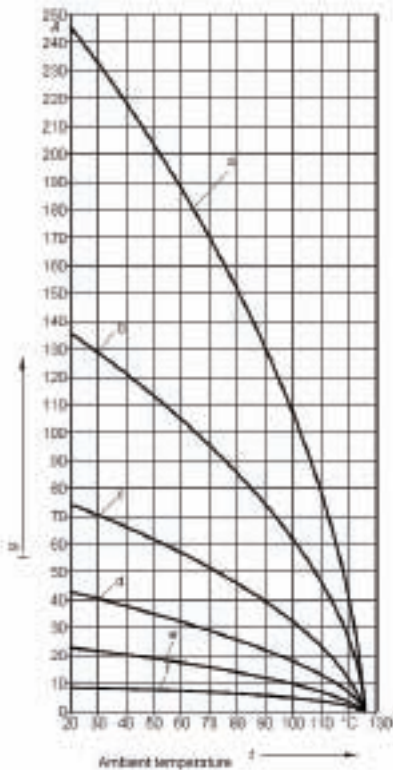


Contact Rating

Contact Size		Maximum Current	Rated and Test Current	Potential Drop Millivolts Maximum
F80-CR1	CR	•		*
20	10	7.5 A	7.5 A	83 mV
18	-	10 A	7.5 A	83 mV
16-16S	15-15S	22 A	13 A	74 mV
12	25	41 A	23 A	63 mV
8	60-100	73 A	46 A	65 mV
4	160	135 A	80 A	58 mV
0	500	245 A	150 A	53 mV
4/0		350 A	225 A	53 mV

• Applicable for short time

* According to MIL-C-39029 D. Test with nickel-plated wire.



Recommended Current According to the Temperature

- 0 Contact size 0
- 4 Contact size 4
- 8 Contact size 8
- 12 Contact size 12
- 16S; 16 Contact size 16S; 16
- 20 Contact size 20
- * Rated current with one contact loaded in a contact arrangement

Backshell / Clamp Torque Forces

Recommended Torque Forces Connector Backshells/Clamps			
Size	In. lb Min/Max	Size	In. lb Min/Max
10SL	26/31	22	87/104
14S	44/49	24	96/130
16	57/66	28	121/165
16S	57/66	32	130/182
18	61/69	36	165/235
20	69/87	40	182/347

Contact Disengaging Force Meets or Exceeds MIL-C-39029

Contact Size F80	Ounces	Newtons
18-20	.7	.19
16-16S	2.0	.56
12	3.0	.83
8	5.0	1.39
4	10.0	2.78
0	15.0	4.17
4/0*	15.0	4.17

*Not included in MIL-Spec

Contact Size		Min. Disengaging Force
CR	CR1 and F80	N (Newton)
10	20	0,3
15-15S	16-16S	1
25	12	1,5
60-100	8	3
160	4	4
500	0	8,5

Separating force per contact
The corresponding separating force has to be measured according to VG95319, part 2, test no. 5.7 using the required test gauge.

CIR Coupling - Torque Values per VG95234

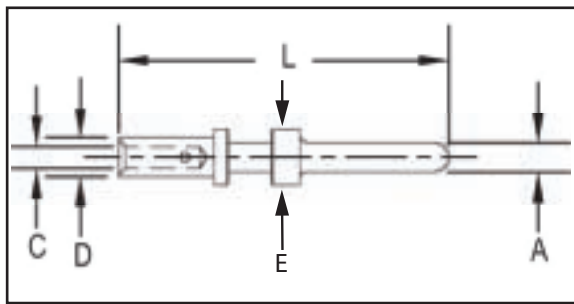
The allowable coupling torques have to be tested under full bundle conditions of the connectors to VG95319, part 2 test no. 5.8.2

Shell Size	Allowable coupling torque closing and opening Nm max.	Opening Nm min.
10SL	1,7	0,15
14S	3,6	0,35
16S	5,5	0,46
16	5,5	0,46
18	8	0,58
20	9	0,7
22	11	0,8
24	14	0,8
28	17	0,92
32	19	1,03
36	23	1,03
40 *	24	1,5

* Size 40 it is not required from VG 95234

Pin Contact Part Number	Socket Contact Part Number	Contact Size	Wire Size (AWG or mm ²)	Approximate Wire Diameter		Crimp Bucket I.D	
				mm	inch	mm	inch
46730-20P	46731	20	20-26	0.96-1.02	.038 -.040	1.3	.051
46740P	46740S	18	18-20	1.16-1.27	.046-.050	1.3	.051
46740-15P	46740-15S	18	20-22	0.76-1.02	.030-.040	1.2	.047
46740-22P	46740-22S	18	16	1.45-1.52	.057-.060	1.7	.067
27911	27961	16S	16-18	1.45-1.52	.057-.060	1.7	.067
27911-13	27961-13	16S	20-24	0.61-1.02	.024-.040	1.3	.051
27911-15	27961-15	16S	18-20	0.96-1.27	.038-.050	1.5	.059
27911-20	27961-20	16S	14-16	1.45-1.9	.057-.075	2.0	.079
27911-26	27961-26	16S	12-14	2.18	.086	2.5	.098
27913	27963	16	16-18	1.45-1.52	.057-.060	1.7	.067
27913-08	27963-08	16	24-26	0.61-0.63	.024-.025	0.85	.033
27913-12	27963-12	16	20-22	0.76-1.02	.030-.040	1.2	.047
27913-13	27963-13	16	20-24	0.61-1.02	.024-.040	1.3	.051
27913-15	27963-15	16	18-20	0.96-1.27	.038-.050	1.5	.059
27913-20	27963-20	16	14-16	1.45-1.9	.057-.075	2.0	.079
27913-26	27963-26	16	12-14	2.18	.086	2.5	.098
27914-8	27964-8	12	8	3.5-4.37	.138-.172	4.55	.179
27914-12	27964-12	12	20-22	0.76-1.02	.030-.040	1.2	.047
27914-20	27964-20	12	14-18	1.16-1.9	.046-.075	2.0	.079
27914-22	27964-22	12	2.5mm ²	1.78	.070	2.2	.087
27914-26	27964-26	12	12-14	2.18	.086	2.5	.098
27914-30	27964-30	12	4mm ²	2.26	.089	3.0	.118
27914-38	27964-38	12	10	3.2	.126	3.6	.142
27915	27935	8	8	3.5-4.37	.138-.172	4.55	.179
27915-20	27935-20	8	14-18	1.16-1.9	.046-.075	2.0	.079
27915-26	27935-26	8	12-14	2.18	.086	2.5	.098
27915-26-62	27935-26-62	8	12-14	2.18	.086	2.5	.098
27915-30	27935-30	8	4mm ²	2.26	.089	3.0	.118
27915-38	27935-38	8	10	3.2	.126	3.6	.142
27915-58	27935-58	8	6	4.83-5.41	.190-.213	5.8	.228

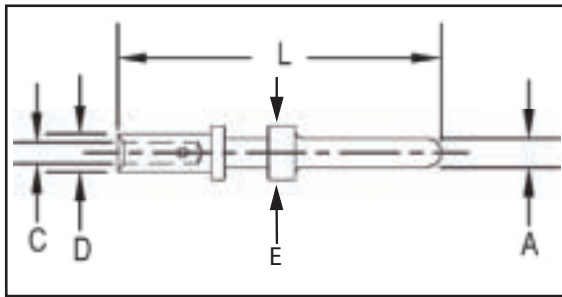
Pin Contact Part Number	Socket Contact Part Number	Contact Size	Wire Size (AWG or mm ²)	Approximate Wire Diameter		Crimp Bucket I.D	
				mm	inch	mm	inch
27916	27936	4	4	4.83-6.86	.190-.270	7.2	.283
27916-22	27936-22	4	2.5mm ²	1.78	.070	2.2	.087
27916-62	27936-62	4	16mm ²	5.76-6.02	.227-.237	6.2	.244
27917	27937	0	53mm ²	10.5-11	.413-.433	11.5	.453
27917V	27937V	0	0 (1/0)	10.5-11	.413-.433	11.5	.453
27917-45	27937-45	0	8	3.5-4.37	.138-.172	4.55	.179
27917-50	27937-50	0	10mm ²	4.16-4.86	.164-.191	5.0	.197
27917-62	27937-62	0	16mm ²	6-6.17	.236-.243	6.2	.244
27917-78	27937-78	0	25mm ²	7.48	.294	7.8	.307
27917-90	27937-90	0	35mm ²	8.76	.345	9.0	.354
27917-107	27937-107	0	50mm ²	10.57	.416	10.7	.421
46646-0	47647-0	0	4	6.6-6.86	.260-.270	7.2	.283
47107-90	47114-90	4/0	2	8.13-8.53	.320-.336	9.0	.354
47107-115	47114-115	4/0	1/0 (0)	10.5-11	.413-.433	11.5	.453
47107-135	47114-135	4/0	2/0	11.0-12.9	.433-.508	13.5	.531
47107-144	47114-144	4/0	70mm ²	12.48	.491	14.4	.567
47107-155	47114-155	4/0	95mm ²	14.6	.575	15.5	.610
47107-165	47114-165	4/0	4/0	14.7-15.0	.579-.591	16.5	.650



Male (Pin)

*When ordering add suffix: T9 for Silver • T12 for Gold - For other platings, consult our Customer Service Department.

VEAM Part Number*	Contact Size	Wire Size (AWG)	Wire Size mm ²	A		C		D		E		L	
				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
46730-20P	20	20-26	0,15 / 0,6	1.0	.04	1.3	.05	1.93	.07	2.0	.08	27.0	1.06
46730-20P-1	20S	20-26	0,15 / 0,6	1.0	.04	1.3	.05	1.93	.07	2.0	.08	22.8	.9
46740P	18	18	0,15 / 0,6	1.42	.05	1.3	.05	1.93	.07	2.2	.086	29.6	1.17
46740-15P	18	20-22	0,3 / 0,6	1.42	.05	1.2	.05	1.93	.07	2.2	.086	29.6	1.17
46740-22P	18	16-18	1 / 1,5	1.42	.05	1.7	.07	2.6	.10	2.6	.10	31.75	1.25
27911	16S	16-18	1 / 1,5	1.58	.06	1.7	.07	2.6	.10	3.2	.13	26.6	1.05
27911-12	16S	-	0,15 / 0,75	1.58	.06	1.2	.05	2.6	.10	3.2	.13	26.6	1.05
27911-13	16S	20-26	0,15 / 0,6	1.58	.06	1.3	.05	1.93	.07	3.2	.13	26.6	1.05
27911-15	16S	18	1	1.58	.06	1.5	.06	2.6	.10	3.2	.13	26.6	1.05
27911-20	16S	14-16	2	1.58	.06	2.0	.08	2.9	.11	3.2	.13	26.6	1.05
27911-22	16S	-	2,5	1.58	.06	2.2	.09	3.8	.15	3.2	.13	26.6	1.05
27911-26	16S	12-14	3	1.58	.06	2.5	.10	3.8	.15	3.2	.13	26.6	1.05
27913	16	16-18	1 / 1,5	1.58	.06	1.7	.07	2.6	.10	3.2	.13	31.75	1.25
27913-08	16	24-26	0,15 / 0,2	1.58	.06	.85	.03	1.55	.06	3.2	.13	31.75	1.25
27913-12	16	—	0,15 / 0,75	1.58	.06	1.2	.05	2.6	.10	3.2	.13	31.75	1.25
27913-13	16	20-26	0,15 / 0,6	1.58	.06	1.3	.05	1.93	.07	3.2	.13	31.75	1.25
27913-15	16	18	1	1.58	.06	1.5	.06	2.6	.10	3.2	.13	31.75	1.25
27913-20	16	14-16	2	1.58	.06	2.0	.08	2.9	.11	3.2	.13	31.75	1.25
27913-22	16	-	2,5	1.58	.06	2.2	.09	3.8	.15	3.2	.13	31.75	1.25
27913-26	16	12-14	3	1.58	.06	2.5	.10	3.8	.15	3.2	.13	31.75	1.25
27913-32	16	28-32	0,03 / 0,08	1.58	.06	0.45	.018	1.95	.07	3.2	.13	31.75	1.25
27914-8	12	8	9	2.38	.09	4.55	.18	6.8	.27	4.8	.19	42.5	1.67
27914-12	12	—	0,15 / 0,75	2.38	.09	1.2	.05	2.6	.10	4.8	.19	37.5	1.48

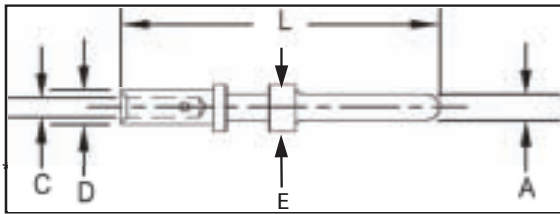


Male (Pin)

* When ordering add suffix: T9 for Silver • T12 for Gold - For other platings, consult our Customer Service Department.

VEAM Part Number*	Contact Size	Wire Size (AWG)	Wire Size mm ²	A		C		D		E		L	
				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
27914-20	12	14-18	1 / 2	2.38	.09	2.0	.08	3.8	.15	4.8	.19	37.5	1.48
27914-22	12		2,5	2.38	.09	2.2	.09	3.8	.15	4.8	.19	37.5	1.48
27914-26	12	12-14	3	2.38	.09	2.5	.10	3.8	.15	4.8	.19	37.5	1.48
27914-30	12	—	4	2.38	.09	3.0	.12	4.8	.19	4.8	.19	37.5	1.48
27914-30M	12	—	4	2.38	.09	3.3	.13	4.2	.165	4.8	.19	37.5	1.48
27914-38	12	—	5	2.38	.09	3.6	.14	4.8	.19	4.8	.19	37.5	1.48
27915	8	—	9	3.6	.14	4.5	.18	6.8	.27	7.8	.31	40.7	1.60
27915-20	8	14-18	1 / 2	3.6	.14	2.0	.08	3.8	.15	7.8	.31	40.7	1.60
27915-26	8	12	3	3.6	.14	2.5	.10	3.8	.15	7.8	.31	40.7	1.60
27915-26-62	8	12-14	2 / 3	3.6	.14	2.5	.10	6.2	.24	7.8	.31	40.7	1.60
27915-30	8	—	4	3.6	.14	3.0	.12	4.8	.19	7.8	.31	40.7	1.60
27915-38	8	—	6	3.6	.14	3.6	.14	4.8	.19	7.8	.31	40.7	1.60
27915-50	8	—	10	3.6	.14	5.0	.19	7.0	.28	7.8	.31	40.7	1.60
27915-58	8	6	13,2	3.6	.14	5.8	.23	7.8	.31	7.8	.31	40.7	1.60
27916	4	4	21	5.7	.22	7.2	.28	9.5	.37	11.0	.43	41.25	1.62
27916-22	4	—	2,5	5.7	.22	2.2	.09	3.8	.15	11.0	.43	41.25	1.62
27916-26	4	12	3	5.7	.22	2.5	.10	3.8	.15	11.0	.43	41.25	1.62
27916-30	4	—	4	5.7	.22	3.0	.12	4.8	.19	11.0	.43	41.25	1.62
27916-38	4	—	6	5.7	.22	3.6	.14	4.8	.19	11.0	.43	44.25	1.74
27916-50	4	—	10	5.7	.22	5.0	.19	7.0	.28	11.0	.43	41.25	1.62
27916-62	4	—	16	5.7	.22	6.2	.24	9.5	.37	11.0	.43	41.25	1.62
27916-78	4	—	25	5.7	.22	7.8	.31	9.5	.37	11.0	.43	41.25	1.62
27916-90	4	—	35	5.7	.22	9.0	.35	12.0	.47	11.0	.43	47	1.85
27917V	0	1/0 (0)	53	9.06	.36	11.5	.45	14.4	.56	15.0	.59	46.5	1.83

Specifications and dimensions subject to change
Dimensions shown in mm.



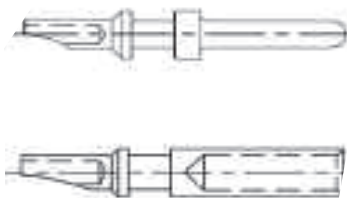
Male (Pin)

*When ordering add suffix: T9 for Silver • T12 for Gold - For other platings, consult our Customer Service Department.

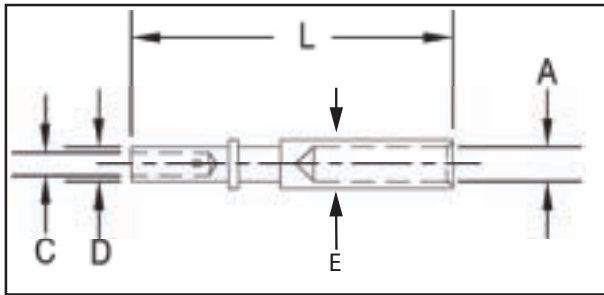
VEAM Part Number*	Contact Size	Wire Size (AWG)	Wire Size mm ²	A		C		D		E		L	
				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
27917	0	0	53	9.06	.36	11.5	.45	14.4	.56	15.0	.59	44.5	1.75
27917-45	0	8	9	9.06	.36	4.5	.18	6.8	.27	15.0	.59	44.5	1.75
27917-50	0	-	10	9.06	.36	5.0	.19	7.0	.28	15.0	.59	44.5	1.75
27917-62	0	-	16	9.06	.36	6.2	.24	9.5	.37	15.0	.59	44.5	1.75
27917-78	0	-	25	9.06	.36	7.8	.31	9.5	.37	15.0	.59	44.5	1.75
27917-90	0	-	35	9.06	.36	9.0	.35	14.4	.56	15.0	.59	44.5	1.75
27917-107	0	-	50	9.06	.36	10.7	.42	14.4	.56	15.0	.59	44.5	1.75
46646-0	0	4	21	9.06	.36	7.2	.28	9.5	.37	15.0	.59	47.5	1.87
47107-78	4/0	-	25	12.7	.50	7.8	.31	9.5	.37	20.0	.79	58.0	2.28
47107-90*	4/0	2	33,5	12.7	.50	9.0	.35	14.4	.56	20.0	.79	58.0	2.28
47107-107	4/0	-	50	12.7	.50	10.7	.42	14.4	.56	20.0	.71	56.3	7.22
47107-115	4/0	1/0 (0)	53	12.7	.50	11.5	.45	14.4	.56	20.0	.79	56.3	2.22
47107-135	4/0	2/0	67,4	12.7	.50	13.5	.53	16.5	.65	20.0	.79	58.0	2.28
47107-144*	4/0	-	70	12.7	.50	14.4	.57	20.0	.79	20.0	.79	63.0	2.48
47107-155	4/0	-	95	12.7	.50	15.5	.61	20.0	.79	20.0	.79	63.0	2.48
47107-165	4/0	4/0	107	12.7	.50	16.5	.65	20.0	.79	20.0	.79	63.0	2.48
47107-180	4/0	-	120	12.7	.50	18	.71	23.0	.91	20.0	.79	62.5	2.46

*Contact Customer Service Department if used with inserts 32A-1 or 36A-1.

Contact Part Numbers - Solder



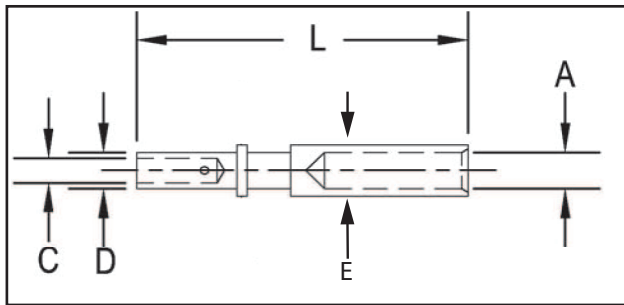
Contact Type	Wire Size Max	Solder	
		Male (Pin)	Female (Socket)
20	20	44242	44244
18	18	13342	13341
16S	16	27901	27951
16	16	27903	27953
12	12	27904	27954
8	8	27905	27925M
4	4	27906	27926
0	0 (1/0)	27907	27927



Female (Socket)

* When ordering add suffix: T9 for Silver • T12 for Gold - For other platings, consult our Customer Service Department.

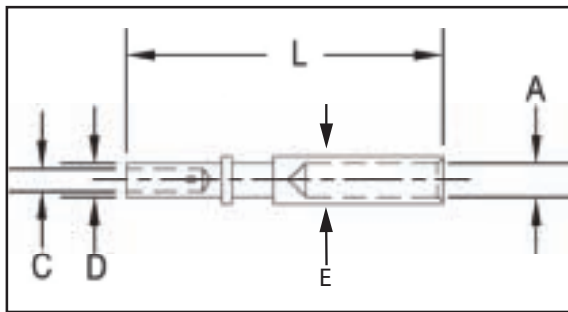
VEAM Part Number*	Contact Size	Wire Size (AWG)	Wire Size mm ²	A		C		D		E		L	
				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
46731	20	20-26	0,15 / 0,6	1.08	.04	1.3	.05	1.93	.07	2.4	.09	36.5	1.44
46731-1	20	20-26	0,15 / 0,6	1.08	.04	1.3	.05	1.93	.07	2.4	.09	26.3	1.03
46740S	18	20-26	0,15 / 0,6	1.46	.05	1.3	.05	1.93	.07	3.2	.13	34.4	1.35
46740-15S	18	20-22	0,3 / 0,6	1.46	.05	1.2	.05	1.93	.07	2.4	.09	34.4	1.35
46740-22S	18	16-18	1 / 1,5	1.46	.05	1.7	.07	2.6	.10	2.6	.10	36.5	1.44
27961	16S	16-18	1 / 1,5	1.65	.06	1.7	.07	2.6	.10	3.2	.13	26.6	1.05
27961-12	16S	—	0,5 / 0,75	1.65	.06	1.2	.05	2.6	.10	3.2	.13	26.6	1.05
27961-13	16S	20-26	0,15 / 0,6	1.65	.06	1.3	.05	1.93	.07	3.2	.13	26.6	1.05
27961-15	16S	18	1	1.65	.06	1.5	.06	2.6	.10	3.2	.13	26.6	1.05
27961-20	16S	14-16	2	1.65	.06	2.0	.08	2.9	.11	3.2	.13	26.6	1.05
27961-22	16S	—	2,5	1.65	.06	2.2	.09	3.8	.15	3.2	.13	26.6	1.05
27961-26	16S	12-14	3	1.65	.06	2.5	.10	3.8	.15	3.2	.13	26.6	1.05
27963	16	16-18	1 / 1,5	1.65	.06	1.7	.07	2.6	.10	3.2	.13	36.5	1.44
27963-08	16	24-26	0,15 / 0,2	1.65	.06	0.85	.03	1.55	.06	2.4	.09	36.5	1.44
27963-12	16	—	0,15 / 0,75	1.65	.06	1.2	.05	2.6	.10	3.2	.13	36.5	1.44
27963-13	16	20-26	0,15 / 0,6	1.65	.06	1.3	.05	1.93	.07	3.2	.13	36.5	1.44
27963-15	16	18	1	1.65	.06	1.5	.06	2.6	.10	3.2	.13	36.5	1.44
27963-20	16	14-16	2	1.65	.06	2.0	.08	2.9	.11	3.2	.13	36.5	1.44
27963-22	16	—	2,5	1.65	.06	2.2	.09	3.8	.15	3.2	.13	36.5	1.44
27963-26	16	12-14	3	1.65	.06	2.5	.10	3.8	.15	3.2	.13	36.5	1.44
27963-32	16	28-32	0,03 / 0,08	1.65	.06	0.45	.018	1.95	.07	3.2	.13	36.5	1.44
27964-8	12	8	9	2.48	.10	4.55	.18	6.8	.27	4.8	.19	42.5	1.67
27964-12	12	—	0,15 / 0,75	2.48	.10	1.2	.05	2.6	.10	4.8	.19	37.5	1.48



Female (Socket)

* When ordering add suffix: T9 for Silver • T12 for Gold - For other platings, consult our Customer Service Department.

VEAM Part Number*	Contact Size	Wire Size (AWG)	Wire Size mm ²	A		C		D		E		L	
				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
27964-20	12	14-16-18	1 / 2	2.48	.10	2.0	.08	3.8	.15	4.8	.19	37.5	1.48
27964-22	12	—	2,5	2.48	.10	2.2	.09	3.8	.15	4.8	.19	37.5	1.48
27964-26	12	12-14	3	2.48	.10	2.5	.10	3.8	.15	4.8	.19	37.5	1.48
27964-30	12	—	4	2.48	.10	3.0	.12	4.8	.19	4.8	.19	37.5	1.48
27964-30M	12	—	4	2.48	.10	3.3	.13	4.2	.165	4.8	.19	37.5	1.48
27964-38	12	—	6	2.48	.10	3.6	.14	4.8	.19	4.8	.19	37.5	1.48
27935	8	8	9	3.7	.15	4.5	.18	6.8	.27	7.8	.31	40.7	1.60
27935-20	8	14-18	1 / 2	3.7	.15	2.0	.08	3.8	.15	7.8	.31	40.7	1.60
27935-26	8	12-14	3	3.7	.15	2.5	.10	3.8	.15	7.8	.31	40.7	1.60
27935-26-62	8	12-14	2 / 3	3.7	.15	2.5	.10	6.2	.24	7.8	.31	40.7	1.60
27935-30	8	—	8	3.7	.15	3.0	.12	4.8	.19	7.8	.31	40.7	1.60
27935-38	8	—	6	3.7	.15	3.6	.14	4.8	.19	7.8	.31	40.7	1.60
27935-50	8	—	10	3.7	.15	5.0	.19	6.8	.27	7.8	.31	40.7	1.60
27935-58	8	6	13,2	3.7	.15	5.8	.23	7.8	.31	7.8	.31	40.7	1.60
27936	4	4	21	5.8	.23	7.2	.28	9.5	.37	11.0	.43	41.2	1.62
27936-22	4	—	2,5	5.8	.23	2.2	.09	3.8	.15	11.0	.43	41.2	1.62
27936-26	4	12	3	5.8	.23	2.5	.10	3.8	.15	11.0	.43	41.2	1.62
27936-30	4	—	4	5.8	.23	3.0	.12	4.8	.19	11.0	.43	41.2	1.62
27936-38	4	—	6	5.8	.23	3.6	.14	4.8	.19	11.0	.43	44.2	1.74
27936-50	4	—	10	5.8	.23	5.0	.19	7.0	.28	11.0	.43	41.2	1.62
27936-62	4	—	16	5.8	.23	6.2	.24	9.5	.37	11.0	.43	41.2	1.62
27936-78	4	—	25	5.8	.23	7.8	.31	9.5	.37	11.0	.43	41.2	1.62
27936-90	4	—	35	5.8	.23	9.0	.35	12.0	.47	11.0	.43	47.0	1.85



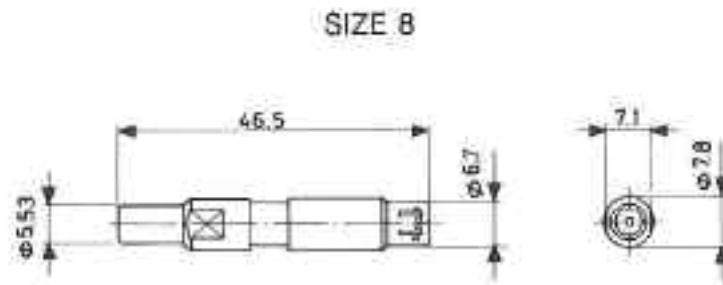
Female (Socket)

*When ordering add suffix: T9 for Silver • T12 for Gold - For other platings, consult our Customer Service Department.

VEAM Part Number*	Contact Size	Wire Size (AWG)	Wire Size mm ²	A		C		D		E		L	
				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
27937	0	0	53	9.17	.36	11.5	.45	14.4	.56	15.1	.59	44.5	1.75
27937V	0	1/0 (0)	53	9.17	.36	11.5	.45	14.4	.56	15.1	.59	46.5	1.83
27937-45	0	8	9	9.17	.36	4.5	.18	6.8	.27	15.1	.59	44.5	1.75
27937-50	0	—	10	9.17	.36	5.0	.19	7.0	.28	15.1	.59	44.5	1.75
27937-62	0	—	16	9.17	.36	6.2	.24	9.5	.37	15.1	.59	44.5	1.75
27937-78	0	—	25	9.17	.36	7.8	.31	9.5	.37	15.1	.59	44.5	1.75
27937-90	0	—	35	9.17	.36	9.0	.35	14.4	.56	15.1	.59	44.5	1.75
27937-107	0	—	50	9.17	.36	10.7	.42	14.4	.56	15.1	.59	44.5	1.75
47647-0	0	4	21	9.17	.36	7.2	.28	9.5	.37	15.1	.59	47.5	1.87
47114-78	4/0	—	25	12.7	.51	7.8	.31	9.5	.37	20.0	.79	60.9	2.40
47114-90	4/0	2	33,5	12.7	.51	9.0	.35	14.4	.56	20.0	.79	60.9	2.40
47114-115	4/0	1/0 (0)	53	12.7	.51	11.5	.45	14.4	.56	20.0	.79	59.2	2.32
47114-135	4/0	2/0	67,4	12.7	.51	13.5	.53	16.5	.65	20.0	.79	60.9	2.40
47114-144	4/0	—	70	12.7	.51	14.4	.57	20.0	.79	20.0	.79	65.9	2.59
47114-155	4/0	—	95	12.7	.51	15.5	.61	20.0	.79	20.0	.79	65.9	2.59
47114-165	4/0	4/0	107	12.7	.51	16.5	.65	20.0	.79	20.0	.79	65.9	2.59
47114-180	4/0	—	120	12.7	.51	18	.71	23.0	.91	20.0	.79	63.7	2.50

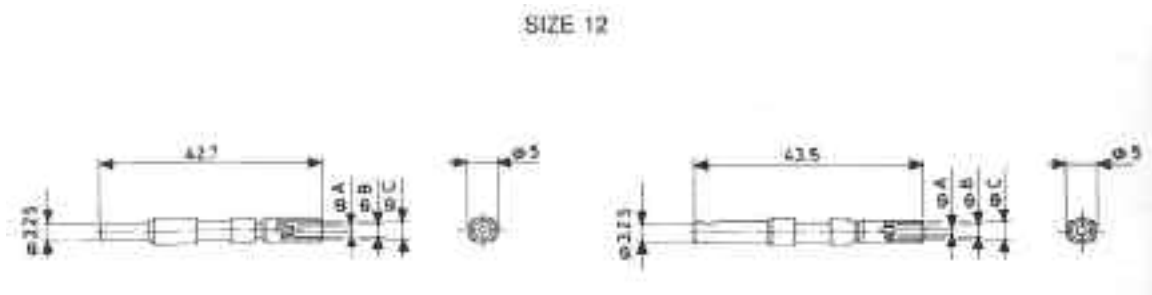
* Contact Customer Service Department if used with inserts 32A-1 or 36A-1.

Male - Female Coaxial Contact used with F80 Inserts



Male - female coaxial contacts can be used on the CIR-TB connectors with inserts having size "8" contact cavities. Inserts are F80 type. To be mated with all "C8" types that are independent from the cable used.
P/N - C8 - 142 PS.

Coaxial Contacts Used With F80 Inserts



Coaxial contact in the table below are used in Size "12" contact cavities of F80 inserts. For electrical characteristics please consult factory.

Contact Type	Used with Cable	Ø A	Ø B	Ø C
C12-178P	RG 178	0,6	1,9	2,5
C12-178S	RG 178	0,6	1,9	2,5
C12-188P	RG 188/ RG174	0,6	2,25	2,9
C12-188S	RG 188/RG 174	0,6	2,25	2,9

Note: please consult the "CIR Series Assembly Guide" for assembly instructions and accessories.