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 know 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.

Specifications and dimensions subject to change
Dimensions shown in mm.

ITT

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While the information in this publication is belived 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.

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

Specifications and dimensions subject to change
Dimensions shown in mm.

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

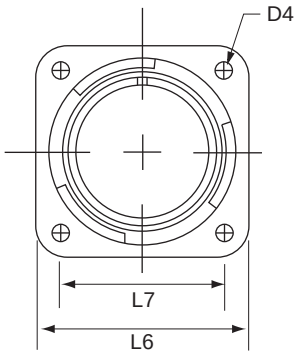
VEAM FRCIR for MVB lines

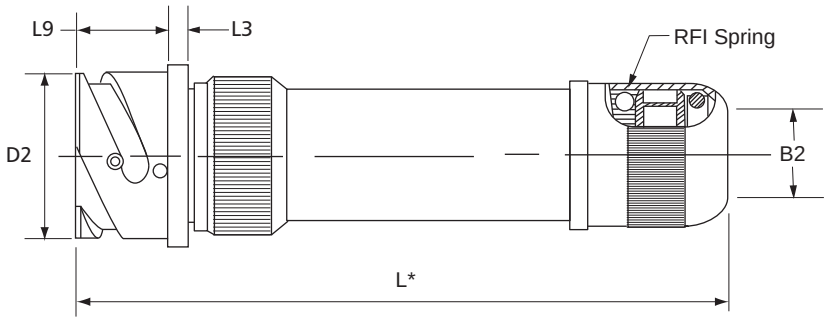
FRCIR for MVB databus with shielding.

Applications

- Intervehicle connections
- Databus applications

Receptacle with threaded mounting holes for terminating braided shield. Long WK backshell, grommet, and backnut assembly suitable for shield termination and strain relief on the jacket of the cable.





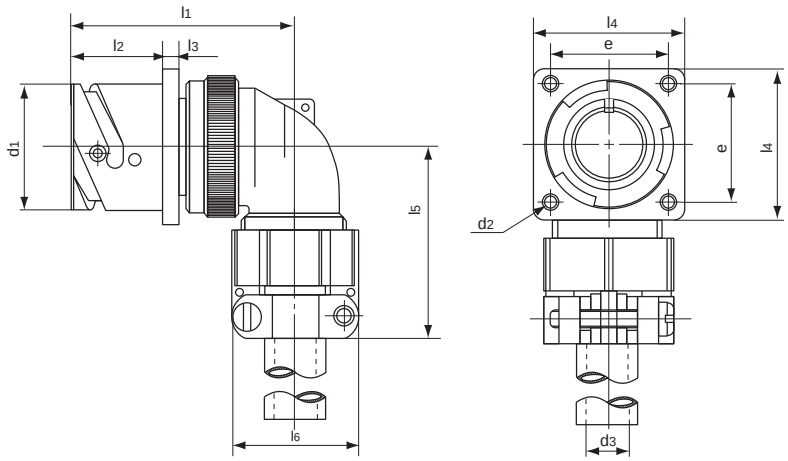
*Dimension "L" will vary from the values indicated with escalating or de-escalating backshells and some special insert configurations. Verify with our Customer Service Department.

Shell Size	D_2 Max.	D_4 +/- 0,1 .004	L_3 +/- 0,2 .008	L_6 +/- 0,3 .012	L_7 +/- 0,1 .004	L_9 + 0,4 .016	L Approx.
10SL	18,2	3,2	2,8	25,4	18,2	18,2	111
	.72	.126	.110	1.00	.717	.717	4.37
14S	24,6	3,2	3,2	30,0	23,0	18,2	112
	.97	.126	.126	1.181	.906	.717	4.41
16S	27,4	3,2	3,2	32,5	24,6	18,2	100
	1.08	.126	.126	1.280	.969	.717	3.94
16	27,4	3,2	3,2	32,5	24,6	23,1	110
	1.08	.126	.126	1.280	.969	.909	4.33
18	30,8	3,2	4,0	35,0	27,0	23,1	127
	1.21	.126	.157	1.378	1.063	.909	5.00
20	34,2	3,2	4,0	38,0	29,4	23,1	127
	1.35	.126	.157	1.496	1.157	.909	5.00
22	37,4	3,2	4,0	41,0	31,8	23,1	1.33
	1.47	.126	.157	1.614	1.252	.909	5.24
24	40,9	3,7	4,0	44,5	34,9	23,1	134
	1.61	.146	.157	1.752	1.374	.909	5.28
28	46,7	3,7	4,0	50,8	39,7	24,1	134
	1.84	.146	.157	2.000	1.563	.949	5.28
32	53,4	4,3	4,0	57,0	44,5	24,1	136
	2.10	.169	.157	2.244	1.752	.949	5.35
36	59,6	4,3	4,0	63,5	49,2	24,1	136
	2.35	.169	.157	2.500	1.937	.949	5.35
40	65.5	4,3	4,0	69,9	55,5	24,1	136
	2.58	.169	2.579	.157	2.752	2.185	.949

B2 Suffix in Connector Part No.	B2 Cable Range Min.	Max.
02	3,18	6,35
	.125	.250
03	3,99	9,53
	.157	.375
04	7,16	12,7
	.282	.500
05	10,34	15,8
	.407	.625
06	13,51	19,05
	.532	.750
07	16,69	22,23
	.657	.875
08	19,86	25,4
	.782	1.000
09	23,04	28,58
	.907	1.125
10	26,21	31,75
	1.032	1.250
11	29,39	34,93
	1.157	1.375
12	32,56	38,1
	1.282	1.500
17	50,80	53,99
	2.000	2.125

Dimensions are mm. over inches

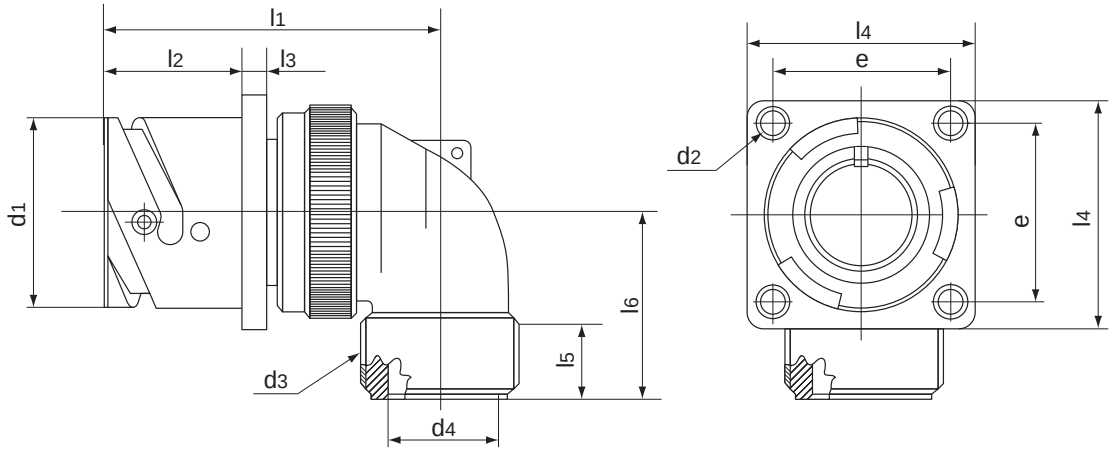
Receptacle with threaded mounting holes, 90° elbow and cable clamp with bushing. F type has an individual wire sealing grommet. For through mounting holes, see page 197.



Shell Size	d_1 +0 -0,15	d_2 —	d_3 * max.	e ±0,1	l_1 max.	l_2 +0,4 -0	l_3 ±0,2	l_4 ±0,3	l_5 max.	l_6 max.
10SL	18,2	M4	5,6	18,2	45	18,2	2,8	25,4	42	22,7
	0.72		0.22	0.72	1.77	0.72	0.11	1.00	1.65	0.89
14S	24,6	M4	7,9	23	47	18,2	3,2	30	42	27,5
	0.97		0.31	0.90	1.85	0.72	0.12	1.18	1.65	1.08
16S	27,4	M4	11	24,6	48	18,2	3,2	32,5	45	30
	1,08		0.43	0.97	1.89	0.72	0.12	1.28	1.77	1.18
16	27,4	M4	11	24,6	57	23,05	3,2	32,5	45	30
	1,08		0.43	0.97	2.24	0.91	0.12	1.28	1.77	1.18
18	30,8	M4	14,2	27	58	23,05	4	35	53	32,2
	1.21		0.56	1.06	2.28	0.91	0.16	1.38	2.09	1.27
20	34,2	M4	15,8	29,4	61	23,05	4	38	53	37,5
	1.35		0.62	1.16	2.40	0.91	0.16	1.50	2.09	1.48
22	37,4	M4	15,8	31,8	61	23,05	4	41	53	37,5
	1.47		0.62	1.25	2.40	0.91	0.16	1.61	2.09	1.48
24	40,9	M4	19	34,9	66	23,05	4	44,5	58	43,3
	1.61		0.75	1.37	2.60	0.91	0.16	1.75	2.28	1.70
28	46,7	M5	19	39,7	66	24,05	4	50,8	58	43,3
	1.84		0.75	1.56	2.60	0.95	0.16	2.00	2.28	1.70
32	53,4	M5	23,8	44,5	72	24,05	4	57	66	51,7
	2.10		0.94	1.75	2.83	0.95	0.16	2.24	2.60	2.03
36	59,6	M5	31,7	49,2	75	24,05	4	63,5	69	58
	2.35		1.25	1.94	2.95	0.95	0.16	2.50	2.72	2.28
40	65,5	M5	34,9	55,5	78	24,05	4	69,9	95	68.5
	2.58		1.37	2.18	3.07	0.95	0.16	2.75	3.74	2.70

* Max. permissible outside diameter of cable.
Dimensions are mm. over inches

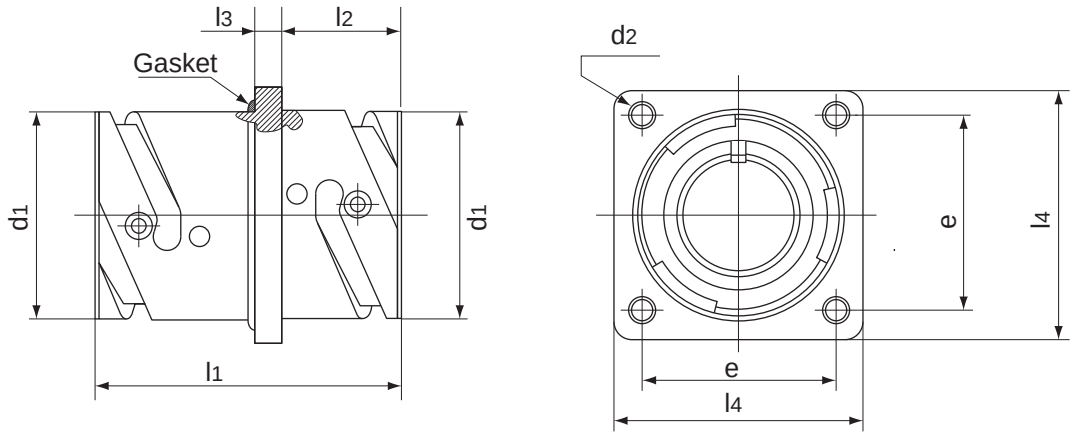
Receptacle with threaded mounting holes, 90° elbow and an individual wire sealing grommet. A type has no grommet. For through mounting holes, see page 197.



Shell Size	d_1 +0 -0,15	d_2 —	d_3 Thread in inches	d_4 +0,2 -0,1	e ±0,1	l_1 max.	l_2 +0,4 -0	l_3 ±0,2	l_4 ±0,3	l_5 min.	l_6 max.
10SL	18,2	M4	5/8-24 UNEF-2A	10,5	18,2	45	18,2	2,8	25,4	9,4	30
	0.72			0.41	0.72	1.77	0.72	0.11	1.00	0.37	1.18
14S	24,6	M4	3/4-20 UNEF-2A	11,5	23	47	18,2	3,2	30	9,4	30
	0.97			0.45	0.90	1.85	0.72	0.12	1.18	0.37	1.18
16S	27,4	M4	7/8-20 UNEF-2A	14,7	24,6	48	18,2	3,2	32,5	9,4	30
	1.08			0.58	0.97	1.89	0.72	0.12	1.28	0.37	1.18
16	27,4	M4	7/8-20 UNEF-2A	14,7	24,6	57	23,05	3,2	32,5	9,4	30
	1.08			0.58	0.97	2.24	0.91	0.12	1.28	0.37	1.18
18	30,8	M4	1"-20 UNEF-2A	17,2	27	58	23,05	4	35	9,54	35
	1.21			0.68	1.06	2.28	0.91	0.16	1.38	0.375	1.38
20	34,2	M4	1"3/16-18 UNEF-2A	20,35	29,4	61	23,05	4	38	9,4	35
	1.35			0.80	1.16	2.40	0.91	0.16	1.50	0.37	1.38
22	37,4	M4	1"3/16-18 UNEF-2A	23	31,8	61	23,05	4	41	9,4	35
	1.47			0.90	1.25	2.40	0.91	0.16	1.61	0.37	1.38
24	40,9	M4	1"7/16-18 UNEF-2A	25,8	34,9	66	23,05	4	44,5	9,5	40
	1.61			1.015	1.37	2.60	0.91	0.16	1.75	0.374	1.57
28	46,7	M5	1"7/16-18 UNEF-2A	25,7	39,7	66	24,05	4	50,8	9,5	40
	1.84			1.011	1.56	2.60	0.95	0.16	2.00	0.374	1.57
32	53,4	M5	1"3/4-18 UNS-2A	36,5	44,5	72	24,05	4	57	11	45
	2.10			1.44	1.75	2.83	0.95	0.16	2.24	0.43	1.77
36	59,6	M5	2"-18 UNS-2A	42,6	49,2	75	24,05	4	63,5	12,6	50
	2.35			1.68	1.94	2.95	0.95	0.16	2.50	0.50	1.97
40	65,5	M5	2"1/4-16 UN-2A	48,6	55,5	78	24,05	4	69,9	12,6	55
	2.58			1.91	2.18	3.07	0.95	0.16	2.75	0.50	2.16

Dimensions are mm. over inches

Thru-Bulkhead receptacle with threaded mounting holes. For through mounting holes, see page 197.

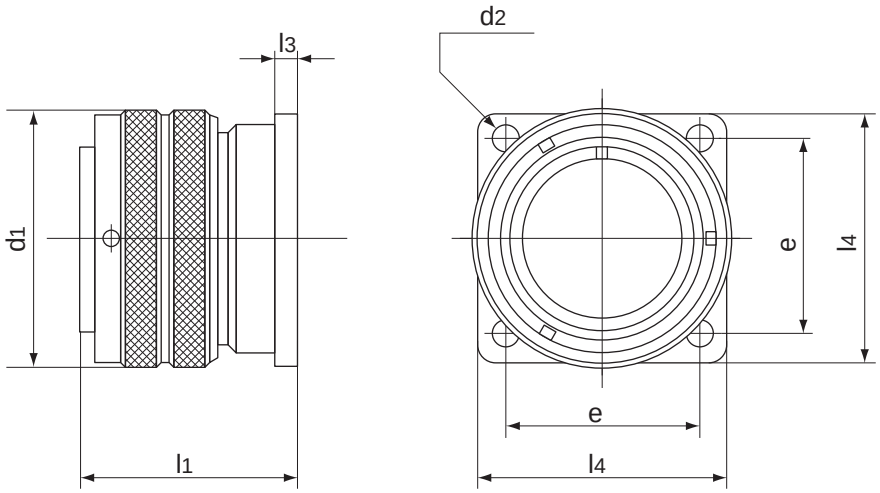


Shell Size	d_1 +0 -0,15	d_2 —	e ±0,1	l_1 ±0,7	l_2 +0,4 -0	l_3 ±0,2	l_4 ±0,3
10SL	18,2	M4	18,2	37,5	14,2	2,8	25,4
	0.72		0.72	1.48	0.56	0.11	1.00
14S	24,6	M4	23	37,5	14,2	3,2	30
	0.97		0.90	1.48	0.56	0.12	1.18
16S	27,4	M4	24,6	37,5	14,2	3,2	32,5
	1.08		0.97	1.48	0.56	0.12	1.28
16	27,4	M4	24,6	51,4	19	3,2	32,5
	1.08		0.97	2.02	0.75	0.12	1.28
18	30,8	M4	27	51,4	19	4	35
	1.21		1.06	2.02	0.75	0.16	1.38
20	34,2	M4	29,4	51,4	19	4	38
	1.35		1.16	2.02	0.75	0.16	1.50
22	37,4	M4	31,8	51,4	19	4	41
	1.47		1.25	2.02	0.75	0.16	1.61
24	40,9	M4	34,9	51,4	20,6	4	44,5
	1.61		1.37	2.02	0.81	0.16	1.75
28	46,7	M5	39,7	51,4	20,6	4	50,8
	1.84		1.56	2.02	0.81	0.16	2.00
32	53,4	M5	44,5	51,4	22,2	4	57
	2.10		1.75	2.02	0.87	0.16	2.24
36	59,6	M5	49,2	51,4	22,2	4	63,5
	2.35		1.94	2.02	0.87	0.16	2.50
40	65,5	M5	55,5	51,4	22,2	4	69,9
	2.58		2.18	2.02	0.87	0.16	2.75

Dimensions are mm. over inches

Panel mounting plug connector.

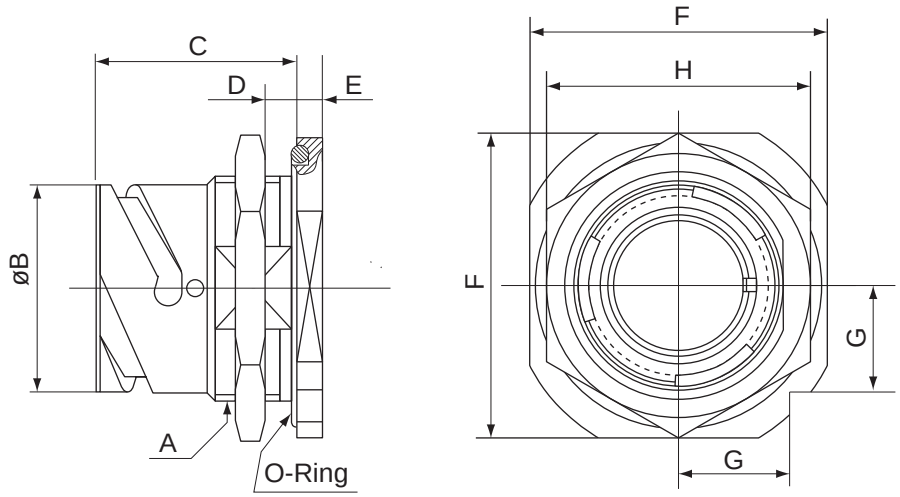
Order reference:
CIR26 - 36 - 10P - F80 (crimp)
CIR26 - 36 - 10P - (solder)



Shell Size	d_1 max.	d_2 H13	e ±0,1	l_1 ~	l_3 ±0,2	l_4 ±0,3
10SL	22,8	3,2	18,2	28,1	2,8	25,4
	0.90	0.12	0.72	1.11	0.11	1.00
14S	29,2	3,2	23	28,1	3,2	30,0
	1.15	0.12	0.90	1.11	0.12	1.18
16S	32	3,2	24,6	28,1	3,2	32,5
	1.26	0.12	0.97	1.11	0.12	1.28
16	32	3,2	24,6	37,6	3,2	32,5
	1.26	0.12	0.97	1.48	0.12	1.28
18	36,5	3,2	27	37,6	4,0	35,0
	1.44	0.12	1.06	1.48	0.16	1.38
20	39,9	3,2	29,4	38,6	4,0	38,0
	1.57	0.12	1.16	1.52	0.16	1.50
22	43,1	3,2	31,8	37,6	4,0	41,0
	1.70	0.12	1.25	1.48	0.16	1.61
24	46,6	3,7	34,9	41,0	4,0	44,5
	1.83	0.14	1.37	1.61	0.16	1.75
28	53,4	3,7	39,7	41,8	4,0	50,8
	2.10	0.14	1.56	1.64	0.16	2.00
32	60,1	4,3	44,5	45,0	4,0	57,0
	2.37	0.17	1.75	1.77	0.16	2.24
36	66,3	4,3	49,2	43,0	4,0	63,5
	2.61	0.17	1.94	1.69	0.16	2.50
40	72,5	4,3	55,5	45,0	4,0	69,9
	2.85	0.17	2.18	1.77	0.16	2.75

Dimensions are mm. over inches

Receptacle single hole mount without rear accessories. For panel mounting hole dimensions, see page 196.

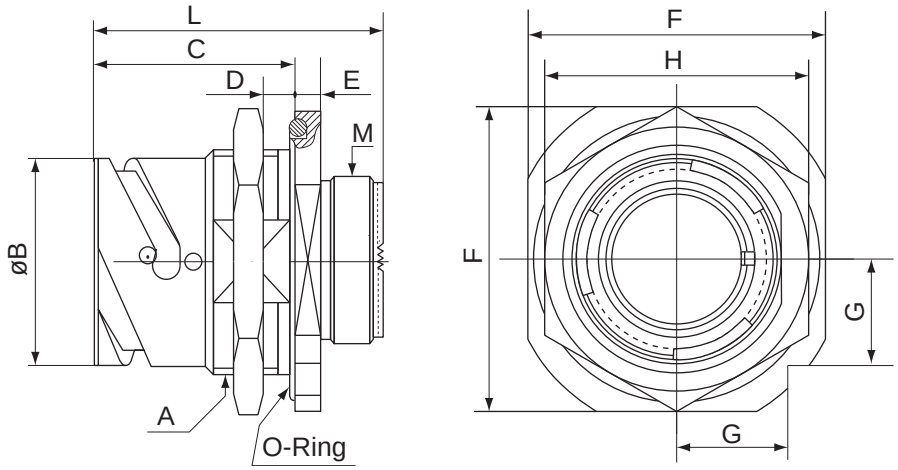


Shell Size	A Thread in inches	ø B +0 -0,15	C —	D Wall Thickness min.	D Wall Thickness max.	E ~	F ±0,25	G ~	H —
10SL	7/8-20 UNEF-2A	18,2	24,5	2,4	5,2	4	31,8	11,2	27
		0.72	0.96	0.09	0.20	0.16	1.25	0.44	1.06
14S	1"1/8-18 UNEF-2A	24,6	26,8	2,4	7,5	4,8	41,3	14,6	33
		0.97	1.05	0.09	0.29	1.89	1.62	0.57	1.30
*16S	1"1/4-18 UNEF-2A	27,4	26,8	2,4	7,5	4,8	44,4	15,7	38,1
		1.08	1.05	0.09	0.29	1.89	1.75	0.62	1.50
*16	1"1/4-18 UNEF-2A	27,4	32,1	2,4	7,5	4,8	44,4	15,7	38,1
		1.08	1.26	0.09	0.29	1.89	1.75	0.62	1.50
18	1"3/8-18 UNEF-2A	30,8	33,7	2,4	9	4,8	47,6	16,8	39,7
		1.21	1.33	0.09	0.35	1.89	1.87	0.66	1.56
20	1"1/2-18 UNEF-2A	34,2	33,7	2,4	9	4,8	50,8	18	44
		1.35	1.33	0.09	0.35	1.89	2.00	0.71	1.73
22	1"5/8-18 UNEF-2A	37,4	33,7	2,4	9,1	4,8	54,2	20,2	46
		1.47	1.33	0.09	0.36	1.89	2.13	0.79	1.81
24	1"3/4-18 UNS-2A	40,9	33,7	2,4	9,1	4,8	57,2	20,2	50,8
		1.61	1.33	0.09	0.36	1.89	2.25	0.79	2.00
28	2"-18 UNS-2A	46,7	35,2	2,4	8,5	5,6	63,5	22,5	55
		1.84	1.38	0.09	0.33	0.22	2.50	0.88	2.16
32	2"1/4-16 UN-2A	53,4	35,2	2,4	6,5	5,6	69,8	24,7	62
		2.10	1.38	0.09	0.25	0.22	2.75	0.97	2.44
36	2"1/2-16 UN-2A	59,6	35,2	2,4	8,3	5,6	76,2	26,9	71
		2.35	1.38	0.09	0.33	0.22	3.00	1.06	2.79
40	2"3/4-16 UN-2A	65,5	35,2	2,4	8,3	5,6	83,5	29,6	75
		2.58	1.38	0.09	0.33	0.22	3.29	1.16	2.95

* Consult Factory

Dimensions are mm. over inches

Receptacle single hole mount with threaded back end. Available only with crimp type contact. For panel mounting hole dimensions, see page 196.



Shell Size	A Thread in inches	ø B +0 -0,15	C —	D Wall Thickness min.	D Wall Thickness max.	E —	F ± 0,25	G —	H —	L ± 0,25	M Thread in inches
10SL	7/8-20 UNEF-2A	18,2	24,5	2,4	5,2	4	31,8	11,2	27	36,2	5/8-24 UNEF-2A
		0.72	0.96	0.09	0.20	0.16	1.25	0.44	1.06	1.42	
14S	1"1/8-18 UNEF-2A	24,6	26,8	2,4	7,5	4,8	41,3	14,6	33	38,9	3/4-20 UNEF-2A
		0.97	1.05	0.09	0.29	1.89	1.62	0.57	1.30	1.53	
*16S	1"1/4-18 UNEF-2A	27,4	26,8	2,4	7,5	4,8	44,4	15,7	38,1	38,9	7/8-20 UNEF-2A
		1.08	1.05	0.09	0.29	1.89	1.75	0.62	1.50	1.53	
*16	1"1/4-18 UNEF-2A	27,4	32,1	2,4	7,5	4,8	44,4	15,7	38,1	48,5	7/8-20 UNEF-2A
		1.08	1.26	0.09	0.29	1.89	1.75	0.62	1.50	1.91	
18	1"3/8-18 UNEF-2A	30,8	33,7	2,4	9	4,8	47,6	16,8	39,7	49,3	1"-20 UNEF-2A
		1.21	1.33	0.09	0.35	1.89	1.87	0.66	1.56	1.94	
20	1"1/2-18 UNEF-2A	34,2	33,7	2,4	9	4,8	50,8	18	44	49,3	1"1/8-18 UNEF-2A
		1.35	1.33	0.09	0.35	1.89	2.00	0.71	1.73	1.94	
22	1"5/8-18 UNEF-2A	37,4	33,7	2,4	9,1	4,8	54,2	20,2	46	49,3	1"1/4-18 UNEF-2A
		1.47	1.33	0.09	0.36	1.89	2.13	0.79	1.81	1.94	
24	1"3/4-18 UNS-2A	40,9	33,7	2,4	9,1	4,8	57,2	20,2	50,8	49,3	1"3/8-18 UNEF-2A
		1.61	1.33	0.09	0.36	1.89	2.25	0.79	2.00	1.94	
28	2"-18 UNS-2A	46,7	35,2	2,4	8,5	5,6	63,5	22,5	55	51,9	1"5/8-18 UNEF-2A
		1.84	1.38	0.09	0.33	0.22	2.50	0.88	2.16	2.04	
32	2"1/4-16 UN-2A	53,4	35,2	2,4	6,5	5,6	69,8	24,7	62	51,9	1"7/8-16 UN-2A
		2.10	1.38	0.09	0.25	0.22	2.75	0.97	2.44	2.04	
36	2"1/2-16 UN-2A	59,6	35,2	2,4	8,3	5,6	76,2	26,9	71	51,9	2"1/16-16 UN-2A
		2.35	1.38	0.09	0.33	0.22	3.00	1.06	2.79	2.04	
40	2"3/4-16 UN-2A	65,5	35,2	2,4	8,3	5,6	83,5	29,6	75	51,9	2"5/16-16 UN-2A
		2.58	1.38	0.09	0.33	0.22	3.29	1.16	2.95	2.04	

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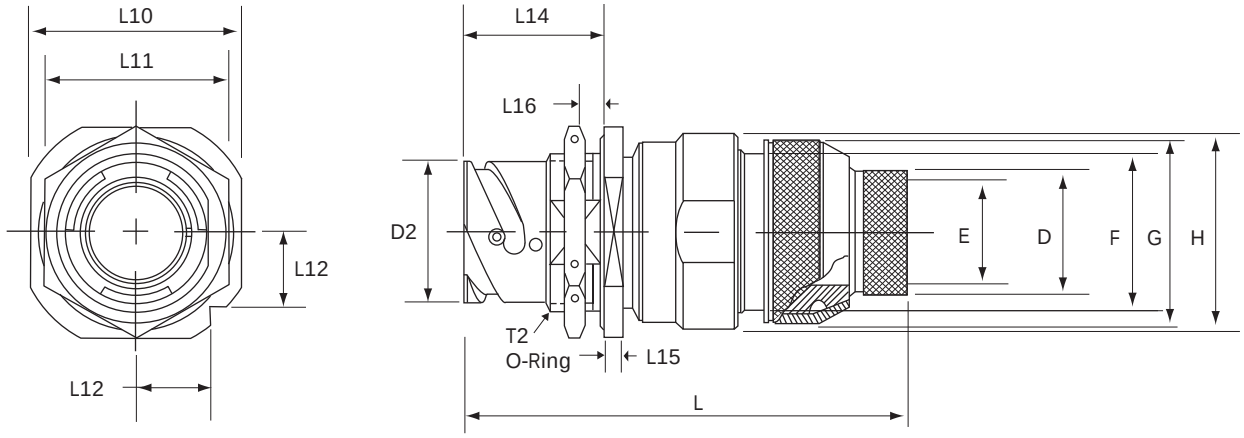
* Consult Factory

Dimensions are mm. over inches

Specifications and dimensions subject to change
Dimensions shown in mm.

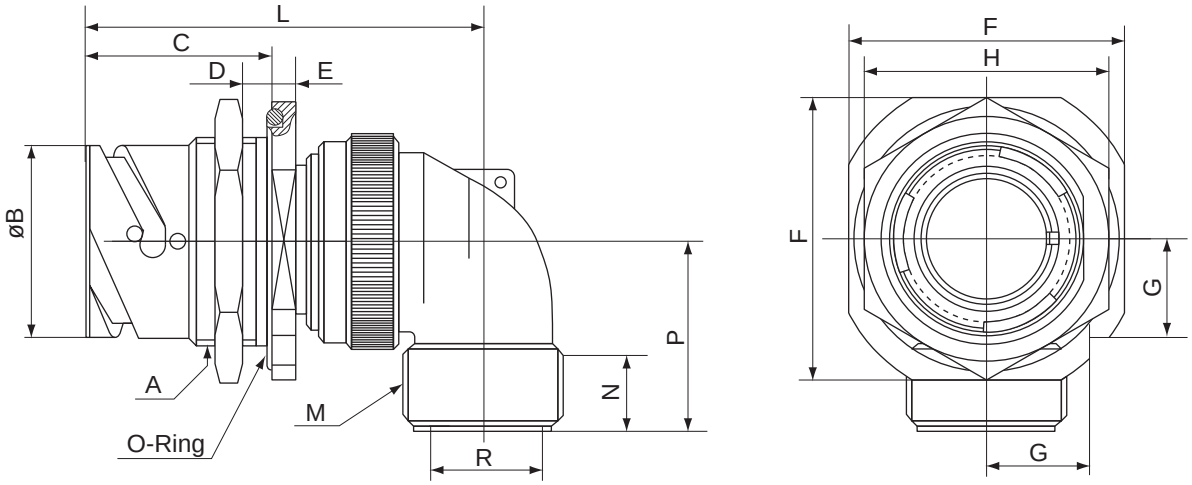
Jam nut receptacle for terminating braided shield. Straight backshell with a swivel coupling nut and adapter suitable for use with heat shrink tubing or boot. The backshell includes a knurled extension for the shield termination via a tinel lock ring (not included). ASBT same as SBT but without a grommet.



Shell Size	D_2 Max.	L_{10} +/- 0,25	L_{11}	L_{12}	L_{14}	L_{15}	L_{16} Panel Min.	L_{16} Panel Max.	T2 Thread	H +/- 0,5 .020	G	F	E +/- 0,25 .010	D Max.	L CIR070 Approx.	Tinel Ring P/N
10SL	18,2	31,8	27,0	11,2	24,5	4,0	2,4	5,2	7/8-20UNEF	22,0	18,5	16,3	7,9	11,13	72,6	TR 05
	.72	1.25	1.063	.44	.97	.16	.094	.205		.866	.73	.64	.312	.44	2.86	
14S	24,6	41,3	33,0	14,6	26,8	4,8	2,4	7,5	1 1/8-18UNEF	24,8	22,0	20,0	11,1	14,3	75,3	TR 07
	.97	1.63	1.299	.575	1.06	.19	.094	.295		.976	.87	.79	.437	.56	2.96	
16S	27,4	44,4	38,1	15,7	26,8	4,8	2,4	7,5	1 1/4-18UNEF	27,8	25,0	23,0	12,7	15,9	78,1	TR 08
	1.08	1.75	1.500	.62	1.06	.19	.094	.295		1.094	.98	.91	.500	.63	3.07	
16	27,4	44,4	38,1	15,7	32,1	4,8	2,4	7,5	1 1/4-18UNEF	27.8	25,0	23,0	12,7	15,9	86,9	TR 08
	1.08	1.75	1.500	.62	1.26	.19	.094	.295		1.094	.98	.91	.500	.63	3.42	
18	30,8	47,6	39,7	16,8	33,7	4,8	2,4	9,0	1 3/8-18UNEF	30,8	28,0	24,5	15,88	19,1	88,9	TR 10
	1.21	1.87	1.563	.66	1.33	.19	.094	.354		1.213	1.10	.97	.625	.75	3.50	
20	34,2	50,8	44,0	18	33,7	4,8	2,4	9,0	1 1/2-18UNEF	34,8	32,0	28.5	19,05	22,3	90,1	TR 12
	1.35	2.00	1.732	.71	1.33	.19	.094	.354		1.370	1.26	1.12	.750	.88	3.55	
22	37,4	54,2	46,0	20,2	33,7	4,8	2,4	9,1	1 5/8-18UNEF	37,8	34,0	30,5	22,2	25,4	89,4	TR 14
	1.47	2.25	1.811	.80	1.33	.19	.094	.358		1.488	1.34	1.20	.875	1.00	3.52	
24	40,9	57,2	50,8	20,2	33,7	4,8	2,4	9,1	1 3/4-18UNEF	40,8	38,0	34,5	25,4	28,7	87,7	TR 16
	1.61	2.25	2.000	.80	1.33	.19	.094	.358		1.606	1.50	1.36	1.00	1.13	3.45	
28	46,7	63,5	55,0	22,5	35,2	5,6	2,4	8,5	2.00-18UNS	47,8	41,0	37,5	28,58	31,75	91,5	TR 18
	1.84	2.50	2.165	.89	1.39	.22	.094	.335		1.881	1.61	1.48	1.125	1.25	3.60	
32	53,4	69,8	62,0	24,7	35,2	5,6	2,4	6,5	2 1/4-16UN	53,8	48,0	44,0	28,58	31,75	91,5	TR 18
	2.10	2.75	2.441	.97	1.39	.22	.094	.256		2.118	1.89	1.73	1.125	1.25	3.60	
36	59,6	76,2	71,0	26,9	35,2	5,6	2,4	8,3	2 1/2-16UN	60,8	55,0	51,0	41,28	44,45	90,3	Not Available
	2.35	3.00	2.795	1.06	1.39	.22	.094	.327		2.394	2.17	2.01	1.625	1.75	3.56	
40	65.5	83,5	75,0	29,6	35,2	5,6	2,4	8,3	2 3/4-16UN	67,8	62,0	58,0	47,63	50,8	90,3	Not Available
	2.58	3.29	2.953	1.17	1.39	.22	.094	.327		2.669	2.44	2.28	1.875	2.00	3.56	

Dimensions are mm. over inches

Receptacle single hole mount with 90° elbow and an individual wire sealing grommet. A type has no grommet.Available only with crimp type contacts. For panel mounting hole dimensions, see page 196.

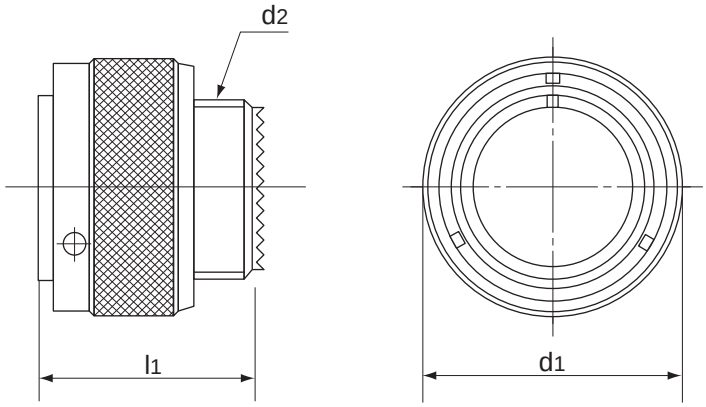


Shell Size	A Thread in inches	ø B +0 -0,15	C —	D Wall Thickness min.	D Wall Thickness max.	E —	F ±0,25	G —	H —	L ~	M Thread in inches	N min.	N max.	P +0,2 -0,1
10SL	7/8-20 UNEF-2A	18,2	24,5	2,4	5,2	4	31,8	11,2	27	49	5/8-24 UNEF-2A	9,4	30	10,5
		0.72	0.96	0.09	0.20	0.16	1.25	0.44	1.06	1.93		0.37	1.18	0.41
14S	1"1/8-18 UNEF-2A	24,6	26,8	2,4	7,5	4,8	41,3	14,6	33	53	3/4-20 UNEF-2A	9,4	30	11,5
		0.97	1.05	0.09	0.29	1.89	1.62	0.57	1.30	2.09		0.37	1.18	0.45
*16S	1"1/4-18 UNEF-2A	27,4	26,8	2,4	7,5	4,8	44,4	15,7	38,1	58	7/8-20 UNEF-2A	9,4	30	14,7
		1.08	1.05	0.09	0.29	1.89	1.75	0.62	1.50	2.28		0.37	1.18	0.58
*16	1"1/4-18 UNEF-2A	27,4	32,1	2,4	7,5	4,8	44,4	15,7	38,1	66	7/8-20 UNEF-2A	9,4	30	14,7
		1.08	1.26	0.09	0.29	1.89	1.75	0.62	1.50	2.60		0.37	1.18	0.58
18	1"3/8-18 UNEF-2A	30,8	33,7	2,4	9	4,8	47,6	16,8	39,7	72	1"-20 UNEF-2A	9,4	35	17,2
		1.21	1.33	0.09	0.35	1.89	1.87	0.66	1.56	2.83		0.37	1.38	0.68
20	1"1/2-18 UNEF-2A	34,2	33,7	2,4	9	4,8	50,8	18	44	75	1"3/16-18 UNEF-2A	9,4	35	20,35
		1.35	1.33	0.09	0.35	1.89	2.00	0.71	1.73	2.95		0.37	1.38	0.80
22	1"5/8-18 UNEF-2A	37,4	33,7	2,4	9,1	4,8	54,2	20,2	46	75	1"3/16-18 UNEF-2A	9,4	35	23
		1.47	1.33	0.09	0.36	1.89	2.13	0.79	1.81	2.95		0.37	1.38	0.90
24	1"3/4-18 UNS-2A	40,9	33,7	2,4	9,1	4,8	57,2	20,2	50,8	77	1"7/16-18 UNEF-2A	9,4	40	25,8
		1.61	1.33	0.09	0.36	1.89	2.25	0.79	2.00	3.03		0.37	1.57	1.01
28	2"-18 UNS-2A	46,7	35,2	2,4	8,5	5,6	63,5	22,5	55	79	1"7/16-18 UNEF-2A	9,4	40	28,7
		1.84	1.38	0.09	0.33	0.22	2.50	0.88	2.16	3.11		0.37	1.57	1.13
32	2"1/4-16 UN-2A	53,4	35,2	2,4	6,5	5,6	69,8	24,7	62	84	1"3/4-18 UNS-2A	11	45	36,5
		2.10	1.38	0.09	0.25	0.22	2.75	0.97	2.44	3.31		0.43	1.77	1.44
36	2"1/2-16 UN-2A	59,6	35,2	2,4	8,3	5,6	76,2	26,9	71	87	2"- 18 UNS-2A	12,6	50	42,6
		2.35	1.38	0.09	0.33	0.22	3.00	1.06	2.79	3.42		0.50	1.97	1.68
40	2"3/4-16 UN-2A	65,5	35,2	2,4	8,3	5,6	83,5	29,6	75	90	2"1/4-16 UN-2A	12,6	55	48,6
		2.58	1.38	0.09	0.33	0.22	3.29	1.16	2.95	3.54		0.50	2.16	1.91

* Consult Factory

Dimensions are mm. over inches

Plug without accessories. CIRG type has"RFI" shield spring (for shielding characteristics see page 12).



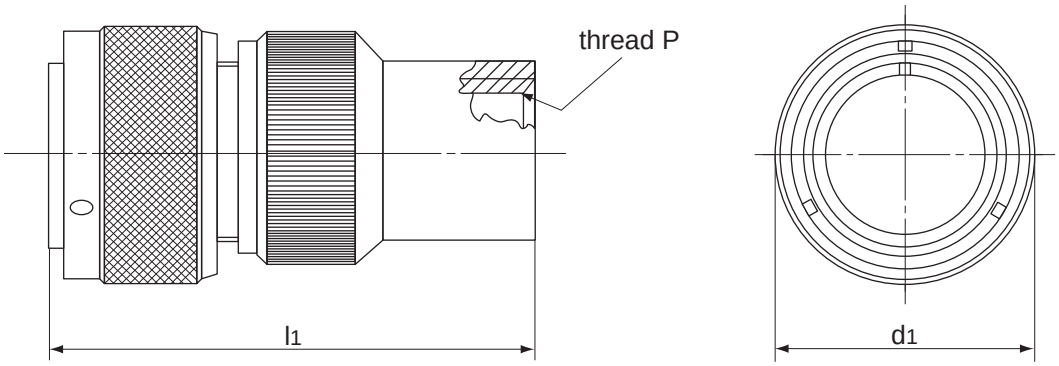
IMPORTANT

Above connectors are supplied (as in the picture) only when accessories are ordered separately. Consult factory.

Shell Size	d_1 max.	d_2 Thread in inches	l_1 ± 0,3
10SL	22,8 0.90	5/8 - 24 UNEF-2A	24,6 0.97
14S	29,2 1.15	3/4 - 20 UNEF-2A	24,6 0.97
16S	32 1.26	7/8 - 20 UNEF-2A	24,6 0.97
16	32 1.26	7/8 - 20 UNEF-2A	34,1 1.34
18	36,5 1.44	1" - 20 UNEF-2A	34,1 1.34
20	39,9 1.57	1"1/8 -18 UNEF-2A	34,1 1.34
22	43,1 1.70	1"1/4 -18 UNEF-2A	34,1 1.34
24	46,6 1.83	1"3/8 -18 UNEF-2A	35,7 1.40
28	53,4 2.10	1"5/8 -18 UNEF-2A	35,7 1.40
32	60,1 2.37	1"7/8 -16 UN-2A	37,3 1.47
36	66,3 2.61	2" 1/16 -16 UN-2A	37,3 1.47
40	72,5 2.85	2"5/16 -16 UN-2A	37,3 1.47

Dimensions are mm. over inches

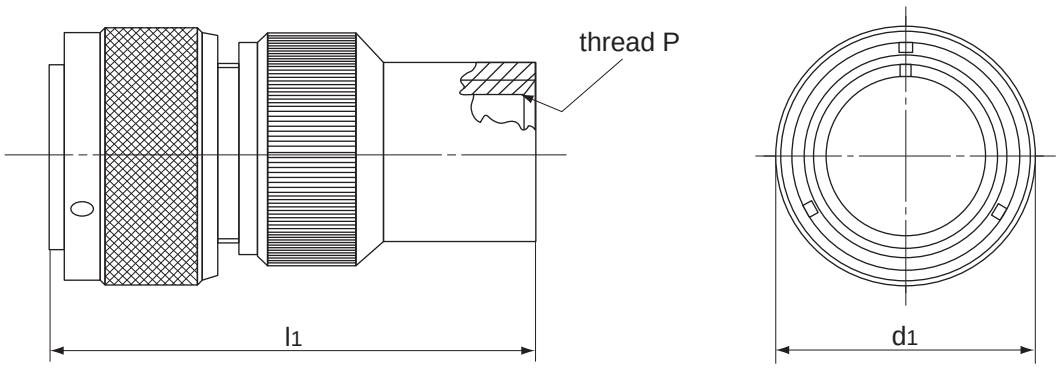
Straight plug with PG (DIN 40430) threaded backshell.



Shell Size	d_1 max.	l_1 max.	P thread
10SL	22,8 0.90	53 2.09	PG (DIN 40430) Dimension of the P thread has to be decided when B/S is ordered.
14S	29,2 1.15	58 2.28	
16S	32 1.26	58 2.28	
16	32 1.26	75 2.95	
18	36,5 1.44	82 3.23	
20	39,9 1.57	82 3.23	
22	43,1 1.70	82 3.23	
24	46,6 1.83	92 3.62	
28	53,4 2.10	92 3.62	
32	60,1 2.37	92 3.62	
36	66,3 2.61	92 3.62	
40	72,5 2.85	92 3.62	

Connector P/N has to be defined on the basis of customer need (example: connector with grommet, gaskets, etc.)
Dimensions are mm. over inches

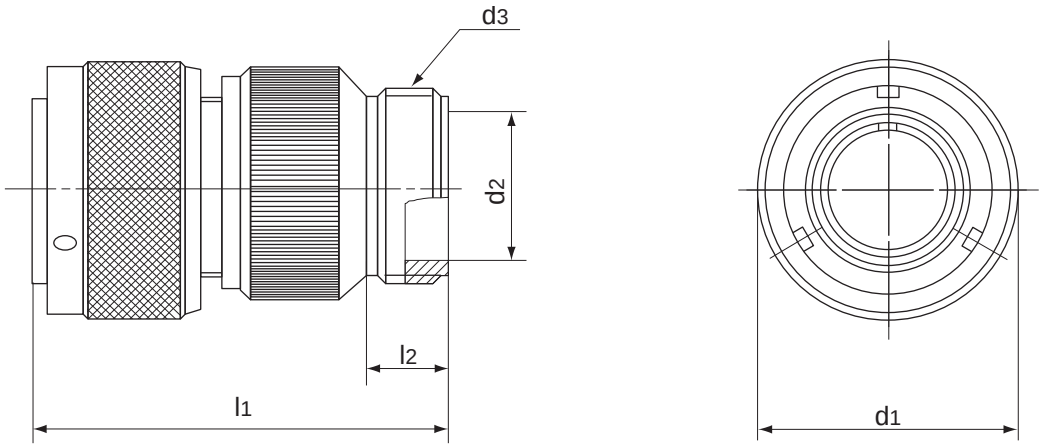
Straight plug with UNI ISO 7/1 Rp (GAS) threaded backshell.



Shell Size	d_1 max.	l_1 max.	UNI ISO 7/1 Rp P thread
10SL	22,8 0.90	53 2.09	Dimension of the P thread has to be decided when B/S is ordered.
14S	29,2 1.15	58 2.28	
16S	32 1.26	58 2.28	
16	32 1.26	75 2.95	
18	36,5 1.44	75 2.95	
20	39,9 1.57	75 2.95	
22	43,1 1.70	78 3.07	
24	46,6 1.83	78 3.07	
28	53,4 2.10	82 3.23	
32	60,1 2.37	84 3.31	
36	66,3 2.61	86 3.38	
40	72,5 2.85	95 3.74	

Connector P/N has to be defined on the basis of customer need (example: connector with grommet, gaskets, etc.)
Dimensions are mm. over inches

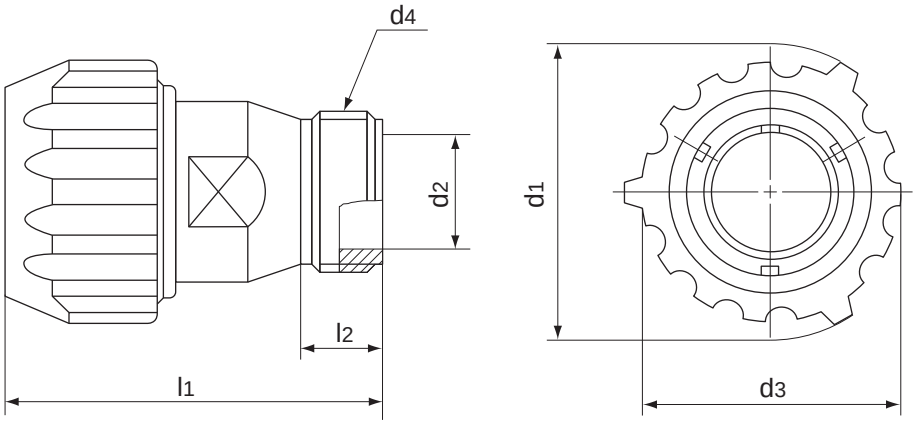
Straight plug with backshell. CIRG type has "RFI" shield spring (for shielding characteristics see page 12). R type has an individual wire sealing grommet.



Shell Size	d_1 max.	d_2 +0,1 -0	d_3 Thread in inches	l_1 max.	l_2 min.
10SL	22,8	10,4	5/8 -24 UNEF-2A	43	9,5
	0.90	0.41		1.69	0.37
14S	29,2	13,2	3/4 -20 UNEF-2A	47	9,5
	1.15	0.52		1.85	0.37
16S	32	16,2	7/8 -20 UNEF-2A	47	9,5
	1.26	0.64		1.85	0.37
16	32	16,2	7/8 -20 UNEF-2A	58	9,5
	1.26	0.64		2.28	0.37
18	36,5	19,2	1" -20 UNEF-2A	58	9,5
	1.44	0.75		2.28	0.37
20	39,9	22	1"3/16 -18 UNEF-2A	58	9,5
	1.57	0.87		2.28	0.37
22	43,1	24,5	1"3/16 -18 UNEF-2A	59	9,5
	1.70	0.96		2.32	0.37
24	46,6	27,8	1"7/16 -18 UNEF-2A	61	9,5
	1.83	1.09		2.40	0.37
28	53,4	31,2	1"7/16 -18 UNEF-2A	67	9,5
	2.10	1.23		2.64	0.37
32	60,1	37,8	1"3/4 -18 UNS-2A	71	11
	2.37	1.49		2.79	0.43
36	66,3	45	2" -18 UNS-2A	71	11,8
	2.61	1.77		2.79	0.46
40	72,5	51,2	2"1/4 -16 UN-2A	86	11,8
	2.85	2.01		3.38	0.46

Dimensions are mm. over inches

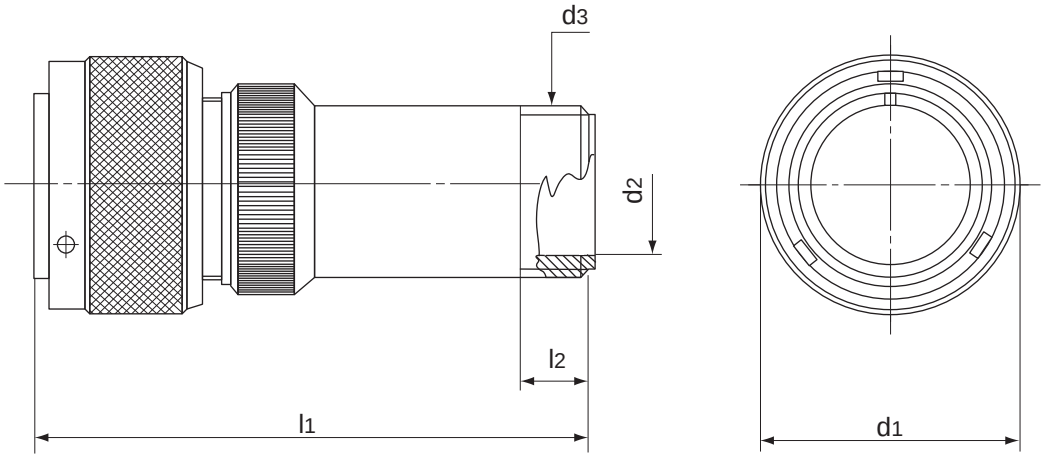
Straight plug with backshell and rubber covered coupling nut for protection against dust and impact. RGG type has an individual wire sealing grommet. To be mated only with receptacles having countersunk mounting holes. See pages 197.



Shell Size	d_1 —	d_2 +0,1 -0	d_3 —	d_4 Thread in inches	l_1 max.	l_2 min.
10SL	33,5	10,4	28,5	5/8 -24 UNEF-2A	58	9,5
	1.32	0.41	1.12		2.28	0.37
14S	40,2	13,2	35,2	3/4 -20 UNEF-2A	58	9,5
	1.58	0.52	1.38		2.28	0.37
16	44	16,2	38,9	7/8 -20 UNEF-2A	72	9,5
	1.73	0.64	1.53		2.83	0.37
18	49	19,8	43,5	1" -20 UNEF-2A	72	9,5
	1.93	0.78	1.71		2.83	0.37
20	51,5	22	46	1"3/16 -18 UNEF-2A	73	9,5
	2.03	0.87	1.81		2.87	0.37
22	56	24,5	50,5	1"3/16 -18 UNEF-2A	73	9,5
	2.20	0.96	1.99		2.87	0.37
24	60	27,8	54	1"7/16 -18 UNEF-2A	81	9,5
	2.36	1.09	2.12		3.19	0.37
28	67	31,2	61	1"7/16 -18 UNEF-2A	81	9,5
	2.64	1.23	2.40		3.19	0.37
32	76	37,8	67,6	1"3/4 -18 UNS-2A	82	11
	2.99	1.49	2.66		3.23	0.43
36	82,3	45	74,3	2" -18 UNS-2A	84	11,8
	3.24	1.77	2.92		3.31	0.46
40	88	51,2	80	2"1/4 -16 UN-2A	94	11,8
	3.46	2.01	3.15		3.70	0.46

Dimensions are mm. over inches

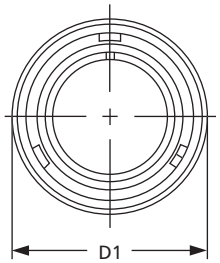
Straight plug with long backshell. RL tpe has an individual wire sealing grommet. AL and LA types have no wire sealing grommet.

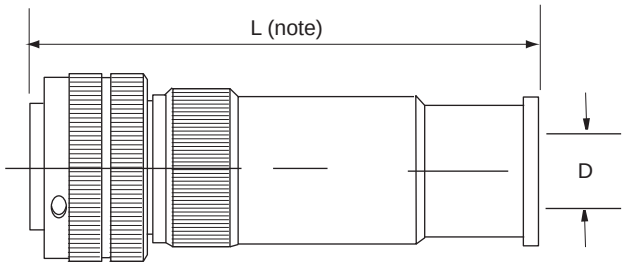


Shell Size	d_1 max.	d_2 +0,1 -0	d_3 Thread in inches	l_1 max.	l_2 min.
10SL	22,8	8,5	5/8 -24 UNEF-2A	71	9,5
	0.90	0.33		2.79	0.37
14S	29,2	11,7	3/4 -20 UNEF-2A	71	9,5
	1.15	0.46		2.79	0.37
16S	32	13,9	7/8 -20 UNEF-2A	71	9,5
	1.26	0.55		2.79	0.37
16	32	13,9	7/8 -20 UNEF-2A	87	9,5
	1.26	0.55		3.42	0.37
18	36,5	16,9	1" -20 UNEF-2A	87	9,5
	1.44	0.66		3.42	0.37
20	39,9	20,9	1"3/16 -18 UNEF-2A	87	9,5
	1.57	0.82		3.42	0.37
22	43,1	20,9	1"3/16 -18 UNEF-2A	87	9,5
	1.70	0.82		3.42	0.37
24	46,6	25,9	1"7/16 -18 UNEF-2A	87	9,5
	1.83	1.02		3.42	0.37
28	53,4	25,9	1"7/16 -18 UNEF-2A	95	9,5
	2.10	1.02		3.74	0.37
32	60,1	32	1"3/4 -18 UNS-2A	95	11
	2.37	1.26		3.74	0.43
36	66,3	36,9	2" -18 UNS-2A	95	11,8
	2.61	1.45		3.74	0.46
40	72,5	44,9	2"1/4 -16 UN-2A	95	11,8
	2.85	1.77		3.74	0.46

Dimensions are mm. over inches

Plug for terminating flexible rubber hose. Long metal backshell with rear lip suitable for flexible rubber conduit (hose) being secured to the backshell by a metal band or hose clamp.





Note: Dimension "L" is dependent on conduit size used with each shell size. Please consult our Customer Service Department.

Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

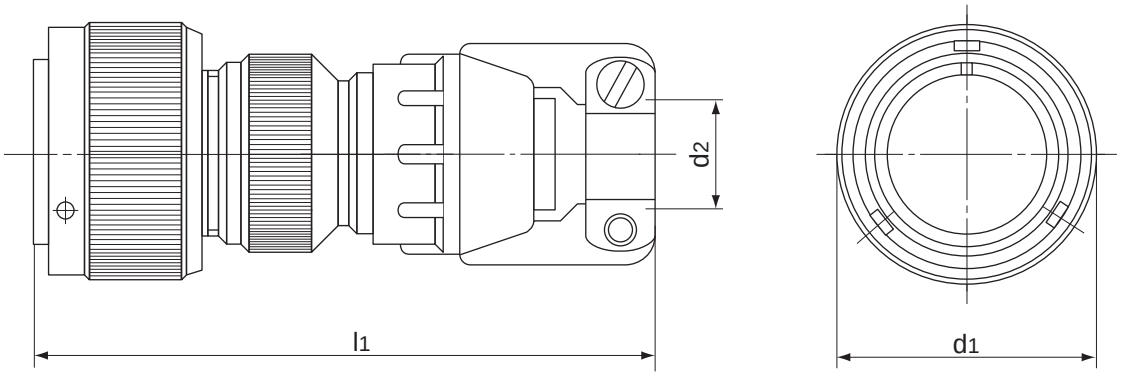
Shell Size	Suffix in Connector Part Number	Conduit Inner Diameter	D Maximum
10SL	(045)	11,4 .45	7,5 .30
14	(049)	12,5 .49	7,5 .30
18		12,5 .49	7,5 .30
20		12,5 .49	7,5 .30
22	(053)	13,5 .53	10,4 .41
10SL	(075)	19,1 .75	15,9 .63
18		19,1 .75	15,9 .63
14S	(084)	21,3 .84	17,5 .69
20		21,3 .84	17,5 .69
10SL	(106)	26,9 1.06	22,2 .88
20		26,9 1.06	23,9 .94
32		26,9 1.06	23,9 .94
36		26,9 1.06	22,2 .88

Shell Size	Suffix in Connector Part Number	Conduit Inner Diameter	D Maximum
28	(110)	27,9 1.10	25,6 1.01
32		27,9 1.10	25,6 1.01
32	(122)	31,0 1.22	28,6 1.13
32	(138)	35,1 1.38	29,4 1.16
36		35,1 1.38	29,4 1.16
40		35,1 1.38	29,4 1.16
36	(157)	39,9 1.57	37,8 1.49
32	(197)	50,0 1.97	45,2 1.78
36		50,0 1.97	45,2 1.78
40		50,0 1.97	45,2 1.78

Note: Suffix in connector part number represents conduit inner diameter.

Dimensions are mm. over inches

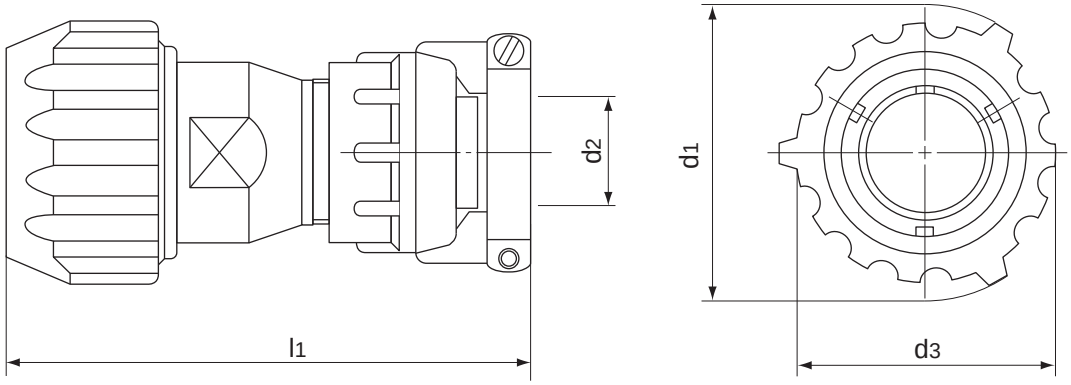
Straight plug with cable clamp and seal for jacketed cables. CFZ type also has an individual wire sealing grommet.



Shell Size	d_1 max.	d_2 Open	d_2 Closed	l_1 max.
10SL	22,8 0.90	7,93 .312	2,38 .094	73 2.87
14S	29,2 1.15	11,12 .438	6,35 .25	77 3.03
16S	32 1.26	13,48 .531	8,0 .315	77 3.03
16	32 1.26	13,48 .531	8,0 .315	88 3.46
18	36,5 1.44	15,87 .625	9,6 .378	91 3.58
20	39,9 1.57	19,0 .748	11,3 .445	91 3.58
22	43,1 1.70	19,0 .748	11,3 .445	92 3.62
24	46,6 1.83	23,8 .938	15,5 .610	97 3.82
28	53,4 2.10	23,8 .938	15,5 .610	103 4.05
32	60,1 2.37	31,75 1.250	23,4 .921	113 4.45
36	66,3 2.61	35,0 1.378	23,4 .921	120 4.72
40	72,5 2.85	41,25 1.625	29,9 1.177	135 5.31

Dimensions are mm. over inches

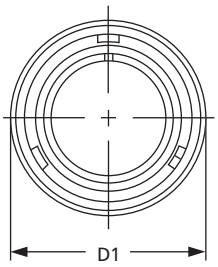
Straight plug with cable clamp for jacketed cable and rubber covered coupling nut for protection against dust and impact. CFZGG type also has an individual wire sealing grommet. To be mated only with receptacles having countersunk mounting holes. See pages 197.

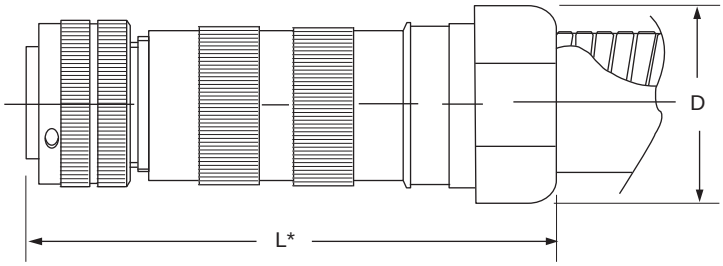


Shell Size	d_1	d_2		d_3	l_1
	—	Open	Closed	—	max.
10SL	33,5	7,93	2,38	28,5	89
	1.32	.312	.094	1.12	3.50
14S	40,2	11,1	6.35	32,5	89
	1.58	.438	.25	1.28	3.50
16	44	13,48	8,0	38,9	103
	1.73	.531	.315	1.53	4.05
18	49	15,87	9,6	43,5	106
	1.93	.625	.378	1.71	4.17
20	51,5	19,0	11,3	46	107
	2.03	.748	.445	1.81	4.21
22	56	19,0	11,3	50,5	107
	2.20	.748	.445	1.99	4.21
24	60	23,8	15,5	54	118
	2.36	.938	.610	2.12	4.64
28	67	23,8	15,5	61	118
	2.64	.938	.610	2.40	4.64
32	76	31,75	23,4	67,6	127
	2.99	1,250	.921	2.66	5.00
36	82,3	35,0	23,4	74,3	134
	3.24	1.378	.921	2.92	5.27
40	88	41,25	29,9	80	144
	3.46	1,625	1,177	3.15	5.67

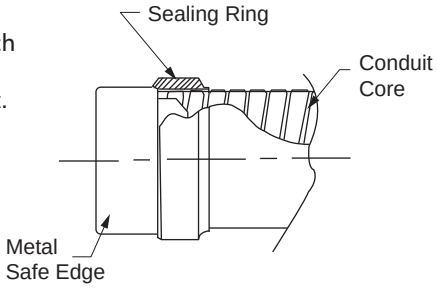
Dimensions are mm. over inches

Plug for terminating conduit. Includes the backshell hardware suitable for flexible metal core ")'! " - %$ *!). Includes a wire sealing grommet and compression ring.





*Dimension "L" is dependent on conduit size used with each shell size. Please consult our Customer Service Department.



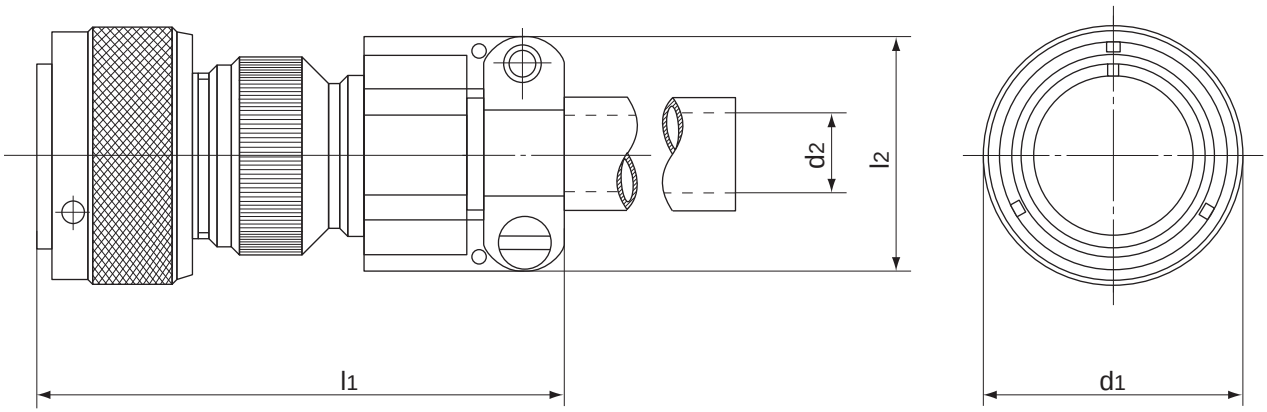
Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

Electri-Flex Conduit Trade Size	Shell Size	Suffix in Connector Part Number	L CIR06 Approximate	D Approximate
3/4	20	(075)	106,9 4.21	41,9 1.65
	24	(075)	137,9 5.43	41,9 1.65
	36	(075)	138,3 5.44	41,9 1.65
100	20	(100)	111,2 4.38	47,6 1.88

Note: For other sizes consult our Customer Service Department.

Dimensions are mm. over inches

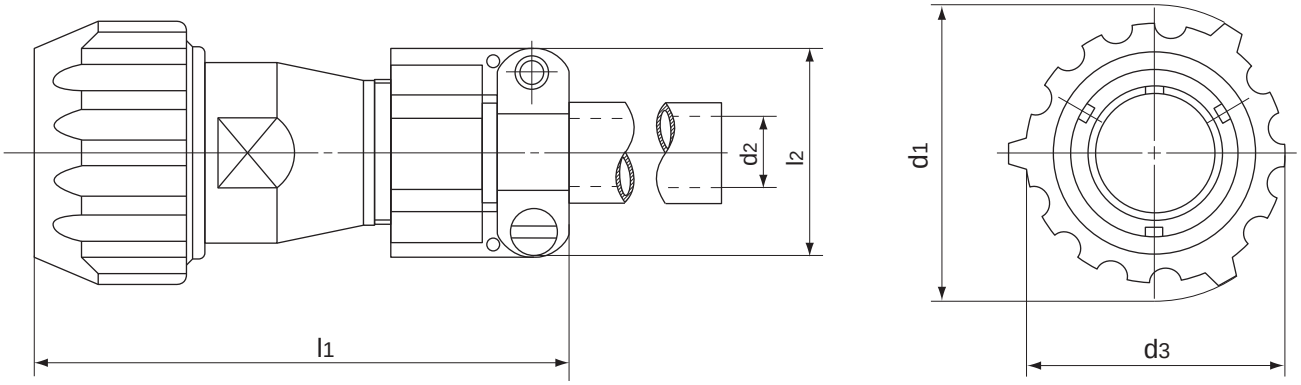
Straight plug with an individual wire sealing grommet and cable clamp with bushing. AF type has no grommet.



Shell Size	d_1 max.	d_2 * max.	l_1 max.	l_2 max.
10SL	22,8 0.90	5,6 0.22	64 2.52	22,7 0.89
14S	29,2 1.15	7,9 0.31	69 2.72	27,5 1.08
16S	32 1.26	11 0.43	71 2.79	30 1.18
16	32 1.26	11 0.43	82 3.23	30 1.18
18	36,5 1.44	14,2 0.56	82 3.23	32,2 1.27
20	39,9 1.57	15,8 0.62	82 3.23	37,5 1.48
22	43,1 1.70	15,8 0.62	83 3.27	37,5 1.48
24	46,6 1.83	19 0.75	87 3.42	43,3 1.70
28	53,4 2.10	19 0.75	93 3.66	43,3 1.70
32	60,1 2.37	23,8 0.94	99 3.90	51,7 2.03
36	66,3 2.61	31,7 1.25	100 3.94	58 2.28
40	72,5 2.85	34,9 1.37	128 5.04	68,5 2.70

* Max permissible outside diameter of cable
Dimensions are mm. over inches

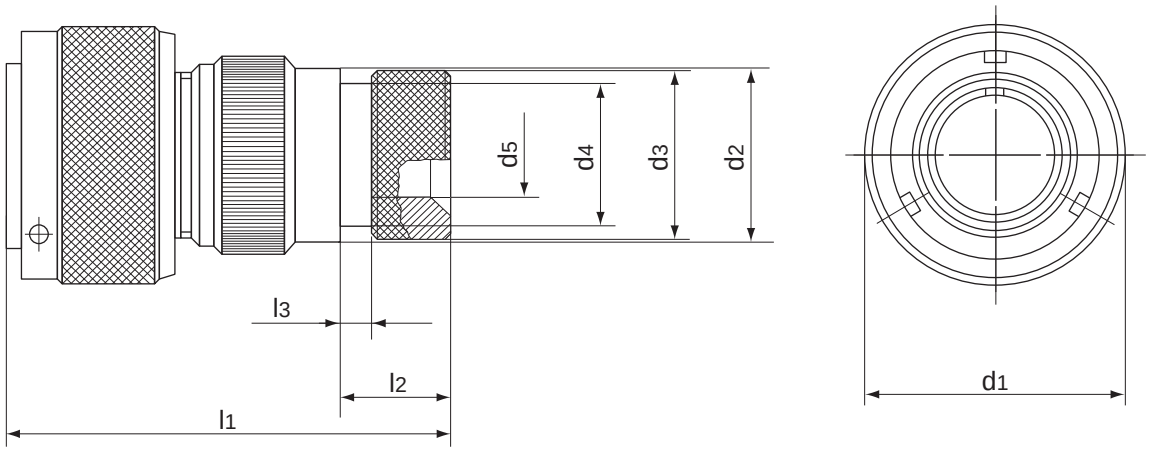
Straight plug with an individual wire sealing grommet, cable clamp with bushing and rubber covered coupling nut for protection against dust and impact. AFGG type has no grommet. To be mated only with receptacles having countersunk mounting holes. See pages 197.



Shell Size	d_1 —	d_2 * max.	d_3 max.	l_1 max.	l_2 max.
10SL	33,5	5,6	28,5	77	22,7
	1.32	0.22	1.12	3.03	0.89
14S	40,2	7,9	35,2	79	27,5
	1.58	0.31	1.38	3.11	1.08
16	44	11	38,9	99	30
	1.73	0.43	1.53	3.90	1.18
18	49	14,2	43,5	99	32,2
	1.93	0.56	1.71	3.90	1.27
20	51,5	15,8	46	95	37,5
	2.03	0.62	1.81	3.74	1.48
22	56	15,8	50,5	95	37,5
	2.20	0.62	1.99	3.74	1.48
24	60	19	54	105	43,3
	2.36	0.75	2.12	4.13	1.70
28	67	19	61	105	43,3
	2.64	0.75	2.40	4.13	1.70
32	76	23,8	67,6	110	51,7
	2.99	0.94	2.66	4.33	2.03
36	82,3	31,7	74,3	112	58
	3.24	1.25	2.92	4.41	2.28
40	88	34,9	80	135	68,5
	3.46	1.37	3.15	5.31	2.70

* Max permissible outside diameter of cable
Dimensions are mm. over inches

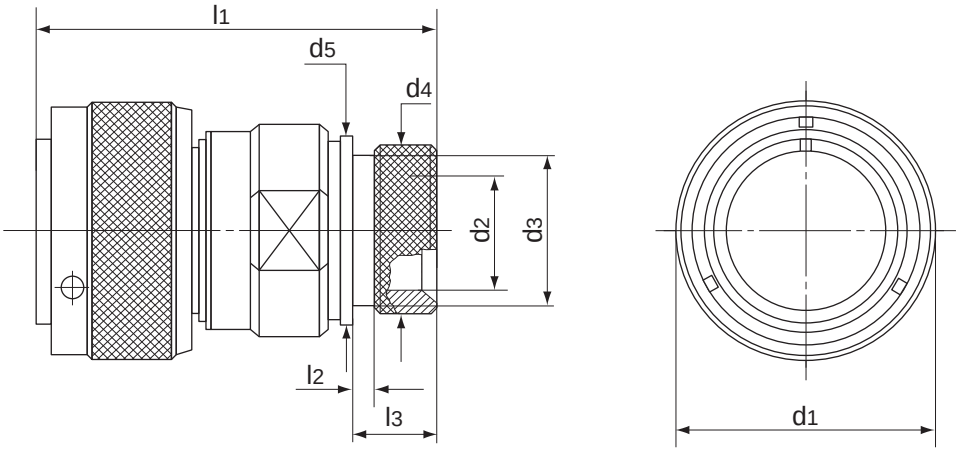
Straight plug with an individual wire sealing grommet and backshell for heat shrinkable tubing. AG type has no grommet.



Shell Size	d_1 max.	d_2 ±0,2	d_3 ±0,2	d_4 max.	d_5 ±0,1	l_1 max.	l_2 ±0,1	l_3 ±0,1
10SL	22,8	17	15,5	13,3	7,9	48	11,7	3,5
	0.90	0.67	0.61	0.52	0.31	1.89	0.46	0.14
14S	29,2	20,1	19,1	17	10,8	48	11,7	3,5
	1.15	0.79	0.75	0.67	0.42	1.89	0.46	0.14
16S	32	23,5	23,9	21,9	13,7	48	11,7	3,5
	1.26	0.92	0.94	0.86	0.54	1.89	0.46	0.14
16	32	23,5	23,9	21,9	13,7	60	11,5	3,5
	1.26	0.92	0.94	0.86	0.54	2.36	0.45	0.14
18	36,5	26,5	23,9	21,9	14,8	60	11,5	3,5
	1.44	1.04	0.94	0.86	0.58	2.36	0.45	0.14
20	39,9	30,2	29,6	26,2	18,9	65	12,4	3,5
	1.57	1.19	1.16	1.03	0.74	2.56	0.49	0.14
22	43,1	33,6	29,6	26,2	21	65	12,4	3,5
	1.70	1.32	1.16	1.03	0.83	2.56	0.49	0.14
24	46,6	36,1	37,8	34,5	24,8	65	12,7	3,5
	1.83	1.42	1.49	1.36	0.98	2.56	0.50	0.14
28	53,4	41,4	37,8	34,5	27,2	65	12,7	3,5
	2.10	1.63	1.49	1.36	1.07	2.56	0.50	0.14
32	60,1	48,6	47,8	43,6	33,5	70	15,2	3,5
	2.37	1.91	1.88	1.72	1.32	2.75	0.60	0.14
36	66,3	54,8	47,8	43,6	38,7	75	15,2	3,5
	2.61	2.16	1.88	1.72	1.52	2.95	0.60	0.14
40	72,5	60,9	57,8	52,6	48,2	77	15,2	3,5
	2.85	2.40	2.27	2.07	1.90	3.03	0.60	0.14

Dimensions are mm. over inches

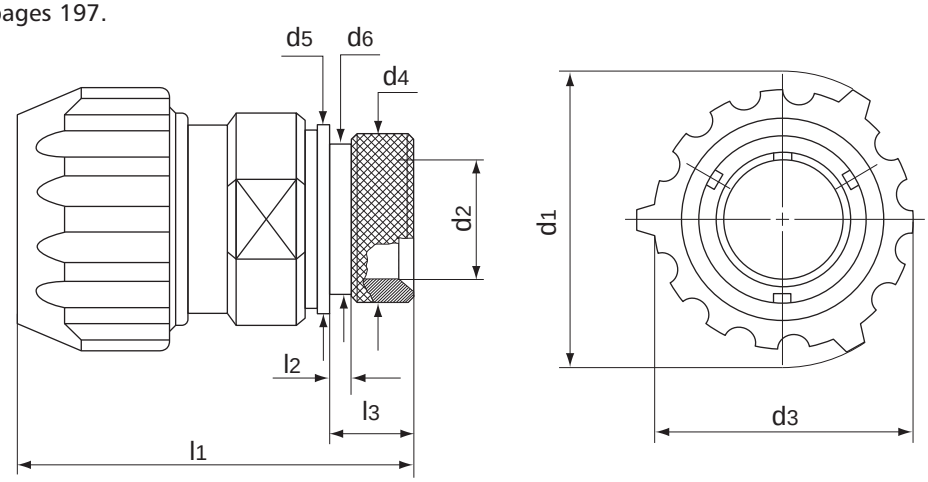
Straight plug with an individual wire sealing grommet and a two piece swivel backshell for heat shrinkable tubing. AG2 type has no wire sealing grommet.



Shell Size	d_1 max.	d_2 ±0,1	d_3 ±0,1	d_4 —	d_5 ±0,1	l_1 * ~	l_2 ±0,1	l_3 ±0,1
10SL	22,8	8,6	13	15,5	17	49	3,5	11,7
	0.90	0.34	0.51	0.61	0.67	1.93	0.14	0.46
14S	29,2	11,2	16,8	19,1	20,1	49	3,5	11,7
	1.15	0.44	0.66	0.75	0.79	1.93	0.14	0.46
16S	32	14	21,7	23,9	23,5	49,8	3,5	11,7
	1.26	0.55	0.85	0.94	0.92	1.96	0.14	0.46
16	32	14	21,7	23,9	23,5	59,3	3,5	11,5
	1.26	0.55	0.85	0.94	0.92	2.33	0.14	0.45
18	36,5	16,4	21,7	23,9	26,5	58,8	3,5	11,5
	1.44	0.64	0.85	0.94	1.04	2.31	0.14	0.45
20	39,9	19,3	26,1	29,6	30,2	59,5	3,5	12,4
	1.57	0.76	1.03	1.16	1.19	2.34	0.14	0.49
22	43,1	22	26,1	29,6	33,6	59,5	3,5	12,4
	1.70	0.86	1.03	1.16	1.32	2.34	0.14	0.49
24	46,6	25	34,3	37,8	36,1	62,1	3,5	12,7
	1.83	0.98	1.35	1.49	1.42	2.44	0.14	0.50
28	53,4	28	34,3	37,8	41,4	63,9	3,5	12,7
	2.10	1.10	1.35	1.49	1.63	2.51	0.14	0.50
32	60,1	34,8	43,4	47,8	48,6	66,2	3,5	15,2
	2.37	1.37	1.71	1.88	1.91	2.61	0.14	0.60
36	66,3	38,7	43,4	47,8	54,8	66,2	3,5	15,2
	2.61	1.52	1.71	1.88	2.16	2.61	0.14	0.60
40	72,5	48,2	52,6	57,8	61	66,5	3,5	15,5
	2.85	1.90	2.07	2.27	2.40	2.62	0.14	0.61

* Nominal values after coupling the backshell
Dimensions are mm. over inches

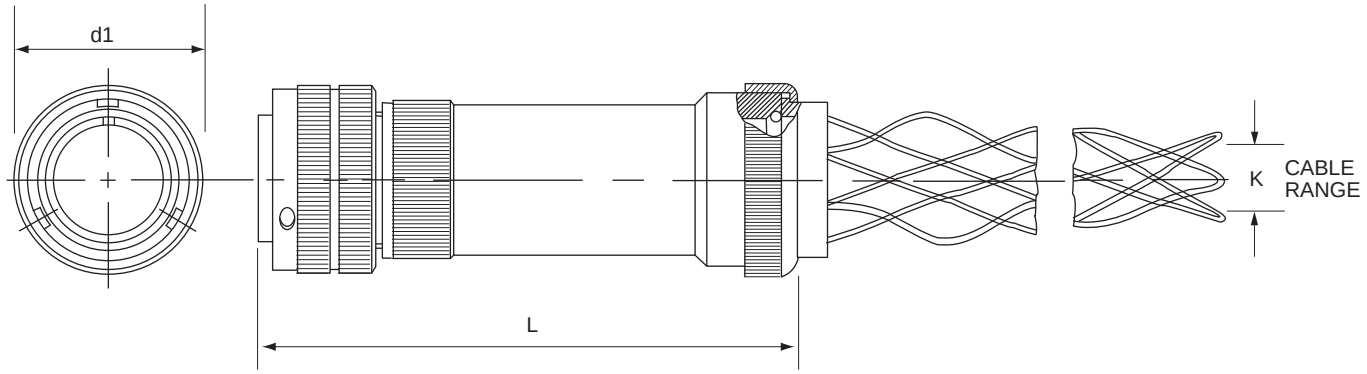
Straight plug with an individual wire sealing grommet and a two piece swivel backshell for heat shrinkable tubing plus a rubber covered coupling nut for protection against dust and impact. To be mated only with receptacles having countersunk mounting holes. See pages 197.



Shell Size	d_1 —	d_2 ±0,1	d_3 —	d_4 —	d_5 ±0,1	d_6 ±0,1	l_1 * —	l_2 ±0,1	l_3 ±0,1
10SL	33,5	8,6	28,5	15,5	17	13	50	3,5	11,7
	1.32	0.34	1.12	0.61	0.67	0.51	1.97	0.14	0.46
14S	40,2	11,2	35,2	19,1	20,1	16,8	50	3,5	11,7
	1.58	0.44	1.38	0.75	0.79	0.66	1.97	0.14	0.46
16	44	14	38,9	23,9	23,5	21,7	59,5	3,5	11,5
	1.73	0.55	1.53	0.94	0.92	0.85	2.34	0.14	0.45
18	49	16,4	43,5	23,9	26,5	21,7	59	3,5	11,5
	1.93	0.64	1.71	0.94	1.04	0.85	2.32	0.14	0.45
20	51,5	19,3	46	29,6	30,2	26,1	60,5	3,5	12,4
	2.03	0.76	1.81	1.16	1.19	1.03	2.38	0.14	0.49
22	56	22	50,5	29,6	33,6	26,1	60,5	3,5	12,4
	2.20	0.86	1.99	1.16	1.32	1.03	2.38	0.14	0.49
24	60	25	54	37,8	36,1	34,3	64,5	3,5	12,7
	2.36	0.98	2.12	1.49	1.42	1.35	2.54	0.14	0.50
28	67	28	61	37,8	41,4	34,3	66	3,5	12,7
	2.64	1.10	2.40	1.49	1.63	1.35	2.60	0.14	0.50
32	76	34,8	67,6	47,8	48,6	43,4	70	3,5	15,2
	2.99	1.37	2.66	1.88	1.91	1.71	2.75	0.14	0.60
36	82,3	38,7	74,3	47,8	54,8	43,4	70	3,5	15,2
	3.24	1.52	2.92	1.88	2.16	1.71	2.75	0.14	0.60
40	88	48,2	80	57,8	61	52,6	70	3,5	15,5
	3.46	1.90	3.15	2.27	2.40	2.07	2.75	0.14	0.61

* Nominal dimension with tightened backshell
Dimensions are mm. over inches

Plug for terminating jacketed cable. Long LC backshell with internal adapter suitable for various sizes of cable, grommet, compression ring and a cord grip included. LCG same as LC but without the wire sealing grommet and compression ring.

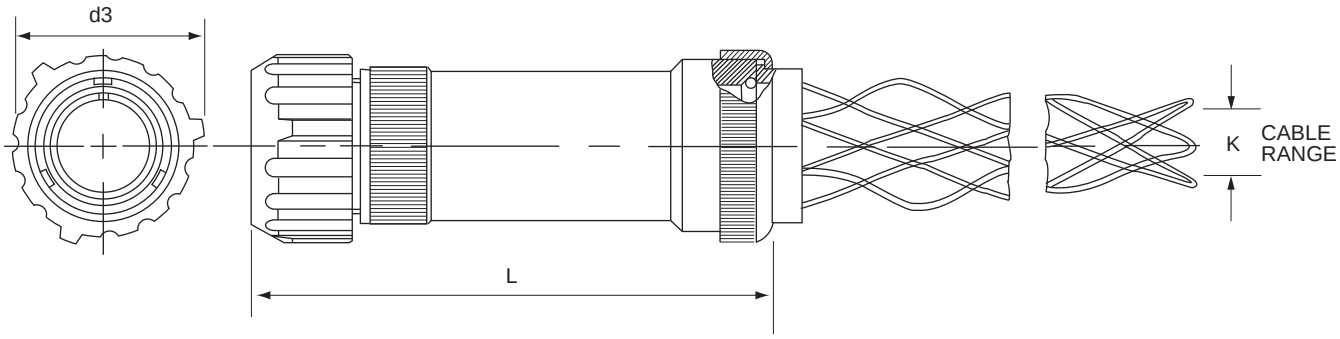


Shell Size	D_1 Max.	L Approximate
10SL	22,8	100
	0.90	3.94
14S	29,2	100
	1.15	3.94
16S	33,0	100
	1.30	3.94
16	33,0	110
	1.30	4.33
18	36,5	110
	1.44	4.33
20	39,9	116
	1.57	4.57
22	43,1	116
	1.70	4.57
24	46,6	120
	1.84	4.72
28	53,4	129
	2.10	5.08
32	60,1	145
	2.37	5.71
36	66,3	145
	2.61	5.71
40	72,4	145
	2.85	5.71

K Suffix in Connector Part Number	K Cable Range Min.	Max.
K0	6,35	9,53
	.250	.375
K1	9,53	12,7
	.375	.500
K2	12,7	15,87
	.500	.625
K3	15,87	19,05
	.625	.750
K4	19,05	22,23
	.750	.875
K5	22,23	25,4
	.875	1.000
K6	25,4	28,45
	1.000	1.120
K7	28,45	31,75
	1.120	1.250
K8	32,77	38,1
	1.290	1.500
K9	39.62	41,28
	1.560	1.625
K10	41.28	44,45
	1.625	1.750

Dimensions are mm. over inches

Plug for terminating jacketed cable. Rubber covered coupling nut and long LC backshell with internal adapter suitable for various sizes of cable, grommet, compression ring and a cord grip included. LCGGG same as LCGG but without the wire sealing grommet and compression ring.

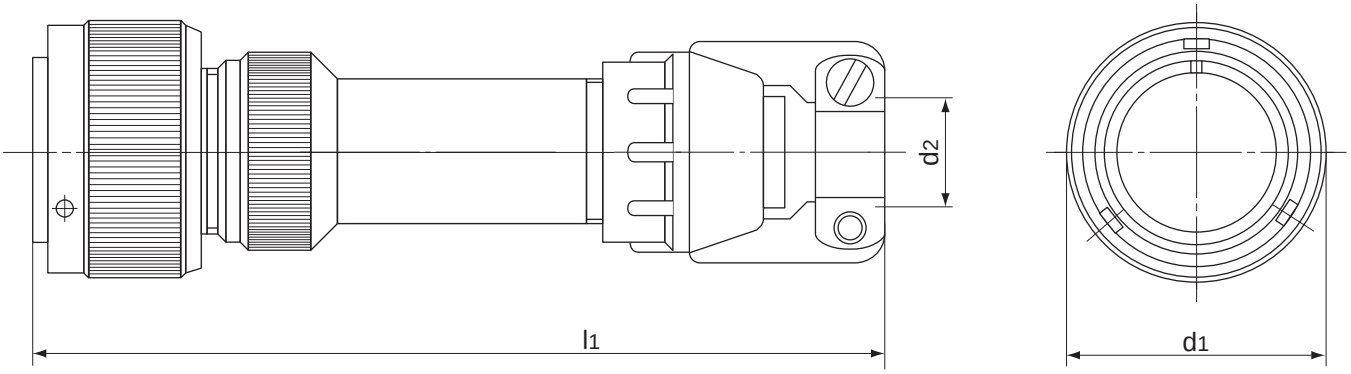


Shell Size	D_3 —	L Approximate
10SL	28,5	100
	1.12	3.94
14S	32,5	100
	1.28	3.94
16S	N/A	100
		3.94
16	38,9	110
	1.53	4.33
18	43,5	110
	1.71	4.33
20	46,0	116
	1.81	4.57
22	50,5	116
	1.99	4.57
24	54,0	120
	2.13	4.72
28	61,0	129
	2.4	5.08
32	67,6	145
	2.66	5.71
36	74,3	145
	2.93	5.71
40	80,0	145
	3.15	5.71

K Suffix in Connector Part Number	K Cable Range Min.	Max.
K0	6,35	9,53
	.250	.375
K1	9,53	12,7
	.375	.500
K2	12,7	15,87
	.500	.625
K3	15,87	19,05
	.625	.750
K4	19,05	22,23
	.750	.875
K5	22,23	25,4
	.875	1.000
K6	25,4	28,45
	1.000	1.120
K7	28,45	31,75
	1.120	1.250
K8	32,77	38,1
	1.290	1.500
K9	39.62	41,28
	1.560	1.625
K10	41.28	44,45
	1.625	1.750

Dimensions are mm. over inches

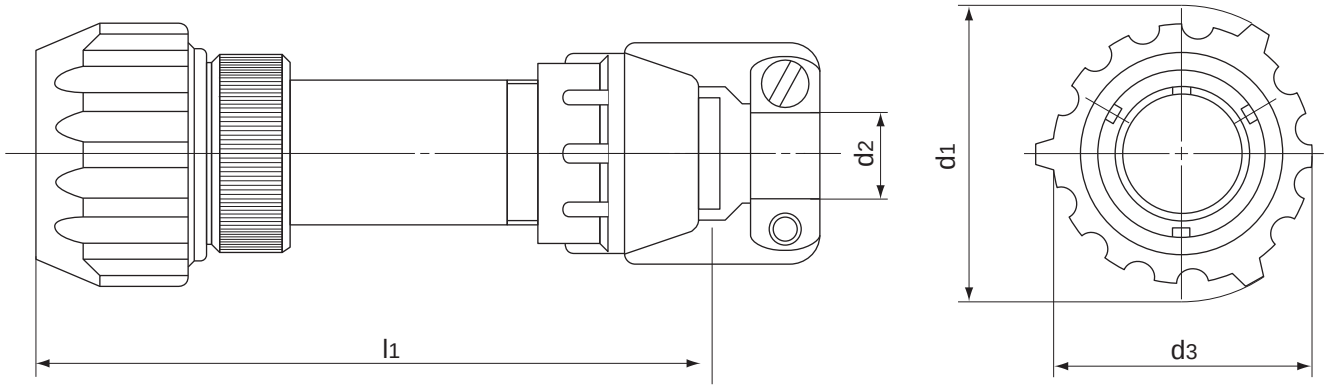
Straight plug with long backshell, cable clamp and seal for jacketed cables. LCFZ - type also has an individual wire sealing grommet.



Shell Size	d_1 max.	d_2 Open	d_2 Closed	l_1 max.
10SL	22,8	7,93	2,38	101
	0.90	.312	.094	3.98
14S	29,2	11,12	6,35	101
	1.15	.438	.25	3.98
16S	32	13,48	8,0	101
	1.26	.531	.315	3.98
16	32	13,48	8,0	114
	1.26	.531	.315	4.49
18	36,5	15,87	9,6	119
	1.44	.625	.378	4.68
20	39,9	19,0	11,3	119
	1.57	.748	.445	4.68
22	43,1	19,0	11,3	119
	1.70	.748	.445	4.68
24	46,6	23,8	15,5	124
	1.83	.938	.610	4.88
28	53,4	23,8	15,5	130
	2.10	.938	.610	5.12
32	60,1	31,75	23,4	137
	2.37	1.259	.921	5.39
36	66,3	35,0	23,4	144
	2.61	1.378	.921	5.67
40	72,5	41,25	29,9	144
	2.85	1.625	1.177	5.67

Dimensions are mm. over inches

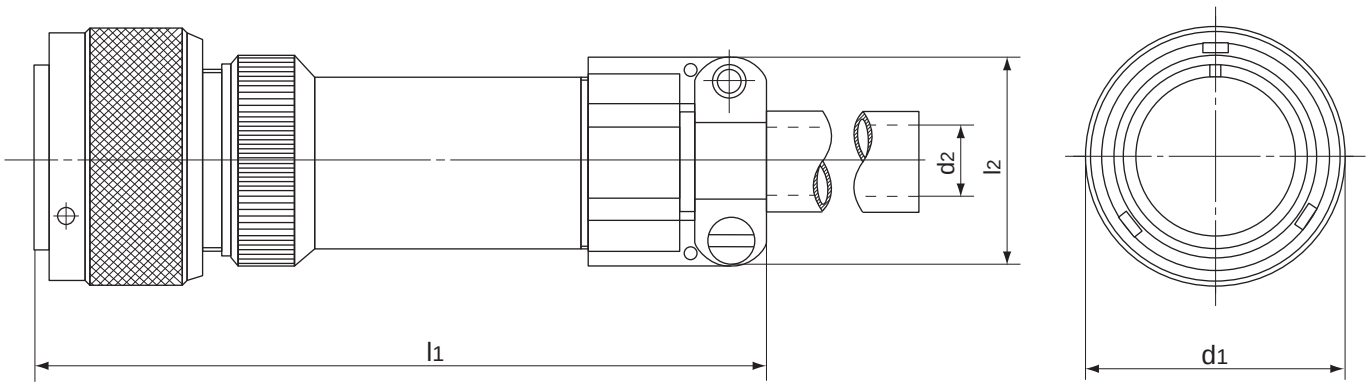
Straight plug with long backshell, cable clamp and seal for jacketed cable plus a rubber covered coupling nut for protection against dust and impact. LCFZGG - type also has an individual wire sealing grommet. To be mated only with receptacles having countersunk mounting holes. See pages 197.



Shell Size	d_1	d_2		d_3	l_1
	—	Open	Closed	—	max.
10SL	33,5	7,93	2,38	28,5	102
	1.32	.312	.094	1.12	4.01
14S	40,2	11,12	6,35	32,5	102
	1.58	.438	.25	1.28	4.01
16	44	13,48	8,0	38,9	115
	1.73	.531	3.15	1.53	4.53
18	49	15,87	9,6	43,5	120
	1.93	.625	.378	1.71	4.72
20	51,5	19,0	11,3	46	121
	2.03	.748	.445	1.81	4.76
22	56	19,0	11,3	50,5	121
	2.20	.748	.445	1.99	4.76
24	60	23,8	15,5	54	126
	2.36	.938	.610	2.12	4.96
28	67	23,8	15,5	61	132
	2.64	.938	.610	2.40	5.20
32	76	31,75	23,4	67,6	140
	2.99	1.250	.921	2.66	5.51
36	82,3	35,0	23,4	74,3	147
	3.24	1.378	.921	2.92	5.79
40	88	41,25	29,9	80	147
	3.46	1.625	1.177	3.15	5.79

Dimensions are mm. over inches

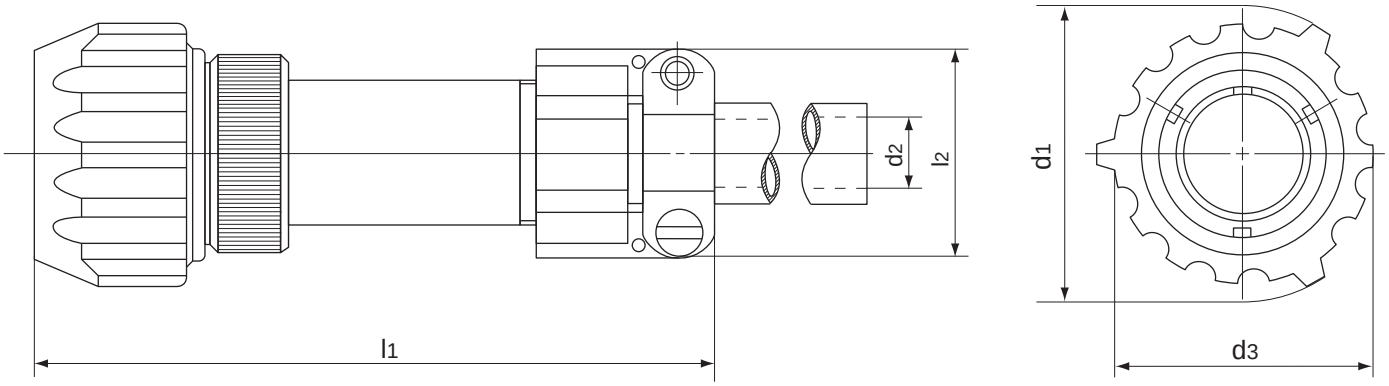
Straight plug with an individual wire sealing grommet, a long backshell, cable clamp and bushing. LAF type has no grommet.



Shell Size	d_1 max.	d_2 * max.	l_1 max.	l_2 max.
10SL	22,8	5,6	92	22,7
	0.90	0.22	3.62	0.89
14S	29,2	7,9	93	27,5
	1.15	0.31	3.66	1.08
16S	32	11	95	30
	1.26	0.43	3.74	1.18
16	32	11	111	30
	1.26	0.43	4.37	1.18
18	36,5	14,2	111	32,2
	1.44	0.56	4.37	1.27
20	39,9	15,8	111	37,5
	1.57	0.62	4.37	1.48
22	43,1	15,8	111	37,5
	1.70	0.62	4.37	1.48
24	46,6	19	113	43,3
	1.83	0.75	4.45	1.70
28	53,4	19	121	43,3
	2.10	0.75	4.76	1.70
32	60,1	23,8	123	51,7
	2.37	0.94	4.84	2.03
36	66,3	31,7	125	58
	2.61	1.25	4.92	2.28
40	72,5	34,9	138	68,5
	2.85	1.37	5.43	2.70

* Max permissible outside diameter of cable
Dimensions are mm. over inches

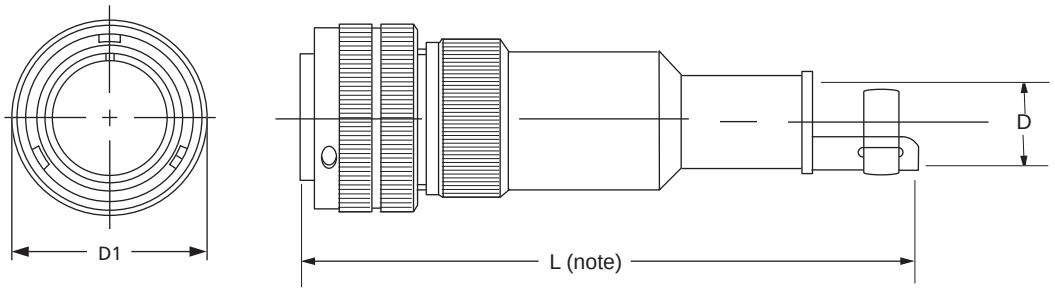
Straight plug with an individual wire sealing grommet, long backshell, cable clamp with bushing plus a rubber covered coupling nut for protection against dust and impact. LAFGG type has no grommet. To be mated only with receptacles having countersunk mounting holes. See pages 197.



Shell Size	d_1 —	d_2 * max.	d_3 —	l_1 max.	l_2 max.
10SL	33,5	5,6	28,5	93	22,7
	1.32	0.22	1.12	3.66	0.89
14S	40,2	7,9	35,2	94	27,5
	1.58	0.31	1.38	3.70	1.08
16	44	11	38,9	112	30
	1.73	0.43	1.53	4.41	1.18
18	49	14,2	43,5	112	32,2
	1.93	0.56	1.71	4.41	1.27
20	51,5	15,8	46	112	37,5
	2.03	0.62	1.81	4.41	1.48
22	56	15,8	50,5	112	37,5
	2.20	0.62	1.99	4.41	1.48
24	60	19	54	115,5	43,3
	2.36	0.75	2.12	4.55	1.70
28	67	19	61	123,5	43,3
	2.64	0.75	2.40	4.86	1.70
32	76	23,8	67,6	127	51,7
	2.99	0.94	2.66	5.00	2.03
36	82,3	31,7	74,3	129	58
	3.24	1.25	2.92	5.08	2.28
40	88	34,9	80	142	68,5
	3.46	1.37	3.15	5.59	2.70

* Max permissible outside diameter of cable
Dimensions are mm. over inches

Plug for terminating flexible rubber hose. Similar to the BC class but with an extended rear for the mechanical strain relief of the individual wires within the conduit. Flexible rubber conduit (hose) is being secured to the backshell by a metal band or hose clamp.



Note: Dimension "L" is dependent on conduit size used with each shell size. Please consult our Customer Service Department.

Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

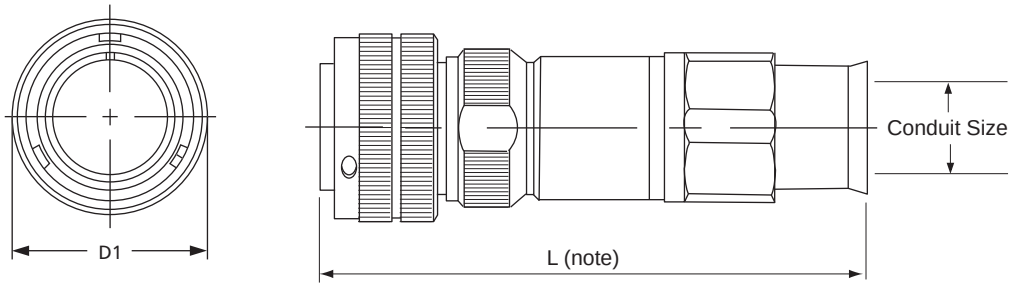
Shell Size	Suffix in Connector Part Number	Conduit Inner Diameter	D Maximum
18	(045)	11,43 .45	7,8 .30
22		11,43 .45	7,8 .30
20	(075)	19,05 .75	13,9 .55
22		19,05 .75	13,9 .55
18	(084)	21,34 .84	15,2 .60
18	(106)	26,92 1.06	21,4 .84
20		26,92 1.06	21,4 .84
22		26,92 1.06	21,4 .84
24		26,92 1.06	21,4 .84
28		26,92 1.06	21,4 .84
36		26,92 1.06	21,4 .84
24	(125)	31,75 1.25	27,8 1.09

Shell Size	Suffix in Connector Part Number	Conduit Inner Diameter	D Maximum
18	(141)	35,81 1.41	28,6 1.12
22		35,81 1.41	28,6 1.12
24		35,81 1.41	28,6 1.12
40	(150)	38,10 1.50	32,5 1.28
36	(197)	50,04 1.97	42,0 1.65
40		50,04 1.97	42,0 1.65
40	(203)	51,56 2.03	44,5 1.75
40	(224)	56,90 2.24	49,7 1.96

Note: Suffix in connector part number represents conduit inner diameter.

Dimensions are mm. over inches

Plug for terminating conduit. Straight, long NM backshell with adapter and backnut assembly to seal and grip on the jacket of a non-metalic flexible).& $ %$ (")!) %$ *!). A wire sealing grommet and compression ring is included. NMG same as NM but without a grommet or compression ring.



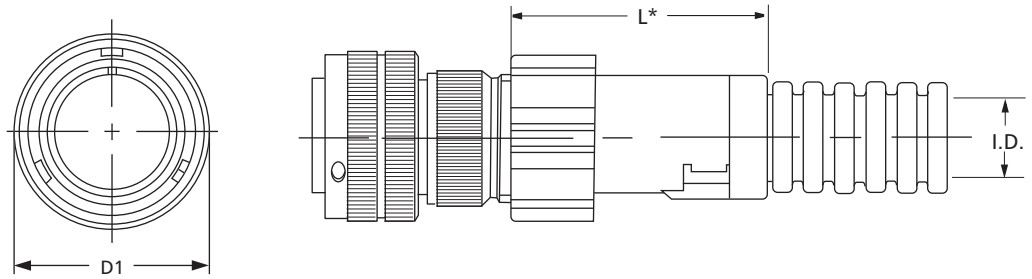
Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

Conduit (CN-P Type) Trade Size	Suffix in Connector Part Number
3/8	(038)
1/2	(050)
3/4	(075)
1	(100)
1 1/4	(125)
1 1/2	(150)
2	(200)

Note: Dimension “L” is dependent on conduit size used with each shell size. Please consult our Customer Service Department.

Dimensions are mm. over inches

Plug for terminating PMA conduit. Includes a backshell and designated PMA fitting for use with appropriate types of PMA conduit.



Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

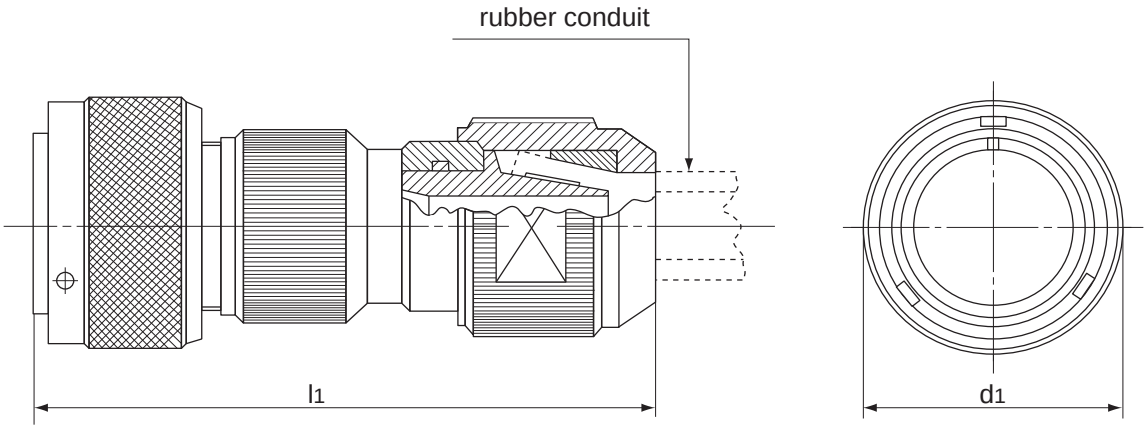
Class	Shell Size	PMA Fitting	Part Number Suffix	PMA Conduit Inner Diameter	L Approximate
PIRAG	10SL	BVIRA-U152	(U152)	11,9 .47	36,5 1.44
	14S	BVIRA-U182	(U182)	11,9 .47	36,5 1.44
	14S	BVIRA-U187	(U187)	15,2 .60	44,5 1.75
PIRB	20 & 22	BVIRB-U297	(U297)	15,2 .60	38,0 1.5
	20 & 22	BVIRB-U293	(U293)	22,0 .87	38,0 1.5
PIVG	16S &16	BVIVG-U217	(U217)	15,2 .60	33,0 1.30
	18	BVIVG-U247	(U247)	15,2 .60	35,0 1.38
	18	BVIVG-U242	(U242)	11,9 .47	35,0 1.38
	20 & 22	BVIVG-U297	(U297)	15,2 .60	35,0 1.38
	20 & 22	BVIVG-U293	(U293)	22,0 .87	55,0 2.16
	24 & 28	BVIVG-U353	(U353)	22,0 .87	52,0 2.05
	24 & 28	BVIVG-U356	(U356)	36,5 1.44	63,0 2.48
	24 & 28	BVIVG-U357	(U357)	15,2 .60	46,5 1.83
	32	BVIVG-U436	(U436)	35,8 1.41	62,5 2.46
	32	BVIVG-U439	(U439)	27,7 1.09	51,5 2.03
	32	BVIVG-U433	(U433)	22,0 .87	52,0 2.05
	36	BVIVG-U509	(U509)	27,7 1.09	55,0 2.16
	36	BVIVG-U503	(U503)	22,0 .87	51,5 2.03
	40	BVIVG-U563	(U563)	22,0 .87	51,0 2.00
	40	BVIVG-U566	(U566)	35,8 1.41	62,0 2.44
	40	BVIVG-U568	(U568)	46,7 1.84	64,0 2.52
	40	BVIVG-U569	(U569)	27,7 1.09	51,0 2.00
PILJ	40	BFILJ-U568G	(U568G)	46,8 1.84	65,0 2.56

*Dimension "L" is dependent on conduit size used with each shell size. Consult our Customer Service Department.

Dimensions are mm. over inches

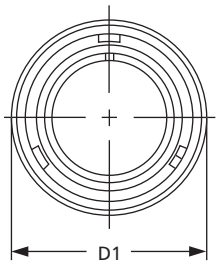
Specifications and dimensions subject to change
Dimensions shown in mm.

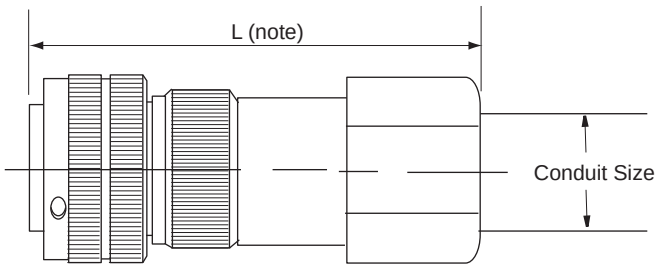
Straight plug with an individual wire sealing grommet and a special backshell for wires protection.



Shell Size	d_1 max.	l_1 max.	Rubber conduit
16	32 1.26	99 3.90	14 x 09
18	36,5 1.44	101 3.98	16 x 11 17 x 12 18 x 13 20 x 15
20	39,9 1.57	101 3.98	18 x 13 20 x 15
22	43,1 1.70	101 3.98	30 x 22
24	46,6 1.83	107 4.21	20 x 15 23 x 18
28	53,4 2.10	110 4.33	29 x 24 30 x 22
32	60,1 2.37	114 4.49	27 x 22 33 x 28
36	66,3 2.61	120 4.72	33 x 28 36 x 28 38 x 33
40	72,5 2.85	121 4.76	33 x 28 38 x 33 48 x 40

Plug for terminating conduit. Straight, long RK backshell with adapter and backnut assembly to seal and grip on the jacket of a steel core flexible).& $ %$ (")!) %$ *!). A wire sealing grommet and compression ring is included. ARK same as RK but without a grommet or compression ring.





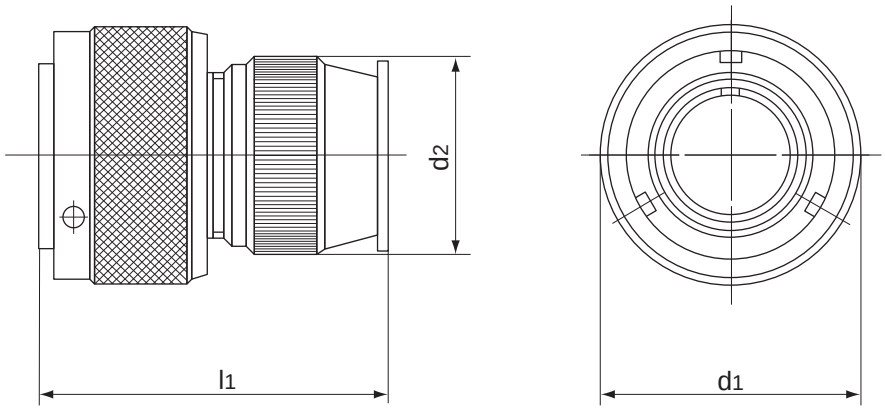
Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

Conduit (EF Type) Trade Size	Suffix in Connector Part Number
3/8	(038)
1/2	(050)
3/4	(075)
1	(100)
1 1/4	(125)
1 1/2	(150)
2	(200)

Note: Dimension "L" is dependent on conduit size used with each shell size. Please consult our Customer Service Department.

Dimensions are mm. over inches

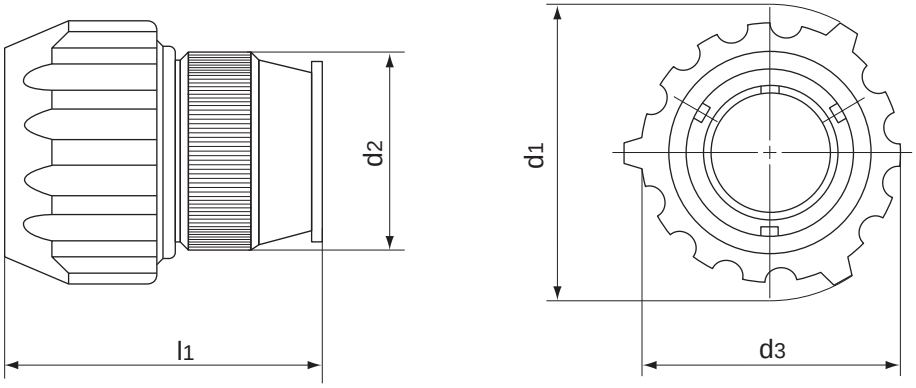
Straight plug with an individual wire sealing grommet. ARV type has no wire sealing grommet.



Shell Size	d_1 max.	d_2 max.	l_1 max.
10SL	22,8 0.90	20 0.79	40 1.57
14S	29,2 1.15	24 0.94	40 1.57
16S	32 1.26	26 1.02	40 1.57
16	32 1.26	26 1.02	56 2.20
18	36,5 1.44	29,5 1.16	56 2.20
20	39,9 1.57	33 1.30	57 2.24
22	43,1 1.70	36 1.42	57 2.24
24	46,6 1.83	40 1.57	59 2.32
28	53,4 2.10	46 1.81	59 2.32
32	60,1 2.37	51,5 2.03	60 2.36
36	66,3 2.61	58 2.28	60 2.36
40	72,5 2.85	64,5 2.54	61 2.40

Dimensions are mm. over inches

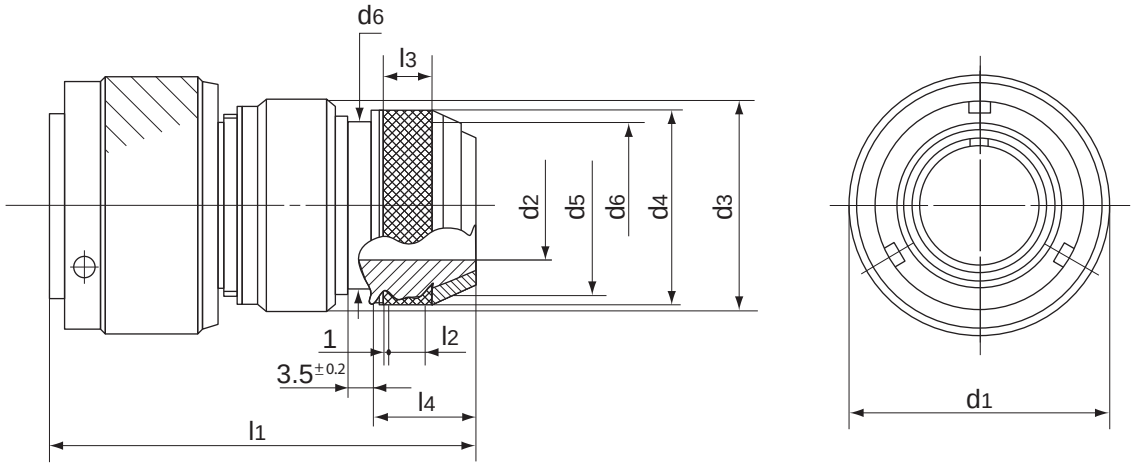
Straight plug with an individual wire sealing grommet and a rubber covered coupling nut for protection against dust and impact. To be mated only with receptacles having countersunk mounting holes. See pages 197.



Shell Size	d_1 —	d_2 max.	d_3 —	l_1 max.
10SL	33,5	20,5	28,5	40
	1.32	0.81	1.12	1.57
14S	40,2	26	35,2	40
	1.58	1.02	1.38	1.57
16	44	30	38,9	56
	1.73	1.18	1.53	2.20
18	49	33	43,5	56
	1.93	1.30	1.71	2.20
20	51,5	36	46	58
	2.03	1.42	1.81	2.28
22	56	39	50,5	58
	2.20	1.53	1.99	2.28
24	60	41	54	61
	2.36	1.61	2.12	2.40
28	67	49	61	61
	2.64	1.93	2.40	2.40
32	76	55	67,6	64
	2.99	2.16	2.66	2.52
36	82,3	61	74,3	64
	3.24	2.40	2.92	2.52
40	88	68	80	65
	3.46	2.68	3.15	2.56

Dimensions are mm. over inches

Straight plug with an individual wire sealing grommet, RFI shield spring and a special backshell for shield braid and heat shrinkable tubing termination. CIR06SB - type as no RFI shield spring. (for shielding characteristics, see page 12).

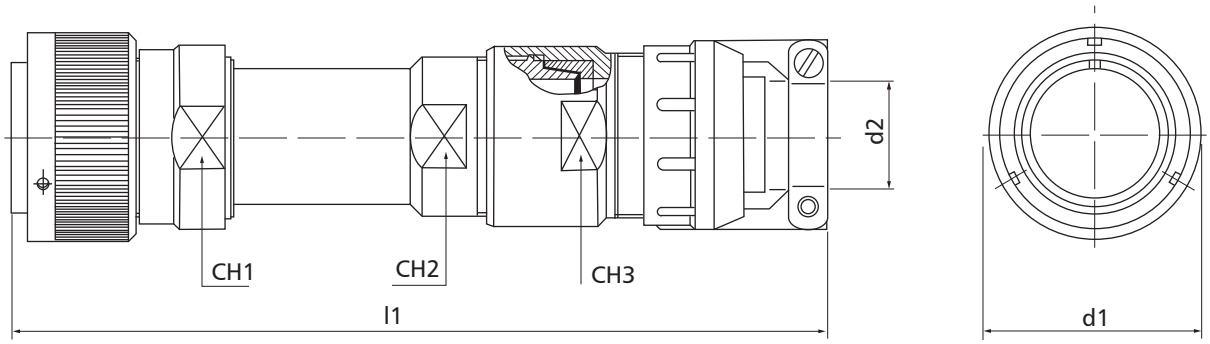


Shell Size	d_1 max.	d_2 min.	d_3 max.	d_4 + 0,5 - 0	d_5 Thread	d_6 max.	l_1 * ~	l_2 min.	l_3 + 0,5	l_4 + 0,1
10SL	22,8	8,6	22	18,5	M16x1	16,3	51,4	4,5	5,5	17
	0.90	0.34	0.87	0.73		0.64	2.02	0.18	0.22	0.67
14S	29,2	10,6	25	22	M20x1	20	51,4	5	7	17
	1.15	0.42	0.98	0.87		0.79	2.02	0.20	0.27	0.67
16S	32	13,5	28	25	M23x1	23	53,4	6	8	18,5
	1.26	0.53	1.10	0.98		0.90	2.10	0.24	0.31	0.73
16	32	13,5	28	25	M23x1	23	62,5	6	8	18,5
	1.26	0.53	1.10	0.98		0.90	2.46	0.24	0.31	0.73
18	36,5	14,6	31	28	M26x1	24,5	63,7	6	8	18,5
	1.44	0.57	1.22	1.10		0.96	2.50	0.24	0.31	0.73
20	39,9	18,5	35	32	M30x1	28,5	63,7	6	10	18,5
	1.57	0.73	1.38	1.26		1.12	2.50	0.24	0.39	0.73
22	43,1	20,8	38	34	M32x1	30,5	63,7	6	10	18,5
	1.70	0.82	1.50	1.34		1.20	2.50	0.24	0.39	0.73
24	46,6	24,6	41	38	M36x1	34,5	64,4	6	10	18,5
	1.83	0.97	1.61	1.50		1.36	2.53	0.24	0.39	0.73
28	53,4	27	48	41	M39x1	37,5	64,4	6	10	18,5
	2.10	1.06	1.89	1.61		1.48	2.53	0.24	0.39	0.73
32	60,1	33,3	54	48	M45x1	44	66	6	10	18,5
	2.37	1.31	2.12	1.89		1.73	2.60	0.24	0.39	0.73
36	66,3	38,5	61	55	M52x1	51	66	6	10	18,5
	2.61	1.51	2.40	2.16		2.0	2.60	0.24	0.39	0.73
40	72,5	46	68	62	M59x1	58	66	6	10	18,5
	2.85	1.81	2.68	2.44		2.28	2.60	0.24	0.39	0.73

* Nominal values after coupling backshell

Dimensions are mm. over inches

Straight plug with an individual wire sealing grommet, RFI shield spring plus a special backshell and cable clamp for shielded, jacketed cables, (for shielding characteristics, see page 12). CIR06 type has no RFI shield spring.

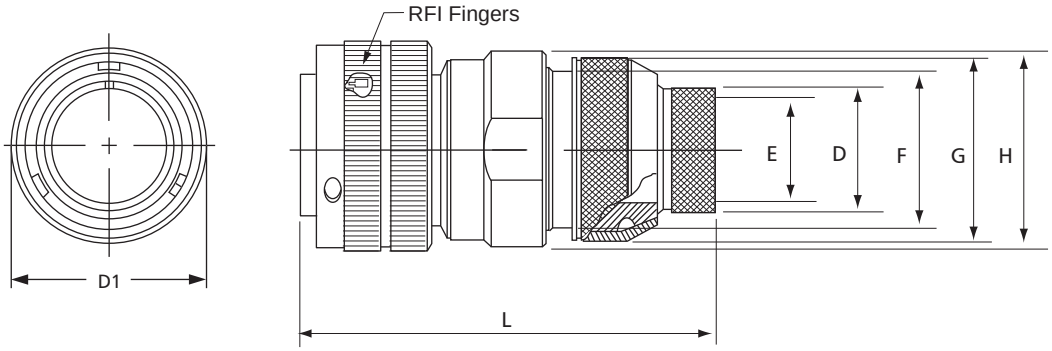


Shell Size	d_1 max.	d_2 open	d_2 closed	l_1 * ~	CH. 1 —	CH. 2 + 0 - 0,2	CH. 3 + 0 - 0,2
18	36,5	15,87	9,5	170	29	24	30
	1.44	0.62	0.375	6.69	1.14	0.94	1.18
20	39,9	19	11,3	170	33	30	32
	1.57	0.75	0.445	6.69	1.30	1.18	1.26
22	43,1	19	11,3	170	36	30	32
	1.70	0.75	0.445	6.69	1.42	1.18	1.26
24	46,6	23,8	15,5	175	39	32	36
	1.83	0.938	0.610	6.89	1.53	1.26	1.42
28	53,4	23,8	15,5	175	46	32	36
	2.10	0.938	0.610	6.89	1.81	1.26	1.42
32	60,1	31,75	23,4	185	52	46	50
	2.37	1.25	0.921	7.28	2.05	1.81	1.97
36	66,3	35	24,5	190	58	50	55
	2.61	1.378	0.921	7.48	2.28	1.97	2.16
40	72,5	41,25	29,9	200	65	55	60
	2.85	1.625	1.177	7.87	2.56	2.16	2.36

* Nominal values

Dimensions are mm. over inches

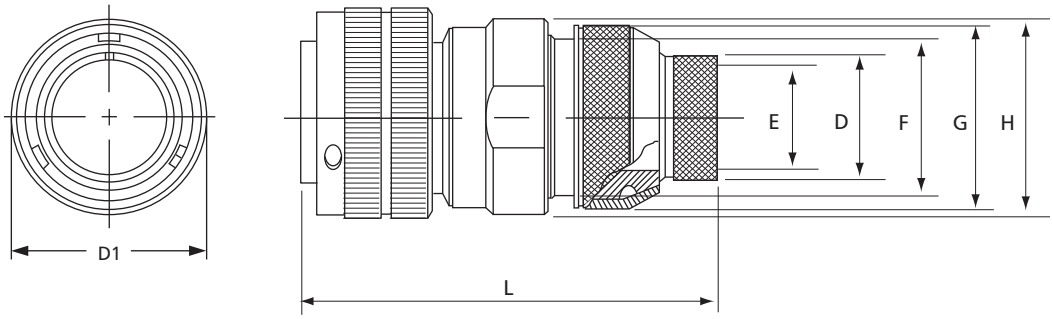
Plug with RFI grounding fingers for terminating braided shield. Straight backshell with a swivel coupling nut and adapter suitable for use with heat shrink tubing or boot. The backshell includes a knurled extension for the shield termination via a tinel lock ring (not supplied). A wire sealing grommet is included. ASBT same as SBT but without a grommet.



Shell Size	D_1 Maximum	D Maximum	E+/- 0,25 .010	F	G	H +/- 0,5 .020	L CIR06 L CIRG06 Approximate	Tinel Ring P/N
10SL	22,8	11,1	7,9	16,3	18,5	22,0	61,8	TR 05
	0.90	.44	3.12	.64	.73	.866	2.43	
14S	29,2	14,3	11,1	20,0	22,0	24,8	61,8	TR 07
	1.15	.56	.437	.79	.87	.976	2.43	
16S	33,0	15,9	12,7	23,0	25,0	27,8	63,8	TR 08
	1.30	.63	.500	.91	.98	1.094	2.51	
16	33,0	15,9	12,7	23,0	25,0	27,8	73,3	TR 08
	1.30	.63	.500	.91	.98	1.094	2.89	
18	36,5	19,1	15,9	24,5	28.0	30,8	74,5	TR 10
	1.44	.75	.625	.97	1.10	1.213	2.93	
20	39,9	22,3	19,1	28.5	32,0	34,8	75,7	TR 12
	1.57	.88	.750	1.12	1.26	1.370	2.98	
22	43,1	25,4	22,2	30,5	34,0	37,8	75,0	TR 14
	1.70	1.00	.875	1.20	1.34	1.488	2.95	
24	46,6	28,7	25,4	34,5	38,0	40,8	75,0	TR 16
	1.84	1.13	1.00	1.36	1.50	1.606	2.95	
28	53,4	31,8	28,6	37,5	41,0	47,8	76,1	TR 18
	2.10	1.25	1.125	1.48	1.61	1.881	3.00	
32	60,1	31,8	28,6	44,0	48,0	53,8	77,7	TR 18
	2.37	1.25	1.125	1.73	1.89	2.118	3.06	
36	66,3	44,5	41,3	51,0	55,0	60,8	76,5	Not
	2.61	1.75	1.625	2.01	2.17	2.394	3.01	Available
40	72,4	50.8	47,6	58,0	62,0	67,8	76,5	Not
	2.85	2.00	1.875	2.28	2.44	2.669	3.01	Available

Dimensions are mm. over inches

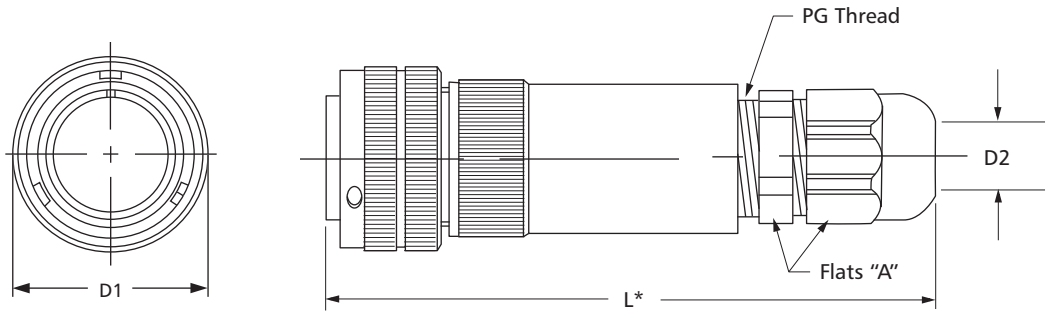
Plug for terminating braided shield. Straight backshell with a swivel coupling nut and adapter suitable for use with heat shrink tubing or boot. The backshell includes a knurled extension for the shield termination via a tinel lock ring (not supplied). A wire sealing grommet is included. ASBT same as SBT but without a grommet.



Shell Size	D_1 Maximum	D Maximum	E+/- 0,25 .010	F	G	H +/- 0,5 .020	L CIR06 L CIRG06 Approximate	Tinel Ring P/N
10SL	22,8	11,1	7,9	16,3	18,5	22,0	61,8	TR 05
	0.90	.44	3.12	.64	.73	.866	2.43	
14S	29,2	14,3	11,1	20,0	22,0	24,8	61,8	TR 07
	1.15	.56	.437	.79	.87	.976	2.43	
16S	33,0	15,9	12,7	23,0	25,0	27,8	63,8	TR 08
	1.30	.63	.500	.91	.98	1.094	2.51	
16	33,0	15,9	12,7	23,0	25,0	27,8	73,3	TR 08
	1.30	.63	.500	.91	.98	1.094	2.89	
18	36,5	19,1	15,9	24,5	28.0	30,8	74,5	TR 10
	1.44	.75	.625	.97	1.10	1.213	2.93	
20	39,9	22,3	19,1	28.5	32,0	34,8	75,7	TR 12
	1.57	.88	.750	1.12	1.26	1.370	2.98	
22	43,1	25,4	22,2	30,5	34,0	37,8	75,0	TR 14
	1.70	1.00	.875	1.20	1.34	1.488	2.95	
24	46,6	28,7	25,4	34,5	38,0	40,8	75,0	TR 16
	1.84	1.13	1.00	1.36	1.50	1.606	2.95	
28	53,4	31,8	28,6	37,5	41,0	47,8	76,1	TR 18
	2.10	1.25	1.125	1.48	1.61	1.881	3.00	
32	60,1	31,8	28,6	44,0	48,0	53,8	77,7	TR 18
	2.37	1.25	1.125	1.73	1.89	2.118	3.06	
36	66,3	44,5	41,3	51,0	55,0	60,8	76,5	Not
	2.61	1.75	1.625	2.01	2.17	2.394	3.01	Available
40	72,4	50.8	47,6	58,0	62,0	67,8	76,5	Not
	2.85	2.00	1.875	2.28	2.44	2.669	3.01	Available

Dimensions are mm. over inches

Plug for terminating jacketed cable. Long metal backshell and non-metallic fitting with PG thread. SL1 same as SL but includes a wire sealing grommet and compression ring.



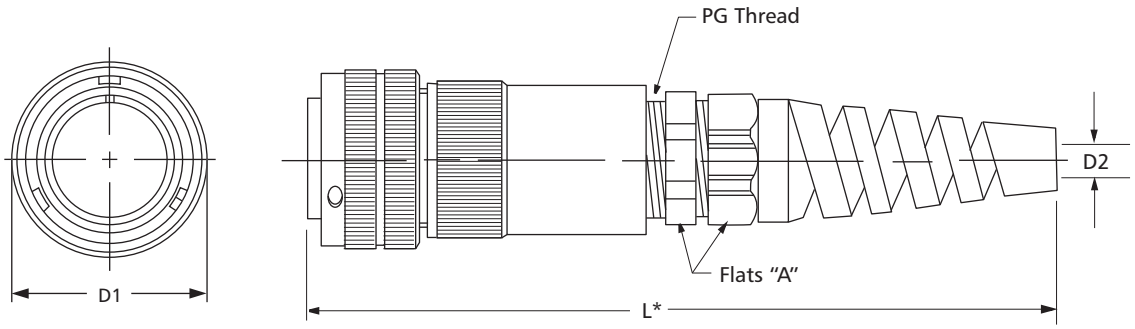
Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	Thread Size	A Wrench Flats
(07)	3,00 .118	6,48 .255	(07R)	2,00 .079	5,00 .197	PG-7	15,01 .591
(09)	3,99 .157	7,98 .314	(09R)	2,00 .079	5,99 .236	PG-9	19,05 .750
(11)	5,00 .197	10,0 .394	(11R)	3,00 .118	7,09 .279	PG-11	22,00 .866
(13)	5,99 .236	11,99 .472	(13R)	8,66 .341	8,97 .353	PG-13	24,13 .950
(16)	10,0 .394	13,99 .551	(16R)	10,74 .423	12,22 .481	PG-16	27,00 1.063
(21)	13,84 .545	18,00 .709	(21R)	12,22 .481	15,67 .617	PG-21	32,99 1.299
(29)	17,98 .708	24,99 .984	(29R)	13,00 .512	19,99 .787	PG-29	42,01 1.654
(36)	22,0 .866	31,98 1.259	(36R)	19,99 .787	25,99 1,023	PG-36	53,00 2.087
(42)	31,98 1.259	38,00 1.496	(42R)	24,00 .945	30,99 1.220	PG-42	59.99 2.362
(48)	36,98 1.456	43,99 1.732	(48R)	28,98 1.141	35,00 1.378	PG-48	64,99 2.559

*Dimension "L" is dependent on the backshell, the cable range and the fitting used. Verify with our Customer Service Department.

Dimensions are mm. over inches

Plug for terminating jacketed cable. Long metal backshell and non-metallic spiral fitting with PG thread (to prevent sharp angle bending). SLX1 same as SLX but includes a wire sealing grommet and compression ring.



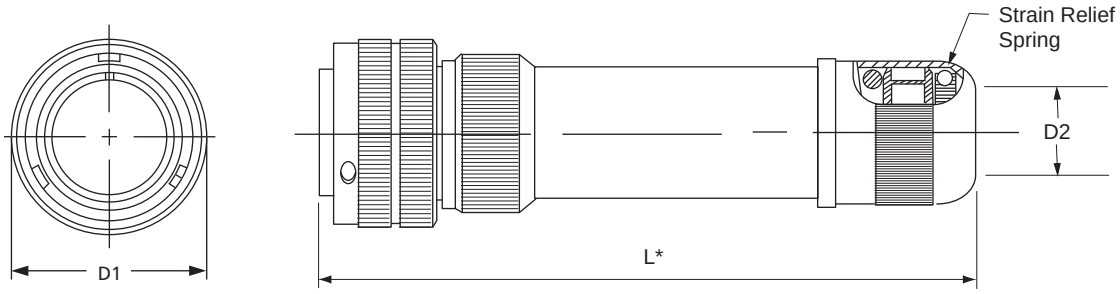
Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	Thread Size	A Wrench Flats
(07)	3,00 .118	6,48 .255	(07R)	2,00 .079	5,00 .197	PG-7	15,01 .591
(09)	3,99 .157	7,98 .314	(09R)	2,00 .079	5,99 .236	PG-9	19,05 .750
(11)	5,00 .197	10,0 .394	(11R)	3,00 .118	7,09 .279	PG-11	22,00 .866
(13)	5,99 .236	11,99 .472	(13R)	8,66 .341	8,97 .353	PG-13	24,13 .950
(16)	10,0 .394	13,99 .551	(16R)	10,74 .423	12,22 .481	PG-16	27,00 1.063
(21)	13,84 .545	18,00 .709	(21R)	12,22 .481	15,67 .617	PG-21	32,99 1.299

*Dimension "L" is dependent on the backshell, the cable range and the fitting used. Verify with our Customer Service Department.

Dimensions are mm. over inches

Plug for terminating jacketed cable. Long WK backshell and backnut assembly suitable to seal and grip on the jacket of the cable. WKG same as WK but includes a wire sealing grommet and compression ring.



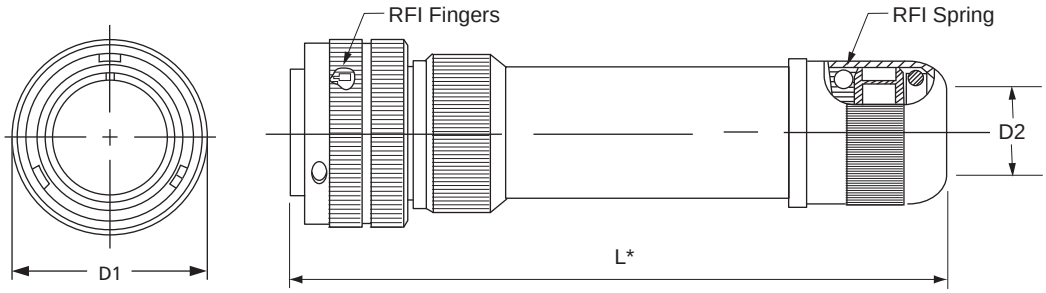
Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.
02	3,18 .125	6,35 .250	08	19,86 .782	25,4 1.000
03	3,99 .157	9,53 .375	09	23,04 .907	28,58 1.125
04	7,16 .282	12,7 .500	10	26,21 1.032	31,75 1.250
05	10,34 .407	15,8 .625	11	29,39 1.157	34,93 1.375
06	13,51 .532	19,05 .750	12	32,56 1.282	38,1 1.500
07	16,69 .657	22,23 .875	17	50,80 2.000	53,99 2.125

*Dimension "L" will vary from the values indicated with escalating or de-escalating backshells and some special insert configurations. Verify with our Customer Service Department.

Dimensions are mm. over inches

Plug for terminating braided shield. Long WK backshell, grommet and backnut assembly suitable for shield termination and strain relief of the jacket of the cable.



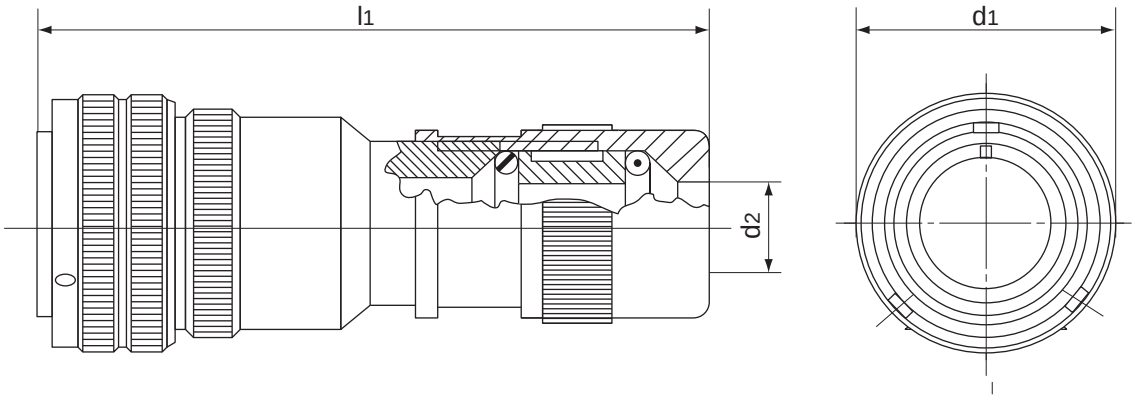
Shell Size	D_1 Maximum	L Approximate
10SL	22,8	111
	0.90	4.37
14S	29,2	112
	1.15	4.41
16S	33,0	100
	1.30	3.94
16	33,0	110
	1.30	4.33
18	36,5	127
	1.44	5.00
20	39,9	127
	1.57	5.00
22	43,1	133
	1.70	5.24
24	46,6	134
	1.84	5.28
28	53,4	134
	2.10	5.28
32	60,1	136
	2.37	5.35
36	66,3	136
	2.61	5.35
40	72,4	136
	2.85	5.35

D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.
02	3,18	6,35	08	19,86	25,4
	.125	.250		.782	1.000
03	3,99	9,53	09	23,04	28,58
	.157	.375		.907	1.125
04	7,16	12,7	10	26,21	31,75
	.282	.500		1.032	1.250
05	10,34	15,8	11	29,39	34,93
	.407	.625		1.157	1.375
06	13,51	19,05	12	32,56	38,1
	.532	.750		1.282	1.500
07	16,69	22,23	17	50,80	53,99
	.657	.875		2.000	2.125

*Dimension "L" will vary from the values indicated with escalating or de-escalating backshells and some special insert configurations. Verify with our Customer Service Department.

Dimensions are mm. over inches

Straight plug with backshell and backnut assembly with strain relief and seal for jacketed cable. Individual wire sealing grommet not included.

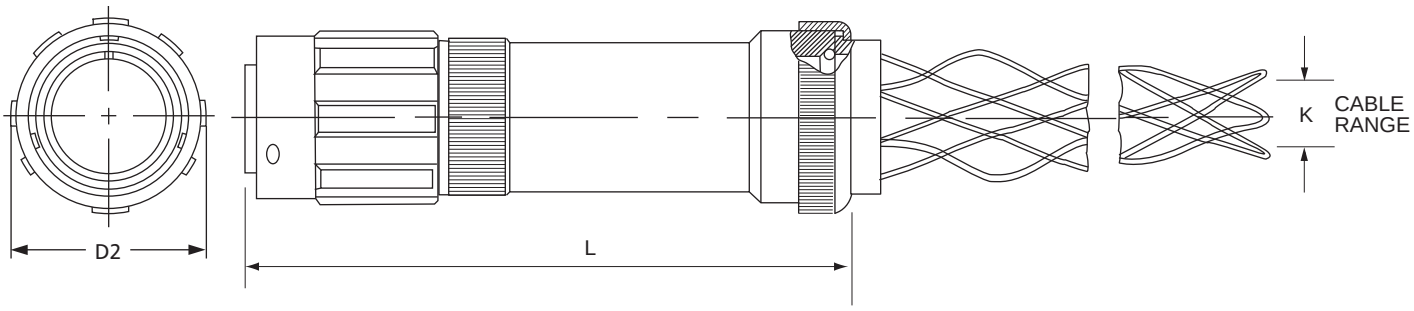


Shell Size	d_1 max.	l_1 ≃
10SL	22,8	111
	0.90	4.37
14S	29,2	112
	1.15	4.41
16S	32	100
	1.26	3.94
16	32	110
	1.26	4.33
18	36,5	127
	1.44	5.00
20	39,9	127
	1.57	5.00
22	43,1	133
	1.70	5.24
24	46,6	134
	1.83	5.27
28	53,4	134
	2.10	5.27
32	60,1	136
	3.37	5.35
36	66,3	136
	2.61	5.35
40	72,5	136
	2.85	5.35

Termination type (YY)	d_2 min.	d_2 max.
02	3,18	6.35
	0.125	0.25
03	3,99	9,53
	0.157	0.375
04	7,16	12,7
	0.282	0.50
05	10,34	15,88
	0.407	0.625
06	13,51	19,05
	0.532	0.75
07	16,69	22,23
	0.657	0.875
08	19,86	25,4
	0.782	1.00
09	23,04	28,58
	0.907	1.125
10	26,21	31,75
	1.032	1.25
11	29,39	34,93
	1.157	1.375
12	32,56	38,1
	1.282	1.50
17	50,80	53,99
	2.000	2.125

*Dimension "L" is dependent on the backshell and backnut assembly combination. Dimension shown is only typical. Consult factory for actual dimensions.

Plug for terminating jacketed cable. Extended heavy duty coupling nut and long LC backshell with internal adapter suitable for various sizes of cable, grommet, compression ring and a cord grip included. LCG same as LC but without the wire sealing grommet and compression ring.

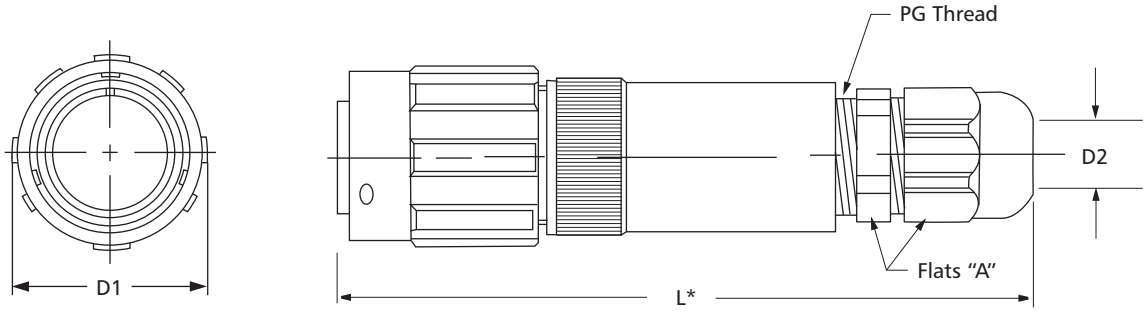


Shell Size	D_2 Maximum	L Approximate
10SL	25,3	100
	0.97	3.94
14S	31,7	100
	1.25	3.94
16S	35,9	100
	1.41	3.94
16	35,9	110
	1.41	4.33
18	39,5	110
	1.56	4.33
20	42,9	116
	1.69	4.57
22	46,1	116
	1.82	4.57
24	49,5	120
	1.95	4.72
28	56,9	129
	2.24	5.08
32	63,7	145
	2.51	5.71
36	70,1	145
	2.76	5.71
40	75,7	145
	2.98	5.71

K Suffix in Connector Part Number	K Cable Range Min.	Max.
K0	6,35	9,53
	.250	.375
K1	9,53	12,7
	.375	.500
K2	12,7	15,87
	.500	.625
K3	15,87	19,05
	.625	.750
K4	19,05	22,23
	.750	.875
K5	22,23	25,4
	.875	1.000
K6	25,4	28,45
	1.000	1.120
K7	28,45	31,75
	1.120	1.250
K8	32,77	38,1
	1.290	1.500
K9	39.62	41,28
	1.560	1.625
K10	41.28	44,45
	1.625	1.750

Dimensions are mm. over inches

Plug for terminating jacketed cable. Extended heavy duty coupling nut, long metal backshell and non-metallic fitting with PG thread. SL1 same as SL but includes a wire sealing grommet and compression ring.

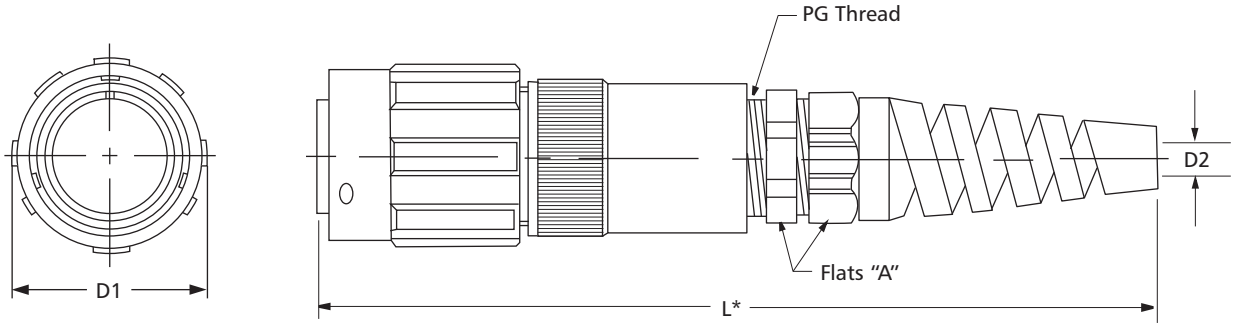


Shell Size	D_1 Maximum
10SL	25,3 0.97
14S	31,7 1.25
16S	35,9 1.41
16	35,9 1.41
18	39,5 1.56
20	42,9 1.69
22	46,1 1.82
24	49,5 1.95
28	56,9 2.24
32	63,7 2.51
36	70,1 2.76
40	75,7 2.98

D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	Thread Size	A Wrench Flats
(07)	3,00 .118	6,48 .255	(07R)	2,00 .079	5,00 .197	PG-7	15,01 .591
(09)	3,99 .157	7,98 .314	(09R)	2,00 .079	5,99 .236	PG-9	19,05 .750
(11)	5,00 .197	10,0 .394	(11R)	3,00 .118	7,09 .279	PG-11	22,00 .866
(13)	5,99 .236	11,99 .472	(13R)	8,66 .341	8,97 .353	PG-13	24,13 .950
(16)	10,0 .394	13,99 .551	(16R)	10,74 .423	12,22 .481	PG-16	27,00 1.063
(21)	13,84 .545	18,00 .709	(21R)	12,22 .481	15,67 .617	PG-21	32,99 1.299
(29)	17,98 .708	24,99 .984	(29R)	13,00 .512	19,99 .787	PG-29	42,01 1.654
(36)	22,0 .866	31,98 1.259	(36R)	19,99 .787	25,99 1,023	PG-36	53,00 2.087
(42)	31,98 1.259	38,00 1.496	(42R)	24,00 .945	30,99 1.220	PG-42	59.99 2.362
(48)	36,98 1.456	43,99 1.732	(48R)	28,98 1.141	35,00 1.378	PG-48	64,99 2.559

*Dimension "L" is dependent on the backshell, the cable range and the fitting used. Verify with our Customer Service Department.
Dimensions are mm. over inches

Plug for terminating jacketed cable. Extended heavy duty coupling nut, long metal backshell and non-metallic spiral fitting with PG thread (to prevent sharp angle bending). SLX1 same as SLX but includes a wire sealing grommet and compression ring.



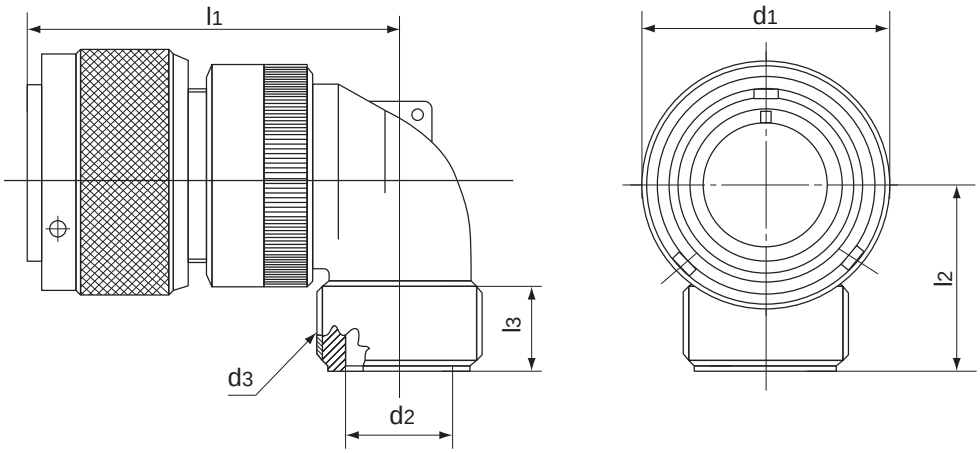
Shell Size	D_1 Maximum
10SL	25,3 0.97
14S	31,7 1.25
16S	35,9 1.41
16	35,9 1.41
18	39,5 1.56
20	42,9 1.69
22	46,1 1.82
24	49,5 1.95
28	56,9 2.24
32	63,7 2.51
36	70,1 2.76
40	75,7 2.98

D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	D2 Suffix in Connector Part No.	D2 Cable Range Min.	D2 Cable Range Max.	Thread Size	A Wrench Flats
(07)	3,00 .118	6,48 .255	(07R)	2,00 .079	5,00 .197	PG-7	15,01 .591
(09)	3,99 .157	7,98 .314	(09R)	2,00 .079	5,99 .236	PG-9	19,05 .750
(11)	5,00 .197	10,0 .394	(11R)	3,00 .118	7,09 .279	PG-11	22,00 .866
(13)	5,99 .236	11,99 .472	(13R)	8,66 .341	8,97 .353	PG-13	24,13 .950
(16)	10,0 .394	13,99 .551	(16R)	10,74 .423	12,22 .481	PG-16	27,00 1.063
(21)	13,84 .545	18,00 .709	(21R)	12,22 .481	15,67 .617	PG-21	32,99 1.299

*Dimension "L" is dependent on the backshell, the cable range and the fitting used. Verify with our Customer Service Department.

Dimensions are mm. over inches

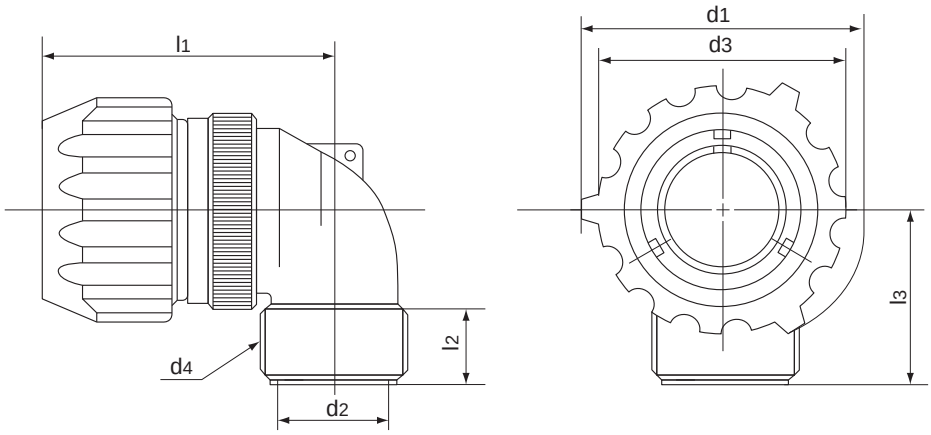
Right angle (90° elbow) plug. R type has an individual wire sealing grommet. CIRG type also has a RFI shield spring (for shielding characteristics, see page 12).



Shell Size	d_1 max.	d_2 +0,2 -0,1	d_3 Thread in inches	l_1 max.	l_2 max.	l_3 min.
10SL	22,8	10,5	5/8 -24 UNEF-2A	45	30	9,4
	0.90	0.41		1.77	1.18	0.37
14S	29,2	11,5	3/4 -20 UNEF-2A	47	30	9,4
	1.15	0.45		1.85	1.18	0.37
16S	32	14,7	7/8 -20 UNEF-2A	48	30	9,4
	1.26	0.59		1.89	1.18	0.37
16	32	14,7	7/8 -20 UNEF-2A	57	30	9,4
	1.26	0.59		2.24	1.18	0.37
18	36,5	17,2	1" -20 UNEF-2A	58	35	9,4
	1.44	0.68		2.28	1.38	0.37
20	39,9	20,35	1"3/16 -18 UNEF-2A	61	35	9,4
	1.57	0.80		2.40	1.38	0.37
22	43,1	23	1"3/16 -18 UNEF-2A	61	35	9,4
	1.70	0.90		2.40	1.38	0.37
24	46,6	25,8	1"7/16 -18 UNEF-2A	66	40	9,4
	1.83	1.01		2.60	1.57	0.37
28	53,4	28,7	1"7/16 -18 UNEF-2A	66	40	9,4
	2.10	1.13		2.60	1.57	0.37
32	60,1	36,5	1"3/4 -18 UNS-2A	72	45	11
	2.37	1.44		2.83	1.77	0.43
36	66,3	42,6	2" -18 UNS-2A	75	50	12,6
	2.61	1.68		2.95	1.97	0.50
40	72,5	48,6	2"1/4 -16 UN-2A	78	55	12,6
	2.85	1.91		3.07	2.16	0.50

Dimensions are mm. over inches

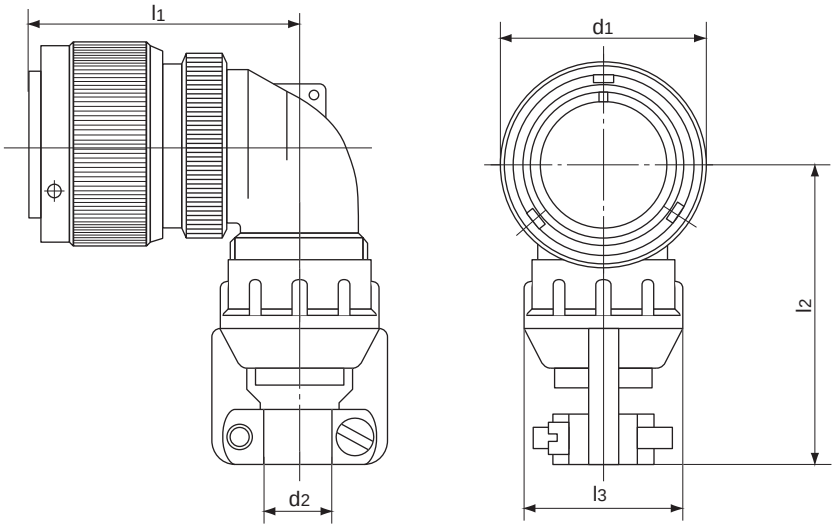
Right angle (90º elbow) plug, with a rubber covered coupling nut for protection against dust and impact.RGG type has an individual wire sealing grommet. To be mated only with receptacles with countersunk mounting holes. See pages 174.



Shell Size	d_1 —	d_2 +0,2 -0,1	d_3 —	d_4 Thread in inches	l_1 max.	l_2 min.	l_3 max.
10SL	33,5	10,5	28,5	5/8 -24 UNEF-2A	49	9,4	30
	1.32	0.41	1.12		1.93	0.37	1.18
14S	40,2	11,5	35,2	3/4 -20 UNEF-2A	53	9,4	30
	1.58	0.45	1.38		2.09	0.37	1.18
16	44	14,7	38,9	7/8 -20 UNEF-2A	63	9,4	30
	1.73	0.58	1.72		2.48	0.37	1.18
18	49	17,2	43,5	1” -20 UNEF-2A	64	9,4	35
	1.93	0.68	1.71		2.52	0.37	1.38
20	51,5	20,35	46	1”3/16 -18 UNEF-2A	67	9,4	35
	2.03	0.80	1.81		2.64	0.37	1.38
22	56	23	50,5	1”3/16 -18 UNEF-2A	67	9,4	35
	2.20	0.90	1.99		2.64	0.37	1.38
24	60	25,8	54	1”7/16 -18 UNEF-2A	73	9,4	40
	2.36	1.01	2.12		2.87	0.37	1.57
28	67	28,7	61	1”7/16 -18 UNEF-2A	73	9,4	40
	2.64	1.13	2.40		2.87	0.37	1.57
32	76	36,5	67,6	1”3/4 -18 UNS-2A	78	11	45
	2.99	1.44	2.66		3.07	0.43	1.77
36	82,3	42,6	74,3	2” -18 UNS-2A	81	12,6	50
	3.24	1.68	2.92		3.19	0.50	1.97
40	88	48,6	80	2”1/4 -16 UN-2A	84	12,6	55
	3.46	1.91	3.15		3.31	0.50	2.16

Dimensions are mm. over inches

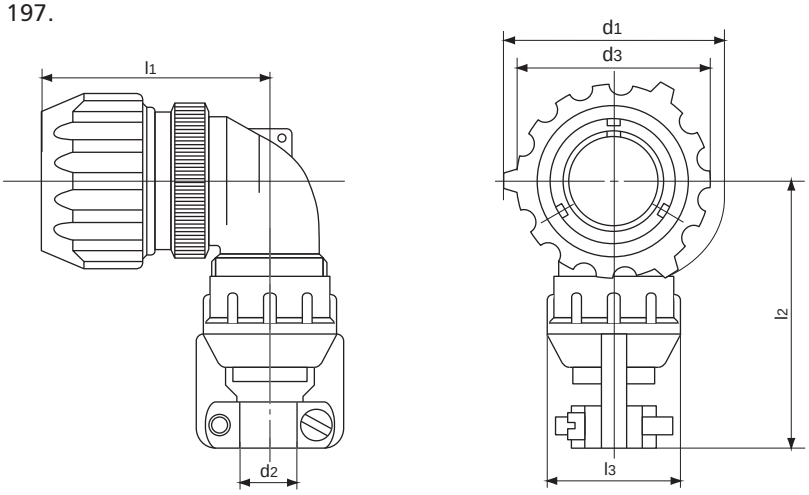
Right angle (90° elbow) plug with a cable clamp for jacketed cables. CFZ type also has an individual wire sealing grommet.



Shell Size	d_1 max.	d_2 Open	d_2 Closed	l_1 max.	l_2 max.	l_3 ± 0,2
10SL	22,8	7,93	2,38	45	61	22,6
	0.90	.312	.094	1.77	2.40	0.89
14S	29,2	11,12	6,35	47	61	25,8
	1.15	.438	.25	1.85	2.40	1.01
16S	32	13,48	8,0	48	61	28,1
	1.26	.531	.315	1.89	2.40	1.11
16	32	13,48	8,0	57	61	28,1
	1.26	.531	.315	2.24	2.40	1.11
18	36,5	15,87	9,6	58	68	31
	1.44	.625	.378	2.28	2.68	1.22
20	39,9	19,0	11,3	61	68	37,3
	1.57	.748	.445	2.40	2.68	1.47
22	43,1	19,0	11,3	61	68	37,3
	1.70	.748	.445	2.40	2.68	1.47
24	46,6	23,8	15,5	66	76	42
	1.83	.938	.610	2.60	2.99	1.65
28	53,4	23,8	15,5	66	76	42
	2.10	.938	.610	2.60	2.99	1.65
32	60,1	31,75	23,4	72	87	54
	2.37	1.250	.921	2.83	3.42	2.12
36	66,3	35,0	23,4	75	98	57,1
	2.61	1.378	.921	2.95	3.86	2.25
40	72,5	41,25	29,9	78	103	63,5
	2.85	1.625	1.177	3.07	4.05	2.50

Dimensions are mm. over inches

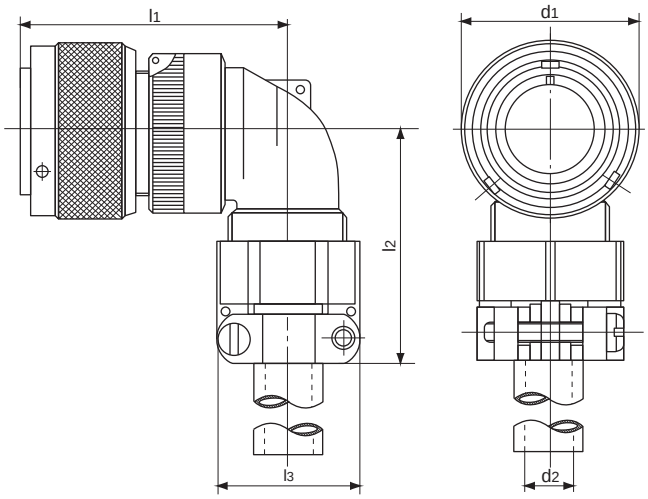
Right angle (90º elbow) plug with a cable clamp for jacketed cables and a rubber coupling nut for protection against dust and impact. CFZGG type also has an individual wire sealing grommet. To be mated only with receptacles having countersunk mounting holes. See pages 197.



Shell Size	d_1	d_2		d_3	l_1	l_2	l_3
	—	Open	Closed	—	max.	max.	±0,2
10SL	33,5	7,93	2,38	28,5	49	61	22,6
	1.32	.312	.094	1.12	1.93	2.40	0.89
14S	40,2	11,12	6,35	32,5	53	61	25,8
	1.58	.438	.25	1.28	2.09	2.40	1.01
16	44	13,48	8,0	38,9	63	61	28,1
	1.73	.531	.315	1.53	2.48	2.40	1.11
18	49	15,87	9,6	43,5	64	68	31
	1.93	.625	.378	1.71	2.52	2.68	1.22
20	51,5	19,0	11,3	46	67	68	37,3
	2.03	.748	.445	1.81	2.64	2.68	1.47
22	56	19,0	11,3	50,5	67	68	37,3
	2.20	.748	.445	1.99	2.64	2.68	1.47
24	60	23,8	15,5	54	73	76	42
	2.36	.938	.610	2.12	2.87	2.99	1.65
28	67	23,8	15,5	61	73	76	42
	2.64	.938	.610	2.40	2.87	2.99	1.65
32	76	31,75	23,4	67,6	78	87	54
	2.99	1.250	.921	2.66	3.07	3.42	2.12
36	82,3	35,0	23,4	74,3	81	98	57,1
	3.24	1.378	.921	2.92	3.19	3.86	2.25
40	88	41,25	29,9	80	84	103	63,5
	3.46	1.625	1.177	3.15	3.31	4.05	2.50

Dimensions are mm. over inches

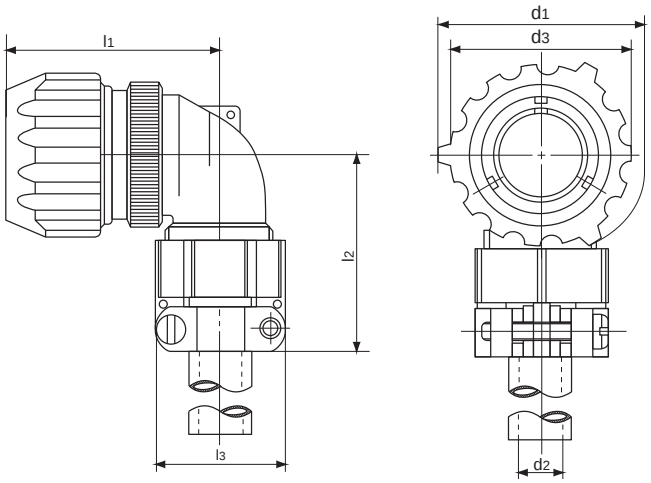
Right angle (90° elbow) plug with an individual wire sealing grommet and a cable clamp with a bushing. AF type has no grommet.



Shell Size	d_1 max.	d_2 * max.	l_1 max.	l_2 max.	l_3 max.
10SL	22,8	5,6	45	42	22,7
	0.90	0.22	1.77	1.65	0.89
14S	29,2	7,9	47	42	27,5
	1.15	0.31	1.85	1.65	1.08
16S	32	11	48	45	30
	1.26	0.43	1.89	1.77	1.18
16	32	11	57	45	30
	1.26	0.43	2.24	1.77	1.18
18	36,5	14,2	58	53	32,2
	1.44	0.56	2.28	2.09	1.27
20	39,9	15,8	61	53	37,5
	1.57	0.62	2.40	2.09	1.48
22	43,1	15,8	61	53	37,5
	1.70	0.62	2.40	2.09	1.48
24	46,6	19	66	58	43,3
	1.83	0.75	2.60	2.28	1.70
28	53,4	19	66	58	43,3
	2.10	0.75	2.60	2.28	1.70
32	60,1	23,8	72	66	51,7
	2.37	0.94	2.83	2.60	2.03
36	66,3	31,7	75	69	58
	2.61	1.25	2.95	2.72	2.28
40	72,5	34,9	78	95	68,5
	2.85	1.37	3.07	3.74	2.70

* Max permissible outside diameter of cable
Dimensions are mm. over inches

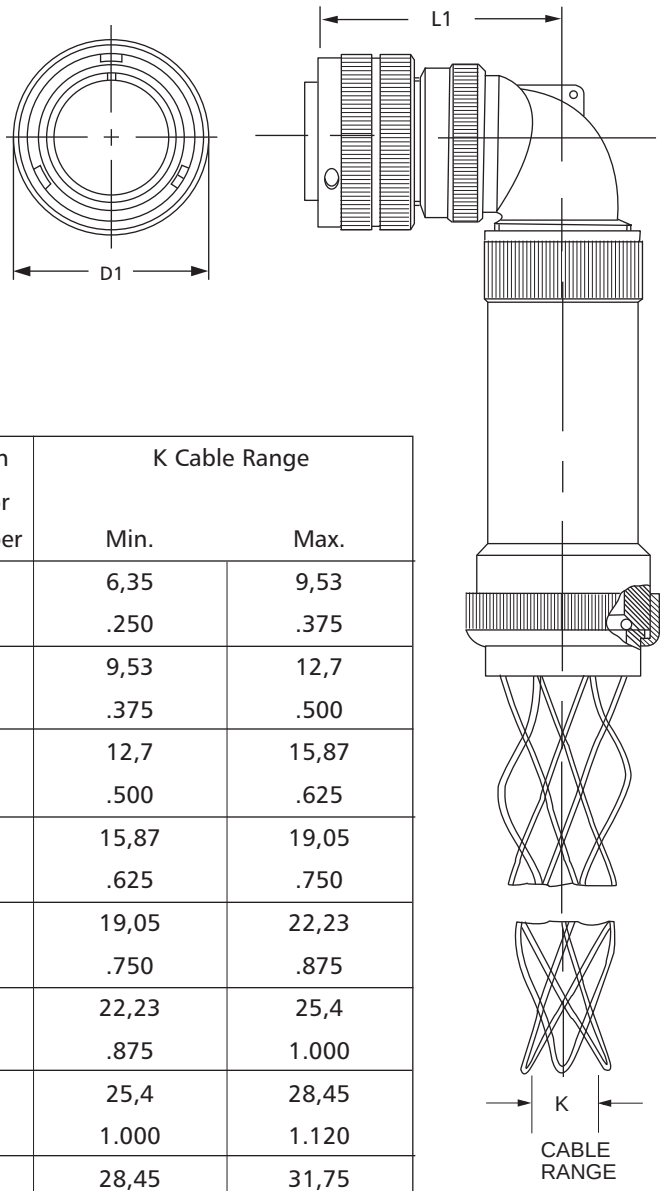
Right angle (90º elbow) plug with an individual wire sealing grommet, cable clamp, bushing and rubber covered coupling nut for protection against dust and impact. AFGG type has no grommet. To be mated only with receptacles having countersunk mounting holes. See pages 197.



Shell Size	d_1 —	d_2 * max.	d_3 —	l_1 max.	l_2 max.	l_3 max.
10SL	33,5	5,6	28,5	49	42	22,7
	1.32	0.22	1.12	1.93	1.65	0.89
14S	40,2	7,9	35,2	53	42	27,5
	1.58	0.31	1.38	2.09	1.65	1.08
16	44	11	38,9	63	45	30
	1.73	0.43	1.53	2.48	1.77	1.18
18	49	14,2	43,5	64	53	32,2
	1.93	0.56	1.71	2.52	2.09	1.27
20	51,5	15,8	46	67	53	37,5
	2.03	0.62	1.81	2.64	2.09	1.48
22	56	15,8	50,5	67	53	37,5
	2.20	0.62	1.99	2.64	2.09	1.48
24	60	19	54	73	58	43,3
	2.36	0.75	2.12	2.87	2.28	1.70
28	67	19	61	73	58	43,3
	2.64	0.75	2.40	2.87	2.28	1.70
32	76	23,8	67,6	78	66	51,7
	2.99	0.94	2.66	3.07	2.60	2.03
36	82,3	31,7	74,3	81	69	58
	3.24	1.25	2.92	3.19	2.72	2.28
40	88	34,9	80	84	95	68,5
	3.46	1.37	3.15	3.31	3.74	2.70

* Max permissible outside diameter of cable
Dimensions are mm. over inches

Right angle plug for terminating jacketed cable. Long LC backshell with internal adapter suitable for various sizes of cable, grommet, compression ring and a cord grip included. LCG same as LC but without the wire sealing grommet and compression ring.

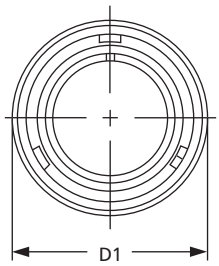


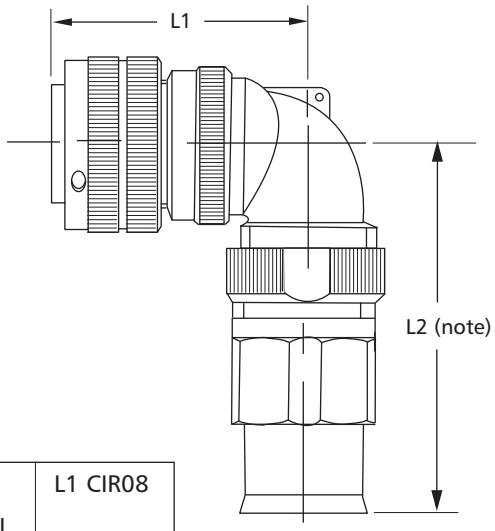
Shell Size	D_1 Maximum	L - CIR08 Approximate
10SL	22,8 0.90	38,1 1.50
14S	29,2 1.15	39,7 1.56
16S	33,0 1.30	42,9 1.69
16	33,0 1.30	52,4 2.06
18	36,5 1.44	54,0 2.13
20	39,9 1.57	59,7 2.35
22	43,1 1.70	59,1 2.33
24	46,6 1.84	63,9 2.52
28	53,4 2.10	63,9 2.52
32	60,1 2.37	69.8 2.75
36	66,3 2.61	73.0 2.87
40	72,4 2.85	76.1 3.00

K Suffix in Connector Part Number	K Cable Range Min.	Max.
K0	6,35 .250	9,53 .375
K1	9,53 .375	12,7 .500
K2	12,7 .500	15,87 .625
K3	15,87 .625	19,05 .750
K4	19,05 .750	22,23 .875
K5	22,23 .875	25,4 1.000
K6	25,4 1.000	28,45 1.120
K7	28,45 1.120	31,75 1.250
K8	32,77 1.290	38,1 1.500
K9	39.62 1.560	41,28 1.625
K10	41.28 1.625	44,45 1.750

Dimensions are mm. over inches

Plug for terminating conduit. Right angle NM backshell with adapter and backnut assembly to seal and grip on the jacket of a non-metalic flexible).& $ %$ (")!) %$ *!). A wire sealing grommet and compression ring is included. NMG same as NM but without a grommet or compression ring.





Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

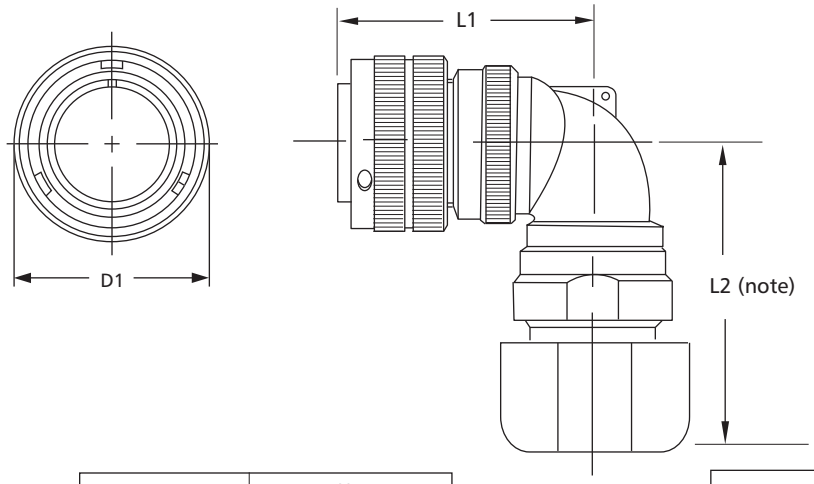
Conduit (CN-P Type) Trade Size	Suffix in Connector Part Number
3/8	(038)
1/2	(050)
3/4	(075)
1	(100)
1 1/4	(125)
1 1/2	(150)
2	(200)

Note: Dimension "L2" is dependent on conduit size used with each shell size. Please consult our Customer Service Department.

Shell Size	L1 CIR08 Approximate
10SL	38,1 1.50
14S	39,7 1.56
16S	42,9 1.69
16	52,4 2.06
18	54 2.13
20	59,7 2.35
22	59,1 2.33
24	63,9 2.52
28	63,9 2.52
32	69,8 2.75
36	73 2.87
40	76,1 3.00

Dimensions are mm. over inches

Plug for terminating conduit. Right angle RK backshell with adapter and backnut assembly to seal and grip on the jacket of a steel core flexible).& $ %$ (")!) %$ *!). A wire sealing grommet and compression ring is included. ARK same as RK but without a grommet or compression ring.



Shell Size	D_1 Maximum
10SL	22,8 0.90
14S	29,2 1.15
16S	33,0 1.30
16	33,0 1.30
18	36,5 1.44
20	39,9 1.57
22	43,1 1.70
24	46,6 1.84
28	53,4 2.10
32	60,1 2.37
36	66,3 2.61
40	72,4 2.85

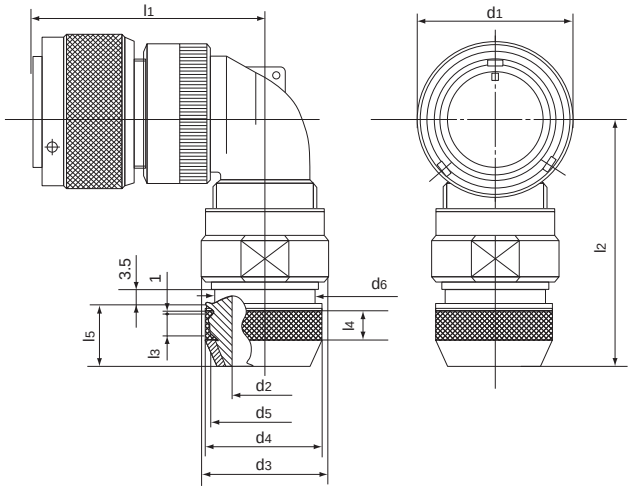
Conduit (EF Type) Trade Size	Suffix in Connector Part Number
3/8	(038)
1/2	(050)
3/4	(075)
1	(100)
1 1/4	(125)
1 1/2	(150)
2	(200)

Note: Dimension "L2" is dependent on conduit size used with each shell size. Please consult our Customer Service Department.

Shell Size	L1 CIR08 Approximate
10SL	38,1 1.50
14S	39,7 1.56
16S	42,9 1.69
16	52,4 2.06
18	54 2.13
20	59,7 2.35
22	59,1 2.33
24	63,9 2.52
28	63,9 2.52
32	69,8 2.75
36	73 2.87
40	76,1 3.00

Dimensions are mm. over inches

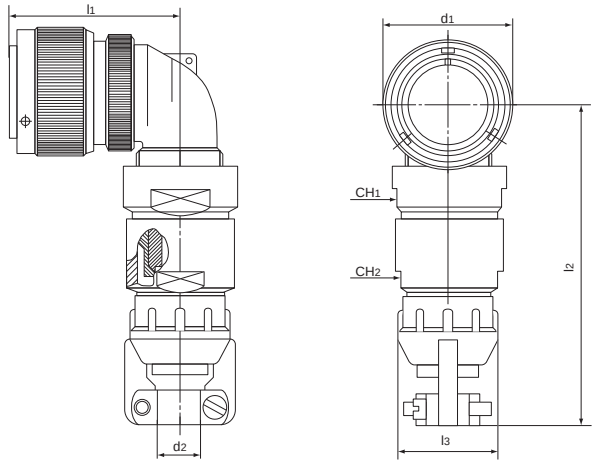
Right angle (90º elbow) plug with an individual wire sealing grommet, RFI shield spring and a special backshell for shield braid and heat shrinkable tubing termination (for shielding characteristics, see page 12). CIR08SB type has no RFI shield spring.



Shell Size	d_1 max.	d_2 min.	d_3 max.	d_4 + 0,5 - 0	d_5 Thread	d_6 max.	l_1 max.	l_2 ~	l_3 min.	l_4 + 0,5	l_5 + 0,1
10SL	22,8	8,6	22	18,5	M16x1	16,3	45	52,1	4,5	5,5	17
	0.90	0.34	0.87	0.73		0.64	1.77	2.05	0.18	0.22	0.67
14S	29,2	10,6	25	22	M20x1	20	47	53,7	5	7	17
	1.15	0.42	0.98	0.87		0.79	1.85	2.11	0.20	0.27	0.67
16S	32	13,5	28	25	M23x1	23	48	57,3	6	8	18,5
	1.26	0.53	1.10	0.98		0.90	1.89	2.25	0.24	0.31	0.73
16	32	13,5	28	25	M23x1	23	57	57,3	6	8	18,5
	1.26	0.53	1.10	0.98		0.90	2.24	2.25	0.24	0.31	0.73
18	36,5	14,6	31	28	M26x1	24,5	58	60,7	6	8	18,5
	1.44	0.57	1.22	1.10		0.96	2.28	2.39	0.24	0.31	0.73
20	39,9	18,5	36	32	M30x1	28,5	61	62,5	6	10	18,5
	1.57	0.73	1.42	1.26		1.12	2.40	2.46	0.24	0.39	0.73
22	43,1	20,8	38	34	M32x1	30,5	61	63,8	6	10	18,5
	1.70	0.82	1.50	1.34		1.20	2.40	2.51	0.24	0.39	0.73
24	46,6	24,6	44	38	M36x1	34,5	66	66	6	10	18,5
	1.83	0.97	1.73	1.50		1.36	2.60	2.60	0.24	0.39	0.73
28	53,4	27	48	41	M39x1	37,5	66	67,6	6	10	18,5
	2.10	1.06	1.89	1.61		1.48	2.60	2.66	0.24	0.39	0.73
32	60,1	33,3	56	48	M45x1	44	72	74	6	10	18,5
	2.37	1.31	2.20	1.89		1.73	2.83	2.91	0.24	0.39	0.73
36	66,3	38,5	61	55	M52x1	51	75	77,1	6	10	18,5
	2.61	1.51	2.40	2.16		2.0	2.95	3.03	0.24	0.39	0.73
40	72,5	46	68	62	M59x1	58	78	81,1	6	10	18,5
	2.85	1.81	2.68	2.44		2.28	3.07	3.19	0.24	0.39	0.73

Dimensions are mm. over inches

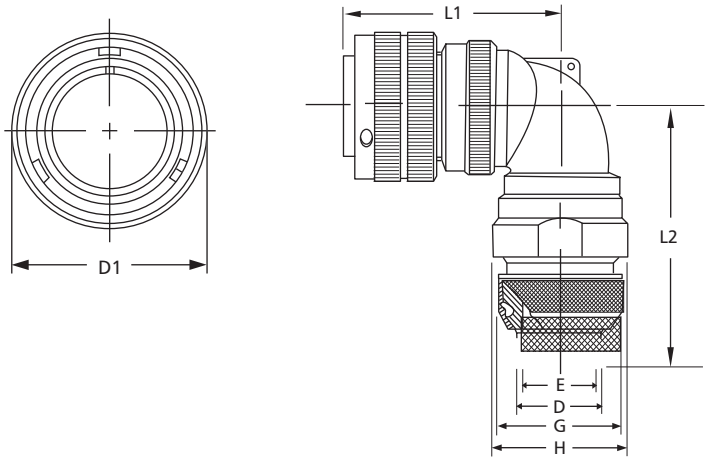
Right angle (90° elbow) plug with an individual wire sealing grommet, RFI shield spring and a special backshell and cable clamp for shielded jacketed cable (for shielding characteristics, see page 12). CIR08 type has no shield spring.



Shell Size	d_1 max.	d_2 open	d_2 closed	l_1 max.	l_2 ~	l_3 + 0,2	CH. 1 + 0 - 0,2	CH. 2 + 0 - 0,2
18	36,5	15,87	9,6	58	120	31	27	30
	1.44	0.625	0.375	2.28	4.72	1.22	1.06	1.18
20	39,9	19	11,3	61	120	37.3	32	32
	1.57	0.748	0.445	2.40	4.72	1.47	1.26	1.26
22	43,1	19	11,3	61	120	37.3	32	32
	1.70	0.748	0.445	2.40	4.72	1.47	1.26	1.26
24	46,6	23,8	15,5	66	130	42	36	36
	1.83	0.938	0.610	2.60	5.12	1.65	1.42	1.42
28	53,4	23,8	15,5	66	130	42	36	36
	2.10	0.938	0.610	2.60	5.12	1.65	1.42	1.42
32	60,1	31,75	23,4	72	145	54	46	50
	2.37	1.25	0.921	2.83	5.71	2.12	1.81	1.97
36	66,3	35	23,4	75	157	57.1	50	55
	2.61	1.378	0.921	2.95	6.18	2.25	1.97	2.16

Dimensions are mm. over inches

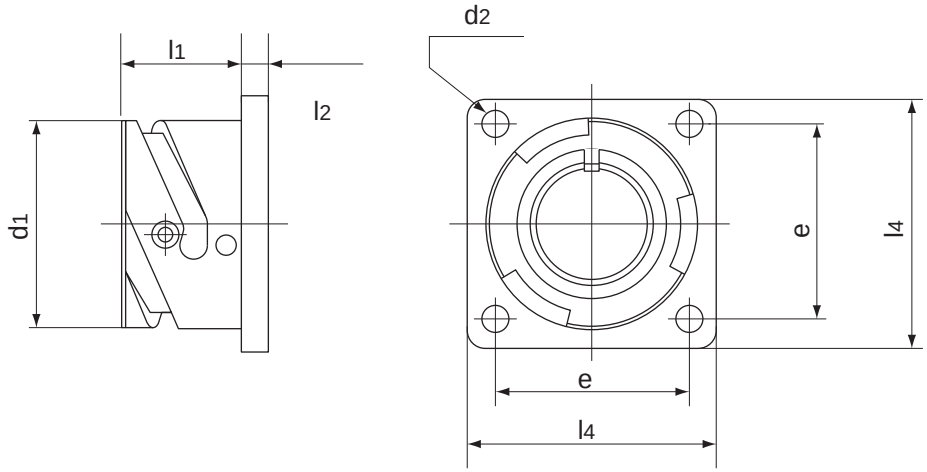
Plug for terminating braided shield. Right angle backshell with a swivel coupling nut and adapter suitable for use with heat shrink tubing or boot. The backshell includes a knurled extension for the shield termination via a tinel lock ring (not supplied). A wire sealing grommet is included. ASBT same as SBT but without a grommet.



Shell Size	D_1 Maximum	D Maximum	E+/- 0,25 .010	F	G	H +/- 0,5 .020	L1 CIR08 CIRG08 Approximate	L2 CIR08 CIRG08 Approximate	Tinel Ring P/N
10SL	22,8	11,1	7,9	16,3	18,5	22,0	38,1	61,8	TR 05
	0.90	.44	3.12	.64	.73	.866	1.50	2.43	
14S	29,2	14,3	11,1	20,0	22,0	24,8	39,7	63,4	TR 07
	1.15	.56	.437	.79	.87	.976	1.56	2.50	
16S	33,0	15,9	12,7	23,0	25,0	27,8	42,9	67,0	TR 08
	1.30	.63	.500	.91	.98	1.094	1.69	2.64	
16	33,0	15,9	12,7	23,0	25,0	27,8	52,4	67,0	TR 08
	1.30	.63	.500	.91	.98	1.094	2.06	2.64	
18	36,5	19,1	15,9	24,5	28.0	30,8	54,0	70,6	TR 10
	1.44	.75	.625	.97	1.10	1.213	2.13	2.78	
20	39,9	22,3	19,1	28.5	32,0	34,8	59,7	63,7	TR 12
	1.57	.88	.750	1.12	1.26	1.370	2.35	2.51	
22	43,1	25,4	22,2	30,5	34,0	37,8	59,1	65,0	TR 14
	1.70	1.00	.875	1.20	1.34	1.488	2.33	2.56	
24	46,6	28,7	25,4	34,5	38,0	40,8	63,9	67,4	TR 16
	1.84	1.13	1.00	1.36	1.50	1.606	2.52	2.65	
28	53,4	31,8	28,6	37,5	41,0	47,8	63,9	69,4	TR 18
	2.10	1.25	1.125	1.48	1.61	1.881	2.52	2.73	
32	60,1	31,8	28,6	44,0	48,0	53,8	69,8	75,4	TR 18
	2.37	1.25	1.125	1.73	1.89	2.118	2.75	2.97	
36	66,3	44,5	41,3	51,0	55,0	60,8	73,0	78,0	Not
	2.61	1.75	1.625	2.01	2.17	2.394	2.87	3.07	Available
40	72,4	50.8	47,6	58,0	62,0	67,8	76,1	82,5	Not
	2.85	2.00	1.875	2.28	2.44	2.669	3.00	3.25	Available

Dimensions are mm. over inches

Dummy receptacle. For countersunk mounting holes, see page 197.



Shell Size	d_1 +0 -0,15	d_2 H13	e ±0,1	l_1 +0,4 -0	l_2 ±0,2	l_4 ±0,3
10SL	18,2	3,2	18,2	14,2	2,8	25,4
	0.72	0.12	0.72	0.56	0.11	1.00
14S	24,6	3,2	23	14,2	3,2	30
	0.97	0.12	0.90	0.56	0.12	1.81
16S	27,4	3,2	24,6	14,2	3,2	32,5
	1.08	0.12	0.97	0.56	0.12	1.28
16	27,4	3,2	24,6	19	3,2	32,5
	1.08	0.12	0.97	0.75	0.12	1.28
18	30,8	3,2	27	19	4	35
	1.21	0.12	1.06	0.75	0.16	1.38
20	34,2	3,2	29,4	19	4	38
	1.35	0.12	1.16	0.75	0.16	1.496
22	37,4	3,2	31,8	19	4	41
	1.47	0.12	1.25	0.75	0.16	1.75
24	40,9	3,7	34,9	20,6	4	44,5
	1.61	0.14	1.37	0.81	0.16	2.00
28	46,7	3,7	39,7	20,6	4	50,8
	1.84	0.14	1.56	0.81	0.16	2.00
32	53,4	4,3	44,5	22,2	4	57
	2.10	0.17	1.75	0.87	0.16	2.24
36	59,6	4,3	49,2	22,2	4	63,5
	2.35	0.17	1.94	0.87	0.16	2.50
40	65,5	4,3	55,5	22,2	4	69,9
	2.58	0.17	2.18	0.87	0.16	2.75

Dimensions are mm. over inches

Crimp Reduction Sleeves

Used to reduce the size of the contact crimp bucket to accept smaller gauge wires.

VEAM Part Number	From Wire Size	To Wire Size
45378	16 AWG	20 AWG
45370	16 AWG	22 AWG
47227-16-24	16 AWG	24 AWG
47227-16-0.12	16 AWG	26 AWG
45372	12 AWG	16 AWG
LV242999-142	12 AWG	18 AWG
LV242999-152	12 AWG	20 AWG
LV242999-172	10 AWG	16 AWG
LV242999-12	8 AWG	10 AWG
46661	8 AWG	12 AWG
LV242999-122	8 AWG	14 AWG
LV242999-132	8 AWG	16 AWG
45374	8 AWG	6 mm^2
46263	8 AWG	4 mm^2
47227-8-2.5	8 AWG	2.5 mm^2
47227	8 AWG	1.5 mm^2
LV242999-32	8SP	12 AWG
46269	4 AWG	6 AWG
46660	4 AWG	8 AWG
LV242999-192	4 AWG	10 AWG
46662	0 AWG	6 AWG
46665	4 AWG	16 mm^2
46666	4 AWG	10 mm^2
46667	4 AWG	6 mm^2
47227-2-4	2 AWG	4 AWG
47227-0-8	0 AWG	8 AWG
47227-8-10	8 AWG	10 AWG
47227-4-4	4 AWG	4 mm^2

VEAM Part Number	From Wire Size	To Wire Size
45373	0 AWG	2 AWG
LV242999-82	0 AWG	4 AWG
LV242999-92	0 AWG	6 AWG
LV242999-102	0 AWG	8 AWG
46664	0 AWG	16 mm^2
47227-53-20	0 AWG	20 mm^2
45375	0 AWG	25 mm^2
45376	0 AWG	35 mm^2
47227-7025	2/0 AWG	25 mm^2
47227-6-1.5	6 mm^2	1.5 mm^2
47227-6-2.5	6 mm^2	2.5 mm^2
45379	10 mm^2	12 AWG
47227-16-2.5	16 mm^2	2.5 mm^2
47227-16-4	16 mm^2	4 mm^2
47227-16-6	16 mm^2	6 mm^2
47227-16-10	16 mm^2	10 mm^2
47227-25-6	25 mm^2	6 mm^2
47227-25-10	25 mm^2	10 mm^2
47227-25-16	25 mm^2	16 mm^2
47227-50-25	50 mm^2	25 mm^2
47227-95-70	95 mm^2	70 mm^2
47227-150-70	150 mm^2	70 mm^2
47227-150-95	150 mm^2	95 mm^2
46266	50 mm^2	16 mm^2
46264	50 mm^2	35 mm^2

NOTE: Add suffix T9 for silver plating, T12 for gold plating. For other options, consult Customer Service Department.

Contact Hole Plugs

Used to fill a grommet or insert cavity in lieu of a contact to maintain the environmental seal.

Contact Size AWG	Contact Size DIN	Hole Plugs For Grommet	Color	Hole Plugs For Insert	Color
20	10	10-101033-11	Red	46808-20	Red
16S, 16	15, 15S	10-101033-12	Blue	46808-16	Blue
16S, 16 High Density Inserts		10-101033-11	Red	LMB-G-3	Blue
12	25	10-101033-13	Yellow	10-101033-13	Yellow
8	60, 100	10-101033-14	White	10-305045	White
4	160	10-101033-15	Green	10-305045-4	White
0	500	10-101033-16	Black	10-305065-0	Black
0 (Ground)				10-305045-01	White

Specifications and dimensions subject to change
Dimensions shown in mm.

Wire Hole Plugs for F80 and Solder Inserts

Contact Size	d_1	d_2	l_1	l_2	VEAM P/N
20	1,65	2,6	_	15,2	46808-20
16	2,2	2,6	_	15,7	46808-16
12	3,7	4,6	3,2	11,9	VG 95234 B12
8	6,4	7,6	3,1	11,8	10-305045
4	9,7	10,9	3,1	11,8	10-305045-4
0	13,5	15	4,3	14,3	10-305045-0
DM	14,5	16	4,3	14,3	10-305045-01

Wire Hole Plugs for Grommets

Contact Size		d_1 ±0,1	d_2 ±0,2	l_1 ±0,1	l_2 ±0,3	Color	VG P/N*	VEAM P/N
DIN	AWG							
10	—	2,3	3	2,4	9,7	Red	VG 95234 B20	10-101033-11
15S/15	16S/16	2,8	3,7	3,2	11,9	Blue	VG 95234 B16	10-101033-12
25	12	3,7	4,6	3,2	11,9	Yellow	VG 95234 B12	10-101033-13
60/100	8	5	5,8	3,2	11,9	White	VG 95234 B8	10-101033-14
160	4	7,6	8,5	3,2	11,9	Green	VG 95234 B4	10-101033-15
500	0	12,8	13,5	3,2	11,9	Black	VG 95234 B0	10-101033-16

Rear Mounting Data-Maximum Panel Thickness

Dimension D								
	CIR 00/020	CIR 030	GG/D Max. Mated with CIR 30	CIR TB	D MAX*	D MAX	D MAX with rubber C/N 03/030 type	D MAX CIR-TB
10SL	3.7	7.2	4.0	10.0	3.70	7.2	4	10
14S	3.7	7.2	3.5	9.6	3.70	7.2	3.5	9.6
16S	3.7	7.2	N/A	9.6	3.70	7.2	N/A	9.6
16	3.7	7.5	3.5	13.8	3.70	7.5	3.5	13.8
18	3.7	7.5	3.0	13.0	3.70	7.5	3	13
20	3.7	7.5	3.0	13.0	3.70	7.5	3	13
22	3.7	7.5	3.0	13.0	3.70	7.5	3	13
24	5.4	7.5	1.5	11.4	5.25	7.5	1.5	11.4
28	5.4	8.2	2.5	12.4	5.25	8.2	2.5	12.4
32	6.1	7.5	1.0	9.0	6.10	7.5	1	9
36	6.1	7.5	1.0	9.0	6.10	7.5	1	9
40	6.0	7.5	1.0	9.0	6	7.5	1	9

!# $(!%$(' %$". + "! %' ' ' #%*$)!$ %) $%) %$$)%'(

Table 1: Panel cut-out dimensions for CIR-CIRS 02-020 connectors.

Size	10SL	14S	16S/16	18	20	22	24	28	32	36	40
C ±0,1	18.2	23	24.6	27	29.4	31.8	34.9	39.7	44.5	49.2	55.5
Ø D	17	20	23	26.5	30	33	36	42	48.5	55	61
Ø E For Flange with Thru Holes	3.4	3.4	3.4	3.4	3.4	3.4	3.9	3.9	4.5	4.5	4.5
Ø E For Flange with Threaded Holes	4.5	4.5	4.5	4.5	4.5	4.5	5.5	5.5	5.5	5.5	5.5

Table 2: Panel cut-out dimensions for CIR-CIRS 03-030-038 connectors.

Size	10SL	14S	16S/16	18	20	22	24	28	32	36	40
C ±0,1	18.2	23	24.6	27	29.4	31.8	34.9	39.7	44.5	49.2	55.5
Ø D	19.1	25.5	28.3	31.7	35	38.3	41.8	47.6	54.3	60.5	66.4
Ø E For Flange with Thru Holes	3.4	3.4	3.4	3.4	3.4	3.4	3.9	3.9	4.5	4.5	4.5
Ø E For Flange with Threaded Holes	4.5	4.5	4.5	4.5	4.5	4.5	4.5	5.5	5.5	5.5	5.5

Table 3: Panel cut-out dimensions for CIR-CIRS 07-070-078 connectors.

Size	10SL	14S	16S/16	18	20	22	24	28	32	36	40
ØA $^{+0.25}_{-0}$	22.4	28.75	31.95	35.1	38.3	41.45	44.65	51	57.35	63.7	70.5
B $^{+0}_{-0.35}$	21	27.4	30.95	33.75	36.85	40.05	43.35	49.55	55.95	62.35	68.55

For every flanged receptacle, a choice of mounting hole types exists. These tables identify the prefix part numbers of the types available.

Table 1

Through Mounting Holes

Shell Size	d1 H13 mm	d1 +.004 inches
10SL	3.2	.126
14S	3.2	.126
16S	3.2	.126
16	3.2	.126
18	3.2	.126
20	3.2	.126
22	3.2	.126
24	3.7	.146
28	3.7	.146
32	4.3	.169
36	4.3	.169
40	4.3	.169

(UNC)

Receptacle Identification • CIR030/CIR038/CIRTB

Through mounting holes types	Threaded mounting holes types
CIR 030FP	CIR 030
CIR 030AFP	CIR 030A
CIR 030CFFP	CIR 030CF
CIR 030CFZFP	CIR 030CFZ
CIR 030FFP	CIR 030F
CIR 030GFP	CIR 030G
CIR 030G2FP	CIR 030G2
CIR 030LCFFP	CIR 030LCF
CIR 030LCFZFP	CIR 030LCFZ
CIR 030RFP	CIR 030R
CIR 030RVFP	CIR 030RV
CIR 030SBFP	CIR 030SB
CIR 030YMFP	CIR 030YM
CIR 038FFP	CIR 038F
CIR 038RFP	CIR 030R
CIRTBFP	CIR TB

Table 2

Threaded Mounting Holes

Mounting hole code
CIR030 = metric thread
CIR030UN = US (inch) thread
CIR030FP = thru holes

Shell Size	d6 thread	d5 thread	d4 minor dia.of d5 mm	d4 minor dia.of d5 inches
10SL	8-32UNC	M4	3.2 - 3.4	.126-.134
14S	8-32UNC	M4	3.2 - 3.4	.126-.134
16S	8-32UNC	M4	3.2 - 3.4	.126-.134
16	8-32UNC	M4	3.2 - 3.4	.126-.134
18	8-32UNC	M4	3.2 - 3.4	.126-.134
20	8-32UNC	M4	3.2 - 3.4	.126-.134
22	8-32UNC	M4	3.2 - 3.4	.126-.134
24 CIR030	10-24UNC	M4	4.13-4.33	.126-.134
24 CIR020	10-24UNC	M5	4.13-4.33	.163- .170
28	10-24UNC	M5	4.13-4.33	.163- .170
32	1/4-20UNC	M5	4.13-4.33	.163- .170
36	1/4-20UNC	M5	4.13-4.33	.163- .170
40	1/4-20UNC	M5	4.13-4.33	.163- .170

Receptacle Identification • CIR00/CIR020 - Threaded Holes

Through mounting holes type	Threaded mounting holes type (d5)	Threaded mounting holes types (d6)
CIR 00A	CIR 00AFF	CIR 00AUN
CIR 00CF	CIR 00CFFF	CIR 00CFUN
CIR 00CFZ	CIR 00CFZFF	CIR 00CFZUN
CIR 00F	CIR 00FFF	CIR 00FUN
CIR 00G	CIR 00GFF	CIR 00GUN
CIR 00G2	CIR 00G2FF	CIR 00G2UN
CIR 00LCF	CIR 00LCFFF	CIR 00LCFUN
CIR 00LCFZ	CIR 00LCFZFF	CIR 00LCFZUN
CIR 00LF	CIR 00LFFF	CIR 00LFUN
CIR 00R	CIR 00RFF	CIR 00RUN
CIR 00LR	CIR 00LRFF	CIR 00LRUN
CIR 00RV	CIR 00RVFF	CIR 00RVUN
CIR 00SB	CIR 00SBFF	CIR 00SBUN
CIR 020R	CIR 020RFF	CIR 020RUN
CIR 020YM	CIR 020YMFF	CIR 020YMUN

Table 3

Countersunk Mounting Holes For UNC Screws

Countersunk Mounting Holes For Metric Screws

Shell Size	d2 H13 mm	d2 inches	d3 mm	d3 inches	d7 mm	d7 inches
10SL	3.2	.126	6.5	.256	6	.248
14S	3.2	.126	6.5	.256	6.3	.248
16S	3.2	.126	6.5	.256	6.3	.248
16	3.2	.126	6.5	.256	6.3	.248
18	3.2	.126	6.5	.256	6.3	.248
20	3.2	.126	6.5	.256	6.3	.248
22	3.2	.126	6.5	.256	6.3	.248
24	3.7	.146	7.5	.295	7.5	.295
28 (90deg.)	3.7	.146	7.5	.295	n/a	n/a
28 (82deg.)	4.2	.165	n/a	n/a	7.3	.287
32	4.3	.169	8	.315	8.6	.339
36	4.3	.169	8.5	.335	8.6	.339
40	4.3	.169	8.5	.335	8.6	.339

Receptacle Identification • CIR00/CIR020 • Chamfered Holes

For use with metric screws (d3) Countersunk mounting holes	For use with UN screws (d7) Countersunk mounting holes
CIR 00AFS	CIR 00AFSM
CIR 00CFFS	CIR 00CFFSM
CIR 00CFZFS	CIR 00CFZFSM
CIR 00FFS	CIR 00FFSM
CIR 00GFS	CIR 00GFSM
CIR 00G2FS	CIR 00G2FSM
CIR 00LCFFS	CIR 00LCFFSM
CIR 00LCFZFS	CIR 00LCFZFSM
CIR 00LFFS	CIR 00LFFSM
CIR 00RFS	CIR 00RFSM
CIR 00LRFS	CIR 00LRFSM
CIR 00RVFS	CIR 00RVFSM
CIR 00SBFS	CIR 00SBFSM
CIR 020RFS	CIR 020RFSM
CIR 020YMFS	CIR 020YMFSM

Specifications and dimensions subject to change
Dimensions shown in mm.

CIR020R/00 Front Mount, Square Flange Receptacle

CIR020R/00

Shell Size	D2 Maximum mm / inch	D4 + 0.1 .004 mm / inch	L2 + 0.4 .016 mm / inch	L3 +/- 0.2 .008 mm / inch	L5 +/- 0.3 .012 mm / inch	L6 +/- 0.3 .012 mm / inch	L7 +/- 0.1 .004 mm / inch	T1 Thread
10SL	18.2 .72	3.2 .126	14.2 .559	2.8 .110	24.7 .972	25.4 1.00	18.2 .717	5/8-24UNEF
14S	24.6 .97	3.2 .126	14.2 .559	3.2 .126	24.7 .972	30.0 1.181	23.0 .906	3/4-20UNEF
16S	27.4 1.08	3.2 .126	14.2 .559	3.2 .126	24.7 .972	32.5 1.280	24.6 .969	7/8-20UNEF
16	27.4 1.08	3.2 .126	19.0 .748	3.2 .126	33.8 1.331	32.5 1.280	24.6 .969	7/8-20UNEF
18	30.8 1.21	3.2 .126	19.0 .748	4.0 .157	33.8 1.331	35.0 1.378	27.0 1.063	1.00-20UNEF
20	34.2 1.35	3.2 .126	19.0 .748	4.0 .157	33.8 1.331	38.0 1.496	29.4 1.157	1 1/8-18UNEF
22	37.4 1.47	3.2 .126	19.0 .748	4.0 .157	33.8 1.331	41.0 1.614	31.8 1.252	1 1/4-18UNEF
24	40.9 1.61	3.7 .146	20.6 .811	4.0 .157	35.7 1.406	44.5 1.752	34.9 1.374	1 3/8-18UNEF
28	46.7 1.84	3.7 .146	20.6 .811	4.0 .157	35.7 1.406	50.8 2.000	39.7 1.563	1 5/8-18UNEF
32	53.4 2.10	4.3 .169	22.2 .874	4.0 .157	37.3 1.469	57.0 2.244	44.5 1.752	1 7/8-16UN
36	59.6 2.35	4.3 .169	22.2 .874	4.0 .157	37.3 1.469	63.5 2.500	49.2 1.937	2 1/16-16UN
40	65.5 2.58	4.3 .169	22.2 .874	4.0 .157	37.3 1.469	69.9 2.752	55.5 2.185	2 5/16-16UNS

Threaded (rear) to accept accessory hardware. Environment proof when mounted with proper panel sealing gasket.

CIR05 - XX Dummy receptacle same as CIR020R/00 without rear threads. Consult Customer Service Department for part numbers.

CIR064PP Panel Plug

Shell Size	D5 + 0.1 .004 mm / inch	D6 Max. mm / inch	L6 +/- 0.4 .016 mm / inch	L7 +/- 0.1 .004 mm / inch	L17 +/- 0.4 .016 mm / inch	L18 +/- 0.2 .008 mm / inch
10SL	3.2 .126	22.8 .90	25.4 1.000	18.2 .717	28.6 1.126	3.2 .126
14S	3.2 .126	31.7 1.25	30.0 1.181	23.0 .906	30.1 1.185	3.2 .126
16S	3.2 .126	35.9 1.41	32.5 1.280	24.6 .969	30.1 1.185	3.2 .126
16	3.2 .126	35.9 1.41	32.5 1.280	24.6 .969	37.5 1.476	4.0 .157
18	3.2 .126	39.5 1.56	35.0 1.378	27.0 1.063	37.5 1.476	4.0 .157
20	3.2 .126	42.9 1.69	38.0 1.496	29.4 1.157	37.7 1.484	4.4 .173
22	3.2 .126	46.1 1.81	41.0 1.614	31.8 1.252	37.3 1.469	4.4 .173
24	3.7 .146	49.5 1.95	44.5 1.752	34.9 1.374	39.0 1.535	4.8 .189
28	3.7 .146	56.9 2.24	50.8 2.000	39.7 1.563	39.0 1.535	4.8 .189
32	4.3 .169	63.7 2.51	57.0 2.244	44.5 1.752	40.5 1.594	4.8 .189
36	4.3 .169	70.1 2.76	63.5 2.500	49.2 1.937	42.1 1.657	6.4 .252
40	5.2 .205	75.7 2.98	69.9 2.752	55.5 2.185	44.5 1.752	6.4 .252

CIR064PP

Square flange mounting with four through holes. Environment proof with proper sealing gasket.

Type FR- Flame retardant: 55 shore. Consult Factory
Type N - Neoprene: 80 shore. Consult Factory
Type S - Silicone: 75 shore. Consult Factory
Type NS - Silicone Black Conductive. Consult Factory
Thickness - 0.5 ±0.2

Type F - Viton*: 80 shore. Consult Factory
Thickness - 0.8 ± 0.2 mm

Type SC - Silicone, black, conductive,
nickel graphite filler.
Tin plated for RFI shielding.
Thickness - 0.5 ± 0.2 mm.

Size	A +/- 0.2 mm / .008 inch	B rear mount + 0.4 mm / .016 inch	B front mount + 0.4 mm / .016 inch	C +/- 0.5 mm / .020 inch	D + +0.5 mm / .040 inch
10SL	18.2 / .716	18.2 / .716	15.7 / .625	25.4 / 1.000	4.2 / .165
14S	23.0 / .905	24.6 / .968	22.1 / .874	30.0 / 1.181	4.2 / .165
16S	24.6 / .968	27.4 / 1.079	25.3 / 1.000	32.5 / 1.279	4.2 / .165
16	24.6 / .968	27.4 / 1.079	25.3 / 1.000	32.5 / 1.279	4.2 / .165
18	27.0 / 1.063	30.8 / 1.212	28.4 / 1.126	35.0 / 1.378	4.2 / .165
20	29.4 / 1.157	34.2 / 1.346	31.6 / 1.248	38.0 / 1.496	4.2 / .165
22	31.8 / 1.252	37.4 / 1.472	34.8 / 1.374	41.0 / 1.614	4.2 / .165
24	34.9 / 1.374	40.9 / 1.610	38 / 1.500	44.5 / 1.752	4.2 / .165
28	39.7 / 1.563	46.7 / 1.838	44.3 / 1.750	50.8 / 2.000	5.2 / .204
32	44.5 / 1.752	53.4 / 2.102	50.7 / 1.996	57.0 / 2.244	5.2 / .204
36	49.2 / 1.937	59.6 / 2.346	57 / 2.188	63.5 / 2.500	5.2 / .204
40	55.6 / 2.189	65.7 / 2.586	61.9 / 2.437	69.9 / 2.752	5.2 / .204

Operating Temperature

-55° C. to 125° C. - Neoprene
-55° C. to 200° C. - Silicone
-25° C. to 200° C. - Viton*
-40° C. to 125° C. - Flame Retardant.

* Trademark-Dupont

	REAR PANEL MOUNT 030						FRONT PANEL MOUNT CIR00 CIR020					
Shell Size	Type N	Type NS	Type SC	Type S	Type F	Type FR	Type N	Type NS	Type SC	Type S	Type F	Type FR
10SL	46739-10	46739-10/1	46739-10/2C	46739-10/2	46739-10/3	46739-10/FR	16950	16950/1	16950/2C	16950/2	16950/3	16950/FR
14S	46739-14	46739-14/1	46739-14/2C	46739-14/2	46739-14/3	46739-14/FR	16952	16952/1	16952/2C	16952/2	16952/3	16952/FR
16S	46739-16	46739-16/1	46739-16/2C	46739-16/2	46739-16/3	46739-16/FR	16953	16953/1	16953/2C	16953/2	16953/3	16953/FR
16	46739-16	46739-16/1	46739-16/2C	46739-16/2	46739-16/3	46739-16/FR	16953	16953/1	16953/2C	16953/2	16953/3	16953/FR
18	46739-18	46739-18/1	46739-18/2C	46739-18/2	46739-18/3	46739-18/FR	16954	16954/1	16954/2C	16954/2	16954/3	16954/FR
20	46739-20	46739-20/1	46739-20/2C	46739-20/2	46739-20/3	46739-20/FR	16955	16955/1	16955/2C	16955/2	16955/3	16955/FR
22	46739-22	46739-22/1	46739-22/2C	46739-22/2	46739-22/3	46739-22/FR	16956	16956/1	16956/2C	16956/2	16956/3	16956/FR
24	46739-24	46739-24/1	46739-24/2C	46739-24/2	46739-24/3	46739-24/FR	16957	16957/1	16957/2C	16957/2	16957/3	16957/FR
28	46739-28	46739-28/1	46739-28/2C	46739-28/2	46739-28/3	46739-28/FR	16958	16958/1	16958/2C	16958/2	16958/3	16958/FR
32	46739-32	46739-32/1	46739-32/2C	46739-32/2	46739-32/3	46739-32/FR	16959	16959/1	16959/2C	16959/2	16959/3	16959/FR
36	46739-36	46739-36/1	46739-36/2C	46739-36/2	46739-36/3	46739-36/FR	16960	16960/1	16960/2C	16960/2	16960/3	16960/FR
40	46739-40	46739-40/1	46739-40/2C	46739-40/2	46739-40/3	46739-40/FR	16968	16968/1	16968/2C	16968/2	16968/3	16968/FR

Specifications and dimensions subject to change
Dimensions shown in mm.

Cable Clamp

MS 3057-XXA

Concentric cable clamps. They insure strain relief and central location of the cable. Can be used with bushing MS 3420.

"A" Style Clamp With Bushing

MS 3057-XXA

Shell Size	Clamp Part Number	A thread class 2B (inches)	B dia. mm / inch	D mm / inch	G mm / inch	E-F-Q mm / inch	Used With Bushing Part Number
10SL	MS3057-4A	.625-24UNEF	8.0 .32	10.5 .41	20.6 .81	22.0 .87	MS3420-4
14S	MS3057-6A	.750-20UNEF	11.0 .43	10.5 .41	22.2 .87	27.0 1.06	MS3420-6
16S & 16	MS3057-8A	.875-20UNEF	14.2 .56	10.5 .41	24.0 .95	28.0 1.10	MS3420-8
18	MS3057-10A	1.000-20UNEF	15.8 .62	10.5 .41	28.5 1.12	33.0 1.30	MS3420-10
20 & 22	MS3057-12A	1.187-18UNEF	19.0 .75	10.5 .41	24.0 .95	35.0 1.38	MS3420-12
24 & 28	MS3057-16A	1.437-18UNEF	23.8 .94	10.5 .41	26.0 1.02	43.0 1.69	MS3420-16
32	MS3057-20A	1.750-18UNS	31.7 1.25	12.5 .49	28.0 1.10	51.0 2.01	MS3420-20
36	MS3057-24A	2.000-18UNS	35.0 1.38	14.0 .55	29.4 1.16	58.0 2.28	MS3420-24
40	MS3057-28A	2.250-16UN	41.2 1.62	14.0 .55	42.8 1.68	65.0 2.56	MS3420-28

Bushing

MS 3420 - XX

Bushing of synthetic rubber to be used with cable clamps MS 3057 A for protection of the cable or wires. These bushings can be telescoped for smaller cable diameters.

Bushing

MS 3420-XX

Bushing Part Number	Used With Cable Clamp	A dia.	B dia.	C dia.	D
MS3420-4	MS3057-4A	5.58 .220	7.7 .30	12.8 .50	69.8 2.75
MS3420-6	MS3057-6A	7.92 .312	10.8 .43	15.7 .62	66.8 2.63
MS3420-8	MS3057-8A	11.09 .437	14.0 .55	18.8 .74	63.5 2.50
MS3420-10	MS3057-10A	14.27 .562	15.6 .61	22.6 .89	60.3 2.37
MS3420-12	MS3057-12A	15.87 .625	18.8 .74	27.5 1.08	57.1 2.25
MS3420-16	MS3057-16A	19.05 .750	23.5 .93	33.3 1.31	53.9 2.12
MS3420-20	MS3057-20A	23.79 .937	31.5 1.24	40.5 1.59	50.8 2.00
MS3420-24	MS3057-24A	31.75 1.250	34.7 1.37	46.9 1.85	47.6 1.87
MS3420-28	MS3057-28A	34.92 1.374	41.0 1.61	52.9 2.08	44.4 1.75

Waterproof clamp for jacketed cables. Provides mechanical strain relief plus concentric clamping over a wide range of cable sizes.

A rubber gland seal ensures a waterproof seal on the cable jacket.

Note: Other materials available.

Shell Size	Clamp Part Number	A thread class 2B (inches)	B (Approx.) open mm / inch	B (Approx.) closed mm / inch	E +/- 0.4 mm	E +/- .016 inch	F +/- 0.2 mm	F +/- .008 inch	G + 0.5 mm	G + .020 inch	V thread class 2A (inches)	Bushing Part Number	H open mm	H open inch
10SL	FRVE3057-4C	.625-24UNEF	7.93	2.38	19.0	.748	22.6	.890	32.3	1.272	6-32UNC	MS3420-4A	5.56	.219
			.312	.094										
14S	FRVE3057-6C	.750-20UNEF	11.13	6.35	25.8	1.016	25.8	1.016	32.3	1.272	6-32UNC	MS3420-6A	7.93	.312
			.438	.25								MS3420-4A	5.56	.219
16S&16	FRVE3057-8C	.875-20UNEF	13.48	8	25.4	1.000	28.1	1.106	32.3	1.106	6-32UNC	MS3420-8A	11.10	.437
			.531	.315								MS3420-6A	7.93	.312
18	FRVE3057-10C	1.000-20UNEF	15.87	9.6	28.5	1.122	31	1.220	35.3	1.390	6-32UNC	MS3420-10A	11.10	.437
			.625	.375								MS3420-6A	7.93	.312
20&22	FRVE3057-12C	1.187-18UNEF	19	11.3	33.3	1.311	37.3	1.468	35.7	1.405	8-32UNC	MS3420-12A	13.74	.541
			.748	.445								MS3420-8A	11.10	.437
24&28	FRVE3057-16C	1.437-18UNEF	23.8	15.5	39.6	1.559	42.0	1.653	38.5	1.516	8-32UNC	MS3420-16A	19.00	.748
			.938	.610								MS3420-12A	13.74	.541
												MS3420-8A	11.10	.437
32	FRVE3057-20C	1.750-18UNS	31.75	23.4	47.6	1.874	54.0	2.126	44.8	1.764	.250-20UNC	MS3420-20A	23.80	.937
			1.250	.921								MS3420-16A	19.00	.748
												MS3420-12A	13.74	.541
36	FRVE3057-24C	2.000-18UNS	35	23.4	53.9	2.122	57.1	2.248	51.6	2.031	.250-20UNC	MS3420-24A	28.5	1.122
			1.378	9.21								MS3420-20A	23.80	.937
												MS3420-16A	19.00	.748
40	FRVE3057-28C	2.250-16UN	41.25	29.9	60.3	2.374	63.5	2.500	51.6	2.031	.250-20UNC	MS3420-28A	31.75	1.25
			1.625	1.177								MS3420-20A	23.80	.937
												MS3420-16A	19.00	.748
44	FRVE3057-32C	2.500-16UN	47.63	34.9	66.6	2.622	71.4	2.811	55.6	2.189	.250-20UNC	MS3420-32A	41.27	1.625
			1.875	1.374								MS3420-28A	31.75	1.250

FRVE3057-XXC

MS3420-XXA

"C" Style Clamp With Gland

Cable Clamp FRVE-3057-XXC

For "C" Style Clamp Bushing

Bushing MS3420-XXA

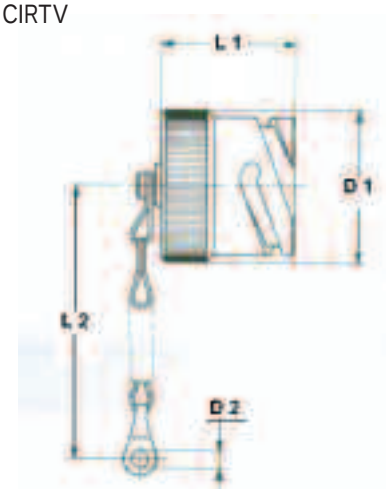
Specifications and dimensions subject to change
Dimensions shown in mm.

CIRTF CIRTV

Protective metal caps which seal the front of plugs or receptacles. Include a chain for retention of the cap at the required location. Other methods of attachment are available.

CIRTF

CIRTV



TF Caps (for receptacles CIR00, 01, 020, 030, 05, 070, TB)

VEAM Part Number	D1 Maximum mm /inch	D2 mm+0.5 inch+.020 mm-0.25 inch -.010	L1 Maximum	L2 Approximate mm /inch
CIR10SLTF	23.5 .93	4.4 .173	16.5 .65	127.0 5.00
CIR14STF	30.5 1.20	4.4 .173	16.5 .65	127.0 5.00
CIR16STF	33.0 1.30	4.4 .173	16.5 .65	127.0 5.00
CIR16TF	33.0 1.30	4.4 .173	21.0 .83	127.0 5.00
CIR18TF	37.5 1.48	4.4 .173	21.0 .83	127.0 5.00
CIR20TF	41.0 1.61	4.4 .173	21.0 .83	127.0 5.00
CIR22TF	44.0 1.73	4.4 .173	21.0 .83	127.0 5.00
CIR24TF	47.5 1.87	4.4 .173	21.0 .83	127.0 5.00
CIR28TF	54.5 2.15	5.6 .220	21.0 .83	190.0 7.48
CIR32TF	61.0 2.40	5.6 .220	21.0 .83	190.0 7.48
CIR36TF	67.5 2.66	5.6 .220	21.0 .83	175.0 6.89
CIR40TF	73.0 2.87	5.6 .220	21.0 .83	190.0 7.48

TV Caps (for plugs CIR06, 08)

VEAM Part Number	D1 Maximum mm / inch	D2 mm+0.5 inch+.020 mm-0.25 inch -.010	L1 Maximum mm / inch	L2 Approximate mm / inch
CIR10SLTV	21.0 .83	4.4 .173	24.0 .94	127.0 5.0
CIR14STV	27.5 1.08	4.4 .173	24.0 .94	127.0 5.0
CIR16STV	30.0 1.18	4.4 .173	24.0 .94	127.0 5.0
CIR16TV	30.0 1.18	4.4 .173	32.0 1.26	127.0 5.0
CIR18TV	33.5 1.32	4.4 .173	32.0 1.26	127.0 5.0
CIR20TV	37.0 1.45	4.8 .189	32.0 1.26	140.0 5.5
CIR22TV	40.0 1.57	4.8 .189	32.0 1.26	140.0 5.5
CIR24TV	43.5 1.71	4.8 .189	32.0 1.26	140.0 5.5
CIR28TV	49.5 1.95	4.8 .189	32.0 1.26	190.0 7.5
CIR32TV	56.0 2.20	5.6 .220	32.0 1.26	190.0 7.5
CIR36TV	62.5 2.46	5.6 .220	32.0 1.26	190.0 7.5
CIR40TV	67.7 2.66	5.6 .220	32.0 1.26	190.0 7.5

Protective Plastic Caps

Protective vinyl caps are available upon request to guard against entry of moisture, dirt and other foreign matter to the contact area during shipment.

Shell Size	For Receptacles CIR 00, 01, 020, 030, 070, TB	For Plugs CIR 06, 08	For Plugs CIR 06GG, 08GG	For Plugs CIR 065	For Plugs CIR 064
	Part Number	Part Number	Part Number	Part Number	Part Number
10SL	#27	#35	#45	#35	#35
14S	#41	#42	#51	#51	#45
16S	#42	#45	#55	#51	#48
16	#42	#45	#55	#51	#48
18	#45	#51	#57	#53	#53
20	#51	#55	#57	#56	#56
22	#53	#56	#65	#57	#57
24	#56	#57	#65	#58	#58
28	#58	#65	#71	#66	#66
32	#66	#71	#76	#76	#75
36	#71	#76	#81	#78	#78
40	#76	#81	#82	#81	#81

Contact Size	Wire Size (AWG)	VEAM Contact Number	Insertion Tool	Removal Tool Kit	Removal Tool Kit Replacement Parts Handle	Tips	Guide Pins
20P	20	46730-20P	T98143	11-7576-101	0148B	46592M-VPT	---
20S	20	46731	T98143	11-7576-101	0148B	46592M-101S	27977-20T50
18P	18	46740P	T98143	11-7576-37	0148B	46592M-37PT50	---
18S	18	46740S	T98143	11-7576-37	0148B	46592M-37ST50	27977-20T50
18P	20-22	46740-15P	T98143	11-7576-37	0148B	46592M-37PT50	---
18S	20-22	46740-15S	T98143	11-7576-37	0148B	46592M-37ST50	27977-20T50
18P	16	46740-22P	11-7345	11-7576-37	0148B	46592M-37PT50	---
18S	16	46740-22S	11-7345	11-7576-37	0148B	46592M-37ST50	27977-20T50
16S P	16	27911	11-7345	A43240	0148B	2-3697	---
16S S	16	27961	11-7345	A43240	0148B	2-3698	27977-16T50
16S P	20-24	27911-13	11-7345	A43240	0148B	2-3697	---
16S S	20-24	27961-13	11-7345	A43240	0148B	2-3698	27977-16T50
16S P	20	27911-15	T98143	A43240	0148B	2-3697	---
16S S	20	27961-15	T98143	A43240	0148B	2-3698	27977-16T50
16S P	14-16	27911-20	11-7345	A43240	0148B	2-3697	---
16S S	14-16	27961-20	11-7345	A43240	0148B	2-3698	27977-16T50
16S P	12-14	27911-26	46736	A43240	0148B	2-3697	---
16S S	12-14	27961-26	46736	A43240	0148B	2-3698	27977-16T50
16P	16	27913	11-7345	A43240	0148B	2-3697	---
16S	16	27963	11-7345	A43240	0148B	2-3698	27977-16T50
16P	24-26	27913-08	11-7345	A43240	0148B	2-3697	---
16S	24-26	27963-08	11-7345	A43240	0148B	2-3698	27977-16T50
16P	20-22	27913-12	T98143	A43240	0148B	2-3697	---
16S	20-22	27963-12	T98143	A43240	0148B	2-3698	27977-16T50
16P	20-22	27913-13	T98143	A43240	0148B	2-3697	---
16S	20-22	27963-13	T98143	A43240	0148B	2-3698	27977-16T50
16P	18-20	27913-15	11-7345	A43240	0148B	2-3697	---
16S	18-20	27963-15	11-7345	A43240	0148B	2-3698	27977-16T50
16P	14-16	27913-20	11-7345	A43240	0148B	2-3697	---
16S	14-16	27963-20	11-7345	A43240	0148B	2-3698	27977-16T50
16P	12-14	27913-26	46736	A43240	0148B	2-3697	---
16S	12-14	27963-26	46736	A43240	0148B	2-3698	27977-16T50
12P	8	27914-8	46736-6	A43240	0148B	2-3696	---
12S	8	27964-8	46736-6	A43240	0148B	2-3698	27977-12T50
12P	20-24	27914-12	46736	A43240	0148B	2-3696	---
12S	20-24	27964-12	46736	A43240	0148B	2-3698	27977-12T50
12P	14-18	27914-20	46736	A43240	0148B	2-3696	---
12S	14-18	27964-20	46736	A43240	0148B	2-3698	27977-12T50
12P	2.5mm	27914-22	46736	A43240	0148B	2-3696	---
12S	2.5mm	27964-22	46736	A43240	0148B	2-3698	27977-12T50
12P	12	27914-26	46736	A43240	0148B	2-3696	---
12S	12	27964-26	46736	A43240	0148B	2-3698	27977-12T50
12P	4 mm sq.	27914-30	46736	A43240	0148B	2-3696	---
12S	4 mm sq.	27964-30	46736	A43240	0148B	2-3698	27977-12T50
12P	10	27914-38	46736-6	A43240	0148B	2-3696	---
12S	10	27964-38	46736-6	A43240	0148B	2-3698	27977-12T50
8P	8	27915	A46151-8T50	A43240-8	0148B	2-8252	Not Required
8S	8	27935	A46151-8T50	A43240-8	0148B	2-8251	Not Required
8P	12-14	27915-26-62	A46151-8T50	A43240-8	0148B	2-8252	Not Required
8S	12-14	27935-26-62	A46151-8T50	A43240-8	0148B	2-8251	Not Required
8P	12-14	27915-26	A46151-8T50	A43240-8	0148B	2-8252	Not Required
8S	12-14	27935-26	A46151-8T50	A43240-8	0148B	2-8251	Not Required
8P	4 mm sq.	27915-30	A46151-8T50	A43240-8	0148B	2-8252	Not Required
8S	4 mm sq.	27935-30	A46151-8T50	A43240-8	0148B	2-8251	Not Required

Insertion Tools

Guide Pins

A43240
Removal Kit

Assembly manual available upon request.

⚠ WARNING

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Insertion Tools

Guide Pins

A43240
Removal Kit

Contact Size	Wire Size (AWG)	VEAM Contact Number	Insertion Tool	Removal Tool Kit	Removal Tool Kit Replacement Parts Handle	Tips	Guide Pins
8P	10	27915-38	A46151-8T50	A43240-8	0148B-8	2-8252	Not Required
8S	10	27935-38	A46151-8T50	A43240-8	0148B-8	2-8251	Not Required
8P	6	27915-58	A46151-8T50	A43240-8	0148B-8	2-8252	Not Required
8S	6	27935-58	A46151-8T50	A43240-8	0148B-8	2-8251	Not Required
4P	4-6	27916	A46151-4T50*	46150-4	46150	11-7370-4	Not Required
4S	4-6	27936	A46151-4T50*	46150-4	46150	11-7674-2	Not Required
4P	2.5mm sq.	27916-22	A46151-4T50*	46150-4	46150	11-7370-4	Not Required
4S	2.5mm sq.	27936-22	A46151-4T50*	46150-4	46150	11-7674-2	Not Required
4P	16mm sq.	27916-62	A46151-4T50*	46150-4	46150	11-7370-4	Not Required
4S	16mm sq.	27936-62	A46151-4T50*	46150-4	46150	11-7674-2	Not Required
0P	0	27917V	A46151-0T50*	46150-0	46150	11-7370-5	Not Required
0S	0	27937V	A46151-0T50*	46150-0	46150	11-7674-3	Not Required
0P	8	27917-45	A46151-0T50*	46150-0	46150	11-7370-5	Not Required
0S	8	27937-45	A46151-0T50*	46150-0	46150	11-7674-3	Not Required
0P	10mm sq.	27917-50	A46151-0T50*	46150-0	46150	11-7370-5	Not Required
0S	10mm sq.	27937-50	A46151-0T50*	46150-0	46150	11-7674-3	Not Required
0P	16mm sq.	27917-62	A46151-0T50*	46150-0	46150	11-7370-5	Not Required
0S	16mm sq.	27937-62	A46151-0T50*	46150-0	46150	11-7674-3	Not Required
0P	25mm sq.	27917-78	A46151-0T50*	46150-0	46150	11-7370-5	Not Required
0S	25mm sq.	27937-78	A46151-0T50*	46150-0	46150	11-7674-3	Not Required
0P	35mm sq.	27917-90	A46151-0T50*	46150-0	46150	11-7370-5	Not Required
0S	35mm sq.	27937-90	A46151-0T50*	46150-0	46150	11-7674-3	Not Required
0P	50mm sq.	27917-107	A46151-0T50*	46150-0	46150	11-7370-5	Not Required
0S	50mm sq.	27937-107	A46151-0T50*	46150-0	46150	11-7674-3	Not Required
0P	4	46646-0	A46151-0T50*	46150-0	46150	11-7370-5	Not Required
0S	4	47647-0	A46151-0T50*	46150-0	46150	11-7674-3	Not Required
4/0 P	2	47107-90	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 S	2	47114-90	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 P	0 (1/0)	47107-115	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 S	0 (1/0)	47114-115	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 P	2/0	47107-135	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 S	2/0	47114-135	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 P	70mm sq.	47107-144	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 S	70mm sq.	47114-144	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 P	95mm sq.	47107-155	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 S	95mm sq.	47114-155	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 P	4/0	47107-165	Not Required	Not Required	Not Required	Not Required	Not Required
4/0 S	4/0	47114-165	Not Required	Not Required	Not Required	Not Required	Not Required

*For solder contacts use TIP P/N SD46151-4T50 and SD46151-0T50.

Assembly manual available upon request.

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TENSILE STRENGTH AND MILLIVOLT DROP MEASUREMENTS MEET THE REQUIREMENTS OF MIL- C-39029, MIL-C-22520, MIL-T-7928 AS APPLICABLE.

Pneumatic Power Crimping Tool
Model 400B HD

This lightweight (16 lbs.) crimping tool will crimp pin and socket contacts as well as solderless terminals. Non-adjustable dies are available to accommodate wires ranging from 16AWG through 4AWG.The four-indent crimp jaws provide a perfect gas tight crimp every time, maximizing wire-contact pull-out forces. Locators are available for every CIR series contact.

The Model 400B HD Power Crimp Tool is excellent for high production runs of small gauge contacts.

Operating Air pressure: 100-120 PS Size: 4" O.D. x 12 3/4" Long
Bench mounting version is standard. Foot pedal # 104 available.
For large contacts and terminals use our Model 500D Tool.

This tool is available from Pico Corporation
Phone: (805) 388-5510
Fax: (805) 482-4038

Pneumatic Power Crimping Tool
Model 500D

This power crimping tool will handle pin and socket contacts plus lug terminals (insulated or non-insulated) in all sizes ranging from 8AWG to 250 MCM.
Bench mounting version is standard. Foot pedal #105 available.

Consult our factory for foot pedal accessories.

Shipping weight: 45 lbs. approximate.

Operating Air pressure: 100-120 PSI.

This tool is available from Pico Corporation
Phone: (805) 388-5510
Fax: (805) 482-4038

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Turret

AF8 Manual CrimpTool

Contact Size	Wire Size AWG	VEAM Contact Number	AF8 Hand Tool	Model 400 BHD Pneumatic		Model 500 D Pneumatic	
			Turret	Die Part Number	Locator Part Number	Die Part Number	Locator Part Number
20P	20	46730-20P	616266	---	---	---	---
20S	20	46731	616266	---	---	---	---
18P	18	46740P	TH485	---	---	---	---
18S	18	46740S	TH485	---	---	---	---
18P	20-22	46740-15P	TH485	---	---	---	---
18S	20-22	46740-15S	TH485	---	---	---	---
18P	16	46740-22P	TH485	---	---	---	---
18S	16	46740-22S	TH485	---	---	---	---
16S P	16	27911	616266	414DA-16N	4314-2	---	---
16S S	16	27961	616266	414DA-16N	4314-1	---	---
16S P	20-24	27911-13	616266	---	---	---	---
16S S	20-24	27961-13	616266	---	---	---	---
16S P	20	27911-15	616266	414DA-16N	4314-2	---	---
16S S	20	27961-15	616266	414DA-16N	4314-1	---	---
16S P	14-16	27911-20	616266	414DA-12N or 16N	4314-2	---	---
16S S	14-16	27961-20	616266	414DA-12N or 16N	4314-1	---	---
16S P	12-14	27911-26	616266	414DA-12N	4314-1	---	---
16S S	12-14	27961-26	616266	414DA-12N	4314-2	---	---
16P	16	27913	616266	414DA-16N	4332	---	---
16S	16	27963	616266	414DA-16N	4333	---	---
16P	24-26	27913-08	616266	---	---	---	---
16S	24-26	27963-08	616266	---	---	---	---
16P	20-22	27913-12	616266	---	---	---	---
16S	20-22	27963-12	616266	---	---	---	---
16P	20-24	27913-13	616266	---	---	---	---
16S	20-24	27963-13	616266	---	---	---	---
16P	18-20	27913-15	616266	414DA-16N	4332	---	---
16S	18-20	27963-15	616266	414DA-16N	4333	---	---
16P	14-16	27913-20	616266	414DA-12N or 16N	4332	---	---
16S	14-16	27963-20	616266	414DA-12N or 16N	4333	---	---
16P	12-14	27913-26	616266	414DA-12N	4332	---	---
16S	12-14	27963-26	616266	414DA-12N	4333	---	---
12P	8	27914-8	---	414DA-8HEX or 8N	4330M	---	---
12S	8	27964-8	---	414DA-8HEX or 8N	4331M	---	---
12P	20-22	27914-12	616266	---	---	---	---
12S	20-22	27964-12	616266	---	---	---	---
12P	14-18	27914-20	616266	414DA-10N	4330	---	---
12S	14-18	27964-20	616266	414DA-10N	4331	---	---
12P	2.5mm sq.	27914-22	616266	414DA-10N	4330	---	---
12S	2.5mm sq.	27964-22	616266	414DA-10N	4331	---	---
12P	12	27914-26	616266	414DA-12N OR 10N	4330	---	---
12S	12	27964-26	616266	414DA-12N OR 10N	4331	---	---
12P	4 mm sq.	27914-30	---	414DA-10N	4330	---	---
12S	4 mm sq.	27964-30	---	414DA-10N	4331	---	---
12P	10	27914-38	---	414DA-10N	4330	---	---
12S	10	27964-38	---	414DA-10N	4331	---	---
8P	8	27915	---	414DA8HEX or 8N	4329	514DA-8 HEX	5404
8S	8	27935	---	414DA8HEX or 8N	4329	514DA-8 HEX	5404
8P	12-14	27915-26-62	---	414DA-8N	4329	514DA-8 HEX	5404
8S	12-14	27935-26-62	---	414DA-8N	4329	514DA-8 HEX	5404
8P	12-14	27915-26	---	414DA-10N	4329	---	---
8S	12-14	27935-26	---	414DA-10N	4329	---	---

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Specifications and dimensions subject to change
Dimensions shown in mm.

Contact Size	Wire Size AWG	VEAM Contact Number	AF8 Hand Tool	Model 400 BHD Pneumatic		Pneumatic Model 500 D	
			Turret	Die Part Number	Locator Part Number	Die Part Number	Locator Part Number
8P	4 mm sq.	27915-30	---	414DA-10N	4329	---	---
8S	4 mm sq.	27935-30	---	414DA-10N	4329	---	---
8P	10	27915-38	---	414DA-10N	4329	---	---
8S	10	27935-38	---	414DA-10N	4329	---	---
8P	6	27915-58	---	414DA-8 HEX	4329	514DA-8 HEX	5497
8S	6	27935-58	---	414DA-8 HEX	4329	514DA-8 HEX	5497
4P	4 AWG 6 AWG	27916	---	414DA-4 HEX 414DA-8N or 8 HEX	4043	514DA-4 HEX 514DA-8N or HEX	5497
4S	4 AWG 6 AWG	27936	---	414DA-4 HEX 414DA-8N or 8 HEX	4043	514DA-4 HEX 514DA-8N or HEX	5497
4P	2.5mm sq	27916-22	---	414DA-12N	4043	---	---
4S	2.5mm sq	27936-22	---	414DA-12N	4043	---	---
4P	16mm sq.	27916-62	---	414DA-4 HEX	4043	514DA-4 HEX	5497
4S	16mm sq.	27936-62	---	414DA-4 HEX	4043	514DA-4 HEX	5497
0P	0	27917V	---	---	---	514DA-0 HEX	5442
0S	0	27937V	---	---	---	514DA-0 HEX	5441
0P	8	27917-45	---	---	---	514DA-0/8 HEX	5442
0S	8	27937-45	---	---	---	514DA-0/8 HEX	5441
0P	10mm sq	27917-50	---	---	---	514DA-0/8 HEX	5442
0S	10mm sq	27937-50	---	---	---	514DA-0/8 HEX	5441
0P	16mm sq	27917-62	---	---	---	514DA-4 HEX	5442
0S	16mm sq	27937-62	---	---	---	514DA-4 HEX	5441
0P	25mm sq	27917-78	---	---	---	514DA-4 HEX	5442
0S	25mm sq	27937-78	---	---	---	514DA-4 HEX	8002
0P	35mm sq	27917-90	---	---	---	514DA-0 HEX	5442
0S	35mm sq	27937-90	---	---	---	514DA-0 HEX	5442
0P	50mm sq	27917-107	---	---	---	514DA-0 HEX	5442
0S	50mm sq	27937-107	---	---	---	514DA-0 HEX	5441
0P	4	46646-0	---	---	---	514DA-4 HEX	5441-F
0S	4	47647-0	---	---	---	514DA-4 HEX	5441-F
4/0 P	2	47107-90	---	---	---	514DA-0 HEX	5498-1
4/0 S	2	47114-90	---	---	---	514DA-0 HEX	5498-2
4/0 P	0 (1/ 0)	47107-115	---	---	---	514DA-0 HEX	5498-1
4/0 S	0 (1/ 0)	47114-115	---	---	---	514DA-0 HEX	5498-2
4/0 P	2/0	47107-135	---	---	---	514DA-2/0 HEX	5498-1
4/0 S	2/0	47114-135	---	---	---	514DA-2/0 HEX	5498-2
4/0 P	70mm sq	47107-144	---	---	---	514DA-4/0 HEX	5487
4/0 S	70mm sq	47114-144	---	---	---	514DA-4/0 HEX	5487
4/0 P	95mm sq	47107-155	---	---	---	514DA-4/0 HEX	5487
4/0 S	95mm sq	47114-155	---	---	---	514DA-4/0 HEX	5487
4/0 P	4/0	47107-165	---	---	---	514DA-4/0 HEX	5487
4/0 S	4/0	47114-165	---	---	---	514DA-4/0 HEX	5487

Turret

AF8 Manual CrimpTool

* Pneumatic tools, dies and locators are available from Pico Corporation. Phone +1-805-388-5510, Fax +1-805-482-4038

⚠ WARNING

Tooling & Handling: Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers. Electrical connectors may be damaged in transit to the customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

TOOL KITS FOR CONNECTOR ASSEMBLY

Deluxe Model Assembly Kit

The VEAM Model DMC 292 M is housed in a case with die cut poly-foam compartments to nest each tool. A complete set of connector assembly instructions is laminated in plastic and stored within the tool case for easy access.

DMC 292 M Part Number	**Tool Kit Contents** Description
1. AF8	Crimp Tool Frame
2. 616266	Turret
3. G125	Inspection Gauge
4. M2700-420	Wrench
5. 11-7345	Insertion Tool
6. 46736	Insertion Tool
7. A43240	Removal Tool Kit
8. 45-123	Wire Cutter
9. 45-092	Wire Stripper
10. TG70	Mini Strap Wrench
11. 140	Assembly Manual CD
12. 27977-16T50	Guide Pin Size 16
13. 27977-12T50	Guide Pin Size 12
14. H183BKF7240LNO	Carrying Case

⚠ WARNING

Tooling & Handling: Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers. Electrical connectors may be damaged in transit to the customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

Specifications and dimensions subject to change
Dimensions shown in mm.

DSR Series

Double start, racheted coupling, electrical connectors with durable hard anodized finish.
Utilizes same insert arrangements and accessories as the CIR Series.

CIR 290 Series

A circular bayonet connector for railroad applications. Power contacts, data bus communications, waterproof. IP 67

CIR 295 Series

A bayonet circular connector for railroad applications. Rigid insulator, contacts with retention clips.

VPT Series per MIL-C-26482

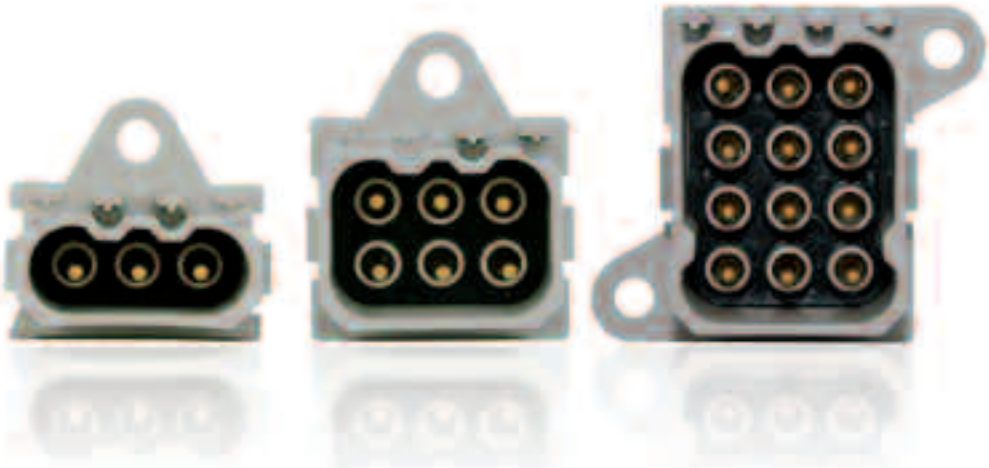
Miniature bayonet connectors with 1 to 61 solder or crimp contacts. Available in different classes, for numerous applications.

CIR_ _FR Series

Rugged hard black anodized finish, available with extended coupling nuts for better gripping. Uses metal or composite backshells. Various types of strain relief accessories are available.

VRPC

Lightweight, plastic connector for the Mass Transit, Offroad and Industrial markets that is qualified for the NFF 16-101, NFF 16-102 for fire and smoke resistance.



Powerlock

Single pole power connectors, 400 A, 660 A. Waterproof. Color coded and keyed for three phases, neutral and earth.

VSC

Threaded circular connector; 7 and 19 solder or crimp contacts. Socapex compatible. Ground contacts. Metal backshell and grounding feature.

Snaplock

Single pole connectors for power applications up to 200 Amps. Typically used with cable 25/35/50 sq.mm.

Specifications and dimensions subject to change
Dimensions shown in mm.

Product Safety Information

1. MATERIAL CONTENT AND PHYSICAL FORM

Electrical connectors do not usually contain hazardous materials. They contain conducting and non-conducting materials and can be divided into two groups.

a) Printed circuit types and low cost audio types which employ all plastic insulators and casings.

b) Rugged, Fire Barrier and High Reliability types with metal casings and either natural rubber, synthetic rubber, plastic or glass insulating materials. Contact materials vary with type of connector and also application and are usually manufactured from either: Copper, copper alloys, nickel, alumel, chromel or steel. In special applications, other alloys may be specified.

⚠ CAUTION

2. FIRE CHARACTERISTICS AND ELECTRIC SHOCK HAZARD

There is no fire hazard when the connector is correctly wired and used within the specified parameters.

Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must not be broken by separating mated connectors as this may cause arcing, ionization and burning. Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g. cracked or deformed contacts, broken strands of wire. Local overheating may also result from the use of the incorrect application tools or from poor quality soldering or slack screw terminals. Overheating may occur if the ratings in the product Data Sheet/Catalog are exceeded and can cause breakdown of insulation and hence electric shock. If heating is allowed to continue it intensifies by further increasing the local resistance through loss of temper of spring contacts, formation of oxide film on contacts and wires and leakage currents through carbonization of insulation and tracking paths. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

3. HANDLING

Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers.

Electrical connectors may be damaged in transit to the customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

4. DISPOSAL

Incineration of certain materials may release noxious or even toxic fumes.

5. APPLICATION

Connectors with exposed contacts should not be selected for use on the current supply side of an electrical circuit, because an electric shock could result from touching exposed contacts on an unmated connector. Voltages in excess of 30 V ac or 42.5 V dc are potentially hazardous and care should be taken to ensure that such voltages cannot be transmitted in any way to exposed metal parts of the connector body. The connector and wiring should be checked, before making live, to have no damage to metal parts or insulators, no solder blobs, loose strands, conducting lubricants, swarf, or any other undesired conducting particles. Circuit resistance and continuity check should be made to make certain that there are no high resistance joints or spurious conducting paths. Always use the correct application tools as specified in the Data Sheet/Catalog. Do not permit untrained personnel to wire, assemble or tamper with connectors. For operation voltage please see appropriate national regulations.

IMPORTANT GENERAL INFORMATION

(i) Air and creepage paths/Operating voltage. The admissible operating voltages depend on the individual applications and the valid national and other applicable safety regulations. For this reason the air and creepage path data are only reference values. Observe reduction of air and creepage paths due to PC board and/or harnessing.

(ii) Temperature

All information given are temperature limits. The operation temperature depends on the individual application.

(iii) Other important information

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