

Flexible Cord and Cable Fittings

Specifications – Flexible Cord and Cable

Ref. CEC Section 4 (Conductors)

In the Canadian Electrical Code, Flexible Cords are known by their trade names “Hard Service Cord”, “Junior Hard Service Cord” and “Vacuum Cleaner Cord”.

Depending on jacket material, flexible cords listed are suitable for use where immersed in water or where occasionally or continuously in contact with oil or immersed in oil, or outdoors and in mobile homes and recreational vehicles.

Flexible cord is permitted by Code for use in portable appliances or stationary equipment requiring movement for service and repair and for wiring in cranes, hoists and elevators. Flexible cord is also permitted to be used to prevent transmission of noise or vibration.

Flexible cord is not permitted as a substitute for fixed wiring of structures or where concealed behind building walls, ceilings or floors. Running flexible cord through holes in walls, ceilings, floors or through doorways, windows or similar openings is also prohibited.

CEC Section 4 requires that flexible cords be so connected to devices and to fittings that tension is not transmitted to joints or terminal screws. Use of suitable strain relief fittings designed for the purpose is one of the recommended alternatives.

Please refer to the following for further details and complete information:

1. UL 62, ANSI C33.1... Safety Standard for Flexible Cord and Fixture Wire
2. UL 514A and 514B, Safety Standard for Outlet Boxes and Fittings
3. CEC Section 4... Conductors
 - 4-012... Uses of Flexible Cord
 - 4-040... Uses of Portable Power Cable
 - 12-010 (4)... Flexible Cords in Ducts and Plenum Chambers
 - 22-108 (2)... Bonding conductor for Flexible Cords for Portable Equipment
 - 44-350 (1) (b)... Flexible Cords for Portable Stage Equipment

50-018 (2)... Flexible Cords suitable for extra-hard usage are permitted on Solar photovoltaic systems

70-108... Power Supply Cord-Factory-Built Relocatable Structures and Non-relocatable Structures

76-002... Temporary Wiring

76-010... Feeders

78-058 (2)... Marinas and Yacht Clubs

78-104 (2)... Marine Wharves, Structures, and Fishing Harbours

4. CSA C22.2 No. 49... Safety Standards for Flexible Cords and Cables and Fixture Wires

5. CSA C22.2 No. 18.1 and 18.3... Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

Following is a brief description of the three cords:

	Hard Service Cord	Junior Hard Service Cord	Vacuum Cleaner Cord
1. Use	Extra Hard Pendant, Portable	Hard Pendant, Portable	Light Pendant, Portable
2. Voltage Rating	Up to 600 volts	Up to 300 volts	Up to 300 volts
3. Conductor Material	Copper (Stranded)	Copper (Stranded)	Copper (Stranded)
4. Type Designation (Depends on Jacket Material)			
i. Rubber Jacket	Type S	Type SJ	Type SV
ii. Oil Resistant Rubber Jacket	Type SO	Type SJO	Type SVO
iii. Thermoplastic Jacket	Type ST	Type SJT	Type SVT
iv. Oil Resistant Thermoplastic Jacket	Type STO	Type SJTO	Type SVTO

Please Note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Flexible Cord and Cable Fittings

Suggested Specifications for Flexible Cord and Cable Fittings



2520 and 2530 Series
Liquidtight Flexible
Cord & Cable Fittings



2920NM Series
Nonmetallic Liquidtight
Flexible Cord & Cable Fittings
The Ranger™ Series



2631 Series
Liquidtight Flexible
Cord & Cable Fittings



2920AL Series
Aluminum Liquidtight
Flexible Cord & Cable Fittings
The Ranger™ Series



2672 Series
Flexible Cord Fittings
(Plastic)



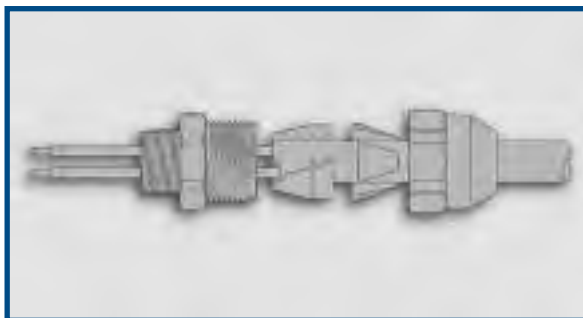
2920S Series
Steel Liquidtight
Flexible Cord & Cable Fittings
The Ranger™ Series

- Flexible cord or cable and associated fittings shall be suitable for conditions of use and location and approved for the purpose by a nationally recognized testing laboratory, inspection agency or product evaluation organization.

- Flexible cord or cable shall be so connected to the device or fitting that tension will not be transmitted to joints or terminal screws. Sufficient slack shall be provided to avoid sharp flexing and straining. Cord or cable shall be installed in such a manner that liquid will tend to run off the surface instead of draining towards the fitting.

- Where flexible cord or cable exposed to intermittent or constant moisture and subjected to mechanical strain is terminated into a threaded or threadless opening, terminating fittings shall be of watertight strain relief type such as Thomas & Betts Series 2920, 2920AL, 2920NM, 2520, 2631 or 2672. Fittings shall be equipped with a beveled moisture resistant/oil resistant synthetic rubber bushing.

- Where space is limited inside the enclosure, a female hub type fitting such as Thomas & Betts Series 2631 shall be furnished. A captive resilient sealing 'O' ring shall be included to positively protect against damage from overtorquing.



TCF Series
Aluminum Tray/Cord Fitting



2920SST Series
Stainless Steel Liquidtight
Flexible Cord & Cable Fittings

Flexible Cord and Cable Fittings

Suggested Specifications for Flexible Cord and Cable Fittings (cont'd)



Series 3300
Nonmetallic Sheathed
Cable & Flexible Cord
Fitting



Series 3210
Knockout Bushings



Series 1942
Insulated Nipple



Series 5262
Sealing Gasket

- Where flexible cord or cable exposed to moisture is terminated into a threadless opening using male threaded hub type fittings such as Thomas & Betts Series 2520 or 2920, a suitable moisture resistant/oil resistant synthetic rubber gasket such as Thomas & Betts Series 5262 shall be provided between the outside of box or enclosure and fitting shoulder. Resilient gasket shall be adequately protected by and permanently bonded to a metallic retainer.

- Where exposed to environmental conditions that are more than normally corrosive, watertight strain relief fittings shall be of high impact thermoplastic construction such as Thomas & Betts Series 2672 or 2920NM.

- Where flexible cord or cable passes through either factory or field punched, cut or drilled holes in metal members, the cord or cable shall be protected by thermoplastic bushing such as Thomas & Betts Series 3210, 3300. Bushing shall be firmly secured in opening. Nylon bushed metallic fittings such as Thomas & Betts Series 1942 may be substituted as required.

- For wet location, fittings furnished with synthetic rubber bushing such as Thomas & Betts Series 2530 or 2672 shall be installed.

Flexible Cord and Cable Fittings

How to Select T&B Flexible Cord Fittings

Step 1.
Determine Diameter Range in chart by using cord size and type or by measuring the diameter of your cord.

Step 2.
Determine catalogue number by choosing the hub size and type (straight or 90°) for the diameter range determined by step 1.

This chart can be used as a guide for selecting the proper fitting for the UL Listed and CSA Certified cords. Cords vary in sizes and cord diameter should be measured whenever possible.



Cat. No.		Hub Size (in.)	Diameter Range (in.)	SV, SVO, SVT, SVTO Cord Sizes
Straight	90°			
2671	2680	3/8	0.125-0.275	18-2, 18-3



Cat. No.		Hub Size (in.)	Diameter Range (in.)	SV, SO, ST, STO Cord Sizes	SJO, SJT, SJTO, SJ Cord Sizes
Straight	90°				
2920NM	4960NM	1/2	0.125-0.375	18-2, 18-3*	18-2, 18-3, 18-4, 16-2,
2930NM	4970NM	3/4			16-3, 16-4*, 14-2, 14-3*
2921NM	4961NM	1/2			18-3, 18-4, 18-5, 18-6, 18-7*
2931NM	4971NM	3/4	0.310-0.560	18-3, 18-4*, 18-5, 16-2*	16-3, 16-4, 16-5, 16-6*, 14-2,
2940NM	—	1			14-3, 14-4, 12-2, 12-3, 12-4, 10-2
2922NM	—	1/2		16-5, 16-6, 14-2, 14-3, 14-4,	
2932NM	4972NM	3/4	0.500-0.750	14-5, 12-2, 12-3, 12-4, 12-5,	12-4, 10-2, 10-3, 10-4
2941NM	—	1		10-2, 10-3, 10-4, 8-2	
2942NM	—	1	0.700-0.950	10-4, 10-5, 8-3, 8-4	
—	2688	1	0.560-0.690	14-3*, 14-4, 14-5*, 12-2, 12-3,	10-2*, 10-3, 10-4
—	—	—	—	12-4*, 10-2, 10-3*	
—	2685	1	0.660-0.780	14-5, 12-4*, 12-5, 10-3*, 10-4	10-4
2696	—	3/4	0.770-0.895	10-5, 8-2, 8-3*	
—	2686	1			
2678	2687	1	0.870-1.020	8-3*, 8-4*	
2699	—	1	0.890-1.090	8-4, 8-5*, 6-2, 6-3*, 6-4*, 4-2*	
2702	—	1-1/4			
2703	—	1-1/4		4-2*, 4-3, 2-2*	
2704	—	1-1/4	1.270-1.470	4-4, 2-2*	
2705	—	1-1/2	0.890-1.150	8-4, 8-5, 6-2, 6-3, 6-4*, 4-2*	
2706	—	1-1/2	1.140-1.400	6-5, 6-4*, 4-2*, 4-3, 4-4*, 2-2, 2-3*	
2707	—	1-1/2	1.390-1.650	4-4*, 2-3*, 2-4	
2708	—	2	1.190-1.530	6-5, 4-2*, 4-3, 4-4, 2-2, 2-3, 2-4*	
2709	—	2	1.520-1.860	2-4*	
2710	—	2	1.850-2.190	2-4*	

* Actual cord diameter must be determined before proper fitting can be selected. Measure cord, if available, or refer to cord manufacturer's catalogue.

Flexible Cord and Cable Fittings

Flexible Cord and Power Cable Chart

Type of Cord	AWG Size of Conductors	Number of Conductors and Approximate O.D. (in.)		
		2 Conductor	3 Conductor	4 Conductor
SV, SVO, SVT	18	0.250	0.260	—
SJ, SJO, SJT, SJTO	18	0.300	0.330	0.360
	16	0.330	0.360	0.390
	14	0.375	0.395	0.420
S, SO, ST, STO, and Portable Power Cables	18	0.385	0.400	0.430
	16	0.400	0.425	0.480
	14	0.530	0.560	0.605
	12	0.600	0.635	0.665
	10	0.640	0.690	0.745
	8	0.700-0.840	0.750-0.910	0.820-0.990
	6	0.820-0.930	0.885-1.010	0.975-1.100
	4	1.080	1.170	1.270
	3	1.170	1.240	1.340
	2	1.270	1.340	1.480
	1	1.440	1.510	1.680
	1/0	1.520	1.650	1.790
	2/0	1.650	1.750	1.930
	3/0	1.770	1.890	2.070
	4/0	1.920	2.070	2.260
	250	2.160	2.390	—
Bus Drop Cables	14	—	—	0.410
	12	—	—	0.450
	10	—	—	0.530
	8	—	—	0.670
Bus Drop Cables	6	—	—	0.850
	4	—	—	0.950
	2	—	—	1.000

Note: The above dimensions are approximate and may vary depending upon the manufacturer

Flexible Cord and Cable Fittings

Specifications — Liquidtight Flexible Cord and Cable Fittings

Application

- A liquidtight fittings to connect flexible cord or power cable to a box or enclosure and provide adequate strain relief.

Features

- Liquidtight connection with box or enclosure is assured by:
 - (1) Taper threaded hub on 2520 Series for female hub application (A)
 - (2) Using sealing ring Series 5262 with 2520 Series for knockout application (B)
 - (3) Captivated sealing 'O' ring on 2631 Series (C)
- Neoprene bushing makes liquidtight installation; applies pressure against cable the full length of bushing (D)
- Thermoplastic or stainless steel retaining ring (E)
 - (1) Will not abrade cord/cable jacket
 - (2) Reduces installing torque effort
- UL Listed for liquidtightness, strain relief and as an outlet bushing; CSA certified watertight

Standard Material

Gland, Body	Steel/Malleable Iron/Zinc Die Cast
Retaining Ring	Thermoplastic/Stainless Steel
Bushing	Neoprene
'O' Ring	Buna N

Conformity

UL 514B
 CSA C22.2 No. 18.3
 NFPA 70-2008 (ANSI)

Standard Finish

Electro Zinc Plated & Chromate Coated

Range

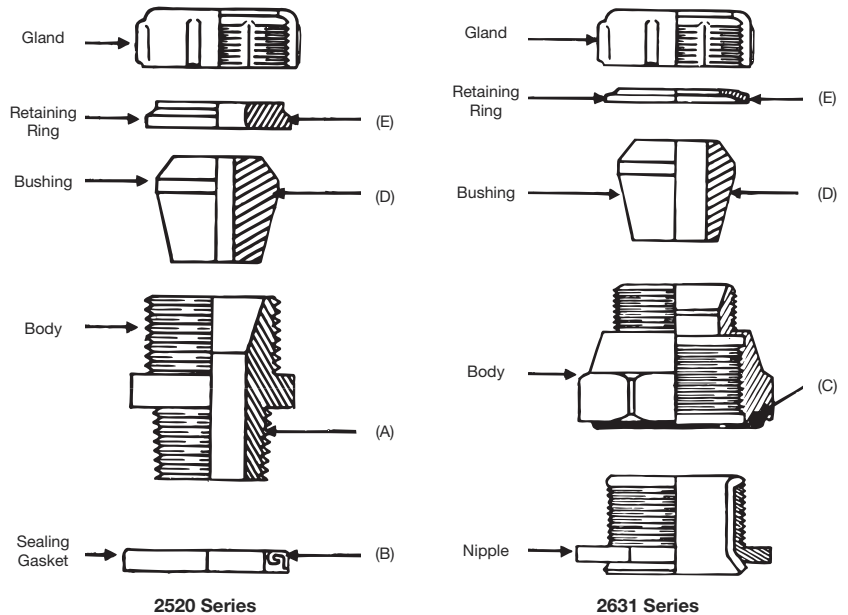
- 2520 Series, straight 0.125 in. outside diameter to 3.200 in. outside diameter Cord or Cable
- 2200 Series, 45° 0.125 in. outside diameter to 1.485 in. outside diameter Cord or Cable
- 2267 Series, 90° 0.125 in. outside diameter to 1.875 in. outside diameter Cord or Cable Cord/Cable Type S, SO, SV, ST, STO, SJ, SJO, SJT, SJTO, SVO & SVT



2520 Series



2631 Series



Flexible Cord and Cable Fittings

Liquidtight Strain Relief Fittings

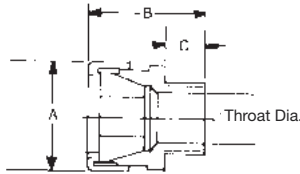


Fig. 1

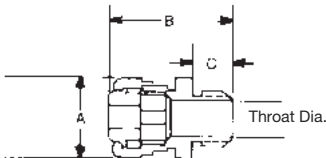


Fig. 2

Cat. No.	Cable Size Range min.-max.	Hub Size (in.)	Throat Dia. Min. (in.)	Fig.	Dimensions (in.)		
					A	B	C
2516†	(0.060-0.125)	1/4	23/64	2	53/64	1-7/16	15/32
2517†	(0.120-0.250)		23/64		53/64	1-7/16	15/32
2518†	(0.060-0.150)	3/8	29/64		31/32	1-1/2	15/32
2519†**	(0.150-0.300)		29/64		31/32	1-1/2	15/32
2520	(0.125-0.250)	1/2	9/16	1	1-5/32	1-11/16	5/8
2521	(0.250-0.375)		9/16		1-5/32	1-11/16	5/8
2522	(0.375-0.500)		9/16		1-5/32	1-11/16	5/8
2523	(0.450-0.560)		9/16		1-5/32	1-11/16	5/8
2524*	(0.500-0.625)		5/8		1-3/8	1-3/4	5/8
2525*	(0.625-0.750)		5/8		1-3/8	1-3/4	5/8
2530	(0.125-0.250)	3/4	13/16	1	1-3/8	1-3/4	9/16
2531	(0.250-0.375)		13/16		1-3/8	1-3/4	9/16
2532	(0.375-0.500)		13/16		1-3/8	1-3/4	9/16
2534	(0.500-0.625)		13/16		1-3/8	1-3/4	9/16
2535	(0.625-0.750)		13/16		1-3/8	1-3/4	9/16
2536*	(0.750-0.880)		3/4		1-11/16	1-15/16	5/8
2541	(0.250-0.375)	1	49/64	1	1-3/8	1-23/32	9/16
2542	(0.375-0.500)		49/64		1-3/8	1-23/32	9/16
2544	(0.500-0.625)		49/64		1-3/8	1-23/32	9/16
2545	(0.625-0.750)		49/64		1-3/8	1-23/32	9/16
2546	(0.750-0.875)		63/64		1-11/16	1-7/8	23/32
2547	(0.875-0.985)		63/64		1-11/16	1-7/8	9/16
2548*	(0.880-1.065)	1-1/4	29/32	1	2-3/32	2-3/8	25/32
2549*	(1.065-1.205)		29/32		2-3/32	2-3/8	25/32
2558	(0.880-1.065)		1-17/64		2-3/32	2-5/32	13/16
2559	(1.065-1.205)	1-17/64	2-3/32	2-5/32	13/16		
2556*	(1.187-1.375)	1-1/4	1-1/4	1	2-11/32	2-1/2	13/16
2557*	(1.375-1.485)		1-1/4		2-11/32	2-1/2	13/16
2562	(0.812-1.000)	1-1/2	1-7/16	1	2-11/32	2-1/2	11/16
2563	(1.000-1.187)		1-7/16		2-11/32	2-7/16	11/16
2564	(1.187-1.375)		1-7/16		2-11/32	2-7/16	11/16
2565*	(1.375-1.625)		1-29/64		2-13/16	2-5/8	13/16
2573	(1.125-1.375)	2	1-7/8	1	2-13/16	2-5/8	13/16
2574	(1.375-1.625)		1-7/8		2-13/16	2-5/8	11/16
2575	(1.625-1.875)		1-7/8		2-13/16	2-5/8	11/16
2576*	(1.750-1.965)		1-29/32		3-7/32	3-1/2	27/32
2577*	(1.937-2.187)		1-29/32		3-7/32	3-1/2	27/32
2584	(1.750-1.965)		2-1/2		2	1	3-7/32
2585*	(1.937-2.187)	2		3-7/32	3-3/4		1-1/32
2586*	(2.156-2.360)	2-5/32		3-15/16	4-1/4		1-1/32
2587*	(2.350-2.565)	2-5/32		3-15/16	4-1/4		1-1/32
2592	(2.156-2.360)	3	2-13/32	1	3-15/16	4-1/4	1-1/32
2593	(2.350-2.565)		2-13/32		3-15/16	4-1/4	1-1/32
2594	(2.535-2.750)		2-13/32		3-15/16	4-1/4	1-1/32
2595*	(2.735-2.985)		2-13/16		4-11/16	4-13/16	1-1/8
2596*	(2.970-3.220)		2-13/16		4-11/16	4-13/16	1-1/8

* Remove sufficient outer covering of cable to permit conductors to pass thru fitting body

† UL not applicable

** Not CSA Certified

Complies with JIC standards

UL Listed as liquidtight strain relief, and outlet bushing. CSA certified watertight when used with 5262 Series Sealing Ring. Gasket (Sold separately)

Temperature rating: 105°C

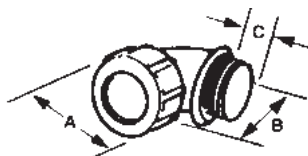
For Wiremesh Grips refer to page B76



5262 Series Sealing Ring Gasket sold separately

Flexible Cord and Cable Fittings

Strain Relief Fittings



Swing Radius

90° with neoprene bushings, tapered hub threads, malleable iron

Cat. No.	Cable Size min.-max.	Hub Size (in.)	Dimensions (in.)			Throat Dia. (in.)
			A	B	C	
2267	(0.125-0.250)	1/2	1-5/32	1-23/32	5/8	19/32
2268	(0.250-0.375)		1-5/32	1-23/32	5/8	19/32
2269	(0.375-0.500)		1-5/32	1-23/32	5/8	19/32
2270	(0.450-0.560)		1-5/32	1-23/32	5/8	19/32
2250*	(0.500-0.625)		1-3/8	1-11/16	9/16	39/64
2251*	(0.625-0.750)		1-3/8	1-11/16	9/16	39/64
2252	(0.125-0.250)	3/4	1-3/8	1-3/4	41/64	25/32
2271	(0.250-0.375)		1-3/8	1-5/8	41/64	25/32
2272	(0.375-0.500)		1-3/8	1-5/8	41/64	25/32
2273	(0.500-0.625)		1-3/8	1-5/8	41/64	25/32
2274*	(0.620-0.750)		1-3/8	1-5/8	41/64	25/32
2253*	(0.750-0.880)		1-11/16	1-31/32	9/16	25/32
2254	(0.375-0.500)	1	1-3/8	2	13/16	1
2255	(0.500-0.625)		1-3/8	2	13/16	1
2256*	(0.625-0.750)		1-3/8	2	13/16	1
2275	(0.750-0.875)		1-11/16	2	13/16	1
2276	(0.875-0.985)		1-11/16	2	13/16	1
2257*	(0.880-1.065)		2-3/32	2-21/32	25/32	15/16
2258*	(1.065-1.205)	2-3/32	2-21/32	25/32	15/16	
2277	(0.880-1.065)	1-1/4	2-3/32	2-7/8	27/32	1-5/16
2278	(1.065-1.205)		2-3/32	2-7/8	27/32	1-5/16
2279*	(1.187-1.375)		2-11/32	2-13/16	13/16	1-11/32
2280*	(1.375-1.485)		2-11/32	2-13/16	13/16	1-11/32
2281	(0.812-1.000)	1-1/2	2-11/32	2-7/8	13/16	1-15/32
2282	(1.000-1.187)		2-11/32	2-7/8	13/16	1-15/32
2283*	(1.187-1.375)		2-11/32	2-7/8	13/16	1-15/32
2284	(1.125-1.375)	2	2-13/16	3-1/4	27/32	1-31/32
2285	(1.375-1.625)		2-13/16	3-1/4	27/32	1-31/32
2286	(1.625-1.875)		2-13/16	3-1/4	27/32	1-31/32

* Remove sufficient outer covering of cable to permit conductors to pass through fitting body

Complies with JIC standards and Federal Specs W-F-406B, W-F-408B

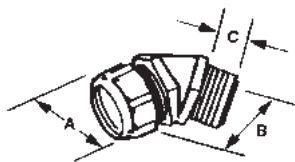
Meets Coast Guard CG293

For Wiremesh Grips refer to page B76

Flexible Cord and Cable Fittings



Strain Relief Fittings



Swing Radius

45° with neoprene bushings, tapered hub threads, malleable iron

Cat. No.	Cable Size min.-max. (in.)	Hub Size (in.)	Dimensions (in.)			Throat Dia. (in.)
			A	B	C	
2200	(0.125-0.250)	1/2	1-5/32	1-9/32	9/16	37/64
2201	(0.250-0.375)		1-5/32	1-9/32	9/16	37/64
2202	(0.375-0.500)		1-5/32	1-9/32	9/16	37/64
2203	(0.450-0.560)		1-5/32	1-9/32	9/16	37/64
2204*	(0.500-0.625)		1-3/8	1-13/32	9/16	37/64
2205*	(0.625-0.750)		1-3/8	1-13/32	9/16	37/64
2206-TB	(0.125-0.250)	3/4	1-3/8	1-13/32	5/8	25/32
2207-TB	(0.250-0.375)		1-3/8	1-13/32	5/8	25/32
2208-TB	(0.375-0.500)		1-3/8	1-13/32	5/8	25/32
2209	(0.500-0.625)		1-3/8	1-13/32	5/8	25/32
2210	(0.625-0.750)		1-3/8	1-13/32	5/8	25/32
2211*	(0.750-0.880)		1-11/16	1-1/2	1-1/2	3/4
2213	(0.375-0.500)	1	1-3/8	1-1/2	25/32	15/16
2214	(0.500-0.625)		1-3/8	1-1/2	25/32	15/16
2215	(0.625-0.750)		1-3/8	1-1/2	25/32	15/16
2216	(0.750-0.875)		1-11/16	1-15/32	25/32	15/16
2217*	(0.875-0.985)		1-11/16	1-15/32	25/32	15/16
2218*	(0.880-1.065)		2-3/32	1-31/32	25/32	15/16
2219*	(1.065-1.205)		2-3/32	1-31/32	25/32	15/16
2220-TB*	(0.880-1.065)	1-1/4	2-3/32	1-29/32	13/16	1-5/16
2221*	(1.065-1.205)		2-3/32	1-29/32	13/16	1-5/16
2222*	(1.187-1.375)		2-11/32	2-1/4	13/16	1-21/64
2223*	(1.375-1.485)		2-11/32	2-1/4	13/16	1-21/64

* Remove sufficient outer covering of cable to permit conductors to pass through fitting body

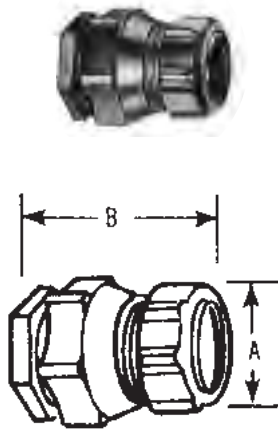
UL Listed as liquidtight strain relief, and outlet bushing

CSA certified watertight

For Wiremesh Grips refer to page B76

Flexible Cord and Cable Fittings

CHASE® Liquidtight Cord Fittings



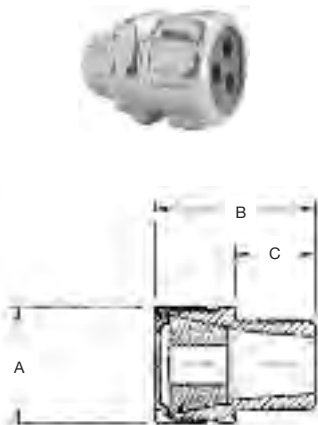
Cat. No.	Cable Size Range min.-max. (in.)	Hub Size (in.)	Throat Diam. (in.)	Dimensions (in.)	
				A	B
2631	(0.125-0.250)	1/2	9/16	1-1/16	1-5/8
2632	(0.250-0.375)				
2633	(0.375-0.500)				
2634	(0.450-0.560)				
2637	(0.125-0.250)	3/4	25/32	1-3/8	1-3/16
2638	(0.250-0.375)				
2639	(0.375-0.500)				
2640	(0.500-0.625)				
2641	(0.625-0.750)				

CSA certified watertight. UL Listed as liquidtight strain relief, and outlet bushing

Temperature Rating: 105°C

Chase Liquidtight Cord Fittings are ideal for installation where space is limited inside the enclosure

Multi-Hole Cord Grip



Cat. No.	Hub Size (in.)	No. of Diam.	Cord Diam. (in.)	Dimensions (in.)		
				A	B	C
2520-2	1/2	2	0.220	1.125	1.687	0.625
2530-2	3/4	2	0.220	1.375	1.750	0.625
2531-2	3/4	2	0.260	1.375	1.750	0.625
2531-3	3/4	3	0.260	1.375	1.750	0.625
2541-2*	1	2	0.300	1.625	1.718	0.781
2542-2*	1	2	0.375	1.625	1.718	0.781
2540-3	1	3	0.225	1.625	1.718	0.781
2541-3	1	3	0.300	1.625	1.718	0.781
2540-4	1	4	0.220	1.625	1.718	0.781
2555-2	1-1/4	2	0.500	2.093	2.375	0.812

Range of cord diameter ±.010 in.

In many applications you have only room for one fitting but you need to run two cables, for example, proximity switches. Now you can provide strain relief and liquidtight protection with T&B's new multi-hole liquidtight strain relief fittings. With the ever increasing number of signal cables, now you have a solution to the problem of how to strain relieve multiple cables in one fitting.

*UL Listed only

Temperature Rating: 105°C

Flexible Cord and Cable Fittings

The Ranger™ Series – Liquidtight Strain Relief Fittings

The only fitting to take a 0.250 inch cable range.

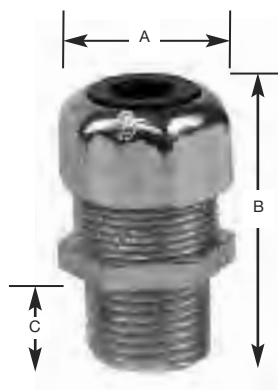
New materials and computer aided designs helped T&B develop a strain relief fitting that will take twice the cable range of ordinary strain relief fittings.

Application

A liquidtight fitting to secure flexible cord or power cable to a box or enclosure and provide strain relief.

Features

- Extended range with superior strain relief
- Reduced overall size, fits into tighter spaces
- Gland nut designed to restrict cable bending



RANGE

	Series	Hub Size
0.125 in. thru 0.950 in.	2920S	1/2 thru 1
	4920	
	4960	
	2920AL	
	4960AL	
	2920NM	
0.125 in. thru 0.750 in.	4960NM	1/2 thru 3/4

Standard Material/Finish

	2920S Series 4920 Series 4960 Series	2920NM Series 4960NM Series	2920AL Series 4960AL Series
Body	Steel (ST) 45° & 90° (Malleable Iron)	Nylon (Weather Stabilized)	Aluminum (ST) Malleable Iron (90°)
Gland	Steel	Nylon (Weather Stabilized)	Aluminum
Grip	Plastic	Nylon (Weather Stabilized)	Aluminum
Bushing	Santoprene	Oil Resistant Elastomer	Aluminum

Liquidtight Strain Relief Fittings—Straight



Cat. No.	Hub Size (in.)	Throat Dia.	Cord Range min.-max. (in.)	Dimensions (in.)		
				A	B	C
2920S	1/2	9/16	0.125-0.375	1-1/8	1-3/4	5/8
2921S		9/16	0.310-0.560	1-1/8	1-3/4	5/8
2922S*		9/16	0.500-0.750	1-3/8	1-3/4	5/8
2930S	3/4	13/16	0.125-0.375	1-3/8	1-25/32	3/4
2931S		13/16	0.310-0.560	1-3/8	1-25/32	3/4
2932S		13/16	0.500-0.750	1-3/8	1-25/32	3/4
2940S	1	1-1/16	0.310-0.560	1-3/8	1-3/4	1-3/16
2941S		1-1/16	0.500-0.750	1-3/8	1-3/4	1-3/16
2942S		31/32	0.700-0.950	1-5/8	1-7/8	1-3/16

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

Liquidtight Strain Relief Fittings



Cat. No.	Hub Size (in.)	Throat Dia. (in.)	Cord Range min.-max. (in.)	Dimensions (in.)		
				A	B	C
2920	1/2	9/16	0.125-0.375	1-1/8	1-3/4	5/8
2921		9/16	0.310-0.560	1-1/8	1-3/4	5/8
2922		9/16	0.500-0.750	1-3/8	1-3/4	5/8
2930	3/4	13/16	0.125-0.375	1-3/8	1-25/32	3/4
2931		13/16	0.310-0.560	1-3/8	1-25/32	3/4
2932		13/16	0.500-0.750	1-3/8	1-25/32	3/4
2940	1	1-1/16	0.310-0.560	1-3/8	1-3/4	1-3/16
2941		1-1/16	0.500-0.750	1-3/8	1-3/4	1-3/16
2942		31/32	0.700-0.950	1-5/8	1-7/8	1-3/16

T&B Ranger™ Stainless Steel Liquidtight Cord Fittings



Pharmaceutical Processing

Food Processing

Pulp & Paper Mills

Wastewater Treatment

Saltwater Applications

Petrochemical Refining

Type 304 Stainless Steel Construction for Harsh Environments!

Until now, there has been no ideal solution for liquidtight connections of portable cord to a box or enclosure in corrosive environments. Steel fittings rust and nonmetallic fittings cannot withstand high temperatures or ultraviolet exposure.

In response to customer demand, Thomas & Betts has developed the latest addition to its high-performance line of T&B Ranger™ Cord Fittings. Made of Type 304 stainless steel, T&B Ranger™ Stainless Steel Liquidtight Cord Fittings stand up to highly corrosive environments – such as washdown areas in food and beverage or pharmaceutical processing – as well as high temperatures and UV exposure.

Like all T&B Ranger™ Liquidtight Cord Fittings, the new stainless steel fittings offer twice the cord diameter range of similar fittings, so you can do more with fewer sizes to order and stock. They form a non-slip mechanical grip, providing a liquidtight seal and the strain relief required for flexible portable cord connections.

Also available in other materials to meet all your cord-fitting needs!

- 2920 Series steel/malleable iron in straight, 45° and 90°
- 2920AL Series aluminum in straight and 90°
- 2920NM Series nonmetallic in straight and 90°



BEVELLED RUBBER BUSHING ENSURES SUPERIOR COMPRESSION AND SEALING



- Each fitting covers a 0.25 in. cord diameter range – twice that of ordinary strain relief fittings
- Superior corrosion resistance in washdown areas and other corrosive environments
- Stands up to heat and UV exposure better than nonmetallic fittings
- Beveled, moisture and oil resistant synthetic rubber bushing system ensures superior compression and sealing of fitting to cord
- Bushing marked with cord range for easy identification out of box



T&B Stainless Steel Cord Fittings – 1/4 in.-3/8 in. Hub Sizes

Cat. No.	Hub Size (in.)	Cord Dia. Range (in.)	Dimensions (in.)		
			A	B	C
2918SST	1/4	0.118 - 0.256	1.000	0.250	0.625
2919SST	3/8	0.157 - 0.315	1.313	0.438	0.750

T&B Stainless Steel Cord Fittings – 1/2 in.-1 in. Hub Sizes

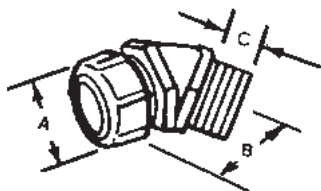


Cat. No.	Hub Size (in.)	Cord Dia. Range (in.)	Dimensions (in.)		
			A	B	C
2920SST	1/2	0.125 - 0.375	1.935	0.610	1.125
2921SST		0.310 - 0.560	1.935	0.610	1.125
2922SST		0.500 - 0.750	2.003	0.610	1.125
2930SST	3/4	0.125 - 0.375	2.063	0.630	1.125
2931SST		0.310 - 0.560	2.063	0.630	1.125
2932SST		0.500 - 0.750	2.063	0.630	1.125
2940SST	1	0.310 - 0.560	2.178	0.785	1.500
2941SST		0.500 - 0.750	2.218	0.785	1.500
2942SST		0.700 - 0.950	2.218	0.785	1.500

Flexible Cord and Cable Fittings

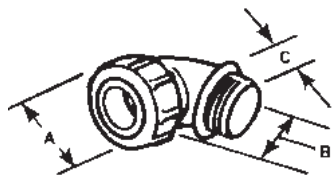
The Ranger™ Series

Liquidtight Strain Relief Fittings—45° Angle



Cat. No.	Hub Size (in.)	Throat Dia. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
4920	1/2	37/64	0.125-0.375	1-1/8	1-5/16	9/16
4921			0.310-0.560	1-1/8	1-5/16	9/16
4922			0.500-0.750	1-3/8	1-7/16	9/16
4932	3/4	25/32	0.500-0.750	1-3/8	1-7/16	5/8
4933			0.700-0.950	1-5/8	1-17/32	1-1/2

Liquidtight Strain Relief Fittings—90° Angle



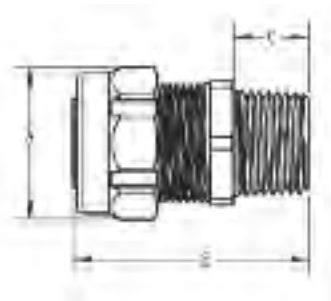
Swing Radius

Cat. No.	Hub Size (in.)	Throat Dia. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
4960	1/2	19/32	0.125-0.375	1-1/8	1-3/4	5/8
4961			0.310-0.560	1-1/8	1-3/4	5/8
4962			0.500-0.750	1-3/8	1-24/64	5/8
4970	3/4	25/32	0.125-0.375	1-3/8	1-25/32	11/16
4971			0.310-0.560	1-3/8	1-25/32	11/16
4972			0.500-0.750	1-3/8	1-25/32	11/16

Flexible Cord and Cable Fittings



Body and gland nut are aluminum

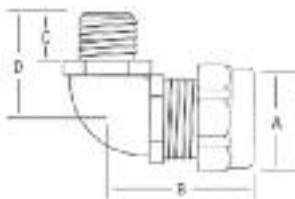


Aluminum Liquidtight Strain Relief Fittings—Straight



Cat. No.	Hub Size (in.)	Throat Diam. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
2920AL	1/2	9/16	0.125-0.375	1-1/8	1-3/4	5/8
2921AL		9/16	0.310-0.560	1-1/8	1-3/4	5/8
2922AL*		9/16	0.500-0.750	1-5/16	1-3/4	5/8
2930AL	3/4	13/16	0.125-0.375	1-5/16	1-25/32	3/8
2931AL		13/16	0.310-0.560	1-5/16	1-25/32	3/4
2932AL		13/16	0.500-0.750	1-5/16	1-25/32	3/4
2940AL	1	1-1/16	0.310-0.560	1-5/16	1-3/4	1-1/16
2941AL		1-1/16	0.500-0.750	1-5/16	1-3/4	1-1/16
2942AL		31/32	0.700-0.950	1-9/16	1-7/8	31/32

* It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through fitting body



Body: malleable iron
Gland Nut: aluminum

Aluminum Liquidtight Strain Relief Fittings—90° Elbow



Cat. No.	Trade or Hub Size (in.)	Throat Diam. (in.)	Cord Range (in.)	Dimensions (in.)			
				A	B	C	D
4960AL	1/2	9/16	0.125-0.375	1-1/8	1-3/4	5/8	1-5/16
4961AL			0.360-0.560	1-1/8	1-3/4	5/8	1-5/16
4962AL*			0.500-0.750	1-5/16	1-23/64	5/8	1-3/8
4970AL	3/4	25/32	0.125-0.375	1-5/16	1-25/32	11/16	1-15/32
4971AL			0.310-0.560	1-5/16	1-25/32	11/16	1-15/32
4972AL			0.500-0.750	1-5/16	1-25/32	11/16	1-15/32
4980AL	1	15/16	0.310-0.560	1-5/16	2-1/32	13/16	1-3/4
4981AL			0.500-0.750	1-5/16	2-1/32	13/16	1-3/4
4982AL			0.700-0.950	1-9/16	2-11/16	13/16	2

* It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through fitting body

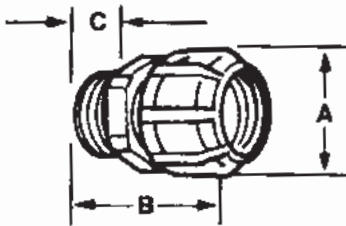
Flexible Cord and Cable Fittings

The Ranger™ Series – Nylon Cord Grip Fitting

A T&B “RANGER™” Exclusive
 Smaller shape: 30% smaller envelope
 Wide range: twice the cable range

- Reduced size means fittings can be placed closer together
- Wider range means one fitting can cover twice the cable range of others
- Nonmetallic means corrosion resistance

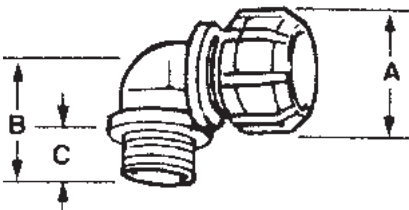
Nonmetallic Liquidtight Strain Relief Fittings—Straight



- Weather Stabilized Nylon
- UL 94-V2
- Temperature Rating: -34 °C to +105 °C
- Meets Coast Guard CG293
- New Reduced Size
- Smaller Footprint

Cat. No.	Trade or Hub Size (in.)	Throat Diam. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
2920NM	1/2	9/16	0.125-0.375	1-7/32	2-1/8	5/8
2921NM			0.310-0.560	1-7/32	2-1/8	5/8
2922NM			0.500-0.750	1-13/32	2-5/32	5/8
2930NM	3/4	3/4	0.125-0.375	1-13/32	2-3/16	5/8
2931NM			0.310-0.560	1-13/32	2-3/16	5/8
2932NM			0.500-0.750	1-13/32	2-3/16	5/8
2940NM	1	29/32	0.310-0.560	1-13/32	2-11/32	25/32
2941NM			0.500-0.750	1-13/32	2-11/32	25/32
2942NM			0.700-0.950	1-43/64	2-3/8	25/32

Nonmetallic Liquidtight Strain Relief Fittings—90° Elbow



90° elbow, new reduced size, smaller footprint

- Weather Stabilized Nylon
- UL 94-V2
- Temperature Rating: -34 °C to +105 °C
- Meets Coast Guard CG293

Cat. No.	Trade or Hub Size (in.)	Throat Diam. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
4960NM	1/2	9/16	0.125-0.375	1-7/32	1-1/4	5/8
4961NM			0.310-0.560	1-7/32	1-1/4	5/8
4970NM	3/4	3/4	0.125-0.375	1-13/32	1-3/8	5/8
4971NM			0.310-0.560	1-13/32	1-3/8	5/8
4972NM			0.500-0.750	1-13/32	1-3/8	5/8

Flexible Cord and Cable Fittings

Silver Grip® – TCF® Series Tray Cord® Fitting



One heck of a grip! Increased Safety for Hazardous Locations

Introducing the Silver Grip® Tray Cord® Fitting - the safe, yet cost-efficient choice for increased safety when terminating portable cord and tray cable in hazardous locations.

Designed for use in Class I, Gas and Vapour environments, the Silver Grip® Tray-Cord® Fitting provides efficient strain relief for cables entering enclosures and raceways, and for cords used on portable equipment.

- Corrosion-resistant, non-magnetic aluminum construction
- Tapered neoprene bushing and O-ring seal out moisture and dirt ingress
- Chuck grip provides high mechanical pull-out performance. Exceeds applicable requirements.
- Hand-tightens — no tools required
- Now available in 316 stainless steel
- 90°C temperature rating

Tray Cable Applications



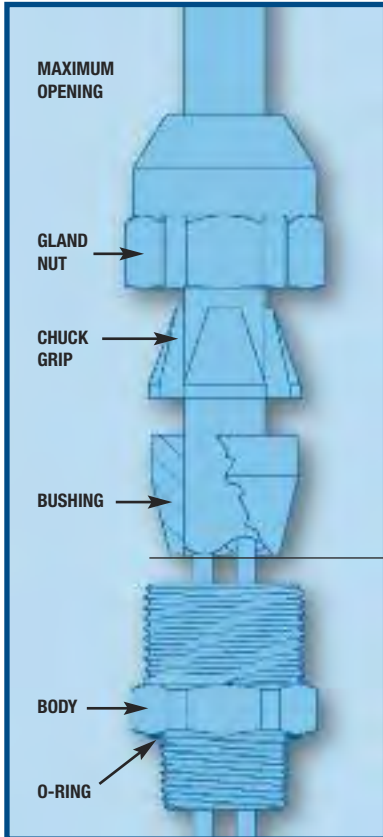
Portable Cord Applications



Flexible Cord and Cable Fittings

Silver Grip® – TCF® Series Tray-Cord Fitting

Ordering Information



Cat. No Aluminum	Cat. No Stainless Steel	Hub Size NPT (in.)	Throat Diameter (in.)	Minimum Cable Dia. (in.)	Maximum Opening (in.)	
TCF050-27AL	TCF050-27SS6	1/2	0.330	0.150	0.270	
TCF050-40AL	TCF050-40SS6		0.540	0.250	0.400	
TCF050-54AL	TCF050-54SS6		0.540	0.400	0.540	
TCF050-67AL	TCF050-67SS6		0.540*	0.540	0.670	
TCF050-78AL	TCF050-78SS6		0.540*	0.660	0.780	
TCF075-40AL	TCF075-40SS6		3/4	0.540	0.250	0.400
TCF075-54AL	TCF075-54SS6	0.540		0.400	0.540	
TCF075-67AL	TCF075-67SS6	0.780		0.540	0.670	
TCF075-78AL	TCF075-78SS6	0.780		0.660	0.780	
TCF075-88AL	TCF075-88SS6	0.765*		0.770	0.880	
TCF100-78AL	TCF100-78SS6	1		0.980	0.660	0.780
TCF100-88AL	TCF100-88SS6		0.980	0.770	0.880	
TCF100-100AL	TCF100-100SS6		0.980*	0.870	1.000	
TCF100-109AL	TCF100-109SS6		0.980	0.940	1.090	
TCF125-109AL	-		1-1/4	1.255	0.890	1.090
TCF125-128AL	-			1.255*	1.080	1.280
TCF125-147AL	-	1.255*		1.270	1.470	
TCF150-115AL	-	1-1/2	1.470	0.890	1.150	
TCF150-140AL	-		1.470	1.140	1.400	
TCF150-165AL	-		1.470*	1.390	1.650	
TCF200-153AL	-	2	1.896	1.190	1.530	
TCF200-186AL	-		1.896	1.520	1.860	
TCF200-219AL	-		2.062*	1.850	2.190	
TCF250-252AL	-	2-1/2	2.466*	2.120	2.520	
TCF300-278AL	-		2.780	2.380	2.780	
TCF300-304AL	-		3	3.050	2.640	3.040
TCF300-330AL	-	3.068*		2.900	3.300	

*When cord will not fit through body, strip cord jacket and trim fillers if required. Insert cable ensuring the outer jacket reaches the end of the bushing as shown. Tighten gland nut onto body

Applications

Tray Cable

Complies with IEC requirements for Class I, Zone 2 locations when used with enclosures containing no arcing or sparking devices. For enclosures with arcing or sparking devices, TCF® fittings must be used in combination with a certified Class I hazardous location sealing fitting.

Portable Cord

Complies with IEC requirements for Class I, Zone 1 locations when used with enclosures containing no arcing or sparking devices. For enclosures with arcing or sparking devices, TCF® fittings must be used in combination with a certified Class I hazardous location sealing fitting.

- CSA Class 4418-05 Fittings for Hazardous Locations Class I, Zone 1 Ex e II, IP66; Type 4/4X, (CSA)
- CSAus Class 4418-85 Fittings for Hazardous Locations Class I, Zone 1, A Ex e II, IP66; Type 4/4X, (CSAus)

N.B.: Tray cable is not suitable for use in Zone 1 locations.

Portable cord can be used in Zone 1 applications only when installed on portable equipment.

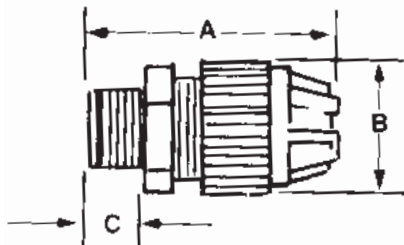
Utilisation

- For use with unarmored cable Types suitable for use in Class I, Zone 1 (e.g.) Extra Hard Usage Cord)
- Series TCF Cable Glands, when used with Tray Cables are suitable to be installed in Class I, Zone 2/Div. 2 Classified Hazardous Locations Areas according to CEC/NEC Wiring Method, or subject to Local Inspection Authority having jurisdiction.



Flexible Cord and Cable Fittings

Black Beauty™ Liquidtight Strain Relief Fittings—Straight

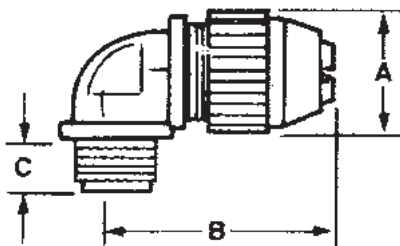


- Weather Stabilized Nylon
- UL 94-V2
- Temperature Rating: -34 °C to +105 °C
- Meets Coast Guard CG293

Cat. No.	Trade or Hub Size (in.)	Throat Dia. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
2671	3/8	0.33	0.125-0.275	2	29/32	15/32
2690		0.33	0.125-0.275	2-4/16	29/32	19/32
2672		0.55	0.250-0.400	2-19/32	19/32	19/32
2673*	1/2	0.55	0.400-0.560	2-19/32	19/32	19/32
2691*		0.54	0.560-0.690	3	1-9/10	19/32
2692*		0.54	0.660-0.780	3	1-9/16	19/32
2693	3/4	0.55	0.250-0.400	2-11/16	1-9/32	5/8
2694*		0.55	0.400-0.560	2-11/16	1-9/32	5/8
2674		0.79	0.560-0.690	3	1-9/16	5/8
2675		0.79	0.660-0.780	3	1-9/16	5/8
2696*		0.76	0.770-0.895	3-3/16	1-7/8	5/8
2676		0.98	0.660-0.780	3-5/16	1-7/8	25/32
2677		0.98	0.770-0.895	3-5/10	1-7/8	25/32
2678*		0.98	0.870-1.020	3-5/10	1-7/8	25/32
2699		0.98	0.890-1.090	3-3/10	2-19/32	25/32
2702		1.25	0.890-1.090	3-5/16	1-7/8	25/32
2703	1-1/4	1.25	1.080-1.280	4	2-19/32	13/16
2704		1.25	1.270-1.470	4	2-19/32	13/16
2705TB		1.47	0.890-1.150	4-3/16	2-31/32	13/16
2706	1-1/2	1.47	1.140-1.400	4-5/16	2-31/32	13/16
2707		1.47	1.390-1.650	4-5/16	2-31/32	13/16
2708		1.89	1.190-1.530	5-3/32	3-1/2	27/32
2709	2	1.89	1.520-1.860	4-29/32	3-1/2	27/32
2710*		1.89	1.850-2.190	4-29/32	3-1/2	27/32

* Remove sufficient outer covering of cable to permit conductors to pass thru fitting body

Black Beauty™ Liquidtight Strain Relief Fittings—90° Elbow



90° angle, standard size body.

- Weather Stabilized Nylon
- UL 94-V2
- Temperature Rating: -34 °C to +105 °C
- Meets Coast Guard CG293

Cat. No.	Trade or Hub Size (in.)	Throat Dia. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
2680	3/8	0.33	0.125-0.275	0.90	1.8	0.460
2681		0.55	0.250-0.400	1.27	2.5	0.610
2682*	1/2	0.55	0.400-0.560	1.27	2.5	0.610
2683		0.78	0.560-0.690	1.57	2.8	0.610
2684	3/4	0	0.660-0.780	1.57	2.8	0.610
2688		0.98	0.560-0.690	1.89	3.0	0.770
2685	1	0.98	0.660-0.780	1.89	3.2	0.770
2686		0.98	0.770-0.895	1.89	3.2	0.770
2687*		0.98	0.870-1.020	1.89	3.2	0.770

* Remove sufficient outer covering of cable to permit conductors to pass thru fitting body. 90° angle, standard size body