

Metallic Liquidtight Cord and Cable Connectors

Whatever the application. Whatever the size. Thomas & Betts is your connection to tough, versatile cord and cable fittings.

Thomas & Betts offers a complete line of rugged, reliable cord and cable fittings. All fittings are produced to the highest standards, combining innovative design and precision manufacturing methods to provide the products you need for your specific applications. Combining proven performance, installation advantages and availability of ranges, T&B is also your connection to lower installed costs for the life of your cord and cable requirements.

Use this guide to help you specify the fitting you need for your cord and cable requirements.

Cord and Cable Requirements

CORD AND CABLE TYPE	T&B FITTING
S, SO, SV, ST, STD, SJ,	Ranger® 2920NM# Series, 2920# Series
SJO, SJT, SJTO, SVO	Liquidtight Strain Relief 2500# Series
S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVO	Wire Mesh Grips WMG-PC Series for Portable Cord

Considerations for Selection

- Selection of the proper device or fitting involves consideration of the type of cable to be installed and the environment that will surround the cable installation.
- A proper matching of the cable and its fitting is necessary to prevent physical damage to the cable when installed.
- NEMA Applications: Fittings used in a trade size knockout requiring a NEMA 3R, 4, 6 or 13 listing require a 5262 Series sealing ring.

Cord and Cable Descriptions

Type SJ, tradename is Junior Hard Service Cord. The outer covering is Thermoset and it is a pendant or portable cord used in damp locations for hard usage.

Type SJO, tradename is Junior Hard Service Cord. The outer covering is oil-resistant Thermoset.

Type SJT, tradename is Junior Hard Service Cord. The outer covering is Thermoplastic.

Type SJTO, tradename is Junior Hard Service Cord. The outer covering is oil-resistant Thermoplastic.

Type SO, tradename is Hard Service Cord. The outer covering is oil-resistant Thermoset and it is a pendant or portable cord used in damp locations for extra-hard usage.

Suggested Specifications for Flexible Cord and Cable Fittings

- 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 captivated resilient sealing O-Ring shall be included to positively protect against damage from overtorquing



Conduit & Fittings — T&B® Cord & Cable Fittings



Metallic Liquidtight Cord and Cable Connectors



2920 Ranger® Series



2920SST Ranger® Series



2920AL Ranger® Series



2516 Series

Ranger® Series of Liquidtight Flexible Cord and Cable Connectors

Application

- A liquidtight connector to connect flexible cord or cable to an enclosure and provide adequate strain relief

Features

- Liquidtight connection with enclosure is ensured by:
 - Taper threaded hub on 2520 series for female hub application
 - Using sealing ring series 5262 with 2520 series for knockout application
 - Captivated sealing O-Ring on 2631 series
 - Neoprene bushing makes liquidtight installation; applies pressure against cable the full length of bushing
 - Thermoplastic or stainless steel retaining ring
 - Will not abrade cord/cable jacket
 - Reduces installing torque effort
- UL Listed liquidtight, strain relief and as an outlet bushing; CSA certified watertight

Standard Material

Gland, Body.....Steel/Malleable Iron/Zinc Die Cast
Retaining RingThermoplastic/Stainless Steel
Bushing.....Neoprene
O-RingBuna N

Standard Finish

Electro Zinc Plated & Chromate Coated

Range

2520 Series, straight 0.125" outside diameter to 3.200" outside diameter Cord or Cable
2200 Series, 45° 0.125" outside diameter to 1.485" outside diameter Cord or Cable

2267 Series, 90° 0.125" outside diameter to 1.875" outside diameter Cord or Cable
2900 and 4900 Ranger® Series 0.250" cable range
Cord/Cable Type S, SO, SV, ST, STO, SJ, SJO, SJT, SJTO, SVO & SVT

Listings/Compliances

UL File No. E-13938
CSA LR-589, LR-4484
UL 514
CSA. 22.2 No. 18
ANSI C33.84, NFPA 70-1978 (ANSI)

CAT. NO	SIZE	MIN.	MAX.	SV0, SV, SVT	SJ, SJO, SJT, SJTO			S, SO, ST, STO						
				#18	#18	#16	#14	#18	#16	#14	#12	#10	#8	#6
2 Conductor														
2920	½"	.125	.375	X	X	X	X							
2921	½"	.310	.560			X	X	X	X	X				
2922	½"	.500	.750				X	X	X	X	X	X		
2930	¾"	.125	.375	X	X	X	X							
2931	¾"	.310	.560			X	X	X	X	X				
2932	¾"	.500	.750				X	X	X	X	X	X		
2940	1"	.310	.560			X	X	X	X	X				
2941	1"	.500	.750				X	X	X	X	X	X		
2942	1"	.700	.950				X						X	X
3 Conductor														
2920	½"	.125	.375	X	X	X								
2921	½"	.310	.560		X	X	X	X	X					
2922	½"	.500	.750							X	X	X		
2930	¾"	.125	.375	X	X	X								
2931	¾"	.310	.560		X	X	X	X	X					
2932	¾"	.500	.750				X	X	X	X	X	X		
2940	1"	.310	.560			X	X	X	X					
2941	1"	.500	.750		X					X	X	X		
2942	1"	.700	.950									X	X	
4 Conductor														
2920	½"	.125	.375	X										
2921	½"	.310	.560		X	X	X	X	X					
2922	½"	.500	.750							X	X			
2930	¾"	.125	.375	X										
2931	¾"	.310	.560		X	X	X	X	X					
2932	¾"	.500	.750							X	X			
2940	1"	.310	.560		X	X	X	X	X					
2941	1"	.500	.750							X	X			
2942	1"	.700	.950								X	X		

Metallic Liquidtight Cord and Cable Connectors

The Ranger® Series of Aluminum Liquidtight Cord Connectors

Application

- A liquidtight connector to connect flexible cord to an enclosure and provide adequate strain relief
- Form a mechanical grip and water and liquidtight seal
- Form a non-slip connection or termination for flexible cord

Cord & Cable Type

- S.J, SJE, SJEW, SJE0, SJE00, SJE00W, SJO, SJOW, SJO0, SJO0W, SJT, SJTW, SJTO, SJTOW, SJT00, SJT00W, SO, SOW, S00, S00W, SV, ST, STD, SVD

Features

- Available in straight or 90° designs
- Designed to accept a wide range of cables, offering nine fittings that cover cord ranges from .125" through .950"
- Slotted design gland nut to accommodate securing in tight spaces

- Installer can simply use screwdriver to get into the hard-to-reach area and secure the gland nut
- Marked with cable ranges and conduit hub sizes

Material

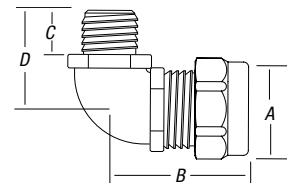
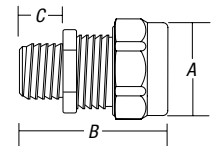
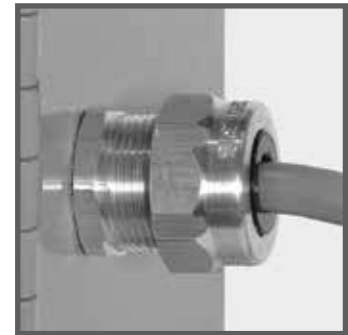
Body Copper-Free Aluminum
Gland Nut, Grip..... Copper-Free Aluminum — All Series
Bushing..... Thermoplastic Rubber
Grip Ring..... Nylon

Environment Classification

Ordinary locations
Wet or dry locations
Temperature Range: -20° C to 105° C (-4° F to 221° F)

Range

Cord Range: .125" to .950"
Hub Size Range: ½" to 1"



Aluminum Liquidtight Strain-Relief Connectors

CAT. NO.	HUB SIZE	CORD RANGE (IN.)	DIMENSIONS (IN.)				STD. PKG. QTY.	WT. PER 100
			A	B	C	D		
Straight								
2920AL	½"	.125-.375	1⅝	1¾	⅝	—	25	8.50
2921AL	½"	.310-.560	1⅝	1¾	⅝	—	25	8.05
2922AL	½"	.500-.750	1⅝	1¾	⅝	—	25	9.95
2930AL	¾"	.125-.375	1⅝	1 ²⁵ / ₃₂	¾	—	10	12.30
2931AL	¾"	.310-.560	1⅝	1 ²⁵ / ₃₂	¾	—	10	11.90
2932AL	¾"	.500-.750	1⅝	1 ²⁵ / ₃₂	¾	—	10	11.50
2940AL	1"	.310-.560	1⅝	1¾	1 ¹ / ₁₆	—	10	18.00
2941AL	1"	.500-.750	1⅝	1¾	1 ¹ / ₁₆	—	10	16.00
2942AL	1"	.700-.950	1⅝	1⅞	3 ¹ / ₃₂	—	10	16.70
90° Elbow								
4960AL	½"	.125-.375	1⅝	1¾	⅝	1 ¹ / ₁₆	50	23.60
4961AL	½"	.360-.560	1⅝	1¾	⅝	1 ¹ / ₁₆	50	11.60
4970AL	¾"	.125-.375	1 ⁵ / ₁₆	1 ²⁵ / ₃₂	1 ¹¹ / ₁₆	1 ¹⁵ / ₃₂	50	17.2
4971AL	¾"	.310-.560	1 ⁵ / ₁₆	1 ²⁵ / ₃₂	1 ¹¹ / ₁₆	1 ¹⁵ / ₃₂	50	30.00
4972AL	¾"	.500-.750	1 ⁵ / ₁₆	1 ²⁵ / ₃₂	1 ¹¹ / ₁₆	1 ¹⁵ / ₃₂	50	33.09
4980AL	1"	.310-.560	1 ⁵ / ₁₆	2 ¹ / ₃₂	1 ¹³ / ₁₆	1¾	25	21.50
4981AL	1"	.500-.750	1 ⁵ / ₁₆	2 ¹ / ₃₂	1 ¹³ / ₁₆	1¾	25	22.36
4982AL	1"	.700-.950	1 ⁵ / ₁₆	2 ¹¹ / ₁₆	1 ¹³ / ₁₆	2	25	18.20

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

All items shown on this page are suitable for use in hazardous locations where general-purpose equipment is specifically permitted by the NEC®. NEC 501-4(b).

UL File No. E-13938 CSA File No. 52391

For wire mesh grips, refer to page E-142.

Metallic Liquidtight Cord and Cable Connectors

The T&B WMG-PC Series Wire Mesh Grips for Portable Cord

T&B Wire Mesh grips are ordered separately and fit with your existing inventory of Ranger® connectors and liquidtight strain-relief connectors. There's no need to duplicate inventory.

Application

- Provides high gripping strength for adequate cable support and strain relief without damage to the cable sheath
- Compression of a tapered neoprene bushing ensures the watertight integrity of the fittings
- To meet National Electrical Code (NEC®) requirements for electrical installations in hazardous atmospheres, a sealing fitting may be required in conjunction with the cable and cord fitting

Cord & Cable Type

- S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVD

Features

- Prevents severe cord bends and pullouts
- Used in aluminum and/or steel fittings

How to select proper wiremesh grip:

1. Determine O.D. of portable cord, e.g., .200
2. Determine size of knockout or threaded hub, e.g. 1/2"
3. Select Cat. No. of strain relief connector, e.g., 2520, 2920AL.
4. Match up O.D. with grip range and strain relief to determine Cat. No. of Wiremesh Grip (e.g., .200 + 2520 = WMG-PC1)



2920 Series



2920AL Series



2516 Series



Now Includes Ranger® Series

Materials

Wiremesh made of stainless steel.
Retaining rings made of aluminum

Environment Classification

Ordinary locations

Range

.187 – 3.220



STRAIN-RELIEF CONNECTOR									
CAT. NO.	GRIP RANGE	STRAIGHT			45°		90°		
		RANGER® STEEL	RANGER® ALUMINUM	T&B STEEL	RANGER® STEEL	T&B STEEL	RANGER® STEEL	RANGER® ALUMINUM	T&B STEEL
WMG-PC1	.187-.250	2920	2920AL	2520	4920	2200	4960	4960AL	2267
WMG-PC2	.250-.375	2920	2920AL	2521	4920	2201	4960	4960AL	2268
WMG-PC3	.375-.500	2921	2921AL	2522	4921	2202	4961	4961AL	2269
WMG-PC4	.500-.625	2922	2922AL	2524	4922	2204	4962	4962AL	2250
		2932	2932AL	2534	4932	2209	4972	4972AL	2273
		2941	2941AL	2544	4941	2214	4981	4981AL	2255
WMG-PC5	.625-.750	2922	2922AL	2525	4922	2205	4962	4962AL	2251
		2932	2932AL	2535	4932	2210	4972	4972AL	2274
		2941	2941AL	2545	4941	2215	4981	4981AL	2256
WMG-PC6	.187-.250	2930	2930AL	2530	4930	2206	4970	4970AL	2252
WMG-PC7	.250-.375	2930	2930AL	2531	4930	2207	4970	4970AL	2271
WMG-PC8	.375-.500	—	—	2541	—	—	—	—	—
		2931	2931AL	2532	4931	2208	4961	4961AL	2272
		2940	2940AL	2542	4940	2213	4980	4980AL	2254
WMG-PC9	.750-.875	—	—	2536	—	2211	—	—	2253
		2942	2942AL	2546	4942	2216	4982	4982AL	2275
WMG-PC10	.875-1.000	—	—	2547	—	2217	—	—	2276
WMG-PC11	.875-1.000	—	—	2548	—	2218	—	—	2257
		—	—	2558	—	2220	—	—	2277
		—	—	2548	—	2218	—	—	2257
WMG-PC12	1.000-1.125	—	—	2558	—	2220	—	—	2277
		—	—	2549	—	2219	—	—	2258
		—	—	2559	—	2221	—	—	2278
WMG-PC13	1.125-1.250	—	—	2549	—	—	2258	2258	2219
		—	—	2559	—	2221	—	—	2278
		—	—	2556	—	—	2279	2279	2222
WMG-PC14	1.125-1.250	—	—	2563	—	—	—	—	2282
		—	—	2564	—	—	—	—	2283
		—	—	2564	—	2222	—	—	2256
WMG-PC15	1.250-1.375	—	—	2564	—	—	—	—	2283
WMG-PC16*	1.375-1.500	—	—	2557	—	2223	—	—	2280
WMG-PC17*	1.125-1.250	—	—	2573	—	—	—	—	2284
WMG-PC18*	1.250-1.375	—	—	2573	—	—	—	—	2284
WMG-PC19*	1.375-1.500	—	—	2565	—	—	—	—	2285
		—	—	2574	—	—	—	—	—
WMG-PC20*	1.500-1.625	—	—	2565	—	—	—	—	2285
		—	—	2574	—	—	—	—	—
		—	—	2575	—	—	—	—	2286
WMG-PC21*	1.625-1.750	—	—	2575	—	—	—	—	2286
WMG-PC22*	1.750-1.875	—	—	2575	—	—	—	—	2286

*Replacement Gland Nut supplied with these catalog numbers only.