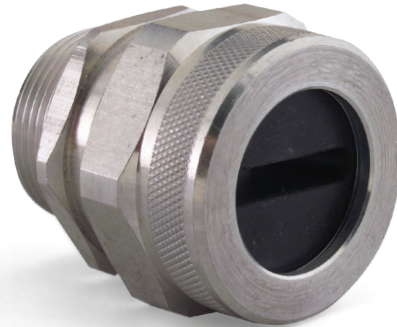




RSF SERIES ALUMINUM FESTOON CABLE CONNECTORS



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Tuff-Seal™ RSF Festoon Cable Connectors are specially designed for heavy-duty, flat cable or festoon system applications. Unique to the U.S. market, these cord grips are used in place of the traditional two-screw connector at the critical point of termination between the plant environment and the internal wiring of the festoon system.

Benefits of the Festoon Cable Connector include:

- Termination with both mechanical & environmental integrity which minimizes the incidence of disconnected power
- Available in machined aluminum, steel, stainless steel or nylon to meet specific application needs
- Placing multiple cables through one connector saving both labor time and cost – eliminates the need for multiple terminations & connectors.

Manufactured for use in both indoor and outdoor locations, Tuff Seal Festoon Cable Connectors provide a liquid-tight seal that keeps out dirt, moisture, coolants, lubricant and corrosives. Meeting NEMA standards, these grips are available with either M style (ISO), Pg or NPT threads. And they can be customized based on the number of conductors needed for a specific application.

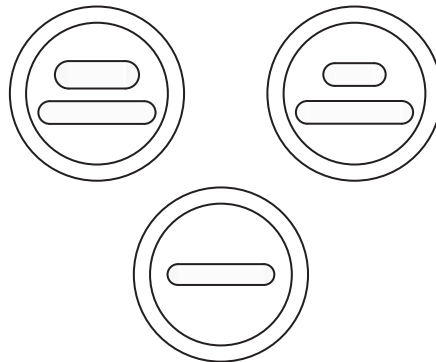
NOTES

SPECIAL CONFIGURATIONS

Special configurations and materials are available. Consult factory.

Other thread and body configurations available. Consult factory.

Threads can be supplied as M style (ISO), Pg or NPT.



RSF SERIES ALUMINUM FESTOON CABLE CONNECTORS

COMPLETE ASSEMBLY PART NUMBERS						
Conduit Size	Complete Assembly	Body, Nut, Washer Assembly	Bushing Only	Bushing Dimensions		Number of Holes
1"	RSF-3001	RSR-300-W	SBF-3001	.660 X .240	—	1
	RSF-3002	RSR-300-W	SBF-3002	.750 X .250	—	1
	RSF-3003	RSR-300-W	SBF-3003	.890 X .290	—	1
1 1/4"	RSF-4001	RSR-400-W	SBF-5001	1.190 X .350	—	1
	RSF-4002	RSR-400-W	SBF-5002	1.370 X .250	—	1
	RSF-4003	RSR-400-W	SBF-5003	1.240 X .240	—	1
	RSF-4004	RSR-400-W	SBF-5004	1.130 X .220	—	1
	RSF-4005	RSR-400-W	SBF-5005	1.240 X .240	1.240 X .240	2
	RSF-4006	RSR-400-W	SBF-5006	1.130 X .220	1.130 X .220	2
	RSF-4007	RSR-400-W	SBF-5007	.660 X .240	1.130 X .220	2
	RSF-4008	RSR-400-W	SBF-5008	.660 X .240	1.240 X .240	2
	RSF-4009	RSR-400-W	SBF-5009	.890 X .290	1.130 X .220	2
	RSF-4010	RSR-400-W	SBF-5010	.890 X .290	1.240 X .240	2
	RSF-4011	RSR-400-W	SBF-5011	.750 X .250	1.130 X .220	2
	RSF-4012	RSR-400-W	SBF-5012	.750 X .250	1.240 X .240	2
1 1/2"	RSF-5001	RSR-500-W	SBF-5001	1.190 X .350	—	1
	RSF-5002	RSR-500-W	SBF-5002	1.370 X .250	—	1
	RSF-5003	RSR-500-W	SBF-5003	1.240 X .240	—	1
	RSF-5004	RSR-500-W	SBF-5004	1.130 X .220	—	1
	RSF-5005	RSR-500-W	SBF-5005	1.240 X .240	1.240 X .240	2
	RSF-5006	RSR-500-W	SBF-5006	1.130 X .220	1.130 X .220	2
	RSF-5007	RSR-500-W	SBF-5007	.660 X .240	1.130 X .220	2
	RSF-5008	RSR-500-W	SBF-5008	.660 X .240	1.240 X .240	2
	RSF-5009	RSR-500-W	SBF-5009	.890 X .290	1.130 X .220	2
	RSF-5010	RSR-500-W	SBF-5010	.890 X .290	1.240 X .240	2
	RSF-5011	RSR-500-W	SBF-5011	.750 X .250	1.130 X .220	2
	RSF-5012	RSR-500-W	SBF-5012	.750 X .250	1.240 X .240	2
	RSF-5013	RSR-500-W	SBF-5013	1.500 X .469	—	1
	RSF-5014	RSR-500-W	SBF-5014	1.150 X .484	—	1
	RSF-5015	RSR-500-W	SBF-5015	1.415 X .265	—	1
	RSF-5016	RSR-500-W	SBF-5016	.705 X .250	.705 X .250	2
2"	RSF-6001	RSR-600-W	SBF-6001	1.710 X .500	—	1
	RSF-6002	RSR-600-W	SBF-6002	1.460 X .450	—	1
	RSF-6003	RSR-600-W	SBF-6003	1.770 X .240	—	1
	RSF-6004	RSR-600-W	SBF-6004	1.650 X .220	—	1
	RSF-6005	RSR-600-W	SBF-6005	1.770 X .240	1.770 X .240	2
	RSF-6006	RSR-600-W	SBF-6006	1.650 X .220	1.650 X .220	2
	RSF-6007	RSR-600-W	SBF-6007	1.370 X .250	1.370 X .250	2
	RSF-6009	RSR-600-W	SBF-6009	1.750 X .625	—	1
	RSF-6010	RSR-600-W	SBF-6010	1.500 X .469	1.125 X .265	2
	RSF-6011	RSR-600-W	SBF-6011	.900 X .300	1.750 X .250	2
	RSF-6013	RSR-600-W	SBF-6013	1.500 X .469	—	1
	RSF-6029	RSR-600-W	SBF-6029	.990 X 1.630	—	1
2 1/2"	RSF-7001	RSR-700-W	SBF-7001	2.500 X .750	—	1
	RSF-7002	RSR-700-W	SBF-7002	2.180 X .300	—	1

NOTE: Numerous other configurations are available as stock items. Consult factory.



TUFF-SEAL™ TECHNICAL REFERENCE SECTION

RoHS STATEMENT

Remke Industries supports the European Union's efforts to remove harmful chemicals from electrical products. In compliance with Directive 2011/65/EU of the European Parliament and the Council of the European Union regarding the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), Remke Industries certifies either:

1. The maximum concentration values of weight in homogenous materials for the substances referred to in Article 4(1) of directive 2002/95/EC that are contained in the Products do not exceed the maximum concentration values of 0.1% in respect of lead, mercury, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers, and 0.01% in respect of cadmium. OR

2. The product supplied is exempt from this directive.

Remke Industries certifies that all products of our manufacture are fully compliant to the current RoHS Directive.

ISO CERTIFICATION



On July 1st, 2003 Remke Industries received ISO 9001 : 2000 certification which certifies that Remke is compliant with current ISO standards.

Knockout Dimensions

N.P.T. Hub Size	Knockout Hole Recommended (Min to Max/Inches)
1/4"	.540 to .570
3/8"	.671 to .701
1/2"	.859 to .906
3/4"	1.094 to 1.141
1"	1.359 to 1.406
1 1/4"	1.719 to 1.766
1 1/2"	1.969 to 2.016
2"	2.453 to 2.500
2 1/2"	2.953 to 3.000
3"	3.578 to 3.625
3 1/2"	3.570 TO 4.040
4"	4.550 TO 4.630

OPERATING TEMPERATURES	
Material	Temperature range
Aluminum	-40°F to +300°F (-40°C to +149°C)
Buna-N	-40°F to +250°F (-40°C to +121°C)
Nylon	-40°F to +225°F (-40°C to +107°C)
Steel	-60°F to +1000°F (-51°C to +537°C)
Stainless Steel	-60°F to +1000°F (-51°C to +537°C)
Neoprene (bushings)	-40°F to +250°F (-40°C to +121°C)
Silicone (bushings)	-150°F to + 390°F (-101°C to +199°C)
Valox	-40°F to +250°F (-40°C to +121°C)
Dome-Cap Connectors:	
Non-Metallic	-22°F to +176°F (-30°C to +80°C)
Metallic	-40°F to +212°F (-40°C to +100°C)

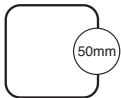

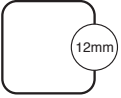

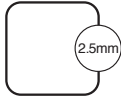
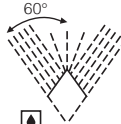
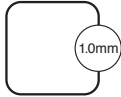


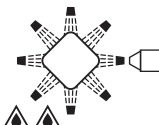


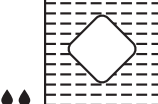
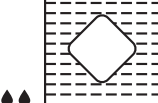
FLAMMABILITY	
Component	Rating
Mesh Grip	UL 94HB
Fitting	UL 94V-2
Note: Non-metallic cord connectors will not support combustion.	

APPROVALS, CERTIFICATION & COMPLIANCES		
AGENCY	FILE NUMBER	PRODUCT OR COMPONENT
Underwriters Laboratories Inc. (UL)	E53599	RSR Series (Straight, 90°, 45°) RSP Series (Straight, 90°) RSM Cord Grips RSRs Cord Grips RSRF Series
	E52002	Liqua-Seal Connectors
	E52002(N)	WH Series Watertight Conduit Hubs
	E157356(N)	WH Series Watertight Conduit Hubs
Canadian Standards Association (CSA)	28985	RSR Series (Straight, 90°, 45°) RSP Series (Straight, 90°) RSRS Cord Grips RSRF Series RSSS Series RSPV Series RTK Series MC Cable Connectors Watertight Conduit Hubs
National Electrical Code (NEC)	Articles 400-10	RSR Series (Straight, 90°, 45°)
	Articles 400-14	RSP Series (Straight, 90°) RSM Cord Grips RSRS Cord Grips RSRF Series
	Articles 501-4(B)	WH Series Watertight Conduit Hubs
	Articles 502-4(A)	WH Series Watertight Conduit Hubs
	Articles 503-3(A)	WH Series Watertight Conduit Hubs
ROHS & WEE	All Tuff-Seal and Tuff-Link Products are Compliant	

HAZARDOUS LOCATIONS	
Definition	Remke Products
The Remke products listed are suitable for use in hazardous locations per Class I, Div. 2, Class II, Div 1 & 2, and Class III, Div. 1 & 2	RSR Series (Straight, 90°, 45°) WH Series Watertight Conduit Hubs RSP Series (Straight, 90°) RSM Cord Grips, RSRS Cord Grips RSRF Series

RATINGS/MATERIAL OF CONSTRUCTION						
MATERIAL	IP 54 AND NEMA 3	IP 54 AND NEMA 3R	IP65 AND NEMA 4	IP 56 AND NEMA 4X	IP67 AND NEMA 6	IP 52 AND NEMA 12
Aluminum	X	X	X	—	X	X
Nickel-Plated Aluminum	X	X	X	X	X	X
Steel	X	X	X	—	X	X
Stainless Steel	X	X	X	X	X	X
Nylon	X	X	X	—	X	X
Valox	X	X	X	X	X	X

IP RATINGS DEFINITION

First Digit	Protection From Solid Objects	Second Digit	Protection From Moisture
0	Non-Protected	0	Non-Protected
1	 <p>Protected against solid objects over 50mm e.g hands, large tools</p>	1	 <p>Protection against vertically falling drops of water</p>
2	 <p>Protected against solid objects over 12mm e.g hands, large tools</p>	2	 <p>Protection against direct sprays of water up to a 15° angle</p>
3	 <p>Protection from entry by solid objects over 2.5mm e.g. wire or small tools</p>	3	 <p>Protection against direct sprays of water up to a 60° angle</p>
4	 <p>Protection from entry by solid objects over 1.0mm e.g. wires or tools</p>	4	 <p>Protection against water sprayed from any direction. Limited ingress permitted.</p>
5	 <p>Protection against deposits of dust e.g. against equipment damage due to deposits</p>	5	 <p>Protection against low pressure water jets from any direction. Limited ingress permitted</p>
6	 <p>Total protection against dust ingress e.g. Dust-Tight</p>	6	 <p>Protection against high pressure water jets from any direction. Limited ingress permitted.</p>
IP CODE EXAMPLE			
IP54 = IP (IP LETTER CODE), 5 (1st Digit), 4 (2nd Digit)			
7		7	 <p>Protection against immersion between 15cm and 1M</p>
8		8	 <p>Protection against complete and continuous immersion in water under pressure e.g Water-Tight</p>

THREAD SPECIFICATIONS

PG THREAD SPECIFICATIONS

Thread Size	Major Diameter (mm)	Pitch (mm)
Pg 7	12.5	1.27
Pg 9	15.2	1.41
Pg 11	18.6	1.41
Pg 13.5	20.4	1.41
Pg 16	22.5	1.41
Pg 21	28.3	1.56
Pg 29	37.0	1.56
Pg 36	47.0	1.56
Pg 42	54.0	1.56
Pg 48	59.3	1.56

NPT THREAD SPECIFICATIONS

Thread Size	Major Diameter (mm)	Pitch (mm)
NPT 1/4"	13.7	1.41
NPT 3/8"	17.1	1.41
NPT 1/2"	21.3	1.81
NPT 3/4"	26.7	1.81
NPT 1"	33.4	2.21
NPT 1-1/4"	48.3	2.21
NPT 1-1/2"	47.0	2.21
NPT 2"	60.3	2.21

METRIC THREAD SPECIFICATIONS

Thread Size	Major Diameter (mm)	Pitch (mm)
M12 X 1.5	12	1.50
M16 X 1.5	16	1.50
M20 X 1.5	20	1.50
M25 X 1.5	25	1.50
M32 X 1.5	32	1.50
M40 X 1.5	40	1.50
M50 X 1.5	50	1.50
M63 X 1.5	63	1.50