

SKINTOP® Clamping Ranges

Table of Clamping Ranges for PG/Metric
SKINTOP® SL and **SKINTOP® SL-M**

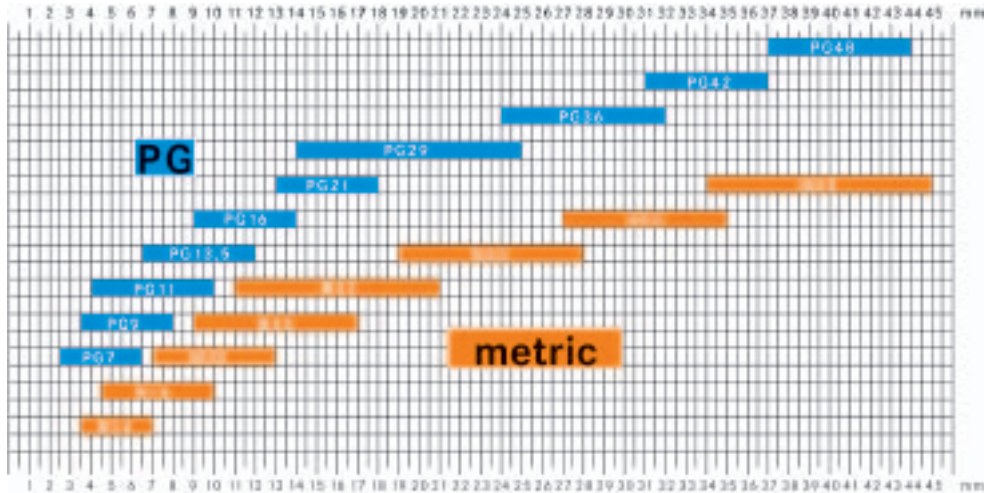
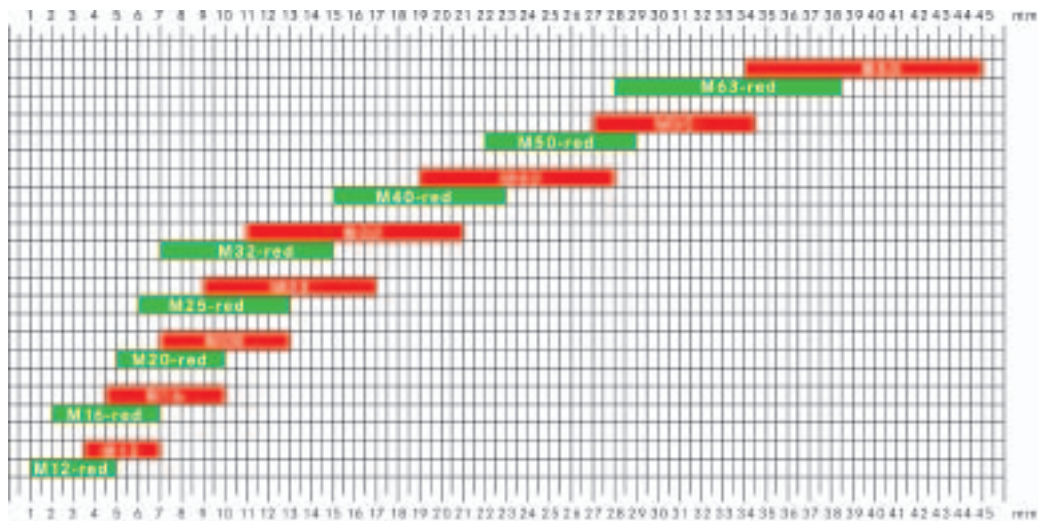
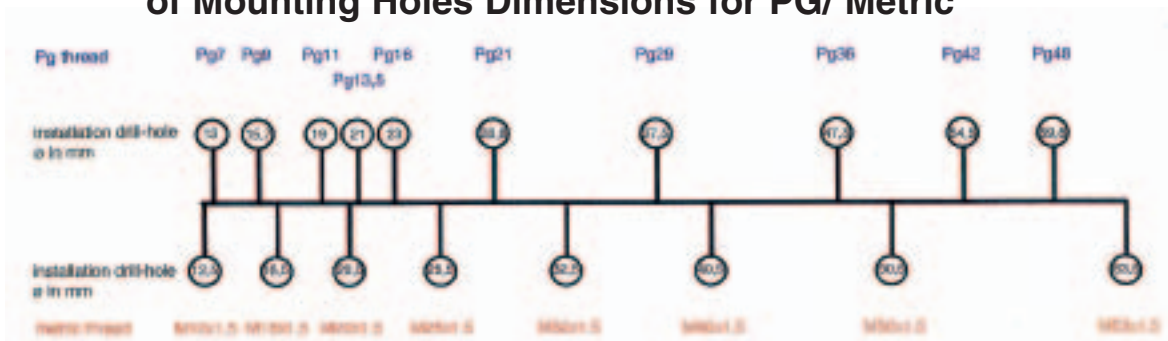


Table of Clamping Ranges for Metric
SKINTOP® SL-M and **SKINTOP® SLR-M**

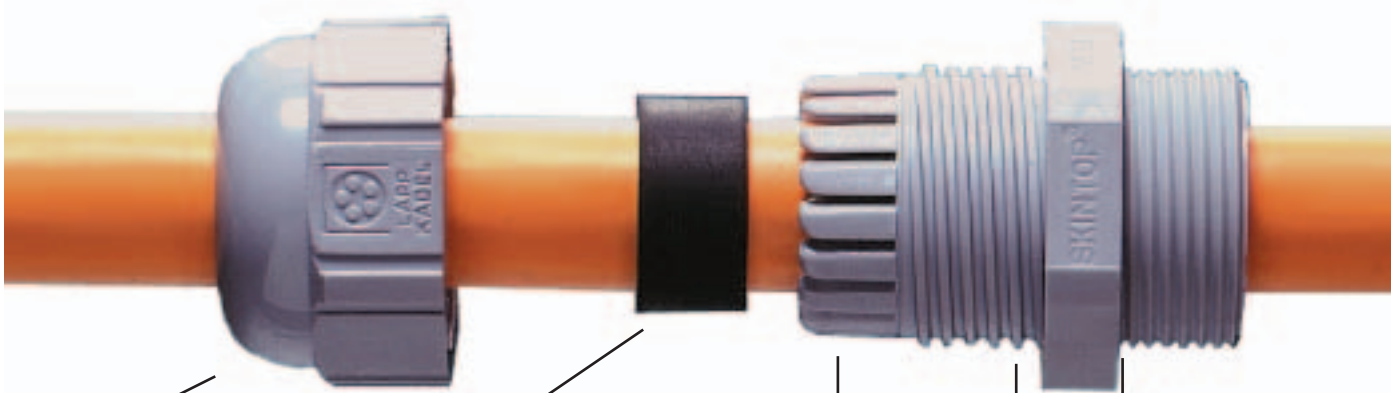


SKINTOP® SL and SKINTOP® SL-M Comparison
of Mounting Holes Dimensions for PG/ Metric



SKINTOP®

Liquid Tight, Non-Metallic Strain Relief Cord Connectors Secured by a Single Turn of the Hand



Cap nut with ergonomically designed gripping grooves. The gripping surfaces are generously dimensioned for spanners. Integral locking feature for vibration-resistant assembly.

Neoprene sealing for a hermetic seal (IP68)*. Every SKINTOP® version is available with reducing seal insert for smaller cable diameters.

Lamellar design for optimum strain relief and protection of the cable. Widely variable clamping range, therefore only a few gland sizes are necessary.

Integral sealing lips for a water tight junction with the housing.

Multiple trapezoidal thread for secure and instant assembly.

Shown here are the carefully matched components of the SKINTOP® screw-type cable glands. It is precisely these parts which guarantee optimum reliability.

Even more:

With SKINTOP® you can install the cable in an instant. Just feed it in, turn nut until tight - ready. So your cable is centered, hermetically sealed and completely strain relieved with a turn of the hand. If you do not wish to use your hands, you can of course work with a spanner wrench or SKINTAMTIC® RZ tool. Either way, with SKINTOP® you can achieve maximum reliability. To ensure that this remains so, SKINTOP® quality is continuously monitored. A quality which has brought us many international approvals.

Resistance properties:

Rated Temperature: SKINTOP® NPT & PG
-20°C to +80°C
SKINTOP® Metric
static: -40°C to +100°C
dynamic: -20°C to +100°C

Chemical:

- +Alcohols
- +Aromatic Hydrocarbons
- +Ethers
- +Benzene
- oChlorinated hydrocarbons
- +Esters
- = non-resistant
- +Grease, animal-vegetable
- +Fluorinated hydrocarbons
- +Keytones
- +Motor Fuels
- +Weak Alkali Solutions
- Strong Alkali Solutions
- +Petroleum Oils
- +Weak Acids
- Strong Acids
- +Trichlorethylene

For other aggressive media, we recommend a test in our laboratory

Testing:

SKINTOP®
Incandescent wire test to IEC 695, Part 2-1
Test Temperature 750°C
Strain relief to DIN VDE 0619
Protection Class IP 68,
Test to DIN 40050 and 40052

International Approvals:

UL #E146370
CSA #LR50370-10
VDE #57986
SEV #100989

* All IP ratings are dependent on proper installation by the user.

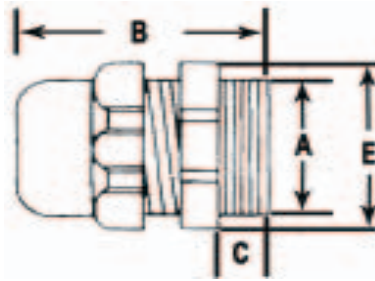
SKINTOP® SLN/ SLRN

Liquid Tight Non-Metallic Strain Relief Connector with NPT Threads



SKINTOP® SLN/SLRN is a liquid tight, durable, easy to assemble strain relief cable connector with NPT threads, that is universally suited for all types of machinery &

equipment, including automation, motion control and robotics. The heavy duty SKINTOP® design provides great pullout strength and very reliable strain relief.



Technical Data:

Materials: Body: Polyamide Bushing: Neoprene	Color: Black (RAL 9005) Gray (RAL 7001)
*Halogen Free Bushings are available upon request, See SKINTOP® EPDM, Page 569	Temperature range: -20°C to +80°C

SKINTOP® SLN: NPT Liquid Tight Non-Metallic Strain Relief Connector

Black	Part Number	Gray	Thread Type & Size	UL Status	Diameter Range inches	A Mounting Hole inches	B Maximum Overall Length inches	C Thread Length inches	D Wrenching Nut Thickness inches	E Wrenching Flats inches	Standard Pack Size	Weight 100 pcs. lbs.
	S2138	S1138	NPT-3/8"	R	.138 - .315	.675	1.693	.591	.218	.743	100	2.00
	S2112	S1112	NPT-1/2"	L	.197 - .472	.825	1.772	.591	.218	.938	100	2.50
	S2134	S1134	NPT-3/4"	L	.512 - .709	1.050	2.087	.591	.250	1.297	50	5.50
	S2101	S1101	NPT-1"	L	.748 - 1.000	1.303	2.362	.591	.276	1.654	25	9.00

SKINTOP® SLRN: NPT Liquid Tight Non-Metallic Strain Relief Connector with Reducer Bushing

Black	Part Number	Gray	Thread Type & Size	UL Status	Diameter Range inches	A Mounting Hole inches	B Maximum Overall Length inches	C Thread Length inches	D Wrenching Nut Thickness inches	E Wrenching Flats inches	Standard Pack Size	Weight 100 pcs. lbs.
	S2238	S1238	NPT-3/8"	R	.079 - .236	.675	1.654	.591	.218	.743	100	2.00
	S2212	S1212	NPT-1/2"	L	.157 - .354	.825	1.772	.591	.218	.938	100	2.50
	S2234	S1234	NPT-3/4"	L	.354 - .630	1.050	2.087	.591	.250	1.297	50	5.50
	S2201	S1201	NPT-1"	L	.551 - .827	1.303	2.362	.591	.276	1.654	25	9.00

NOTES:

1. Locknuts may be ordered separately, refer to Page 543.
2. Orders of 2000 pieces or more per item will be bulk packaged unless otherwise requested.
3. UL Status: R = Recognized; L = Listed

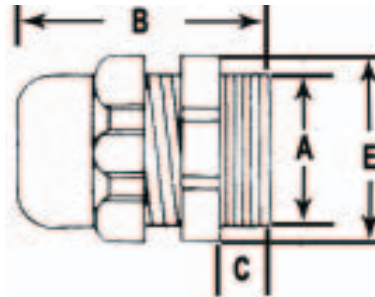
SKINTOP® SL/ SLR

Liquid Tight Non-Metallic Strain Relief Connector with PG Threads



SKINTOP® SL/SLR is a durable, liquid tight, easy to assemble strain relief cable connector with a PG thread, that is universally suited for all types of machinery &

equipment, including automation, motion control and robotics. The heavy duty SKINTOP® design provides great pullout strength and very reliable strain relief.



Technical Data:

Materials:	Body: Polyamide	Color: Black (RAL 9005) Gray (RAL 7001) *Lt Gray (RAL 7035) available upon request
	Bushing: Neoprene	
Locknuts: Included		Protection: 70 PSI Seal: IP 68, 5 Bar (Exceeds NEMA 6/ 6P Pressure rating)
*Halogen Free Bushings are available upon request, See SKINTOP® EPDM, Page 569		Temperature range: -20° C to +80° C

SKINTOP® SL: PG Liquid Tight Non-Metallic Strain Relief Connector

Black	Part Number Gray	Thread Type & Size	UL Status	Diameter Range inches	A Mounting Hole inches	B Maximum Overall Length inches	C Thread Length inches	D Wrenching Nut Thickness inches	E Wrenching Flats inches	Standard Pack Size	Weight 100 pcs. lbs.	
	S2107	S1107	PG-7	R	.098 - .256	.492	1.260	.315	.203	.591	100	1.00
	S2109	S1109	PG-9	R	.138 - .315	.599	1.417	.315	.218	.748	100	1.50
	S2111	S1111	PG-11	R	.157 - .394	.733	1.496	.315	.218	.866	100	2.00
	S2113	S1113	PG-13	L	.236 - .472	.804	1.614	.354	.218	.945	100	2.50
	S2116	S1116	PG-16	L	.354 - .551	.886	1.732	.394	.234	1.063	50	3.00
	S2121	S1121	PG-21	L	.512 - .709	1.115	1.929	.433	.250	1.299	50	5.00
	S2129	S1129	PG-29	R	.551 - .984	1.457	2.205	.433	.297	1.654	25	8.50
	S2136	S1136	PG-36	L	.945 - 1.260	1.850	2.598	.512	.315	2.087	10	17.50
	S2142	S1142	PG-42	R	1.378 - 1.496	2.126	2.677	.512	.360	2.362	5	24.00
	S2148	S1148	PG-48	L	1.535 - 1.732	2.335	2.717	.551	.360	2.559	5	29.00

SKINTOP® SLR: PG Liquid Tight Non-Metallic Strain Relief Connector with Reducer Bushing

Black	Part Number Gray	Thread Type & Size	UL Status	Diameter Range inches	A Mounting Hole inches	B Maximum Overall Length inches	C Thread Length inches	D Wrenching Nut Thickness inches	E Wrenching Flats inches	Standard Pack Size	Weight 100 pcs. lbs.	
	S2207	S1207	PG-7	R	.059 - .197	.492	1.260	.315	.203	.591	100	1.00
	S2209	S1209	PG-9	R	.079 - .236	.599	1.417	.315	.218	.748	100	1.50
	S2211	S1211	PG-11	R	.079 - .276	.733	1.496	.315	.218	.866	100	2.00
	S2213	S1213	PG-13	L	.157 - .354	.804	1.614	.354	.218	.945	100	2.50
	S2216	S1216	PG-16	L	.236 - .472	.886	1.732	.394	.234	1.063	50	3.00
	S2221	S1221	PG-21	L	.354 - .630	1.115	1.929	.433	.250	1.299	50	5.00
	S2229	S1229	PG-29	R	.433 - .787	1.457	2.205	.433	.297	1.654	25	8.50
	S2236	S1236	PG-36	L	.669 - 1.024	1.850	2.598	.512	.315	2.087	10	17.50
	S2242	S1242	PG-42	R	.866 - 1.220	2.126	2.677	.512	.360	2.362	5	24.00
	S2248	S1248	PG-48	L	1.024 - 1.378	2.335	2.717	.551	.360	2.559	5	29.00

NOTES:

- Orders of 2000 pieces or more per item will be bulk packaged unless otherwise requested.
- UL Status: R = Recognized; L = Listed

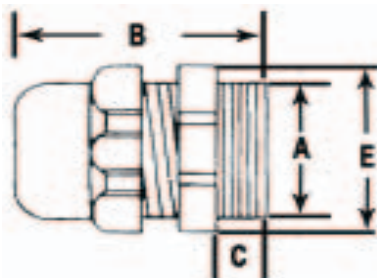
SKINTOP® SLM/ SLRM

Liquid Tight Non-Metallic Strain Relief Connector with Metric Threads to Meet the European Standards



SKINTOP® SLM/SLRM is a liquid tight, durable, easy to assemble strain relief cable connector with a metric thread that is universally suited for all types of machinery

& equipment that have Metric threaded holes. The heavy duty SKINTOP® design provides great pullout strength and very reliable strain relief.



8 sizes cover larger range of cables



Technical Data:

Materials:		Color:	Black (RAL 9005) Gray (RAL 7001) *Lt Gray (RAL 7035) available upon request
Body:	Polyamide		
Bushing:	Neoprene		
Locknuts:	Included	Protection:	70 PSI
		Seal:	IP 68, 5 Bar (Exceeds NEMA 6/ 6P Pressure rating)
		Temperature range:	
		Static:	-40°C to +100°C
		Flexing:	-20°C to +100°C

*Halogen Free Bushings are available on request, See SKINTOP® EPDM, Page 569

SKINTOP® SLM: Metric Liquid Tight Non-Metallic Strain Relief Connector

Part Number	Thread Type & Size	UL Status	Diameter Range		A Mounting Hole	B Maximum Overall Length		C Thread Length		D Wrenching Nut Thickness		E Wrenching Flats		Standard Pack Size	Weight 100 pcs. lbs.
			inches	mm		inches	mm	inches	mm	inches	mm	inches	mm		
S2507	M-12X1.5	R	.138 - .276	3.5 - 7	.470	1.181	30	.315	8	.203	5.2	.591	15	100	1.00
S2509	M-16X1.5	R	.177 - .394	4.5 - 10	.630	1.339	34	.315	8	.218	5.5	.748	19	100	1.50
S2513	M-20X1.5	L	.276 - .512	7 - 13	.790	1.457	37	.354	9	.218	5.5	.984	25	100	2.50
S2516	M-25X1.5	L	.354 - .669	9 - 17	.980	1.575	40	.394	10	.234	5.9	1.181	30	50	3.50
S2521	M-32X1.5	L	.433 - .827	11 - 21	1.260	1.850	47	.394	10	.250	6.4	1.417	36	25	6.00
S2529	M-40X1.5	L	.748 - 1.102	19 - 28	1.570	2.047	52	.394	10	.270	6.9	1.811	46	10	10.50
S2536	M-50X1.5	L	1.063 - 1.378	27 - 35	1.970	2.441	62	.472	12	.315	8.0	2.165	55	5	17.50
S2542	M-63X1.5	L	1.339 - 1.772	34 - 45	2.480	2.795	71	.472	12	.360	9.1	2.598	66	5	25.50

SKINTOP® SLRM: Metric Liquid Tight Non-Metallic Strain Relief Connector with Reducer Bushing

Part Number	Thread Type & Size	UL Status	Diameter Range		A Mounting Hole	B Maximum Overall Length		C Thread Length		D Wrenching Nut Thickness		E Wrenching Flats		Standard Pack Size	Weight 100 pcs. lbs.
			inches	mm		inches	mm	inches	mm	inches	mm	inches	mm		
S2607	M-12X1.5	R	.039 - .197	1 - 5	.470	1.181	30	.315	8	.203	5.2	.591	15	100	1.00
S2609	M-16X1.5	R	.079 - .276	2 - 7	.630	1.339	34	.315	8	.218	5.5	.748	19	100	1.50
S2613	M-20X1.5	L	.197 - .394	5 - 10	.790	1.457	37	.354	9	.218	5.5	.984	25	100	2.50
S2616	M-25X1.5	L	.236 - .512	6 - 13	.980	1.575	40	.394	10	.234	5.9	1.181	30	50	3.50
S2621	M-32X1.5	L	.276 - .591	7 - 15	1.260	1.850	47	.394	10	.250	6.4	1.417	36	25	6.00
S2629	M-40X1.5	L	.591 - .906	15 - 23	1.570	2.047	52	.394	10	.270	6.9	1.811	46	10	10.50
S2636	M-50X1.5	L	.866 - 1.142	22 - 29	1.970	2.441	62	.472	12	.315	8.0	2.165	55	5	17.50
S2642	M-63X1.5	L	1.102 - 1.535	28 - 39	2.480	2.795	71	.472	12	.360	9.1	2.598	66	5	25.50

NOTES:

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- UL Status: R = Recognized; L = Listed

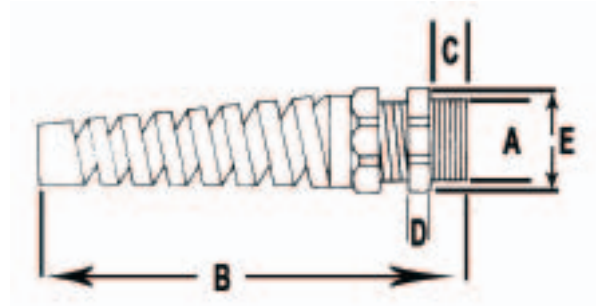
SKINTOP® FLEX

Liquid Tight Non-Metallic Connector
with Spiral Strain Relief in NPT, PG & Metric Sizes







SKINTOP® FLEX is a liquid tight, spiral strain relief that offers additional safety against overstress and conductor

breakage. Ideally suited for hand held equipment, moving machinery, robotics and instrumentation.



Technical Data:

 Materials:		 Protection:	70 PSI
Body:	Polyamide	Seal:	IP 68, 5 Bar (Exceeds NEMA 6/ 6P Pressure rating)
Bushing:	Neoprene		
 Color:	Black (RAL 9005) Gray (RAL 7001) *Lt Gray (RAL 7035) available upon request	 Temperature Range:	-20° C to +80° C
		NPT & PG:	-20° C to +100° C
		Metric:	-20° C to +100° C
		Locknuts:	Included with PG and Metric sizes NPT Locknuts are available see page 543.

SKINTOP® FLEX

Liquid Tight Non-Metallic Connector
with Spiral Strain Relief in NPT, PG & Metric Sizes



NPT THREADS

SKINTOP® SLN FLEX: NPT Liquid Tight Non-Metallic Strain Relief Connector

Part Number		Thread Type & Size	UL Status	Diameter Range inches	A Mounting Hole inches	B Maximum Overall Length	C Thread Length inches	D Wrenching Nut Thickness	E Wrenching Flats inches	Standard Pack Size	Weight 100 pcs. lbs.
Black	Gray										
S2338	S1338	NPT-3/8"	R	.138 - .315	.675	1.693	.591	.218	.743	100	3.00
S2312	S1312	NPT-1/2"	L	.197 - .472	.825	1.772	.591	.218	.938	50	5.50
S2334	S1334	NPT-3/4"	L	.512 - .709	1.050	2.087	.591	.250	1.297	25	12.00

SKINTOP® SLRN FLEX: NPT Liquid Tight Non-Metallic Strain Relief Connector with Reducer Bushing

Part Number		Thread Type & Size	UL Status	Diameter Range inches	A Mounting Hole inches	B Maximum Overall Length	C Thread Length inches	D Wrenching Nut Thickness inches	E Wrenching Flats inches	Standard Pack Size	Weight 100 pcs. lbs.
Black	Gray										
S2438	S1438	NPT-3/8"	R	.079 - .236	.675	1.693	.591	.743	.218	100	3.00
S2412	S1412	NPT-1/2"	L	.157 - .354	.825	1.772	.591	.938	.218	50	5.50
S2434	S1434	NPT-3/4"	L	.354 - .630	1.050	2.087	.591	1.297	.250	25	12.00

PG THREADS

SKINTOP® SL FLEX: PG Liquid Tight Non-Metallic Strain Relief Connector

Part Number		Thread Type & Size	UL Status	Diameter Range inches	A Mounting Hole inches	B Maximum Overall Length inches	C Thread Length inches	D Wrenching Nut Thickness inches	E Wrenching Flats inches	Standard Pack Size	Weight 100 pcs. lbs.
Black	Gray										
S2307	S1307	PG-7	R	.098 - .256	.492	.098	.307	.591	.203	100	1.50
S2309	S1309	PG-9	R	.138 - .315	.599	.138	.315	.748	.218	100	2.50
S2311	S1311	PG-11	R	.157 - .394	.733	.157	.315	.866	.218	100	3.25
S2313	S1313	PG-13	L	.236 - .472	.804	.236	.354	.945	.218	50	4.00
S2316	S1316	PG-16	L	.354 - .551	.886	.354	.394	1.063	.234	50	5.50
S2321	S1321	PG-21	L	.512 - .709	1.115	.512	.433	1.299	.250	25	10.00

SKINTOP® SLR FLEX: PG Liquid Tight Non-Metallic Strain Relief Connector with Reducer Bushing

Part Number		Thread Type & Size	UL Status	Diameter Range inches	A Mounting Hole inches	B Maximum Overall Length inches	C Thread Length inches	D Wrenching Nut Thickness inches	E Wrenching Flats inches	Standard Pack Size	Weight 100 pcs. lbs.
Black	Gray										
S2407	S1407	PG-7	R	.059 - .197	.492	2.441	.307	.591	.203	100	1.50
S2409	S1409	PG-9	R	.079 - .236	.599	2.953	.315	.748	.218	100	2.50
S2411	S1411	PG-11	R	.079 - .276	.733	3.425	.315	.866	.218	100	3.25
S2413	S1413	PG-13	L	.157 - .354	.804	3.937	.354	.945	.218	50	4.00
S2416	S1416	PG-16	L	.236 - .472	.886	4.449	.394	1.063	.234	50	5.50
S2421	S1421	PG-21	L	.354 - .630	1.115	5.079	.433	1.299	.250	25	10.00

METRIC THREADS

SKINTOP® SL-M FLEX: Metric Liquid Tight Non-Metallic Strain Relief Connector

Part Number		Thread Type & Size	UL Status	Diameter Range		B Maximum Overall Length		C Thread Length		D Wrenching Flats		E Nut Thickness		Standard Pack Size	Weight 100 pcs. lbs.
Black	Gray			inches	mm ²	inches	mm ²	inches	mm ²	inches	mm ²	inches	mm ²		
S2707	S1707	M-12X1.5	R	.138 - .276	3.5 - 7	2.520	64	.315	8	.203	5.2	.591	15	100	1.25
S2709	S1709	M-16X1.5	R	.177 - .394	4.5 - 10	3.386	86	.315	8	.218	5.5	.748	19	100	2.50
S2713	S1713	M-20X1.5	L	.276 - .512	7.0 - 13	3.976	101	.315	8	.218	5.5	.984	25	50	4.50
S2716	S1716	M-25X1.5	L	.354 - .669	9.0 - 17	4.921	125	.354	9	.234	5.9	1.181	30	25	8.00
S2721	S1721	M-32X1.5	L	.433 - .827	11 - 21	5.866	149	.394	10	.250	6.4	1.417	36	25	12.00

NOTES:

- Orders of 2000 pieces or more per item will be bulk packaged unless otherwise requested.
- UL Status: R = Recognized; L = Listed

SKINTOP® ATEX

KR1-M, K-M, KR-M




Cables Glands built according to ATEX for hazardous areas

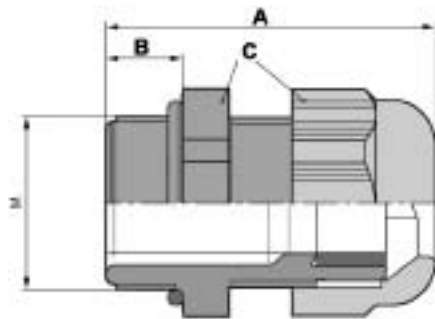
SKINTOP® ATEX KR1-M was developed especially for cables used with self-protecting circuits in hazardous areas, which require class “e” security. It is recommended for use on machines or installations in the chemical and petrochemical industries. SKINTOP® ATEX KR1-M is halogen free polyamide with an Ethylene Propylene Diene Monomer (EPDM) bushing.

SKINTOP® ATEX K-M and SKINTOP® ATEX KR-M were developed for use in areas with risk of explosion and for cables used with fail-safe circuits in housings and devices which require class “e” security.

SKINTOP® ATEX KR-M is equipped with a reducer bushing to seal cables with a smaller outer diameter. The SKINTOP® ATEX K-M and KR-M are recommended for use in the chemical and petrochemical industry.

Technical Data:

 Materials: KR1-M: Halogen Free Polyamide K-M & KR-M: Polyamide	 Seal: KR1-M IP 68, 5 Bar (Exceeds NEMA 6/ 6P Pressure rating) K-M & KR-M IP 64
Locknut: Not Permitted	 Temperature range: KR1-M -20°C to +80°C K-M & KR-M -20°C to +80°C



SKINTOP® KR1-M: Special Cable Gland According to ATEX 100a for Hazardous Areas



Part Number Black	Part Number Blue	Thread Type & Size	Diameter Range		A Maximum Overall Length		B Thread Length		C Wrenching Flats		Standard Pack Size
			inches	mm ²	inches	mm ²	inches	mm ²			
54017530	54017590	M-16X1.5	.138 - .236	3.5 - 6	1.575	40	40	12	.748	19	100
54017540	54017600	M-20X1.5	.197 - .354	5.0 - 9	1.732	44	44	13	1.063	27	100
54017550	54017610	M-25X1.5	.276 - .472	7.0 - 12	1.850	47	47	13	1.063	27	50