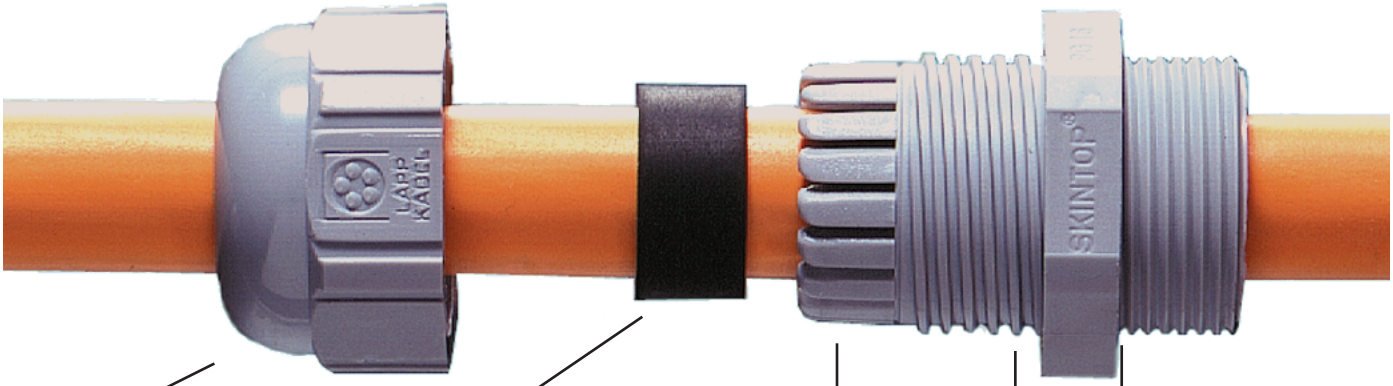
SKINTOP®

Liquid Tight, Non-Metallic Strain Relief Cable Glands 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 ridges 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. 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 work with a spanner wrench or SKINMATIC® RZ tool. Either way, with SKINTOP® you can achieve maximum reliability. SKINTOP® quality is continuously monitored to ensure a level of reliability that has resulted in many international approvals.

Resistance properties:

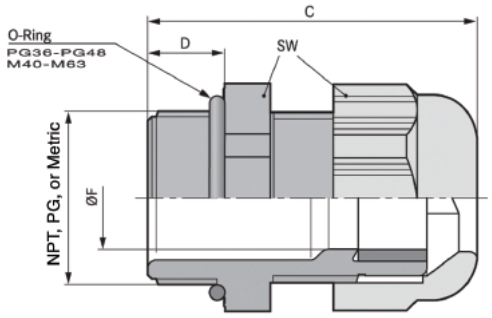
Rated Temperature:	SKINTOP® NPT &PG -20°C to +80°C SKINTOP® Metric static: -40°C to +100°C dynamic: -20°C to +100°C
Chemical:	+Alcohols +Aromatic Hydrocarbons +Ethers
+= resistant	+Benzene
o=with limited resistance	o Chlorinated hydrocarbons +Esters
- = non-resistant	+Grease, animal-vegetable +Fluorinated hydrocarbons +Keytones +Motor Fuels +Weak Alkali Solutions -Strong Alkali Solutions +Petroleum Oils +Weak Acids -Strong Acids +Trichlorethylene

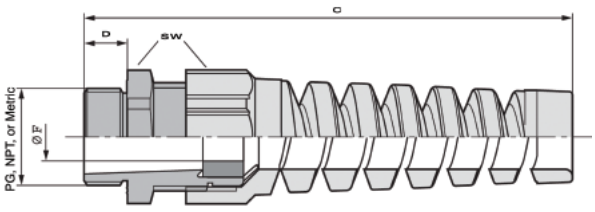
Testing:	SKINTOP® Incandescent wire test to IEC 695, Part 2-1 Test Temperature 750°C Strain relief to DIN VDE 0619 Protection Class IP 68, Test to DIN 40050 and 40052
International Approvals:	UL #E146370 CSA #LR50370-10 VDE #57986 (Metric) SEV #100989

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

SKINTOP® Strain Relief Cable Glands

Polyamide Style





Patented Security:
Patent # P-2631996

International Approvals:
UL # E146370 Metric: VDE # 57986
CSA # LR50370-10 SEV # 100989

TECHNICAL DATA:

Protection:	Up to 70 PSI
Material:	Polyamide — flame retardant, self-extinguishing nylon with CR bushing
Rated Temperature:	PG & NPT: -20°C to +80°C, short term to +100°C Metric: -20°C to +100°C
Seal:	IP 68 (International Protection — highest grade), comparable to NEMA 6 classification First digit (0–6): Dust Protection Second digit (0–8): Water Protection
Resistant to:	Salt water, weak acids, weak alkalis, alcohol, ester, ketones, ether, benzene, gas, mineral oil, animal and vegetable oils, gasoline, oil, grease and common solvents.

SKINTOP® meets the most stringent demands of safety and operational reliability. SKINTOP® can be used in panels, switches, control boxes, submersible pumps, appliances and many machine tool applications.

SKINTOP® is both a strain relief and a liquid tight seal — all in one connector.

Optimum Seal:

Complete liquid tightness is achieved with a uniquely designed molded sealing ring and flange nut combined with a neoprene bushing and domed sealing cap.

Unique Design:

SKINTOP® outperforms traditional connectors because the design consists of three parts which do not require dismantling before use.

The internal ratchet mechanism allows the cap to be tightened without twisting the cord as it compresses, pushing the collet fingers together to form a liquid-tight seal with the neoprene compression bushing.

Vibration Proof Protection:

An integrated locking mechanism that includes an internal ratchet inside the sealing portion of the cord grip provides a self locking and vibration proof element that prevents the cap from loosening even when subjected to severe vibration.

Quick Installation:

The multi-trapezoidal thread requires just one twist to tighten the dome cap – automatically adjusting to the size of the cable and providing optimum strain relief and liquid tight seal.

Durability:

SKINTOP® incorporates a heavy duty design that provides greater pullout strength and very reliable strain relief.

Easier Handling:

Larger ergonomic design and ridges in the dome cap provide easy gripping and mounting by hand or wrench.

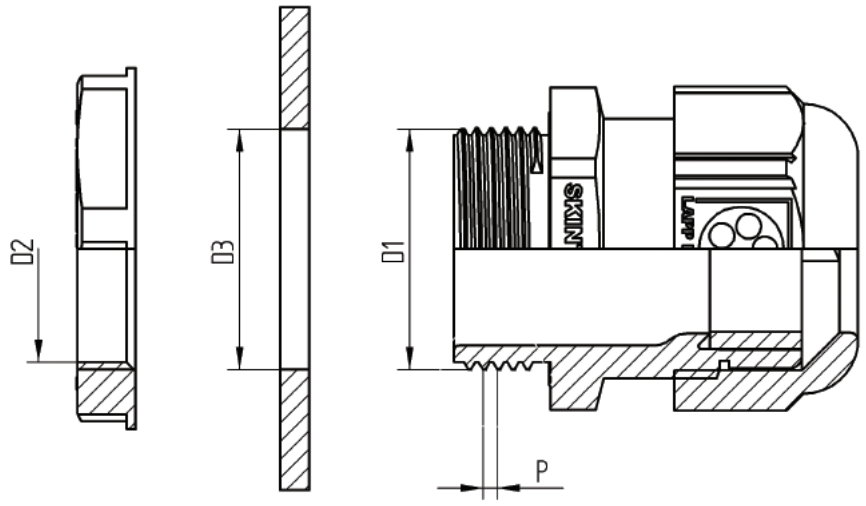
Larger Variable Clamping Range:

The uniquely designed collet, combined with the optional reducing bushing accommodates a broad range of cords, and cable diameters resulting in a reduction in the number of connectors required in inventory.

Resistant to Impact at Low Temperatures:

The SKINTOP® can withstand impact at low temperatures of -20°C.

Threading Dimensions & Tightening Values for SKINTOP® Cable Glands



All dimensions are in mm.

Metric Thread Technical Data for Assembly, EN 60423 (for cable glands EN 50 262)

METRIC THREAD	Core Diameter D1	Pitch P	Outside Diameter D2	Nominal thread Bore Diameter D3
M12 x 1.5	12	1.50	10.6	12.3 - 0.2
M16 x 1.5	16	1.50	14.6	16.3 - 0.2
M20 x 1.5	20	1.50	18.6	20.3 - 0.2
M25 x 1.5	25	1.50	23.6	25.3 - 0.2
M32 x 1.5	32	1.50	30.6	32.3 - 0.2
M40 x 1.5	40	1.50	38.6	40.4 - 0.3
M50 x 1.5	50	1.50	48.6	50.4 - 0.3
M63 x 1.5	63	1.50	61.6	63.4 - 0.3

PG Thread Technical Data for Assembly DIN 40430

PG-THREAD	Core Diameter D1	Pitch P	Outside Diameter D2	Nominal thread Bore Diameter D3
PG 7	12.5	1.270	11.3	13.0 ± 0.2
PG 9	15.2	1.410	13.9	15.7 ± 0.2
PG 11	18.6	1.410	17.3	19.0 ± 0.2
PG 13	20.4	1.410	19.1	21.0 ± 0.2
PG 16	22.5	1.410	21.2	23.0 ± 0.2
PG 21	28.3	1.558	26.8	28.8 ± 0.2
PG 29	37.0	1.558	35.5	37.5 ± 0.3
PG 36	47.0	1.558	45.5	47.5 ± 0.3
PG 42	54.0	1.558	52.5	54.5 ± 0.3
PG 48	59.3	1.558	57.8	59.8 ± 0.3

NPT Thread Technical Data for Assembly ASA B2.1-1945

NPT-THREAD	Core Diameter D1	Pitch P	Nominal thread Bore Diameter D3
NPT 1/4”	13.7	1.41	14.0 - 0.2
NPT 3/8”	17.1	1.41	17.4 - 0.2
NPT 1/2”	21.3	1.81	21.6 - 0.2
NPT 3/4”	26.7	1.81	27.0 - 0.2
NPT 1”	33.4	2.21	33.7 - 0.2
NPT 1 1/4”	42.2	2.21	42.5 - 0.2
NPT 1 1/2”	48.3	2.21	48.7 - 0.2
NPT 2”	60.3	2.21	60.7 - 0.2

Threading Dimensions & Tightening Values for SKINTOP® Cable Glands

Tightening Torque* Metric

Metric SKINTOP® recommended tighening torque for attainment of protection category IP 68-5 bar and strain relief category A acc. to EN 50262

METRIC THREAD	Tightening torque in Nm	
	Polymer	Metal
M12 x 1.5	1.5	8
M16 x 1.5	3.0	10
M20 x 1.5	6.0	12
M25 x 1.5	8.0	12
M32 x 1.5	10.0	18
M40 x 1.5	13.0	18
M50 x 1.5	15.0	20
M63 x 1.5	16.0	20
M63 Plus	--	30

Not for ATEX Glands

Tightening torque values to DIN/VDE 0619, Point 7. (PG & NPT Cable Glands)

PG THREAD	NPT THREAD	Torque for intermediary in Nm		Torque for cap nut	
		Polymer	Metal	Polymer	Metal
PG 7		2.5	6.25	1.7	4.2
PG 9	NPT 3/8”	3.75	6.25	2.5	4.2
PG 11		3.75	6.25	2.5	4.2
PG 13	NPT 1/2”	3.75	6.25	2.5	4.2
PG 16		5.0	7.50	3.3	5.0
PG 21	NPT 3/4”	7.5	10.0	5.0	6.7
PG 29	NPT 1”	7.5	10.0	5.0	6.7
PG 36		7.5	10.0	5.0	6.7
PG 42		7.5	10.0	5.0	6.7
PG 48		7.5	10.0	5.0	6.7

* Reference: Above values are tightening torques for the intermediary, as well as maximum tightening torques for the cap nuts. To prevent damage of the outer sheath, please note that the different cable materials require various torques.

Fitting dimensions and widths across flats

The diameter SW indicates the wrenching flats. The diameter A indicates the assembly space required for the relevant hexagon. This diameter corresponds to the width across the corner of the hexagon, plus an assembly tolerance.

Dimensions are in

SW	A	SW	A	SW	A
9	10.4	26	29.5	46	52.5
11	12.5	27	30.6	47	52.5
13	14.9	28	31.8	50	58.3
14	16.0	29	32.5	53	60.0
15	17.1	30	34.0	54	61.0
16	18.2	32	36.2	55	62.0
17	19.4	33	37.2	57	64.4
18	20.4	36	40.5	60	67.5
19	22.0	37	41.5	64	72.3
20	22.7	39	44.0	65	73.1
21	23.9	40	45.2	66	74.5
22	25.0	41	46.1	67	74.5
24	27.3	42	47.0		
25	28.3	45	51.2