

Eight brands. One powerful choice.

Only Lapp Group can deliver a complete range of power control, signal, and data connection solutions that have proven reliability, safety and durability; and are renowned for optimum performance in the most demanding food and beverage environments.

With Lapp Group, you will realize the many advantages of dealing with a single resource that offers global expertise, product innovation, personalized support, and local distribution. And you will be partnering with a recognized industry leader that offers so many benefits.

Consistent quality, performance, and durability across all brands

From cables and glands to connectors and wires, each Lapp Group product line has proven to withstand the most extreme environments, while providing you with maximum uptime.

The best-integrated solutions

All Lapp Group products are renowned for unrivaled reliability. A complete solution from Lapp only further enhances the performance of our individual products.

A single sales team that knows you and your needs

When you make Lapp Group your one source, you partner with a team that knows your industry, applications, environment, and how to solve your most challenging problems.

Coast to coast distribution for greater product availability

All of Lapp Group brands are delivered through distributors located strategically across North America. This helps ensure that you get the products you want when you need them.

Components or complete assemblies

Lapp Group's full suite of brands allows us to provide products as complete assemblies or as individual components; offering you the right fit for every application.

Simplified ordering process

The full assortment of Lapp Group brands is one call or online order away. You'll be able to deal with your current sales representative for all your product needs.

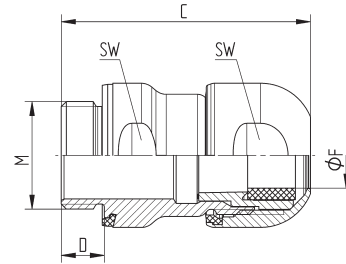
LAPP GROUP'S EIGHT BRANDS INCLUDE:

- **ÖLFLEX®**
Power & Control Cables
- **SKINTOP®**
Strain Relief Glands
- **EPIC®**
Industrial Connectors
- **UNITRONIC®**
Data Cables
- **HITRONIC®**
Fiber Optic Cables
- **SILVYN®**
Protective Conduit
- **ETHERLINE®**
Industrial Ethernet Cables
- **FLEXIMARK®**
Cable Marking Systems



SKINTOP® HYGIENIC/HYGIENIC-R

Stainless Steel Strain Relief with Metric Thread



SKINTOP® HYGIENIC is a stainless steel cable gland that uses FDA-approved material and is made with special design features that prevent micro-organisms and bacteria from sticking to the surface. The gland has an IP68/69K rating and withstands high pressure and high temperature washdowns.

Application Advantage

- Special sealing element for food and beverage industry
- FDA-approved sealing
- IP68/69K protection

Approvals



Technical Data

Material: - Body: Stainless steel: V4A - Insert: Polyamide - Sealing element: Special elastomer	Temperature Range: -20°C to +100°C IP Protection: IP68 IP69K
Locknuts: Add SM-M locknuts	

Part Number	Thread Type & Size	øF Clamping Range		SW Wrenching Flats	C Overall Length	D Thread Length	Standard Pack Size
		(in)	(mm)	(in)	(in)	(in)	
SKINTOP® HYGIENIC: Standard							
53105100	M12 x 1.5	0.158 - 0.236	4 - 6	0.630	1.572	0.256	5
53105110	M16 x 1.5	0.256 - 0.355	6.5 - 9	0.788	1.710	0.276	5
53105120	M20 x 1.5	0.355 - 0.473	9 - 12	0.946	1.828	0.315	5
53105130	M25 x 1.5	0.453 - 0.611	11.5 - 15.5	1.143	1.927	0.315	5
SKINTOP® HYGIENIC-R: Reducer Bushing							
53105200	M12 x 1.5	0.079 - 0.177	2 - 4.5	0.630	1.572	0.256	5
53105210	M16 x 1.5	0.177 - 0.276	4.5 - 7	0.788	1.710	0.276	5
53105220	M20 x 1.5	0.276 - 0.394	7 - 10	0.946	1.828	0.315	5
53105230	M25 x 1.5	0.355 - 0.493	9 - 12.5	1.143	1.927	0.315	5

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SILVYN® FG NM

Flexible Liquid-Tight Conduit



SILVYN® FG NM is a flexible non-metallic conduit suitable for use in various industrial applications. SILVYN® is made with FDA-approved material, is ECOLOAB certified, and is ideal for applications in the production and processing of milk and meat products.

Application Advantage

- FDA-approved outer sheath
- Protects against liquids
- Flame retardant

Approvals



Complete the Installation

SILVYN®
HYGIENICSILVYN®
FG AMG-M

Technical Data

Material:	Special soft PVC sheath with hard PVC spiral	RAL Color:	Blue
Temperature Range:	-20°C to +60°C	Approvals:	RoHS
- Short-term:	up to +80°C		

Part Number	Outer Diameter		Inner Diameter		Stationary Bend Radius		Conduit Coil Put-Ups (ft)	Thread Size for Fittings
	(in)	(mm)	(in)	(mm)	(in)	(mm)		
55503370	0.701	17.8	0.496	12.6	2.758	70	98	M16 x 1.5
55503371	0.831	21.1	0.630	16.0	3.940	100	98	M20 x 1.5
55503372	1.040	26.4	0.827	21.0	5.122	130	98	M25 x 1.5
55503373	1.304	33.1	1.044	26.5	7.092	180	98	M32 x 1.5
55503374	1.647	41.8	1.383	35.1	8.865	225	49	M40 x 1.5
55503375	1.883	47.8	1.588	40.3	10.047	255	49	M50 x 1.5
55503376	2.360	59.9	2.033	51.6	12.214	310	49	M63 x 1.5

SILVYN® HYGIENIC

Stainless Steel Connector for SILVYN® FG/FG NM Conduit






SILVYN® HYGIENIC is a conduit connector designed especially for use with SILVYN® FG and SILVYN® FG NM to create a bacteria resistant, edge-free, robust and reliable connection. It has no gaps, voids or outer-facing thread, eliminating the risk of contamination of food machines, facilities or components. It also has high chemical and thermal stability with very aggressive media such as detergents and disinfectants, acids and alkalis, etc.

■ Approvals



■ Technical Data

<p> Material:</p> <ul style="list-style-type: none"> - Body: Stainless steel 316 - Insert: Nickel-plated brass - Inner seal: Polyamide 6 - Sealing: Special elastomer 	<p> Temperature Range: -50°C to +135°C</p> <p> IP Protection: IP66 IP67 IP68 (2 bar) IP69</p>
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Part Number	Thread Size	Internal Diameter		Fits SILVYN® FG NM Conduit	Standard Pack Size
		(in)	(mm)		
55510700	M16 x 1.5	0.422	10.7	55503370	1
55510701	M20 x 1.5	0.571	14.5	55503371	1
55510702	M25 x 1.5	0.737	18.7	55503372	1
55510703	M32 x 1.5	0.969	24.6	55503373	1
55510704	M40 x 1.5	1.288	32.7	55503374	1
55510705	M50 x 1.5	1.485	37.7	55503375	1

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SILVYN® FG AMG-M

Stainless Steel Connector for SILVYN® FG NM Conduit



■ Approvals



SILVYN® AMG-M FG is a conduit connector designed especially for use in the food and beverage industry. The connector has special sealing that is FDA and NSF-approved.

■ Technical Data

Material:	- Body:	Stainless steel 316	Temperature Range:	-45 °C to +105 °C	
	- Inner seal:	Polyamide 6		IP Protection:	IP69
	- O-ring & outer seal:	FDA-approved TPE			

Part Number	Thread Size	Internal Diameter		Conduit Outer Diameter		Wrench Size		Fits SILVYN® FG NM Conduit	Standard Pack Size
		(in)	(mm)	(in)	(mm)	(in)	(mm)		
55503275	M16 x 1.5	0.402	10.2	0.701	17.8	1.064	27	55503370	10
55503276	M20 x 1.5	0.548	13.9	0.831	21.1	1.182	30	55503371	10
55503277	M25 x 1.5	0.729	18.5	1.040	26.4	1.418	36	55503372	5
55503278	M32 x 1.5	0.938	23.8	1.304	33.1	1.812	46	55503373	5
55503271	M40 x 1.5	1.253	31.8	1.647	41.8	2.128	54	55503374	2
55503269	M50 x 1.5	1.450	36.8	1.883	47.8	2.482	63	55503375	1
55503397	M63 x 1.5	1.883	47.8	2.360	59.9	3.034	77	55503376	1

UNITRONIC® SENSOR HD M12

S/A Cable: Hygienic Design for Food & Beverage



These pre-tested molded cordsets utilize high-quality continuous flex cable and integral molded strain relief. Made specifically with food and beverage applications in mind, these cordsets have a hygienic design to provide interconnection between sensors and actuators with reliable performance.

Recommended Applications

Food production and packaging machinery, freezing plants, cold storage, washdown areas with frequent contact with cleaning agents

Construction

Conductors: Stranded tinned copper

Jacket: TPE halogen-free, grey (similar to RAL 7035)

Knurl: Stainless steel (V4A)

Gripping body: Polypropylene

Application Advantage

- Hygienic design for ideal cleaning results
- Guaranteed density by meeting the highest protection class
- Stainless steel knurl to ensure protection against corrosion
- Bright colors to quickly detect contamination

Approvals



Technical Data

Minimum Bend Radius: - for stationary use: 5 x cable diameter - for continuous flexing: 10 x cable diameter	Nominal Voltage: 250V
Temperature Range: - for stationary use: -40°C to +105°C - for continuous flexing: -25°C to +105°C	Coding: A-coded

Part Number	Number of Pins	Length (ft)	Design
Plugs			
22262040	4	6.6	Straight
22262041	4	16.4	Straight
22262060	4	24.6	Straight
22262042	4	32.8	Straight
22262061	4	49.2	Straight
Sockets			
22262043	4	6.6	Straight
22262044	4	16.4	Straight
22262062	4	24.6	Straight
22262045	4	32.8	Straight
22262063	4	49.2	Straight
122262046	4	6.6	Angled
22262047	4	16.4	Angled
22262064	4	24.6	Angled
22262048	4	32.8	Angled
22262065	4	49.2	Angled

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Oil Resistance

Level	USA	CSA*	Europe*
OR-00	Minimal oil resistance characteristics	—	—
OR-01	UL 758 In oil for 7 days @ 60°C 75% Unaged Tensile Strength 75% Unaged Elongation	C22.2 No. 49 In oil for 7 days @ 60°C 75% Unaged Tensile Strength 75% Unaged Elongation	VDE 0281 Part 1 In oil for 7 days @ 60°C ± 30% Unaged Tensile Strength ± 30% Unaged Elongation
OR-02	UL Oil Res. I In oil for 4 days @ 100°C 50% Unaged Tensile Strength 50% Unaged Elongation	C22.2 No. 230 In oil for 4 days @ 100°C 50% Unaged Tensile Strength 50% Unaged Elongation	VDE 0472 Sect. 803A In oil for 1 day @ 100°C ± 25% Unaged Tensile Strength ± 25% Unaged Elongation
OR-03	UL Oil Res. II In oil for 60 days @ 75°C 65% Unaged Tensile Strength 65% Unaged Elongation	C22.2 No. 210.2 In oil for 4 days @ 100°C 65% Unaged Tensile Strength 65% Unaged Elongation	SEV TP 20 B In oil for 30 days @ 70°C No cracking after bending
OR-04	UL AWM 21098 In oil for 60 days @ 80°C 65% Unaged Tensile Strength 65% Unaged Elongation	C22.2 No 0.3 In oil for 60 days @ 80°C 65% Unaged Tensile Strength 65% Unaged Elongation	VDE 0472 Sect. 803B In oil for 7 days @ 90°C ± 25% Unaged Tensile Strength ± 25% Unaged Elongation

*These oil immersion standards are mentioned for purposes of reference only. Some Canadian and European test standards are not necessarily represented here as complete equivalents to the US Standards but have been referenced due to similarities in requirements. Refer to the individual standards for detailed test procedures and any comparable evaluations.



Motion Type

Level	Description	Definition	Cycle Life Range
FL-01	Flexible	Can be easily installed in machines, conduit, and cable tray when applicable	—
FL-02	Highly Flexible	High flexibility with continuous flexing design attributes	—

Flame Resistance



Level	USA	CSA*	Europe*
FR-01	UL 62: Horizontal Flame Test One 30-second flame application. Cable must not emit flame or glowing particles.	FT2: One 30-second flame application. Cable must not emit flame or glowing particles.	VDE 0472 Part 804 One 1-minute flame application. Cable must not ignite or emit flames.
FR-02	UL VW-1 (UL 1581): Vertical Flame Test Five 15-second flame applications. Cable must not emit flame or glowing particles.	FT1: Vertical Flame Test Five 15-second flame applications. Cable must not emit flame or glowing particles.	IEC 60332-1 Flame application time varies by cable diameter. Cable must self-extinguish.
FR-03	UL 1581: Vertical Tray Test Exposed to flame (70,000 BTU) for 20 min. Damage cannot exceed 8 feet.	FT4: Vertical Tray Test Exposed to flame for 20 min. Damage cannot exceed 5 feet.	IEC 60332-3-24 Exposed to flame for 20 min. Damage cannot exceed 8.2 feet.

*These flame standards are mentioned for purposes of reference only. Some Canadian and European test standards are not necessarily represented here as complete equivalents to the US Standards but have been referenced due to some similarities in requirements. Refer to the individual standards for detailed test procedures and any comparable evaluations.

Mechanical Properties



Level	Description	Impact	Crush	Cold Impact	Cold Bend	Tensile	Elongation	Standard
MP-01	Average	—	*	*	—	1,500 psi	100%	ASTM D-412
MP-02	Good: Independent lab-tested for crush & impact	10/50 lb	1,000/ 2,000 lbf	—	-25°C	1,700 psi	175%	UL 1277 ASTM D-412
MP-03	Very Good: Rated for Exposed Run use (-ER)	10/50 lb	2,500/ 4,200 lbf	-25°C (CSA-TC)	-40°C (UL 62)	2,300 psi	275%	UL 1277 ASTM D-412

* Impact and crush tests not applicable for intended end use of product.

Note: Lapp mechanical protection test values for each level meet or exceed the requirements of the standards referenced.

ÖLFLEX®

UNITRONIC®

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