



**AEROSUSA**

# CABLE PROTECTION SYSTEMS



**FLEXA - FOOD**  
Food and Beverage

**FDA** **ECOLAB**

[www.aerosusa.com](http://www.aerosusa.com)





## INTELLIGENT PROFESSIONAL SOLUTIONS FOR PROFESSIONALS.

### CABLE PROTECTION SYSTEMS MADE IN GERMANY.

We develop and produce cable protection devices including the corresponding connectors in Germany.

- Metal and plastic conduit systems, made to match your individual requirements.
- Guide chain systems designed for extended lifetime for standard and heavy applications, simply handling with standard tools.
- Cable entry systems to feed cables and wires into machines or into control cabinets in a confined space.

**IRIS**  
Certification

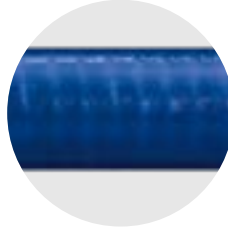


OUR QUALITY PRODUCTS MEET  
HIGHEST STANDARDS AND HAVE  
RECEIVED WORLDWIDE APPROVALS

### CONTENT

#### LIQUID – TIGHT – FOOD

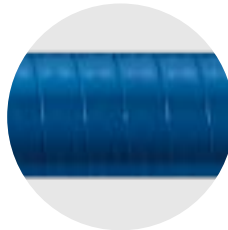
Galvanized steel  
food-safe PU sheathing



6

#### AIRflex® – GRS – FOOD

PVC, food-safe  
integrated spiral of rigid plastic  
plain inside and outside surfaces



7

#### US – FOOD – M

Metal connector stainless  
steel, food-safe



8



## Flexibility and a wide product range.



### WE COMBINE TRADITION WITH MODERN AGE.

Founded in 1947, we can today combine decades of experience with up-to-date expertise. Our Development team strives permanently to stay ahead of the competition to keep our products in step with the times. Progress is our everyday motivation, and customer satisfaction is the most rewarding response for us.



### OUR PRODUCT RANGE SETS STANDARDS.

No matter which protective tubing system you require – we can supply the ultimate solution from one source. We offer cable protection devices made of plastics or metal including the appropriate connectors featuring any customary type of thread. Our products are liquid-tight, resistant to solvents and UV light, or coated with silicone. They can be applied at temperatures of between -60°C and +600°C and are approved for up to IP69 K. Our cable protection systems protect data lines against electromagnetic impacts and safeguard laser-optical wave guides against physical damage. In a clinical setting, they meet strictest hygienic requirements and are easy to sterilize.

So our portfolio covers manifold applications in mechanical engineering, automotive, rail traffic, aviation or even in wind power stations or in the medicine sector. Protective conduits made by FLEXA are applied in technical plants all over the world.

Safety based on quality.

### RELIABILITY CREATES TRUST.

Quality has always been our credo at FLEXA. An entire team is entrusted with quality assurance and regularly checks all our products thoroughly in our own test lab. In addition to the standard test procedures such as tensile tests, endurance tests, or tests on solvent resistance, we also carry out random tests on our production processes.

Quality management at FLEXA is certified as per DIN EN ISO 9001. Moreover, every member of staff is subjected to corresponding further training at least once a year. The focus on quality is a firmly integrated part of our work processes. Therefore, you can count on a permanent high quality level of our products as well as on the fact that we will fully meet your customer-specific requirements.



### CUSTOMIZED SOLUTIONS IN LINE WITH DEMAND.

FLEXA offers a lot more than just standardized protective tubing systems. After all, some application fields require special adaptations. Our experienced and ambitious development engineers accept any challenge and are eager to push ahead application-specific product engineering for the benefit of our customers. This drive, as well as our latest CAD equipment, allows us to design customized solutions in 3D. Of course, we are constantly striving to stretch our lead, also by investing a considerable portion of our annual turnover in the extension and maintenance of our machinery as well as in further training for our competent personnel.





*"While searching for appropriate cable protection systems to be applied on our bakery machines, we came across the FLEXA portfolio and were more than happy to find the perfect high-quality protective tubing and connector solutions for our needs. The FLEXA package consisting of premium quality products, short response times, and a high level of expertise simply convinced us."*

### OUR PREMIUM-QUALITY PRODUCTS MEET HIGHEST STANDARDS.

The NSF / ANSI 51 standard applies to materials and coatings used for the production of items and objects bound to be in direct contact with food. The standard also applies to protective conduits, pipes, and corresponding connectors.

The Food and Drug Administration (FDA) is the organization to control food production and food processing in the USA. This authority has to protect public health and also controls the safety and efficiency of organic products, medical products, food products, and radiating devices. Its sphere of responsibility covers both products made in the USA and products imported to the USA.

ECOLAB is the leading supplier of technologies and services for the water, energy, and hygiene sectors. Its detergents are applied by food-processing companies, in the gastronomy, and by health services all over the world. Our products such as protective conduits and the corresponding connectors have been awarded with the so-called ECOLAB certificate, which is an important proof of detergent resistance.



### Protective Conduit System customized for the food and beverage industry.

#### YOUR REQUIREMENTS

In the requirements of products applied in the food and beverage industry are fairly demanding. The machines used in this industry, as well as the connected cables and conduits, have to meet highest standards in terms of hygiene and cleanness.

#### OUR SOLUTION

If protective conduits need to be applied in food and beverage production, FLEXA offers special threaded conduits made of stainless steel and equipped with high-efficiency plastic seals customized for this sensitive industry. The FLEXA products are resistant to customary detergents and cleaning processes applied in the food and beverage industry.

#### OUR PRODUCTS

##### AIRflex-GRS-FOOD

- flexible, food-safe
- microbe resistant
- airtight and liquid tight

##### LIQUID-TIGHT-FOOD

- for heavy-duty requirements
- smooth lead-free PU sheathing
- acc. to RoHS

##### US-FOOD connector

- to mount the AIRflex-GRS-FOOD and LIQUID-TIGHT-FOOD protective conduits
- optimal protection against the penetration of humidity or of solid matters
- easy-to-clean features
- robust and safe
- resistance to customary detergents and disinfectants




# LIQUID – TIGHT – FOOD

 IP 68  
 -40°C ... +80°C ^ +110°C

FDA CFR 21



Suitable connector

 US-FOOD-M    IP 68 | IP 69K



Protective metal conduit  
 galvanized steel  
 PU sheathing  
 liquid tight and food-safe

## STRUCTURE

strip-wound  
 hooked profile  
 special fibre sealing  
 smooth, food-safe PU sheathing

## MATERIAL

**Conduit:** cold strip, DC 03/04  
 acc. to EN 10139, galvanized, Fe/Zn 3  
 with special fibre sealing  
**Sheathing:** polyurethane [PU]

## PROPERTIES

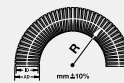
- food-safe
- extremely liquid-tight
- widely resistant to acid and petrol
- highly oil-resistant
- free of halogen silicone and cadmium
- microbe resistant
- flexible
- UV resistant
- self-extinguishing

## APPLICATION

- food and beverage industry
- automotive
- electrical installations
- machine and plant constructions
- for international applications

Part No.

AD  
OD



blue

ø

mm

stat    dyn

kg|m

m



2083.914.016	1/2"	16,0 x 21,0	105	260	0,300	50
2083.914.021	3/4"	21,0 x 26,5	175	430	0,460	50
2083.914.026	1"	26,5 x 33,0	200	500	0,650	25
2083.914.035	1 1/4"	35,5 x 42,0	240	600	1,000	25

### AIRflex® – GRS – FOOD

Protective all-plastic conduit  
 food-safe  
 plain inside and outside surfaces

#### STRUCTURE

plain inside and outside surfaces  
 integrated helix of rigid plastic

#### MATERIAL

PVC  
 with helix of rigid plastic

#### PROPERTIES

- food-safe
- microbe resistant
- flexible
- airtight and liquid tight
- widely resistant to oil and acids
- free of silicone and cadmium
- unplasticized
- plain inside and outside, easy drawing-in of cables and cleaning outside surface of conduits

#### APPLICATION

- food and beverage industry
- automation
- electrical installations
- machine and plant constructions

IP 68  
 -25°C ... +50°C ^ +70°C

FDA CFR 21



Suitable connector



US-FOOD-M

IP 68 | IP 69K

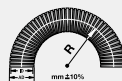


Part No.

AD  
 OD



mm



stat dyn



kg/m



m

blue

ø



Part No.	AD OD	mm	stat	dyn	kg/m	m
0220.904.016	1/2"	16,0 x 21,0	70	175	0,175	50
0220.904.021	3/4"	21,0 x 27,0	85	210	0,240	50
0220.904.029	1"	26,2 x 33,0	125	310	0,410	25
0220.904.038	1 1/4"	35,0 x 42,0	160	400	0,530	25

♦ IP 68 | IP 69K  
 ⚡ -40°C ... +125°C

**ECOLAB**

## US – FOOD

Metal connector  
 stainless steel  
 straight  
 outer thread  
 incl. ferrule and sealing

### STRUCTURE

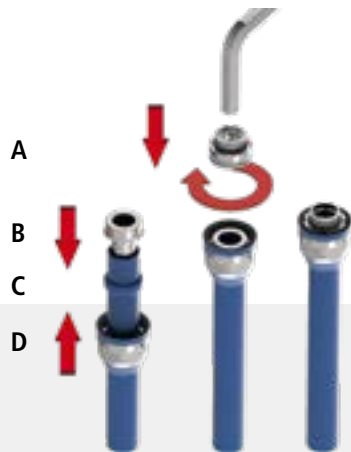
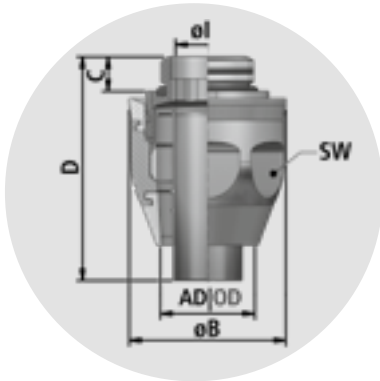
Connector body with hexagon wrench surface, fixed connecting outer thread metric acc to EN 60423, hexagon pressure nut, plastic sealing, one-part thread ferrule and O-ring

### MATERIAL

Conn. Body stainless steel  
 Pressure nut stainless steel|Versaflex CL2250  
 Sealing ring plastics PA 6  
 Ferrule nickel-plated brass  
 O-ring NBR

### PROPERTIES

- food-safe
- highly watertight and dustproof
- friction-type locking of conduit and screw connector
- correct grounding
- covering of the conduit ends
- vibration- and tension proof
- IP 68 approved acc. to EN 60529
- IP 69K approved acc. to DIN 40050-9 [internal audit] up to 40 bar, 80°C



- A Connector body with mounted O-ring
- B ferrule
- C sealing ring
- D pressure nut

AD  
OD



Part No.



### US – FOOD – M

ø	Metr. EN 60423	[IP 68]	mm	øl mm	øB mm	C mm	D mm	SW mm	SW mm	kg/100	St. pcs.
1/2"	M 20 x 1,5	0608.800.020	15 x 20	14,0	34,0	7,5	48,5	30	14	7,040	10
1/2"	M 25 x 1,5	0608.800.125	15 x 20	14,0	41,0	7,5	49,5	36	14	11,510	10
3/4"	M 25 x 1,5	0608.800.025	20 x 26	18,8	41,0	7,5	58,0	36	19	10,010	5
1"	M 32 X 1,5	0608.800.032	26 x 32	27,8	53,0	7,5	68,0	46	25	19,325	5
1 1/4"	M 40 X 1,5	0608.800.040	34 x 41	32,0	61,0	7,5	80,0	54	32	29,295	2



## IMPORTANT INFORMATION

Recommendations for any areas of applications, products, or product combinations are issued to the best of FLEXA's knowledge and experience. The user is requested to check applicability of FLEXA products to specific applications and purposes prior to the use of the particular products.

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