AEROSUSA

flexa

CABLE PROTECTION SYSTEMS

SENSOR TECHNOLOGY

FOR PRECISION APPLICATIONS

www.aerosusa.com

PROFESSIONAL SOLUTIONS FOR CRITICAL APPLICATIONS

CABLE PROTECTION SYSTEMS
DESIGNED and MANUFACTURED 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 fed cables and wires into machines or into control cabinets in a confined space.

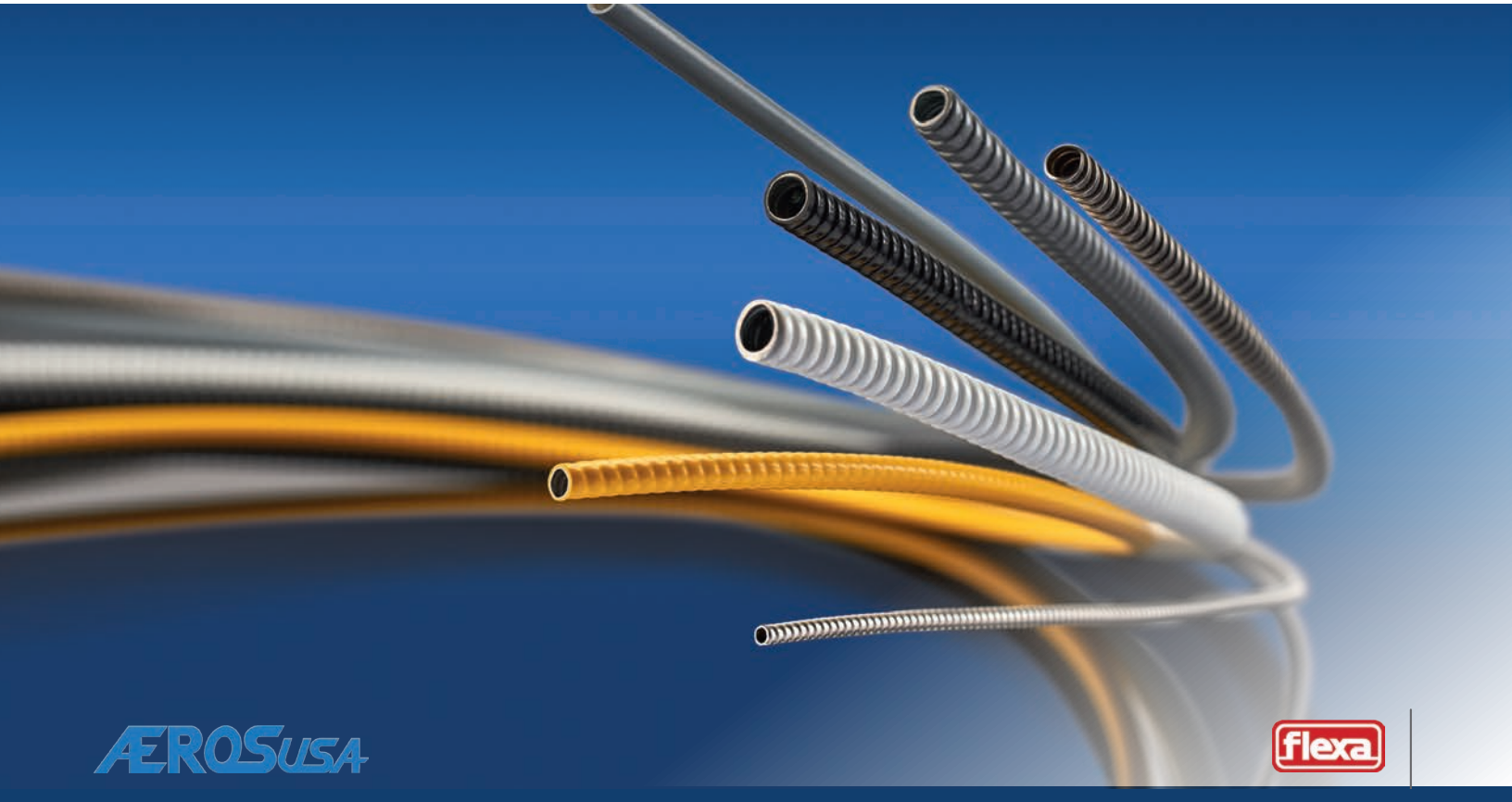
ALL PRODUCTS MEET THE HIGHEST STANDARDS AND HAVE RECEIVED WORLDWIDE APPROVALS

aerosusa.com
855.393.9905

IRIS Certification

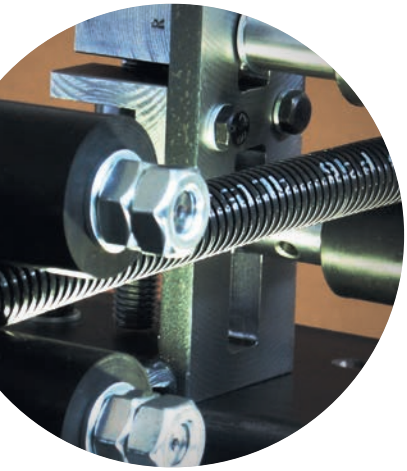
Zertifiziert DIN EN ISO 9001 Certified

CONTENTS



AEROSUSA

flexa



Flexibility and a wide range of products

OUR PRODUCT RANGE SETS STANDARDS.

No matter which protective tubing system you require –AEROSUSA 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. AEROSUSA's 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 +300°C and are approved for up to IP69 K. AEROSUSA's 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 AEROSUSA's portfolio covers manifold applications in mechanical engineering, automotive, rail traffic, aviation or even in wind power stations or in the medicine sector. Protective tubings made by FLEXA are applied in technical plants all over the world.

RELIABILITY CREATES TRUST.

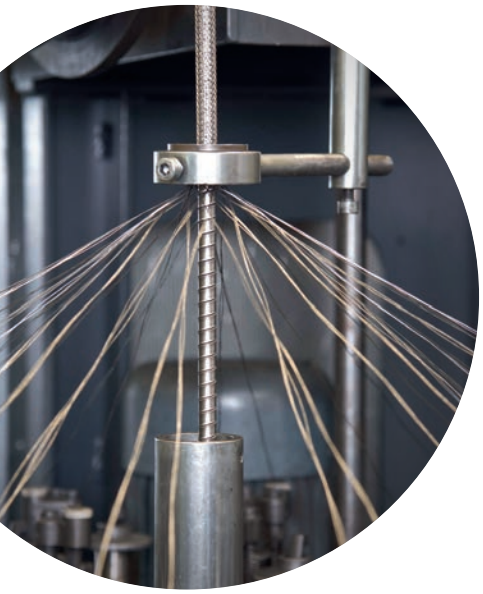
Quality has always been the credo at FLEXA. An entire team is entrusted with quality assurance and regularly checks of all products thoroughly in FLEXA's own test lab. In addition to the standard test procedures such as tensile tests, endurance tests, or tests on solvent resistance, FLEXA also carries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

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

INNOVATIVE MACHINERY.

FLEXA's production plant is equipped with state-of-the-art machines and that insure constant and superior quality. FLEXA's expertise is not limited to metal and plastic processing only but also allows us to process silicone professionally. Our machinery is capable of meeting most diverging requirements and is thus as individual as the requests submitted by their customers.

- Fully automatic tubing machines
- Automatic winders
- Extruders
- Spiral winding machines
- Semi-automatic bar machines
- Wire winding machines
- Braiding machines
- Production plant for corrugated tubes
- Hose production machines
- Injection moulding machines



CUSTOMIZED SOLUTIONS IN LINE WITH DEMAND.

AEROSUSA offers a lot more than just standardized protective tubing systems. After all, some application fields require special adaptations. FLEXA's experienced and ambitious development engineers accept any challenge and are eager to pursue application-specific products engineered to benefit customers' requirements. This focus as well as FLEXA's latest CAD equipment, allows FLEXA to design customized solutions in 3D. FLEXA is constantly striving to stretch their lead, by investing a considerable portion of their annual turnover in the extension and maintenance of our machinery as well as in further training for their competent personnel.

SPR

IP 40
-50° C ... +250° C

STRUCTURE
strip-wound
S profile

MATERIAL
galvanized steel

PROPERTIES
- highly flexible
- stretch resistant
- lateral compression resistant
- DIN 49012, structural shape G, acc. to DIN EN IEC 61386-23

APPLICATION
- opto-electronics
- beam wave guide technology
- technical endoscopy
- sensor technology

EN / IEC 61386-23

Part No.	mm	stat	dyn	kg|m	m
1010.101.003	3,0 x 4,9	10	25	0,037	50
1010.101.004	4,0 x 6,0	12	30	0,038	50
1010.101.005	4,8 x 7,0	19	45	0,046	50
1010.101.006	6,0 x 8,0	20	50	0,048	50
1010.101.007	7,0 x 9,3	25	65	0,052	50
1010.101.009	9,0 x 11,0	30	75	0,068	50
1010.101.010	10,0 x 13,0	32	80	0,090	50

SPR–VA

IP 40
-200° C ... +600° C

STRUCTURE
strip-wound
S profile

MATERIAL
stainless steel

PROPERTIES
- highly flexible
- stretch resistant
- lateral compression resistant

APPLICATION
- opto-electronics
- beam wave guide technology
- technical endoscopy
- sensor technology

Part No.	mm	stat	dyn	kg|m	m
1010.801.008	7,8 x 10,0	20	50	0,080	50
1010.801.011	11,0 x 14,0	28	70	0,120	50
1010.801.014	14,0 x 17,0	30	75	0,150	50
1010.801.016	16,0 x 19,0	35	90	0,185	50
1010.801.018	18,0 x 21,0	40	100	0,200	50
1010.801.023	23,0 x 27,0	48	120	0,280	50
1010.801.031	31,0 x 36,0	60	150	0,500	25
1010.801.040	40,0 x 45,0	82	205	0,620	25
1010.801.051	51,0 x 56,0	100	250	0,780	25
End position					
1019.801.112*	1,2 x 2,3	25	65	0,012	50
1019.801.115*	1,5 x 2,6	25	65	0,013	50
1019.801.118*	1,8 x 2,9	22	55	0,015	50
1019.801.122*	2,2 x 3,4	20	50	0,016	50
1019.801.126*	2,6 x 3,8	20	50	0,019	50
1018.801.003	3,0 x 5,0	10	25	0,041	50
1018.801.004	4,0 x 6,0	12	30	0,049	50
1018.801.005	5,0 x 7,0	20	50	0,043	50
1018.801.006	6,0 x 8,0	22	55	0,055	50
1018.801.007	7,0 x 9,0	25	65	0,062	50
1018.801.008	8,0 x 10,0	20	50	0,077	50
1018.801.009	9,0 x 11,0	30	75	0,092	50
1018.801.010	10,0 x 13,0	32	80	0,110	50

*Delivery time and minimum order quantity on request

SPR–PVC | SPR–VA–PVC

IP 68
-25° C ... +90° C ^ +100° C

Protective metal conduit
galvanized steel | stainless steel
PVC sheathing, non flame propagating
acc. to DIN EN IEC 61386-23

STRUCTURE

strip-wound
S profile, PVC sheathing

MATERIAL

Conduit: cold strip DC 03/04
acc. to EN 10139, galvanized, Fe/Zn 3
or stainless steel
Sheathing: PVC
Further materials on request

PROPERTIES

- weatherproof
- watertight
- widely resistant to seawater, acids and oils
- free of silicone and cadmium
- very flexible
- stretch-resistant
- compression-resistant

APPLICATION

- opto-electronics
- beam wave guide technology
- technical endoscopy
- sensor technology

Part No.

SPR–PVC

black	mm	stat	dyn	m	kg|m	m
2010.102.004	4,0 x 7,0	17	45	500	0,060	50
2010.102.005	5,0 x 8,0	20	50	500	0,062	50
2010.102.006	6,0 x 9,0	24	60	500	0,070	50
2010.102.008	7,5 x 11,0	35	90	500	0,085	50
2010.102.009	9,0 x 12,0	40	100	500	0,105	50

Further dimensions and colours on request

Part No.

SPR–VA–PVC

black	mm	stat	dyn	m	kg|m	m
2010.182.003	3,0 x 6,0	15	37	500	0,040	50
2010.182.004	4,0 x 7,0	17	45	500	0,050	50
2010.182.005	5,0 x 8,0	20	50	500	0,060	50
2010.182.006	6,0 x 9,0	25	60	500	0,080	50
2010.182.008	8,0 x 11,0	35	90	500	0,090	50
2010.182.009	9,0 x 12,0	38	100	500	0,105	50

Further dimensions and colours on request

SPR–PVC–EL

IP 68
- 25°C ... + 80°C ^ + 100°C

Protective metal conduit
galvanized steel
PVC sheathing, electrically conductive
specific surface resistivity
$< 10^6\ \Omega$

STRUCTURE
strip-wound
S profile
electrically conductive PVC sheathing

MATERIAL
Conduit: cold strip DC 03/04
acc. to EN 10139, galvanized, Fe/Zn 3
Sheathing: PVC

PROPERTIES
- V2 acc. to UL94
- weatherproof
- watertight
- widely resistant to seawater, acids and oils
- free of silicone and cadmium
- very flexible
- stretch-resistant
- compression-resistant

APPLICATION
- opto-electronics
- beam wave guide technology
- technical endoscopy
- sensor technology

Part No.					
black	mm	stat	dyn	kg|m	m
2010.902.004	4,0 x 7,0	17	45	0,060	50
2010.902.005	5,0 x 8,0	20	50	0,062	50
2010.902.006	6,0 x 9,0	24	60	0,070	50
2010.902.008	8,0 x 11,0	35	90	0,085	50

FLEXAgraff ®–VA

IP 40
- 200° C... +600° C

STRUCTURE
strip-wound
double overlapped profile [Agraff]

MATERIAL
stainless steel
304 [AISI]
316L [AISI] on request

PROPERTIES
- very flexible
- stretch resistant
- lateral compression resistant

APPLICATION
- opto-electronics
- beam wave guide technology
- technical endoscopy
- sensor technology

Part No.					
	mm	stat	dyn	kg|m	m
1080.801.004*	4,0 x 6,0	40	100	0,055	50
1080.801.005*	5,0 x 7,0	45	115	0,071	50
1080.801.006	6,0 x 8,0	25	65	0,085	50
1080.801.008	8,0 x 10,0	60	150	0,106	50
1080.801.010*	10,0 x 13,0	65	160	0,290	50
1080.801.012*	12,0 x 14,0	75	190	0,370	50

* Delivery time and minimum order quantity on request

FDW–VA

-200° C ... +600° C

Special protective conduit helix for sensor technology | beam wave guide technology

STRUCTURE
Helix made of stainless steel

MATERIAL
stainless steel 304 [AISI]

PROPERTIES
- flexible
- temperature resistant
- widely resistant to solvents and chemicals

APPLICATION
- opto-electronics
- medical technology
- beam wave guide technology
- technical endoscopy
- measuring instruments
- sensor technology

Part No.	mm	stat	dyn	kg|m	m
					auf Kunststoffspule on a plastic coil
0131.801.002	2,5 x 3,1	14	35	0,019	50
0131.801.003	3,0 x 3,6	20	50	0,029	50
0131.801.004	4,0 x 4,8	25	65	0,037	50
0131.801.005	5,0 x 6,0	25	65	0,050	50
0131.801.006	6,0 x 7,0	35	90	0,065	50
0131.801.007	7,0 x 8,2	45	110	0,088	50
0131.801.008	8,0 x 9,6	45	110	0,110	50

*Delivery time and minimum order quantity on request

PS–VA

IP 68
-50° C ... +180° C

Special protective conduit for sensor technology | beam wave guide technology

STRUCTURE
Helix made of stainless steel
fiber glass braiding
silicone-rubber sheathing

MATERIAL
Helix	stainless steel 304 [AISI]
Braiding	fiber glass
Sheathing	silicone-rubber

PROPERTIES
- flexible
- stretch resistant
- air- and liquid-tight
- temperature resistant
- low flammability
- no appearance of toxic and corrosive fire gases
- widely resistant to solvents and chemicals
- free of halogen and cadmium

APPLICATION
- opto-electronics
- medical technology
- beam wave guide technology
- technical endoscopy
- measuring instruments
- sensor technology

Special colours on request
500 m min

Part No. grey	mm	stat	dyn	kg|m	m
0133.900.002	2,5 x 4,4	14	35	0,028	Inquire for delivery lengths
0133.900.003	3,0 x 5,3	20	50	0,044	
0133.900.013	3,5 x 5,8	20	50	0,050	
0133.900.004	4,0 x 6,5	25	65	0,065	
0133.900.014	4,5 x 7,0	25	65	0,072	
0133.900.005	5,0 x 7,5	25	65	0,079	
0133.900.006	6,0 x 8,9	35	90	0,108	
0133.900.007	7,0 x 10,1	45	110	0,141	
0133.900.008	8,0 x 11,6	45	110	0,191	

*Delivery time, reel lengths, and minimum order quantity on request,

The World of Sensors

VIBRATION/FORCE/TORQUE

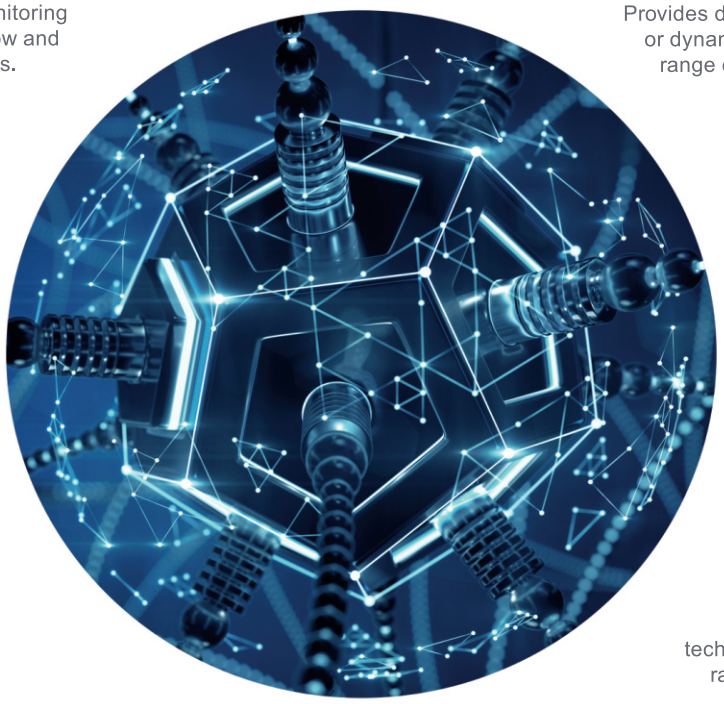
Vibration, force and torque encompass the measurements of shock, vibration, gravity, velocity, angle, force and reaction/rotating torque. Signal outputs are typically voltage with some digital outputs available.

FLUID PROPERTY

Measure real-time fluid monitoring under diverse pressure, flow and temperature conditions.

PIEZO-FILM

Provides durable vibration, accelerometer or dynamic switch elements for a wide range of markets and applications.



HUMIDITY

Provides accurate measurement of dew point and absolute humidity.

PHOTO OPTIC

Optic based sensors include both photo optic components and complete sensor solutions.

TEMPERATURE

Customized temperature sensors for measurement, control and compensation applications.

PRESSURE

Using MEMS and silicon strain gauge technologies, our products measure pressure, ranging from inches of water to 100K psi.

POSITION

Includes industrial linear, angular, tilt and fluid level sensors measuring inductive, potentiometric, magnetoresistive, hall effect reed switch, electrolytic and capacitive sensing with analog or digital outputs.

SPEED

Detect the speed of an object reporting on-board diagnostics and as an input for modeling other sensor data. The technology can be found in powertrains and increases engine power/performance, lowers emissions, fuel consumption and costs.

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.

Product liability by FLEXA will be ineffective when FLEXA products are combined with or applied together with non-FLEXA products.

Technical modifications are subject to change without prior notice.

Technical drawings, certificates, authorizations, and results by the FLEXA lab will be provided upon request.

3D download
http://flexa.partcommunity.com

AEROSUSA, INC.
2409 HERR ST. | HARRISBURG, PA 17103
TEL: 717.238.1444 | 855.393.9905
AEROSUSA.COM