

## Micro Cables

(No stock item)

Our supplier develops and produces application-specific cables with cross-sections up to AWG 56 and coaxial cables up to AWG 46. What is hardly visible to the eye is nevertheless absolutely outstanding: Significant functions such as low-noise and highly flexible cable designs are ensured by the use of high-performance materials and special alloys.



Special shielding guarantees optimum EMC properties. Features such as application-optimized haptics, sterilizability/autoclavability and biocompatibility according to ISO 10993 are ensured by the use of state-of-the-art materials.

Outstanding areas of use include highly sensitive applications such as minimally invasive surgical techniques and other innovations in medicine and sensor technology. Some examples: An electronic scalpel allows surgeons to selectively cut tissue and simultaneously stop the bleeding that occurs. SpO2 sensors can be used to measure oxygen saturation in the blood. Customized micro-cable solutions are also a key element in imaging procedures such as magnetic resonance imaging (MRI) or (video) endoscopy.

Here and in many other sensitive applications, the quality of these micro products gives users the reassuring feeling of maximum reliability and safety.

Your advantages with these micro products at a glance:

Specialized know-how, precision and product safety:

- Individualized machines and production methods
- High-tech materials
- Expertise in handling innovative special materials
- Application-optimized line properties and designs
- Best-practice solutions
- Small batch sizes

### Cables for Medical Technology

The highly sensitive applications in medical technology place special demands on cable design. The requirements for these cables are: easy handling, autoclavability and reliability.

Cable design, material and manufacturing guarantee highest mechanical flexibility, extreme tensile strength and small size. High-performance materials, special alloys and patented manufacturing techniques also ensure biocompatibility in accordance with DIN EN ISO 10993 and are used in the following applications, among others:

- autoclaves
- defibrillators
- dental technology
- ECG and EEG devices
- endoscopy

**Properties of the Insulating Materials Used**

	Fluoropolymers					Elastomers		Thermoplastic Elastomers
	ETFE	FEP	MFA	PFA	PTFE	Silicone	PUR	Santoprene™
Temperature Index (20,000h)	-100°C +150°C	-100°C +200°C	-100°C +230°C	-190°C +250°C	-190°C +260°C	-50°C +180°C	-50°C +90°C	-50°C +105°C
Biocompatibility	✓	✓	✓	✓	✓	✓	✓	✓
Resistance to Disinfectants	++	++	++	++	++	++	+	+
Halogen Free	x	x	x	x	x	✓	✓	✓
RoHS Conformity	✓	✓	✓	✓	✓	✓	✓	✓
REACH Conformity	✓	✓	✓	✓	✓	✓	✓	✓

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**Conductor Sizes**

AWG	min. (mm)	Diameter		Cross Section mm <sup>2</sup>
		nom. (mm)	max. (mm)	
40	0.076	0.079	0.081	0.0049017
42	0.061	0.064	0.066	0.0032170
44	0.048	0.051	0.053	0.0020428
46	0.0384	0.0399	0.0417	0.0012504
48	0.0302	0.0315	0.0328	0.0007793
50	0.0241	0.0251	0.0262	0.0004948
51	0.0216	0.0224	0.0234	0.0003941
52	0.0191	0.0198	0.0206	0.0003079
53	0.0170	0.0178	0.0185	0.0002488
54	0.0152	0.0157	0.0165	0.0001936
55	0.0135	0.0140	0.0145	0.0001539
56	0.0119	0.0124	0.0130	0.0001208