

SS02150是一款标准、高性能磁致伸缩合金棒，先进制造工艺使产品热磁致伸缩系数 λ 最高可达50PPM，推力达100公斤。SW05103 is a standard and high-performance magnetostrictive alloy bar. Maximum thermal magnetostrictive coefficient:50PPM and maxium thrust:100 kg.

SS02150

1、应用领域 Application

- Underwater acoustic transducer (high power and high frequency sonar)
- Micro Vibrators, Sensors, etc.
- Magnetostrictive liquid level sensor
- magnetostrictive displacement sensor



2、主要参数 Parameter

直径Diameter	2-35 mm
长度Length	10-150 mm

磁致伸缩系数 Magnetostrictive Coefficient	50 PPM
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密度Density	7.97 g/cm ³
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维氏硬度Vickers Hardness	227 HV
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抗拉强度Tensile Strength	350 Mpa
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抗压强度 Compressive Strength	100 Mpa
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推力Thrust	100 Kg@ ϕ 10mm
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威德曼扭转角度 Wiedemann Effect	- "/cm
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声速Acoustic Speed	3900 m/s
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杨氏模量Young's modulus	40 Gpa
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弹性模量Elastic Modulus	110 Gpa
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体积模量Volume Modulus	125 Gpa
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饱和磁场Saturated Magnetic Field	200 Oe
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相对磁导率 Relative Permeability	100
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响应时间Response Time	1 us
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电阻率Resistivity	6.5 $\mu\Omega \cdot \text{cm}$
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机电耦合系数 Electromechanical Coupling Coefficient	0.21
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热传导率Thermal Conductivity	15 W/(m-K)@15°C
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熔点Melting Point	1450 °C
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居里温度Curie Temperature	650 °C
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线膨胀系数Linear Expansion Coefficient	10 ppm/°C @ 25°C
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能量密度Energy Density	0.3 KJ/m ³
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