



FEATURES

- ◆ Passive, long length sensor
- ◆ Very tough, water resistant and flexible
- ◆ Temperature stability to 85°C
- ◆ Self-shielded coaxial construction
- ◆ High voltage response
- ◆ Low impedance per unit length
- ◆ Field repairable
- ◆ Simplified interconnections

APPLICATIONS

- ◆ Perimeter intrusion detection
- ◆ Safety and security fencing
- ◆ Door edge / vehicle bumper switch
- ◆ Cable tampering detector
- ◆ Traffic classification / counting
- ◆ Weather sensing (rain & hail)
- ◆ Structural NDT, strain, vibration
- ◆ Underwater acoustics
- ◆ Patient mattress monitor
- ◆ Sports scoring & foul line detection

PIEZO SPIRAL WRAPPED COAXIAL CABLE

SPECIFICATIONS

- ◆ Coaxial design piezo sensor
- ◆ Shielded construction
- ◆ Ideal for linear application
- ◆ Rugged
- ◆ Water resistant
- ◆ Piezo film technology

Piezo cable is another form of piezo polymer sensors. Designed as a coaxial cable, the Piezo polymer is the dielectric between the center core and the outer braid. When the cable is compressed or stretched, a charge or voltage is generated which is proportional to the stress.

Piezo cable has a number of advantages in certain applications. Due to its coaxial design, the cable is self-shielded, allowing its use in a high EMI environment. The piezo cable can also be spliced to passive coax, using standard coax splice techniques. It is extremely rugged and will stand up to heavy loads. Its linear format makes it ideal for monitoring large areas.

In the cable construction, two narrow ribbons of PVDF film are helically wound around the inner conductor, which comprises a 20 AWG stranded silver-plated copper wire. The cable is then braided, and jacketed with an extruded high-density polyethylene.

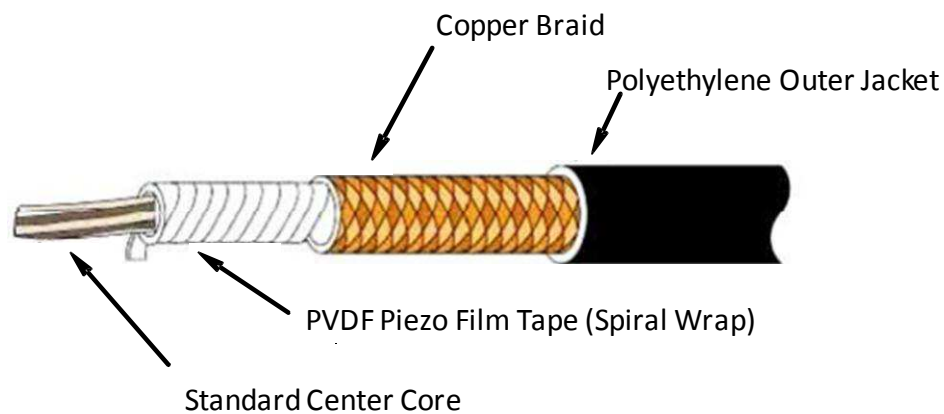
The cable is available in short lengths (in multiples of 1 m), or as long, single cut lengths wound on spools.

PIEZO SPIRAL WRAPPED COAXIAL CABLE

PERFORMANCE SPECIFICATIONS

Properties	Typical Value	Units
Outside Diameter	2.69	mm
Capacitance @ 1 kHz	950	pF/m
Weight	14.5	kg/km
Resistance of shield (DC)	47	Ω /km
Tan Delta (dissipation factor)	0.016	@ 1 kHz (1m)
Hydrostatic Piezo Coefficient (d_{33})	20	pC/N
Resistance of center core (DC)	31	Ω /km

DIMENSIONS IN INCHES (mm)



20 AWG Cable - Spiral Wrap

Description	Dimensions		Capacitance pF/ft (pF/m)	Part Number
	Center Core	Outside Diameter		
20 AWG Piezo Cable (spiral)	0.040 (1.02)	0.105 (2.67)	279 (980)	1005801-1

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
Tel: +1-800-522-6752
Email: customer-care.dtm@te.com

EUROPE

MEAS Deutschland GmbH
a TE Connectivity Company
Tel: +49-800-440-5100
Email: customer-care.dtm@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
Tel: +86 0400-820-6015
Email: customer-care.chdu@te.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[1005801-1](#)