

## METALLIZED PIEZO FILM SHEETS



### FEATURES

- ◆ Film Thickness Options: 28 $\mu$ m, 52 $\mu$ m, 110 $\mu$ m PVDF
- ◆ Electrode Type Options: Silver Ink & NiCu Metallization
- ◆ Sheet Size Options: 8" x 5.5" and 8" x 11"

### APPLICATIONS

- ◆ Film Transducer
- ◆ Speaker Element

### SPECIFICATIONS

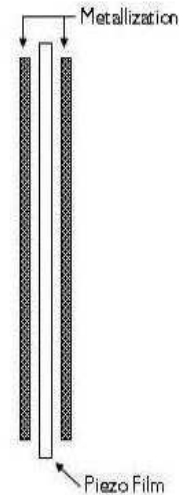
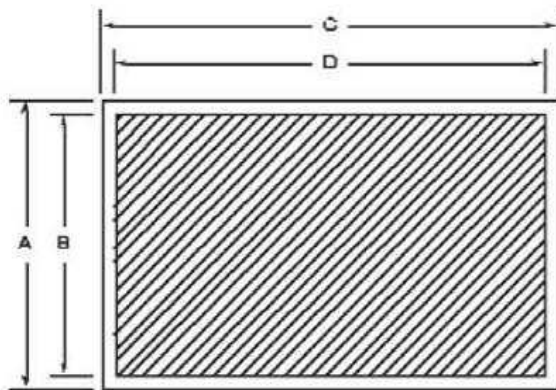
- ◆ **Thin, flexible film sheets**
- ◆ **Multi-purpose ... design your own Sensor**
- ◆ **Different Electrode Options – Sputtered metallization or Silver ink**
- ◆ **Various Film Thickness Options**

**Piezo Film Sheets** are available in different film sizes and thicknesses. These can be fabricated into simple transducers, or for use as full size sheets for applications such as speakers.

Metallization options include a compliant silver ink as well as sputtered metallization. The silver ink is best for applications where mechanical stress is being applied. Silver ink also lends itself to custom metallization patterns for easy lead attachment.

The thin, sputtered metallization is more brittle and used where signal to noise requirements dictate very low mass loading by the electrodes. Our standard sputtered metallization is 700 Å of copper covered with 100 Å of nickel, which has good conductivity and is resistant to oxidation. Other metallizations such as gold are available on a custom basis with a set-up fee. For the sputtered Metallized film, there is no border.

**DIMENSIONS**



DIMENSIONS in INCHES (mm)

Film Thickness	Total Thickness (µm)	Metallization	A Film	B Electrode	C Film	D Electrode	Part Number
28 µm	28	Cu-Ni	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)	1-1003702-7
28 µm	40	Silver Ink	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)	1-1004347-0
28 µm	40	Silver Ink	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)	1-1004346-0
52 µm	52	Cu-Ni	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)	2-1003702-7
52 µm	64	Silver Ink	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)	2-1004347-0
52 µm	64	Silver Ink	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)	2-1004346-0
110 µm	110	Cu-Ni	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)	3-1003702-7
110 µm	122	Silver Ink	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)	3-1004347-0
110 µm	122	Silver Ink	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)	3-1004346-0

**TYPICAL SPECIFICATIONS**

**Electro-Mechanical Conversion**

(1 direction)  $23 \times 10^{-12} \text{m/V}$ ,  $700 \times 10^{-6} \text{N/V}$   
 (3 direction)  $-33 \times 10^{-12} \text{m/V}$

**Mechano-Electrical Conversion**

(1 direction) 12 mV per microstrain, 400 mV/µm, 14.4 V/N

**Pyro-Electrical Conversion**

(3 direction) 13 mV/N  
 $8 \text{V}/^\circ \text{K}$  (@ 25°C)

**Capacitance**

1.36 nF; Dissipation Factor of 0.018 @ 10 KHz;  
 Impedance of 12 KΩ @ 10 KHz

**Maximum Operating Voltage**

DC: 280 V (yields 7 µm displacement in 1 direction)  
 AC: 840 V (yields 21 µm displacement in 1 direction)

**Maximum Applied Force (at break, 1 direction)**

6-9 kgF (yields voltage output of 830 to 1275 V)

## NORTH AMERICA

Measurement Specialties, Inc.,  
a TE Connectivity Company  
Tel: +1-800-522-6752  
Email: [customercare.dtmd@te.com](mailto:customercare.dtmd@te.com)

## EUROPE

MEAS Deutschland GmbH  
a TE Connectivity Company  
Tel: +49-800-440-5100  
Email: [customercare.dtmd@te.com](mailto:customercare.dtmd@te.com)

## ASIA

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