



## SIGNAL CONDITIONER

### Mini-Module LVDT

### MACRO EAZY-CAL™ MMX Series

#### Overview

The Macro Sensors EAZY-CAL™ MMX Series is a single channel signal conditioner that operates on a nominal 15-30V DC power input and provides a low noise 0-10V DC output or a 4-20 mA output. It can be remotely located by up to 100 feet to facilitate LVDT operation in extreme environments.

Employing a virtually effortless fingertip calibration routine, the EAZY-CAL™ saves time and money by eliminating the repetitive null and span potentiometer adjustments associated with conventional analog based signal conditioners. Using two easily accessible front panel push buttons, calibrations are accomplished digitally in mere seconds. An intuitive, sequencing 4 LED status indicator guides the operator through the calibration process, and provides foolproof feedback to insure calibration integrity. Full calibration instructions, along with a connection diagram are conveniently outlined on the side panel for quick reference.

Compact and lightweight (2.3 oz.), DIN-rail mountable EAZY-CAL™ mini-modules measure just 2.77" x 3.35" x 0.7", making them ideal for space restrictive applications. An operating temperature range of 32 °F to 160 °F (0 °C to 70 °C) and a high impact / flame retardant plastic housing also allow their use in harsh factory and industrial environments.

For multiple channel applications, up to 10 EAZY-CAL™ MMX Series modules can be connected together in master/slave mode to synchronize their excitation oscillator frequency, thereby eliminating effects of heterodyning and spurious beat frequency signals, cross talk, and intermodulation effects.

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EAZY-CAL™ MMX Series

### Features

- ◆ Pushbutton calibration in seconds
- ◆ Nominal 15-30V DC input
- ◆ 0-10V DC output (MME-1000) or 4-20 mA output (MMI-1000)
- ◆ DIN-rail mountable high impact / flame retardant mini-module housing
- ◆ Operating range of 32-160 °F (0-70 °C)
- ◆ Master/slave excitation synchronization (up to 10) for multi-channel applications

### Benefits

- ◆ Eliminates repetitive null and span adjustments
- ◆ Saves time and money
- ◆ Ideal for space restrictive installations and harsh industrial environments

### Electrical Data

<b>Power Input</b>	15-30 Volts DC (24 Volts nominal, 60 mA max.)
<b>LVDT Connection</b>	5 Wire (secondary centertap required)
<b>LVDT Excitation</b>	1.0 to 3.0 Vrms for primary impedance $\geq 180 \Omega$
<b>LVDT Excitation Frequency</b>	2500 Hz
<b>Full Scale Outputs</b>	0 to 10 V DC, 5 mA max. (MME-1000) 4 to 20 mA (MMI-1000)
<b>Output Non-Linearity</b>	$\leq 0.05\%$ of full scale output
<b>Output Noise / Ripple</b>	$\leq 5$ mVrms @ 50 Hz
<b>External Synchronization</b>	Master drives $\leq 10$ slaves
<b>Operating Temperature</b>	32°F to 160°F (0°C to 70°C)
<b>Thermal Coefficient of Sensitivity</b>	$\leq 0.01\%$ of FSO/°F ( $\leq 0.02\%$ of FSO/°C)

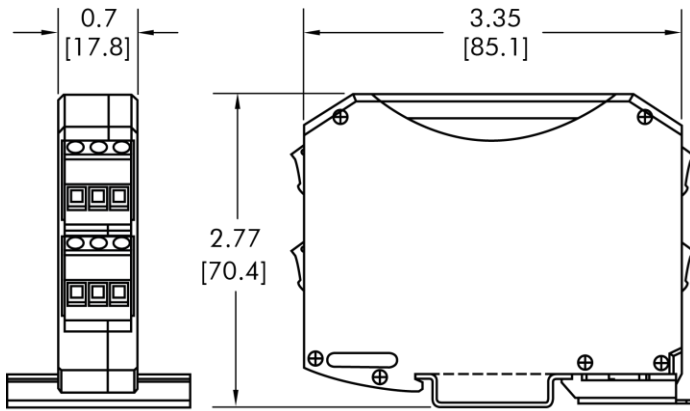
### Ordering Information

- ◆ Order model MME-1000 for 0-10 VDC output.
- ◆ Order model MMI-1000 for 4-20 mA output.
- ◆ For specifications on other Macro Sensors LVDT signal conditioners, please contact factory

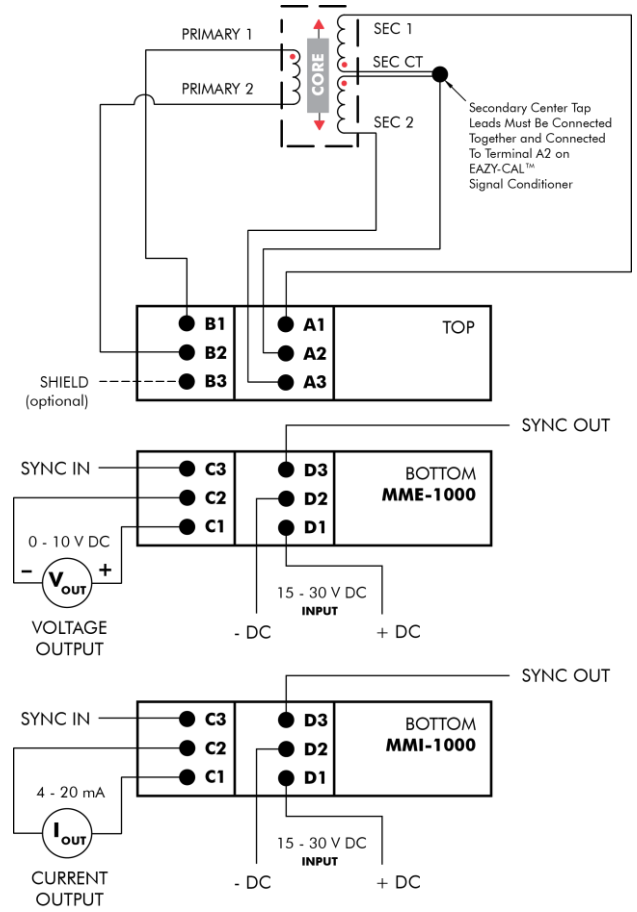
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## Dimensions / Wiring Diagram



dimensions in inches [mm]



### NORTH AMERICA

AST Macro Sensors,  
a TE Connectivity company  
Tel : 800-440-5100  
Email : [customercare.dtmd@te.com](mailto:customercare.dtmd@te.com)

### [TE.com/sensorsolutions](http://TE.com/sensorsolutions)

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EAZY-CAL™ MMX SERIES

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