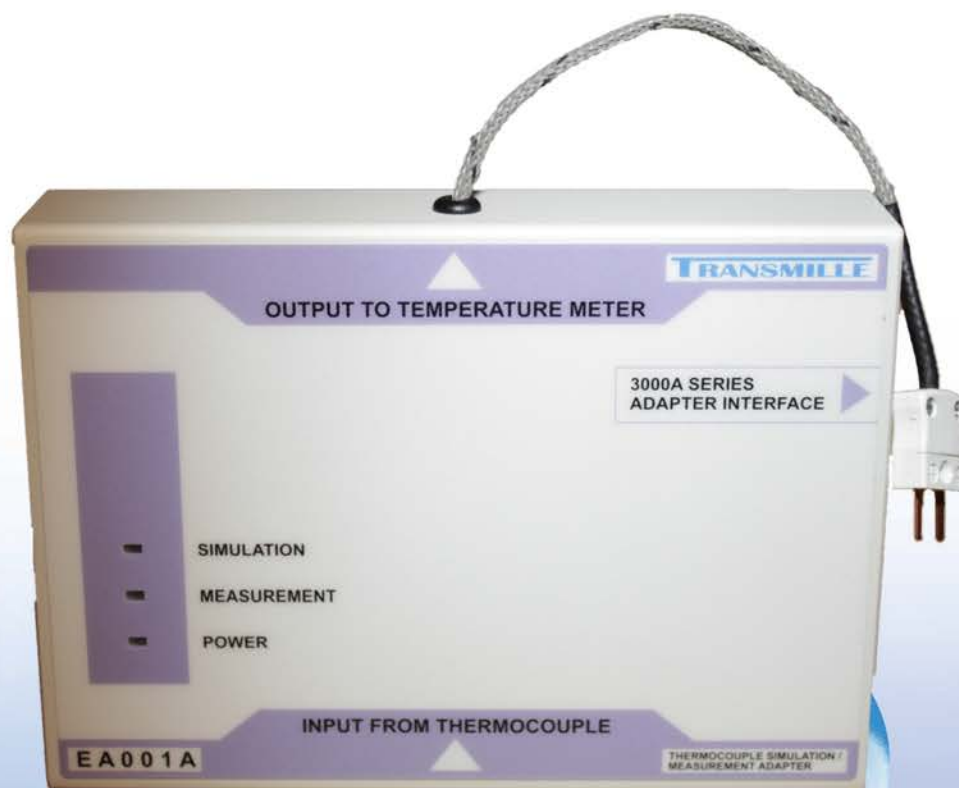


# EA001A

## THERMOCOUPLE SIMULATION & MEASUREMENT ADAPTER



**SPECIFICATIONS**

General Specifications	
Adaptor connection	Connects to male 'D' type adapter interface connector on 3000A Series front panel
Indicators	Incorporates 'Active', 'Measure' & 'Source' LED's mounted in the adaptor case
Adaptor Dimensions	17cm x 12cm x 3.5cm
Connections	1 x 9 way male 'D' type connector 1 x Neutral (copper) industry standard thermocouple plug with <b>integral temperature sensor</b> 1 x Neutral (copper) industry standard thermocouple socket with <b>integral temperature sensor</b>
Connection to Calibrator	Via supplied 9 Way male to female serial lead (straight through connection)
Sensor Type	Thermistor Sensor incorporated into thermocouple plug to eliminate any lead effects
Output impedance	10 Ohms

Thermocouple Type	Range Source / Measure	90 Day <sup>1</sup> Rel. (°C)	180 Day <sup>1</sup> Rel. (°C)	1 Year <sup>1</sup> Rel. (°C)	2 Year <sup>1</sup> Rel. (°C)
<b>J</b>	-210°C to -100°C	0.18	0.21	0.23	0.32
	-100°C to -30°C	0.09	0.10	0.11	0.15
	-30°C to 150°C	0.07	0.08	0.09	0.13
	150°C to 760°C	0.11	0.13	0.14	0.20
	760°C to 1200°C	0.15	0.17	0.19	0.27
<b>K</b>	-200°C to -100°C	0.22	0.24	0.27	0.38
	-100°C to -25°C	0.12	0.14	0.15	0.21
	-25°C to 120°C	0.09	0.10	0.11	0.15
	-120°C to -1000°C	0.16	0.18	0.20	0.28
	1000°C to 1370°C	0.21	0.23	0.26	0.36
<b>T</b>	-250°C to -150°C	0.48	0.54	0.60	0.84
	-150°C to 0°C	0.08	0.09	0.10	0.14
	0°C to 120°C	0.07	0.08	0.09	0.13
	-120°C to 400°C	0.09	0.10	0.11	0.15
<b>R</b>	-0°C to 250°C	0.64	0.72	0.80	1.12
	250°C to 1000°C	0.35	0.40	0.44	0.62
	1000°C to 1760°C	0.41	0.46	0.51	0.71
<b>S</b>	0°C to 250°C	0.64	0.72	0.80	1.12
	250°C to 1000°C	0.35	0.40	0.44	0.62
	1000°C to 1760°C	0.41	0.46	0.51	0.71
<b>B</b>	600°C to 800°C	0.58	0.66	0.73	1.02
	800°C to 1000°C	0.52	0.59	0.65	0.91
	1000°C to 1550°C	0.43	0.49	0.54	0.76
	1550°C to 1820°C	0.44	0.50	0.55	0.77

Note 1 : Does not include cold junction compensation errors

Cold Junction Compensation Error = ± 0.2°C

All thermocouple measurement specifications assume correct compensation cable is being used

Specifications apply between 17°C and 27°C.

Outside this range an allowance of 0.18 x 1 Year Spec. per °C should be added.

All specifications apply for 3000A Firmware Version 12.2.3 onwards

Thermocouple Type	Range Source / Measure	90 Day <sup>1</sup> Rel. (°C)	180 Day <sup>1</sup> Rel. (°C)	1 Year <sup>1</sup> Rel. (°C)	2 Year <sup>1</sup> Rel. (°C)
<b>N</b>	-200°C to -100°C	0.34	0.38	0.42	0.59
	-100°C to -25°C	0.16	0.18	0.20	0.28
	-25°C to 120°C	0.13	0.14	0.16	0.22
	120°C to 410°C	0.12	0.14	0.15	0.21
	410°C to 1300°C	0.19	0.22	0.24	0.34
<b>E</b>	-250°C to -100°C	0.40	0.45	0.50	0.70
	-100°C to -25°C	0.08	0.09	0.10	0.14
	-25°C to 350°C	0.07	0.08	0.09	0.13
	350°C to 650°C	0.10	0.11	0.12	0.17
	650°C to 1000°C	0.12	0.14	0.15	0.21
<b>L</b>	-200°C to -100°C	0.27	0.31	0.34	0.48
	-100°C to 800°C	0.26	0.30	0.33	0.46
	800°C to 900°C	0.27	0.31	0.34	0.48
<b>U</b>	-200°C to 0°C	0.34	0.38	0.42	0.59
	0°C to 600°C	0.24	0.27	0.30	0.42
<b>C</b>	0°C to 150°C	0.25	0.28	0.31	0.43
	150°C to 650°C	0.22	0.24	0.27	0.38
	650°C to 1000°C	0.26	0.29	0.32	0.45
	1000°C to 1800°C	0.38	0.42	0.47	0.66
	1800°C to 2316°C	0.54	0.61	0.68	0.95

Note 1 : Does not include cold junction compensation errors

Cold Junction Compensation Error =  $\pm 0.2^{\circ}\text{C}$

All thermocouple measurement specifications assume correct compensation cable is being used

Specifications apply between 17°C and 27°C.

Outside this range an allowance of 0.18 x 1 Year Spec. per °C should be added.

All specifications apply for 3000A Firmware Version 12.2.3 onwards