

Current transducers follow extremely fast waveforms



American Aerospace Controls (AAC) has a series of bi-directional current transducers capable of accurately following extremely fast (DC and/or AC) current waveforms. The 929 Series consumes a very low 80 to 270 mW during operation, and provides an ultra fast response (less than a micro second) to complex current waveforms in the range of DC to 350 kHz, making the transducers ideally suited for demanding environments where high speed current monitoring is needed.

The new transducers offer superior accuracy ($\pm 1.0\%$ FS) over a wide temperature range -40°C to 85°C (-40°F to 185°F). The 929 Series features a compact, rugged, flame-retardant package that measures only 1.9" x 3.3" x 1.9" (48 mm x 84 mm x 48 mm) and weighs only 6 oz. (170 grams) maximum. The units can be powered by any DC voltage within the range of +10VDC to +34 VDC, eliminating the need for a negative power source. During normal operation and at overloads up to $\pm 5,000$ ADC, the transducer draws a maximum of 8mADC. The unit's input power connection can withstand a ± 60 V transient power surge ($T < 5$ m-sec), and is reverse polarity and short circuit protected. The unit's output is capable of following IGBT currents from DC to 350 kHz with an output load of 5 k Ω to infinity, and an output impedance of 25 Ω .

This transducer features excellent environmental characteristics to endure harsh operational conditions. Internal circuitry is epoxy encapsulated to increase insulation (500 M Ω @ 500 VDC), and to protect the unit from moisture and foreign contaminants. In addition, the transducer's case is manufactured from a molded plastic that tolerates very high temperatures, meets the UL94V-0 flammability rating, and allows the 929 Series to withstand random vibration levels per MIL-

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STD-810F of 12.0 G-RMS and shock of 50 g 11 m-sec half sine pulse.

The 929 Series is available in eight models with input current ranges from 0 ADC to +/- ADC through 0 ADC to +/-400 ADC. The transducers come standard with five-pin terminal barrier and a 0.75" (20 mm) pass-through aperture; optional six-pin connectors or nine-pin D-Sub connectors are also available.

Pricing for a 929 Series bi-directional transducer is available upon request.

For more information, please visit www.a-a-c.com [1] and type 929 in the search engine field or contact Mike Cacic, Sales Engineering Manager, American Aerospace Controls, 570 Smith Street, Farmingdale, NY 11735; Tel: (631) 694-5100 or (888) 873-8559, Fax: (631) 694-6739; Web: www.a-a-c.com [1]. E-mail: mcacic@a-a-c.com [2].

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[1] <http://www.a-a-c.com>

[2] <mailto:mcacic@a-a-c.com>