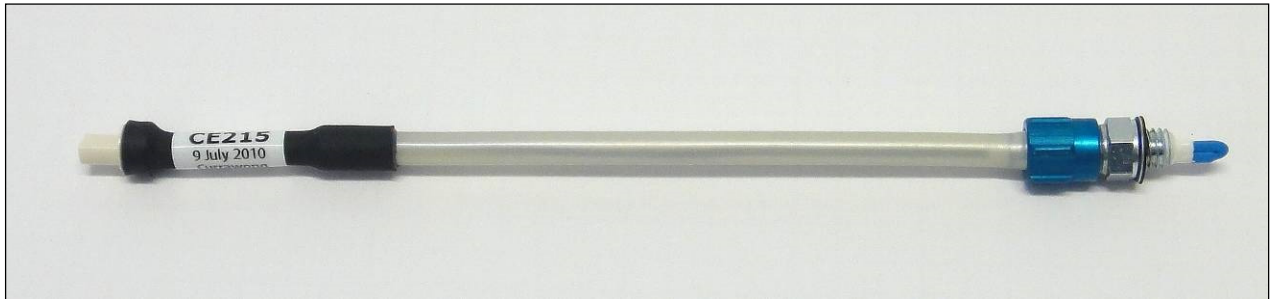
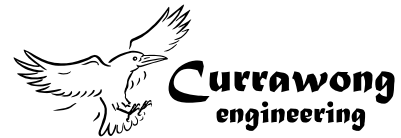


Manifold Air Temperature Sensor

CE215.d01 Rev1.0 28Jul2010



POWER4FLIGHT
202 Wasco Loop, Suite 104
Hood River, OR 97031
Office: 541-436-4299
Shop: 541-308-0650



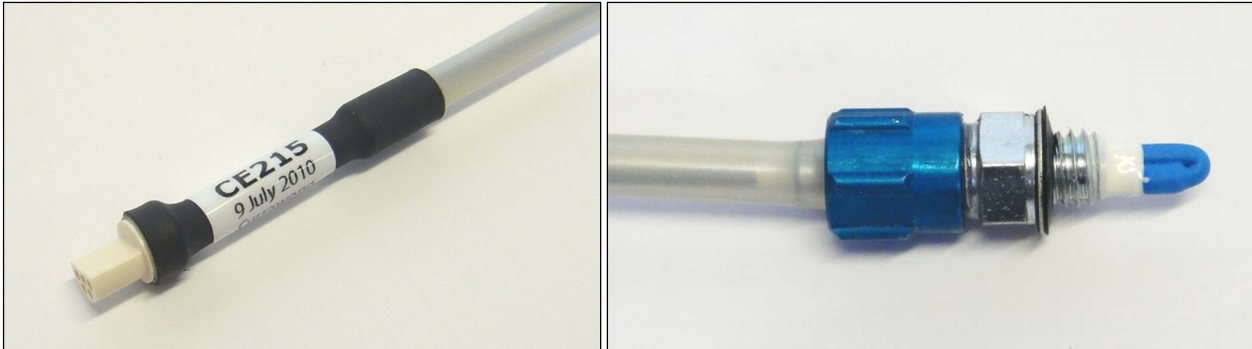
Currawong Engineering Pty Ltd
1/84 Browns Road
Kingston 7050
Tasmania AUSTRALIA
Phone: +61 3 6229 1973
ABN 86 387 719 018

Ross Hoag
rosshoag@power4flight.com

Jim Newton
jimnewton@power4flight.com

Mark Johnson
markjohnson@power4flight.com

www.power4flight.com
www.currawongeng.com



General:

This lightweight and robust sensor is intended for sensing the temperature of the air in the intake manifold of small engines and is particularly intended for the UAV industry.

The sensor is based on the KTY83 silicon resistive element chip. These sensors have a positive temperature coefficient of resistance with a typical resistance of 950 ohms at 20°C and 2500 ohms at 175°C.

Mounting:

Mounting of the MAT sensor is via an M5 hole tapped into the engine intake manifold between the throttle body and the intake port of the engine. The sensing element itself should be exposed to the intake air stream.

Specifications:

- Temperature range: -55°C to +175°C
- Manifold fitting: M5 x 0.8 mm thread, 4.5 mm long to the shoulder of the fitting.
- Connector: Omnetics 5 pin, with the sensing element connected between pins 1 and 5
- Sleeving: Festo polyurethane sleeve, diameter 4 mm.
- Overall Length: 125mm (5 inches), but can be customized to customer requirements.
- Weight (with all fittings): 4.3 grams (0.15 ounce).