

| FlexComp Encoder (SA7550)                       |  |
|---|--|
| Size (approx.)                                  | 130mm x 95mm x 37mm (5.1" x 3.7" x 1.5")   |
| Weight (approx.)                                | 200g (7oz)   |
| Power Source                                    | 4AA batteries, single use alkaline or NiMh Rechargeable  |
| Supply Voltage                                  | 3.6V – 6.5V (fiber optic), minimum 4.0V (Compact Flash)  |
| Battery Life, Alkaline cells                    | 30h typical, 20h minimum   |
| Low-battery warning                             | 20 – 30 minutes of battery life remaining  |
| Sensor supply voltage                           | 7.260V $\pm$ 2mV   |
| ADC output                                      | 14bits   |
| Full-scale input range, DC                      | 2.8V $\pm$ 1.696V  |
| LSB magnitude                                   | 207 $\mu$ V  |
| Encoder channel bandwidth (3dB) and sample rate | DC – 512Hz @ 2048 samples/second<br>DC – 64Hz @ 256 samples/second<br>DC – 64Hz @ 200 samples/second<br>DC – 8Hz @ 32 samples/second<br>DC – 8Hz @ 20 samples/second |
| Anti-aliasing Filter                            | 5th order Butterworth  |
| Alias rejection                                 | 30dB typical   |
| DC gain accuracy                                | $\pm$ 0.5% (initial, or after self-calibration)  |
| DC offset                                       | $\pm$ 3LSB (initial, or after self-calibration)  |
| Overall system accuracy                         | 5%   |
| Offset drift, calibration temperature $\pm$ 10C | $\pm$ 5 LSB  |
| Encoder noise                                   | 150 $\mu$ V RMS, 1mV p-p typical, offset removed   |