

## Digital Loadcell Amplifier D Cell

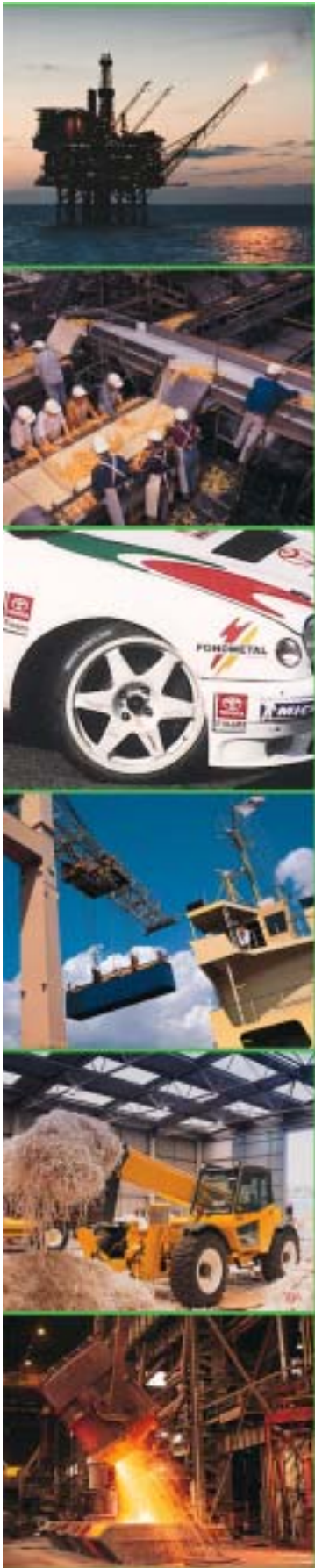


### INTRODUCTION

- The D Cell is a high performance digital signal conditioner for precision measurement of strain gauge transducers.
- The amplifier provides an electrical output from the strain gauge bridge as a % of full scale. The transducer user will need a PC/PLC based communications application to communicate with the D Cell.
- Transducer Calibration: 5 point temperature compensation, 7 point linearisation, sensor operation limit alarms.

### FEATURES

- Serial Communications.
- Fieldbus capability: MODBUS, CANOpen, MANTRABUS I & II, ASCII
- Self-diagnostics. A flag will appear in the D Cell application software to alert the user if a fault occurs.

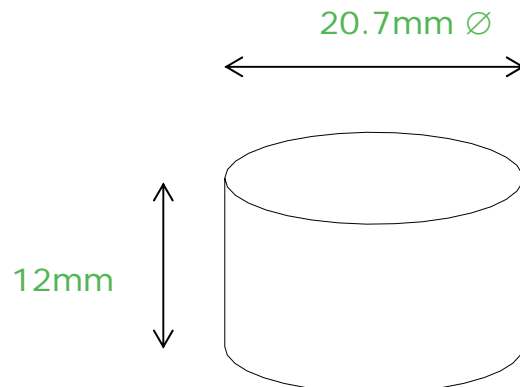


## Specifications:

| PARAMETER  | MIN | TYP    | MAX   | UNITS        |
|--|-----|--------|-------|--------------|
| Non Linearity (before linearisation)               | -   | 0.0005 | 0.001 | % FS         |
| Internal Resolution                                | -   | 24     | -     | Bits         |
| Resolution / Sample Rate at 1Hz                    | -   | 17     | -     | Bits         |
| Resolution / Sample Rate at 10Hz Resolution/Sample | -   | 16     | -     | Bits         |
| Rate at 100Hz                                      | -   | 14     | -     | Bits         |
| Temperature effect on zero Pre Compensation        | -   | 5      | 10    | ppm/C        |
| Temperature effect on span Pre Compensation        | -   | 10     | 15    | ppm/C        |
| Offset long-term drift.                            | -   | 0.0005 | 0.001 | % month      |
| Gain long-term drift                               | -   | 0.002- | 0.005 | % month      |
| Common mode imbalance offset                       | -   | 0.001  | -     | FS (Typical) |
| Common mode imbalance gain                         | -   | 0.001  | -     | FS (Typical) |
| Operating temperature range                        | -40 | -      | 85    | °C           |
| Storage temperature                                | -40 | -      | 85    | °C           |
| Humidity   | 0   | -      | 95    | %RH          |
| Power Supply Voltage                               | 8.5 | 12     | 14    | V dc         |
| Power Supply Current                               | -   | 35     | 60    | mA           |
| Power @ 10V supply 350R Bridge                     | -   | 350    | -     | mW           |
| Ripple Voltage                                     | -   | -      | 30    | mV AC        |
| Sensor Impedance                                   | 320 | 350    | 1K2   | ohms         |
| Excitation Voltage                                 | VAC | 4.5    | -     | -            |
| Excitation System                                  | -   | 4 wire | -     | -            |

## Additional Information

|             |                     |
|-------------|---------------------|
| Protection  | IP40                |
| Connections | Solder Pads         |
| Size        | 20.7mm x 12mm high. |



CE Approved