

# Low Profile & Low Range Pancake Tension & Compression **LOAD CELL**

## DSCRC Series



- Capacities 200N to 2kN
- Stainless Steel Construction
- Low Profile Design
- Low Deflection
- High Natural Frequency
- Excellent Rejection of Extraneous Forces
- **3 YEAR WARRANTY**

### Options Available

Other Ranges Available on request

Equivalents to other manufacturers' available

Full range of mounting options available, including:-

- Load Buttons
- Spherical Rod End Bearings
- Standard and Special Mounting Base

Aluminium Version

Integral Cable Version

Different Centre Thread Sizes (consult factory)

Fatigue Rated Version

Double Bridge Version

### DESCRIPTION

The DSCRC series are low profile pancake type load cells suitable for both Weighing and Force Measurement applications.

Constructed from Stainless Steel, offering excellent corrosion resistance and improved zero force pass through performance over conventional steel products..

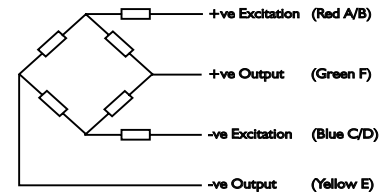
The load cell's design provides excellent resistance to extraneous forces, such as bending, side and torsional forces.

The load cell is used widely in material and fatigue testing applications, where a low physical height is required and forces are applied axially. The mounting bolts for all capacities are counterbored to prevent obstruction from the bolt heads. High frequency response is also a benefit with this load cell for dynamic force measurement applications, which is also complimented with excellent fatigue resistance.

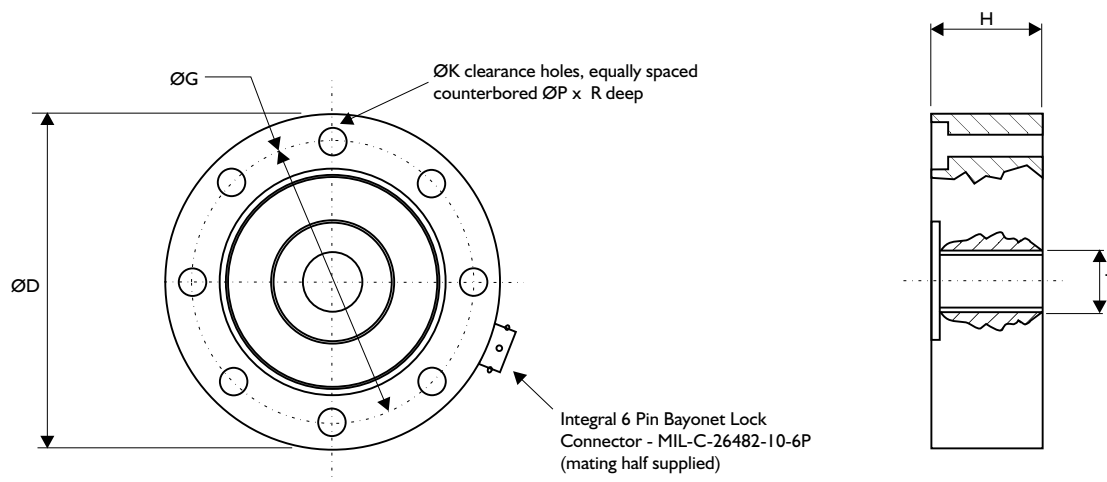
As with all the other Omni Instruments sensors, they can be supplied complete with monitoring/control electronics and calibrated as a system (please refer to the Instrumentation datasheets).

# SPECIFICATION

Wiring Schematic Diagram



| CHARACTERISTICS                      | DSCRC   | UNITS                           |
|--------------------------------------|---|---------------------------------|
| <b>Rated Capacities:</b>             | 200, 500, 1000, 2000                                      | <b>N</b><br><b>kN</b>           |
| <b>Rated Output:</b>                 | 2.0 nominal (1.0 on fatigue-rated versions)               | <b>mV/V</b>                     |
| <b>Non-Linearity:</b>                | <0.10   | <b>±% of Rated Output</b>       |
| <b>Hysteresis:</b>                   | <0.08   | <b>% of Rated Output</b>        |
| <b>Repeatability:</b>                | <0.03   | <b>±% of Applied Load</b>       |
| <b>Zero Balance:</b>                 | <5.0  | <b>±% of Rated Output</b>       |
| <b>Temperature Range: Operating</b>  | -20 to +80  | <b>°C</b>                       |
| <b>Compensated</b>                   | 0 to +60  | <b>°C</b>                       |
| <b>Temperature Effect: On Output</b> | <0.005  | <b>±% of Applied Load/ °C</b>   |
| <b>On Zero</b>                       | <0.005  | <b>±% of Rated Capacity/ °C</b> |
| <b>Safe Overload:</b>                | 150   | <b>% of Rated Capacity</b>      |
| <b>Safe Sideload:</b>                | 50  | <b>% of Rated Capacity</b>      |
| <b>Ultimate Overload:</b>            | 300   | <b>% of Rated Capacity</b>      |
| <b>Excitation: Recommended</b>       | 10  | <b>Volts AC or DC</b>           |
| <b>Maximum</b>                       | 15  | <b>Volts AC or DC</b>           |
| <b>Input Impedance:</b>              | 375 nominal   | <b>Ohms</b>                     |
| <b>Output Impedance:</b>             | 350 nominal   | <b>Ohms</b>                     |
| <b>Insulation Impedance:</b>         | >500  | <b>Megaohms</b>                 |
| <b>Deflection at Rated Capacity:</b> | <0.05   | <b>mm</b>                       |
| <b>Construction:</b>                 | Stainless Steel   |                                 |
| <b>Environmental Protection:</b>     | IP65  |                                 |
| <b>Connections:</b>                  | 6 Pin Integral Bayonet Lock Connector (MIL-C-26482-10-6P) |                                 |



**All dimensions in mm**

| RANGE (N)  | ØD | H  | G  | K          | T         | ØP | R |
|------------|----|----|----|------------|-----------|----|---|
| 200, 500   | 76 | 25 | 60 | 6 off Ø6.2 | M10 x 1.0 | 11 | 7 |
| 1000, 2000 | 76 | 25 | 60 | 6 off Ø6.2 | M10 x 1.0 | 11 | 7 |



UK / Europe Office  
 Tel: +44 (0)845 9000 601  
 Fax: +44 (0)845 9000 602  
[info@omniinstruments.co.uk](mailto:info@omniinstruments.co.uk)  
[www.omniinstruments.co.uk](http://www.omniinstruments.co.uk)

Australia / Asia Pacific Office  
 Tel +61 (0)282 442 363  
 Fax +61 (0)294 751 278  
[info@omniinstruments.com.au](mailto:info@omniinstruments.com.au)  
[www.omniinstruments.com.au](http://www.omniinstruments.com.au)

USA / Canada Office  
 Tel +1-866-849-3441  
 Fax +1-866-628-8055  
[info@omniinstruments.net](mailto:info@omniinstruments.net)  
[www.omniinstruments.net](http://www.omniinstruments.net)