

**MODEL**

**UNIVERSAL PAN CAKE LOAD CELL – 90610 – T**

**Description**

90610 – T is pancake type load cell & it is strain gage based sensor with temperature compensation over 0 to 60°C. It is precision measuring sensor & is used as reference standard load cell in metrology laboratory for calibrating other force sensing devices & uniaxial testing machines. This is constructed from SS 17-4 PH / High Tensile grade tool steel suitable for harsh industrial applications. It is sealed for IP65 protection class and it has long life. It is available with integral thread for axial loading. This can be supplied optionally at an extra cost with matched threaded base plate suitable for tension/compression applications.

**Features**

50 Kgf to 500Tf Capacities offered  
 Can be customized with Dual Bridge construction

Low profile design for Tensile & Compression force measuring  
 6 Core cable for precision measurement can be offered optionally

**Applications**

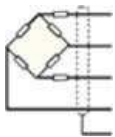
Can be used as reference standard load cell  
 Fatigue testing  
 Industrial Automation  
 Research

Material testing  
 Force Calibration  
 Robotics  
 Static & Dynamic Force Measurement

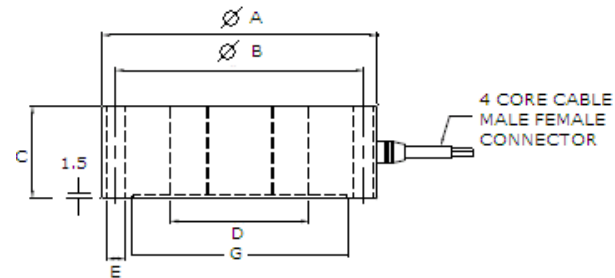
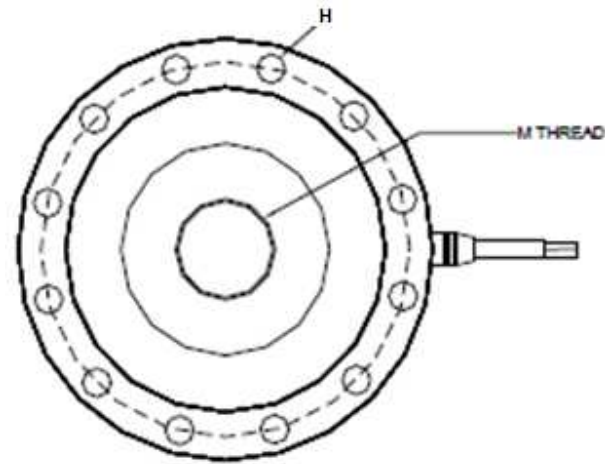
**Performance Specification**

|                                     |  |
|-------------------------------------|--|
| Standard Capacities (TF)            | 0.05,0.1,0.2,0.3,0.5,0.75,1,1.5,2,3,5,10,20,30,50,75,100,150,200,250,300,500 |
| Excitation Voltage                  | 10 VDC- Maximum 15 VDC   |
| Nominal Output                      | 2.0 m V/ V   |
| Non - Linearity                     | < ±0.1% FSO (Full Scale Output)  |
| Hysteresis                          | < ±0.15% FSO   |
| Non-Repeatability                   | < ±0.1% FSO  |
| Creep (30 minutes)                  | < ±0.04% FSO   |
| Zero Balance                        | ±1.0% FSO  |
| Input Resistance                    | 770 ± 20 Ohms 2T & Above<br>390 ± 10 Ohms up to 1T                           |
| Output Resistance                   | 700 ± 7 Ohms 2T & Above<br>390 ± 10 Ohms up to 1T                            |
| Cable Length                        | 5 meters   |
| Insulation Resistance (50 VDC)      | > 1000 Mega Ohms   |
| Safe Overload of Rated Capacity     | 150%   |
| Ultimate Overload of Rated Capacity | 200%   |
| Allowable Side Load                 | 50%  |
| Temp. Compensated Range             | 0-60°C   |
| Temperature Effect on Output        | < 0.005% FSO/ °C   |
| Temperature Effect on Zero          | < 0.005% FSO/ °C   |
| Deflection                          | < 0.4 mm at FSO  |

**Electrical Termination**



- +Input** Red
- +Output** Green
- Input** Black
- Output** White
- Shield**



\* Tool Steel – Electroless Nickel plated Tool Steel

| Capacity – Tf               | A   | B   | C   | D   | G   | E DIA. X H PLCS. | M Thread  | *MOC       | IP Protection Class |
|-----------------------------|-----|-----|-----|-----|-----|------------------|-----------|------------|---------------------|
| 0.05,0.1,0.2,0.3,0.5,0.75,1 | 50  | 42  | 25  | 15  | 34  | 4.2 x 4          | 12 x 1.25 | SS 17-4 PH | IP 68               |
| 1.5,2,3,5                   | 90  | 70  | 30  | 23  | 55  | 6.2 X 8          | 16 X 1.5  | SS 17-4 PH | IP 68               |
| 10,15                       | 115 | 90  | 40  | 42  | 72  | 10.4 X 8         | 30 X 2    | SS 17-4 PH | IP 68               |
| 20, 30                      | 155 | 125 | 50  | 61  | 100 | 12.7 X 8         | 39 X 2    | SS 17-4 PH | IP 68               |
| 50                          | 205 | 165 | 60  | 95  | 142 | 12.7 X 16        | 42 X 2    | SS 17-4 PH | IP 68               |
| 75,100                      | 280 | 228 | 80  | 125 | 172 | 16.5 X 16        | 72 X 2    | Tool Steel | IP 65               |
| 150, 200                    | 305 | 241 | 90  | 140 | 200 | 21 X 16          | 90 X 3    | Tool Steel | IP 65               |
| 300                         | 394 | 322 | 120 | 196 | 267 | 21 X 32          | 120 X 4   | Tool Steel | IP 65               |
| 450                         | 450 | 390 | 150 | 245 | 327 | 25 X 32          | 150 X 4   | Tool Steel | IP 65               |

Specifications are subject to change without prior notice

Note: All Dimensions are in mm



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