

## Low Profile Universal Load Cell

### FEATURES

- Capacity: 0.5–100 t
- Alloy steel construction
- Universal load cell
- Integrated overload protection (in compression)
- Tension and compression loading
- **Optional**
  - Model 98005 without base mounting plate (for compression applications only)
  - Metric and imperial threads

### APPLICATIONS

- Universal testing machines

### DESCRIPTION

The Model 98001 is a universal alloy steel shear beam load cell ideal for testing machine applications employing both tension and compression loading. This shear beam

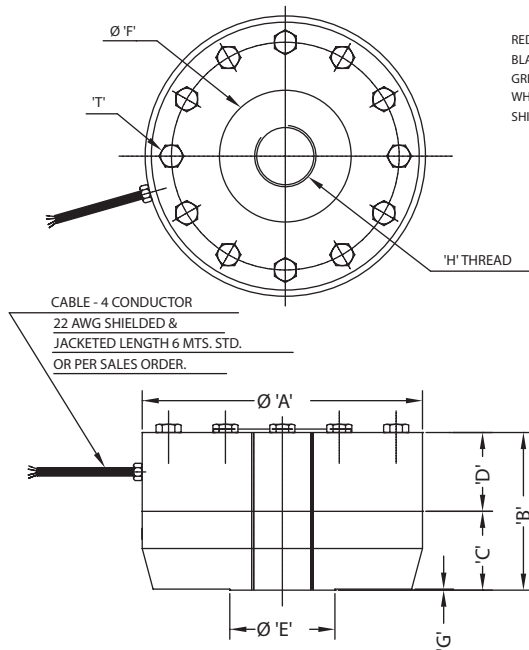
design load cell provides excellent immunity to impact and side forces. This load cell includes integrated overload protection for compression loading applications.



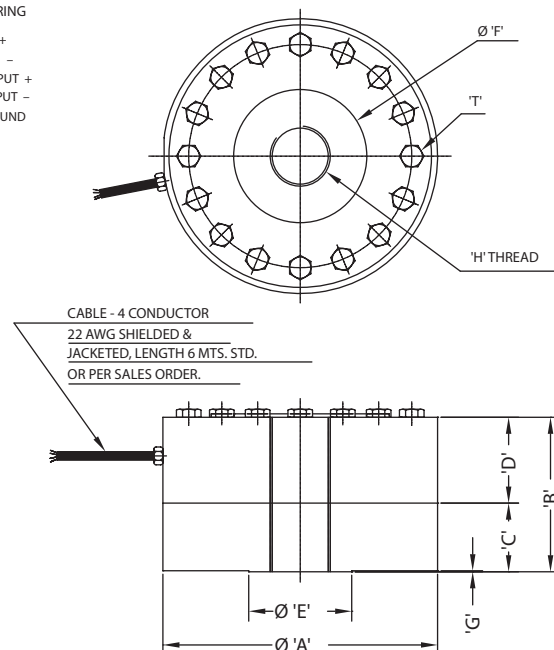
### OUTLINE DIMENSIONS in millimeters

| CAPACITY                     | Ø A   | B      | C     | D    | Ø E   | Ø F   | G    | H THREAD         | T                         |
|------------------------------|-------|--------|-------|------|-------|-------|------|------------------|---------------------------|
| 500 kg, 1.0, 2.0, 3.0, 5.0 t | 105.0 | 66.40  | 35.00 | 31.4 | 34.0  | 34.0  | 7.80 | M16 × 1.5        | M8, 12 PLCS ON PCD 90.0   |
| 10, 15, 20, 25, 30 t         | 154.0 | 89.00  | 44.50 | 44.5 | 57.0  | 63.0  | 0.76 | M30 × 2.0        | M10, 12 PLCS ON PCD 130.0 |
| 40, 50, 60 t                 | 203.0 | 115.06 | 51.56 | 63.5 | 76.0  | 95.5  | 0.76 | 1 3/4"-12 UNF-2B | M12, 16 PLCS ON PCD 165.0 |
| 100 t                        | 279.0 | 166.10 | 77.20 | 88.9 | 114.0 | 122.0 | 0.80 | M72 × 2.0        | M16, 16 PLCS ON PCD 221.4 |

#### 500 kg–30.0 t



#### 40.0–100.0 t



WIRING  
RED EXC. +  
BLACK EXC. -  
GREEN OUTPUT +  
WHITE OUTPUT -  
SHIELD GROUND

## Low Profile Universal Load Cell

| SPECIFICATIONS                  |                                            |        |
|---------------------------------|--------------------------------------------|--------|
| PARAMETER                       | VALUE                                      | UNIT   |
| Rated output—R.O.               | 2.0                                        | mV/V   |
| Rated output tolerance          | 10                                         | ±% FSO |
| Zero balance                    | 1                                          | ±% FSO |
| Combined error                  | <0.10                                      | ±% FSO |
| Non-linearity                   | <0.050                                     | ±% FSO |
| Hysteresis                      | <0.050                                     | ±% FSO |
| Non-repeatability               | <0.020                                     | ±% FSO |
| Creep error (30 minutes)        | <0.002                                     | ±% FSO |
| Temperature effect on zero      | <0.001                                     | ± %/°C |
| Temperature effect on output    | 0.001                                      | ± %/°C |
| Operating temperature range     | -20 to +70                                 | °C     |
| Maximum safe central overload   | 150                                        | % FSO  |
| Ultimate central overload       | 300                                        | % FSO  |
| Excitation, recommended         | 10                                         | VDC    |
| Excitation, maximum             | 15                                         | VDC    |
| Input impedance                 | 699–750                                    | Ω      |
| Output impedance                | 699–750                                    | Ω      |
| Insulation resistance at 50 VDC | >1000                                      | MΩ     |
| Material                        | Alloy steel with electroless nickel-plated |        |
| Environmental protection        | IP67                                       |        |

Specifications also apply for optional Model 98005 (for compression only)

All specifications subject to change without notice.

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