An ISO 9001 Certified Company


Shear Pin Series Load Cell

Customised to suit the application, these loadcells are built to replace the pin that takes the load, like in pulleys \& pivot points. The output is highly linear and can be used to indicate the load and also for overload protection purpose. IPA has the capability to build these customised loadcells in-house and has the capability to calibrate loads up to 1000T.

## Dimension Details



Load Measuring Pin

Typical Mounting Structure


Load Measuring Pin in Double Shear

## Applications

- Crane Weighing \& Overload Protection System
- Rope, Chain \& Brake Anchors
- Mooring Lines
- Hoisting Gear
- Winches
- Laddle Weighing (Trolley Type)
- Quick Release

Technical Specifications

| PARAMETERS | SPECIFIED VALUE |  |
| :---: | :---: | :---: |
| Model | SP SERIES |  |
| Capacity of Load Cell | 1T-300T |  |
| Type | Strain Gauge Based |  |
| Accuracy (Fs) | $\pm 0.1 \%$ to 0.5\% OFFS |  |
| Sensitivity | $1 \mathrm{mV} / \mathrm{V} \pm 0.01$ |  |
| Creep on load (30 Min) | $\pm 0.1 \%$ |  |
| Zero Balance | $\pm 0.2 \mathrm{mV}$ |  |
| Excitation | 10-12 V DC |  |
| Temp. Effect on Span | $0.006 \% /{ }^{\circ} \mathrm{C}$ |  |
| Temp. Effect on Tare | $0.008 \% /{ }^{\circ} \mathrm{C}$ |  |
| Compensated Temp Ramge | $5-55^{\circ} \mathrm{C}$ |  |
| Operating Temp Range | $5-70^{\circ} \mathrm{C}$ |  |
| Input Resistance | $390 \pm 10^{\prime}$ / |  |
| Output Resistance | $350 \pm 4{ }^{\prime}$ 仡 |  |
| Insulation resistance bridge to case at 30 ovC at $30^{\circ} \mathrm{C}$ | 5000M'今 |  |
| Safe Over Load | 150\% |  |
| Ultimate Overload | 300\% |  |
| Protection | IP $55-$ IP 67 |  |
| Material | Alloy Steel/Stainless Steel |  |
| Cable Length | 4 m |  |
| Type | Analog | Digital |
| Digital Filter |  | Rolling Average-15 |
| No.of Bus Addresses |  | 100 |
| Current Consumption |  | 30 mA |
| Conversion Rate |  | 80 sps |
| Conversion Type |  | Sigma-Delta |
| Termination | Integrated Connector | Detachable Connector |
| Terminal | 4 core shielded | $\left.\begin{array}{l} A \\ B \end{array}\right\} R S 485$ |
|  | Black- + Input |  |
|  | Red- + Output | C-Common |
|  | Green- - Input | D-Excitation |
|  | White-- Output |  |

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