

Multi-Component Sensors

70025 Series

TRI-AXIAL FORCE SENSOR

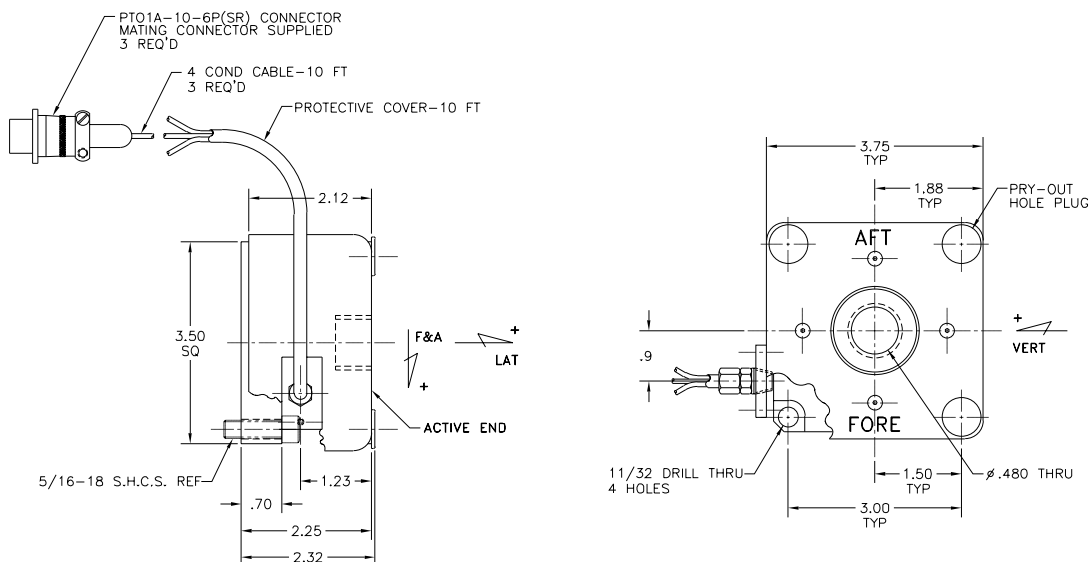
This three component force sensor measures force in the F_x , F_y , and F_z axis. Each axis has a full scale capacity of $\pm 5,000$ lbs. and produces a 2.0 mV/V full scale nominal output. An integral cable assembly exits the side of the sensor and terminates in three, six pin connectors. This sensor is protected from overload forces up to $\pm 7,500$ lbs. for each axis. An extraneous load isolation feature was also incorporated into the design. This feature allows bending moments to be applied to the sensor, yet isolates them from the measuring axes. Automotive engine mounts were replaced with Model 70025, and real time force data was recorded as the vehicle was road tested. The existing package size is approximately 3.75 inches square and 2.5 inches high. This load cell can be changed for different applications. Other capacities and package sizes can be accommodated. Contact our application engineers for details.



SPECIFICATIONS

| | |
|----------------------------------|---------------------|
| Capacity..... | 5000 lbs. each axis |
| Overload capacity..... | 150% of F.S |
| Output at full scale load..... | 2.0 mV/V nominal |
| Non-linearity..... | 0.10% of F.S. |
| Hysteresis..... | 0.10% of F.S. |
| Zero balance..... | 1% of F.S. |
| Compensated temperature..... | 70 to 170°F |
| Useable temperature..... | -65 to +250°F |
| Temperature effect on zero..... | 0.002% of F.S./°F |
| Temperature effect on span..... | 0.002% of Rdg./°F |
| Bridge resistance..... | 350/700 Ohms |
| Excitation voltage, maximum..... | 20 Vdc |
| Material..... | Alloy steel |

DIMENSIONS (INCHES)



DWG



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