JR3
Multi-Axis Load Cell Technologies

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30E12A-I40 15L45 sensor
for use with external electronics

The 30E12A-I40 sensor has no electronic components within the sensor body. As a result it can withstand environmental conditions, such as high temperatures or radiation beyond those possible for sensors with internal electronic components.

The sensor is unusually stiff relative to the load rating; this enables improved accuracy of position over changing loads. The sensor can safely withstand 125% of the rated load applied to all axes simultaneously. If a single axis is loaded with no loads applied to other axes the safe load of the loaded axis is much greater.

The load ratings, maximum safe single axis loads and stiffness are specified in the chart below.

Axis	Load Rating	Maximum Safe Load	Stiffness
Fx	15 lb.	100 lb.	18.0e3 lb./in.
Fy	15 lb.	100 lb.	18.0e3 lb./in.
Fz	30 lb.	400 lb.	190e3 lb./in
Mx	45 in-lb.	250 in-lb.	140e3 in-lb./rad
My	45 in-lb.	250 in-lb.	140e3 in-lb./rad
Mz	45 in-lb.	200 in-lb.	35.2e3 in-lb./rad

When used with a JR3 electronic system with analog output, sensor resolution is 1 part in 16,000 of the rated loads or better. Useable resolution may be limited by the A/D system used to digitize the data.

Refer to JR3 drawing No. 4841 for the mechanical details of the sensor.