

# MCL6-4000 SPECIFICATIONS

The MCL6 is designed to measure cutting tool forces during turning operations, such as in a lathe, and features a tool holder mounting fixture. The instrument has a top mounting surface (6.5 inches square) equipped with mounting holes and threaded inserts for convenient attachments of other devices. A high-strength anodized aluminum alloy (7075-T6) is used for the top plate and a corrosion resistant steel base provides added mounting stiffness for non-fully supported mounting. The tool holder standard size is 1" square. Elastomeric O-ring seals protect the strain gages and wiring and internal coating of the strain gages further ensures long life and consistent, reliable performance.



Units:  Capacity:

<b>Dimensions(WxLxH)</b>	165 x 165 x 104.9 mm	<b>IP Rating</b>	IPNull
<b>Weight</b>	18.18 Kg.	<b>Sensing elements</b>	Strain gage bridge
<b>Channels</b>	Fx, Fy, Fz, Mx, My, Mz	<b>Amplifier</b>	Required
<b>Body Material</b>	Steel	<b>Analog outputs</b>	6 Channels
<b>Temperature range</b>	-17.78 to 51.67°C	<b>Digital outputs</b>	None
<b>Excitation</b>	10V maximum	<b>Crosstalk</b>	< 2% on all channels
<b>Fx, Fy, Fz hysteresis</b>	± 0.2% full scale output	<b>Fx, Fy, Fz non-linearity</b>	± 0.2% full scale output

Channel	Fx	Fy	Fz	Units	Mx	My	Mz	Units
Capacity	8897	8897	17794	N	1355	1355	678	N-m
Sensitivity	0.169	0.169	0.0427	µv/v-N	1.88	1.88	3.32	µv/v-N-m
Natural frequency	1000	1000	1200	Hz	-	-	-	Hz
Stiffness (X 105)	842	842	5611	N/m	-	-	-	N-m/rad

Resolution [To determine the resolution of your system, please use our Output Calculator.](#)

Published specifications subject to change without notice.

Last modified:2016-08-23

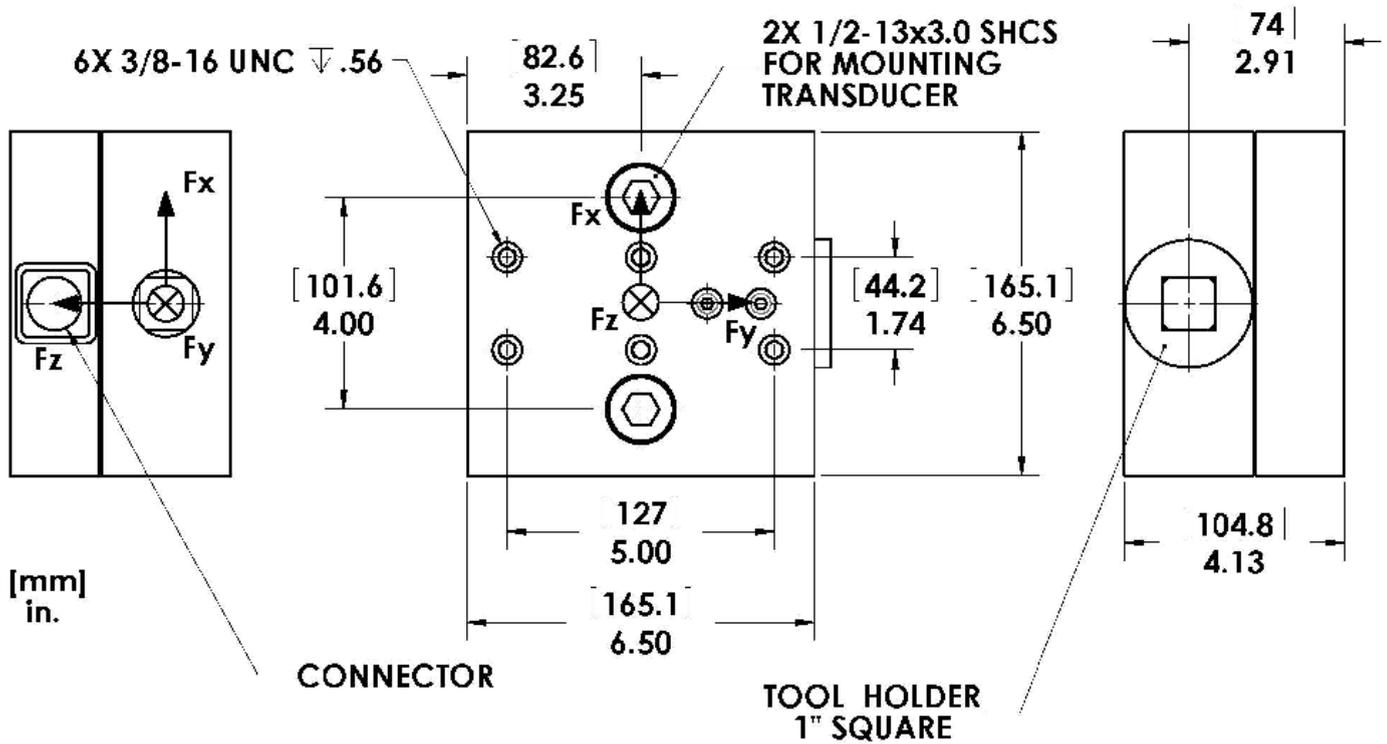
## TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

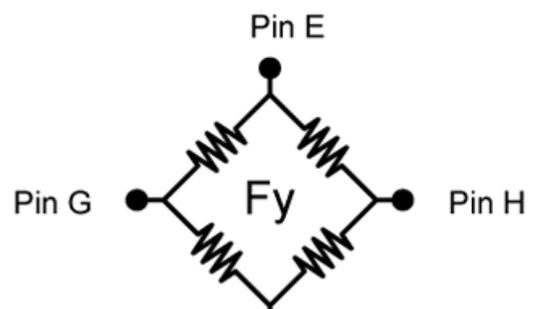
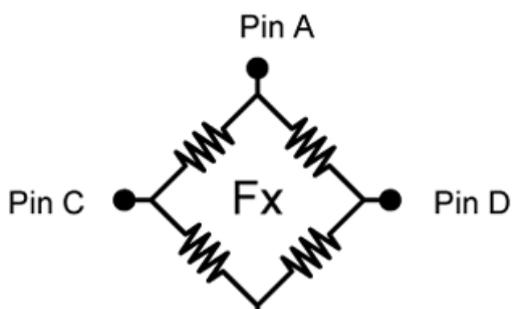
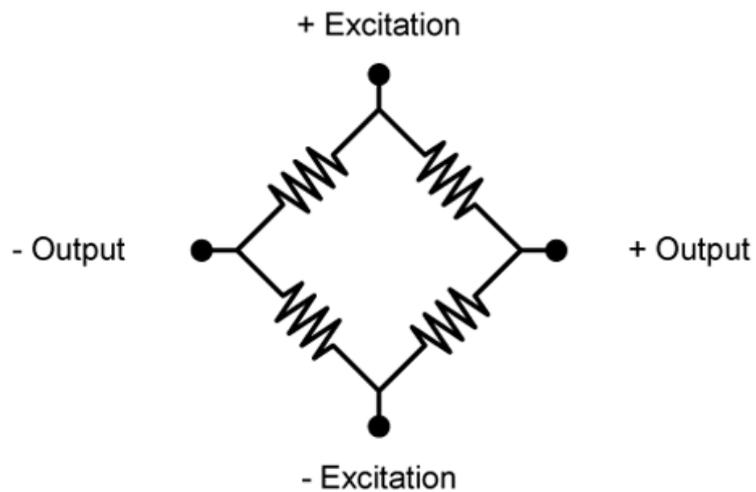
Electrical Drawing (click on image to enlarge)

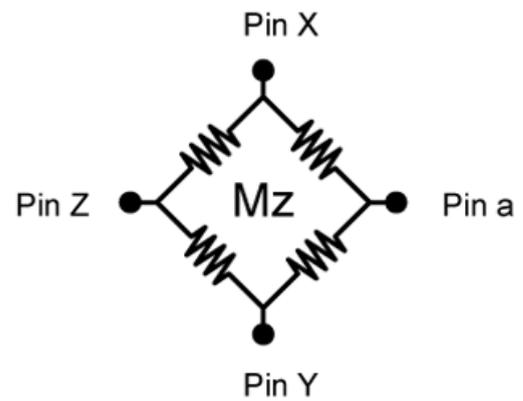
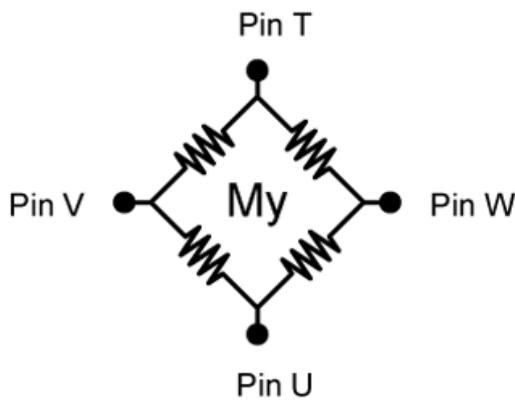
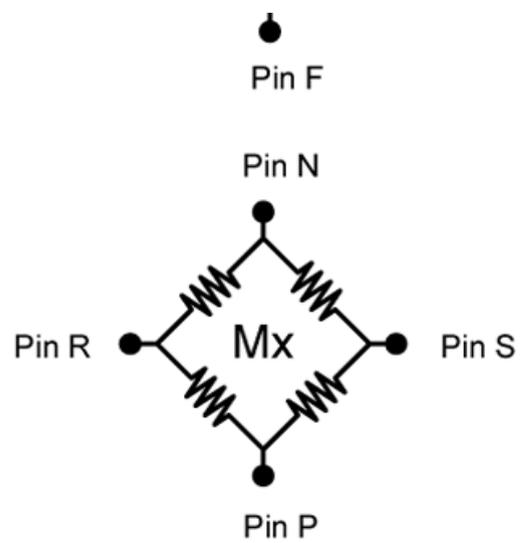
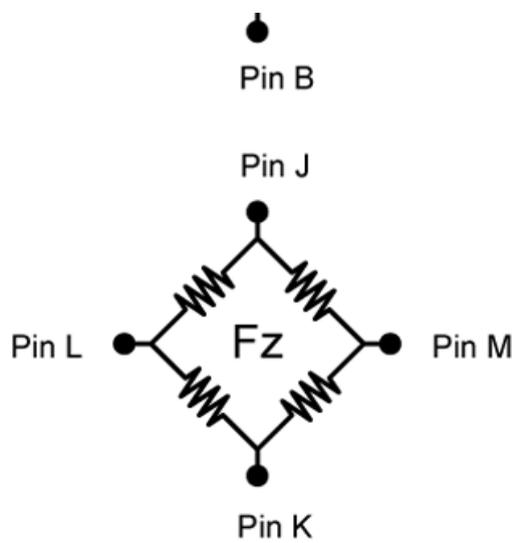
TECHNICAL DRAWING

Footprint Drawing



Electrical Drawing





Bridge Fz = 350 ohms  
 Bridges Fx; Fy; Mx; My; Mz = 700 ohms  
**Connector Type:**  
 Souriau 851-02E16-26P50-44