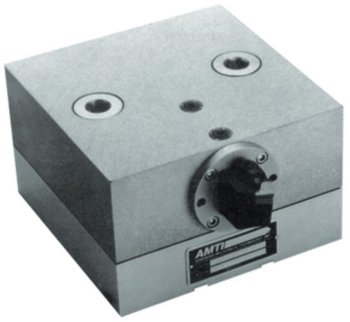
MCL6-1000 SPECIFICATIONS

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: Metric ▼ Capacity: 4448 N ▼

Dimensions(WxLxH)	165 x 165 x 105 mm	**IP Rating**	IPnull
Weight	18.18 kg	**Sensing elements**	Strain gage bridge
Channels	Fx, Fy, Fz, Mx, My, Mz	**Amplifier**	Required
Body Material	Steel	**Analog outputs**	6 Channels
Temperature range	-17.78 to 51.67°C	**Digital outputs**	None
Excitation	10V maximum	**Crosstalk**	< 2% on all channels
Fx, Fy, Fz hysteresis	± 0.2% full scale output	**Fx, Fy, Fz non-linearity**	± 0.2% full scale output

Channel	**Fx**	**Fy**	**Fz**	**Units**	**Mx**	**My**	**Mz**	**Units**
Capacity	2224	2224	4448	N	339	339	169	N-m
Sensitivity	0.674	0.674	0.171	µv/v-N	7.53	7.53	13.28	µv/v-N-m
Natural frequency	550	550	620	Hz	-	-	-	Hz
Stiffness (X 105)	210	210	1403	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.

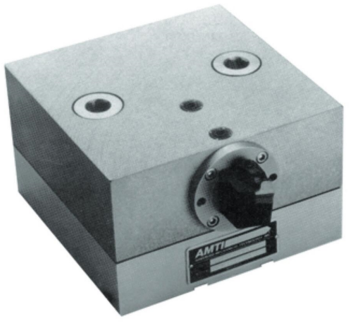
Last modified:2016-08-23

TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

MCL6-2000 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: Metric ▼ Capacity: 8896 N ▼

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

Channel	**Fx**	**Fy**	**Fz**	**Units**	**Mx**	**My**	**Mz**	**Units**
Capacity	4448	4448	8896	N	678	678	339	N-m
Sensitivity	0.337	0.337	0.0854	µv/v-N	3.76	3.76	6.64	µv/v-N-m
Natural frequency	800	800	875	Hz	-	-	-	Hz
Stiffness (X 105)	421	421	2805	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.

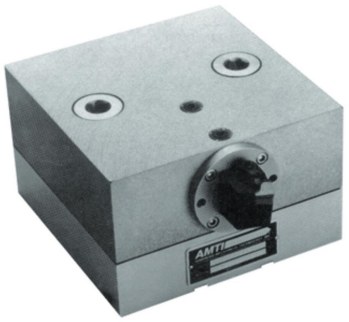
Last modified:2016-08-23

TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

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: Metric ▼ Capacity: 17793 N ▼

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

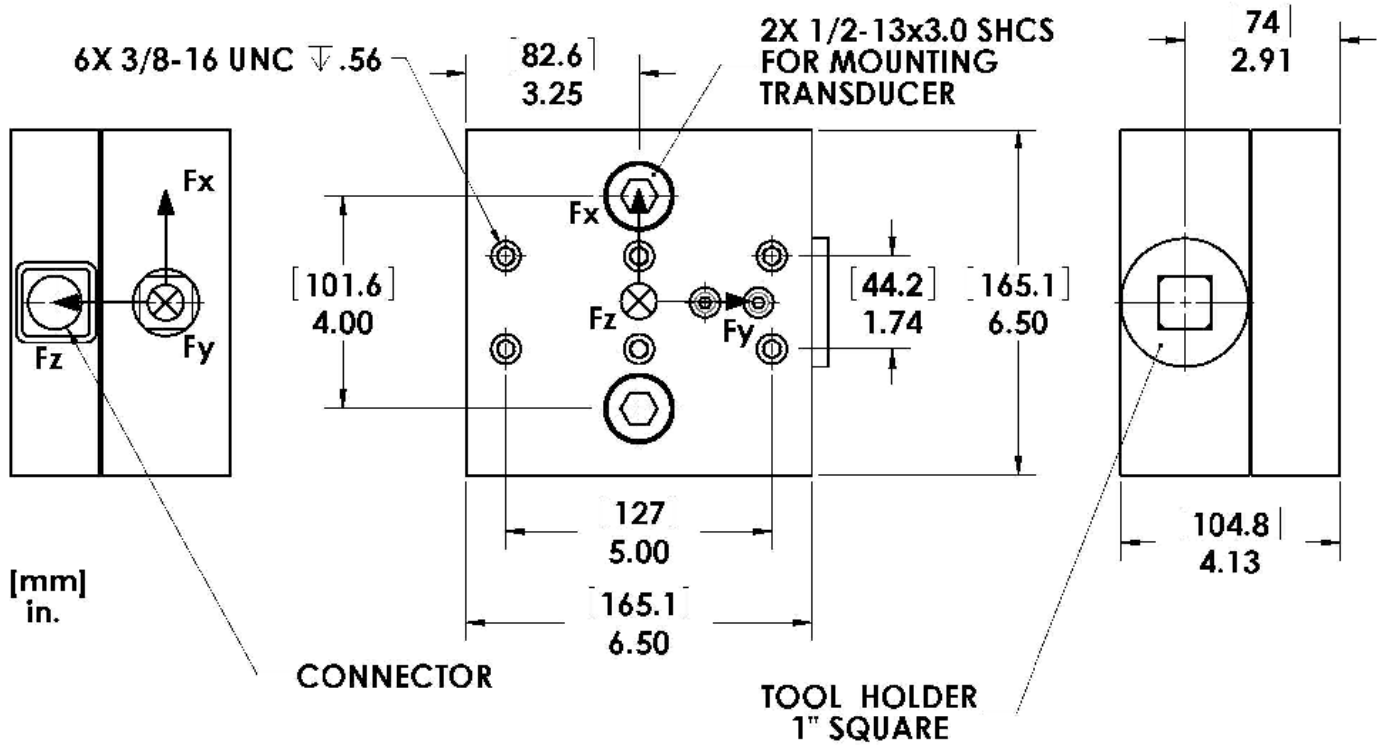
TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

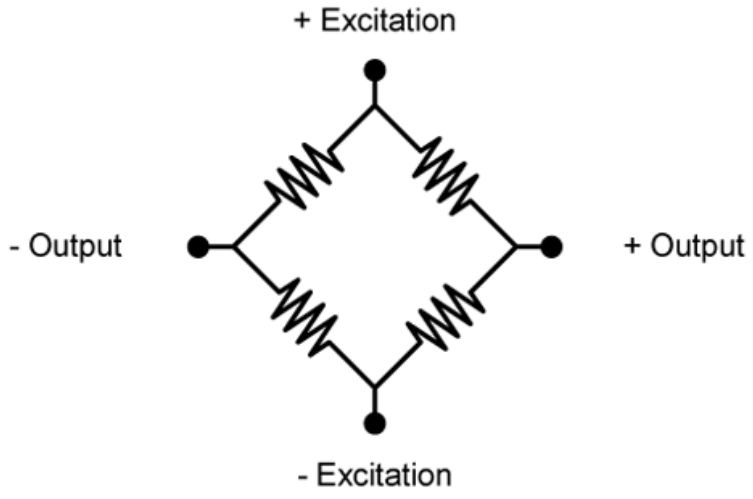
Electrical Drawing (click on image to enlarge)

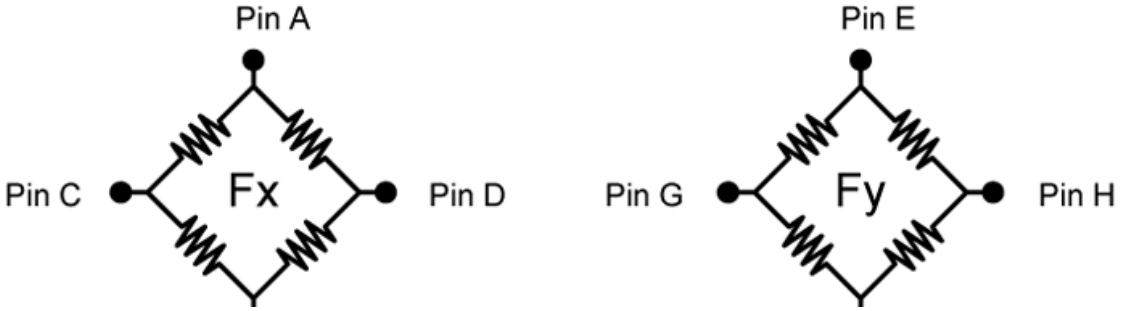
TECHNICAL DRAWING

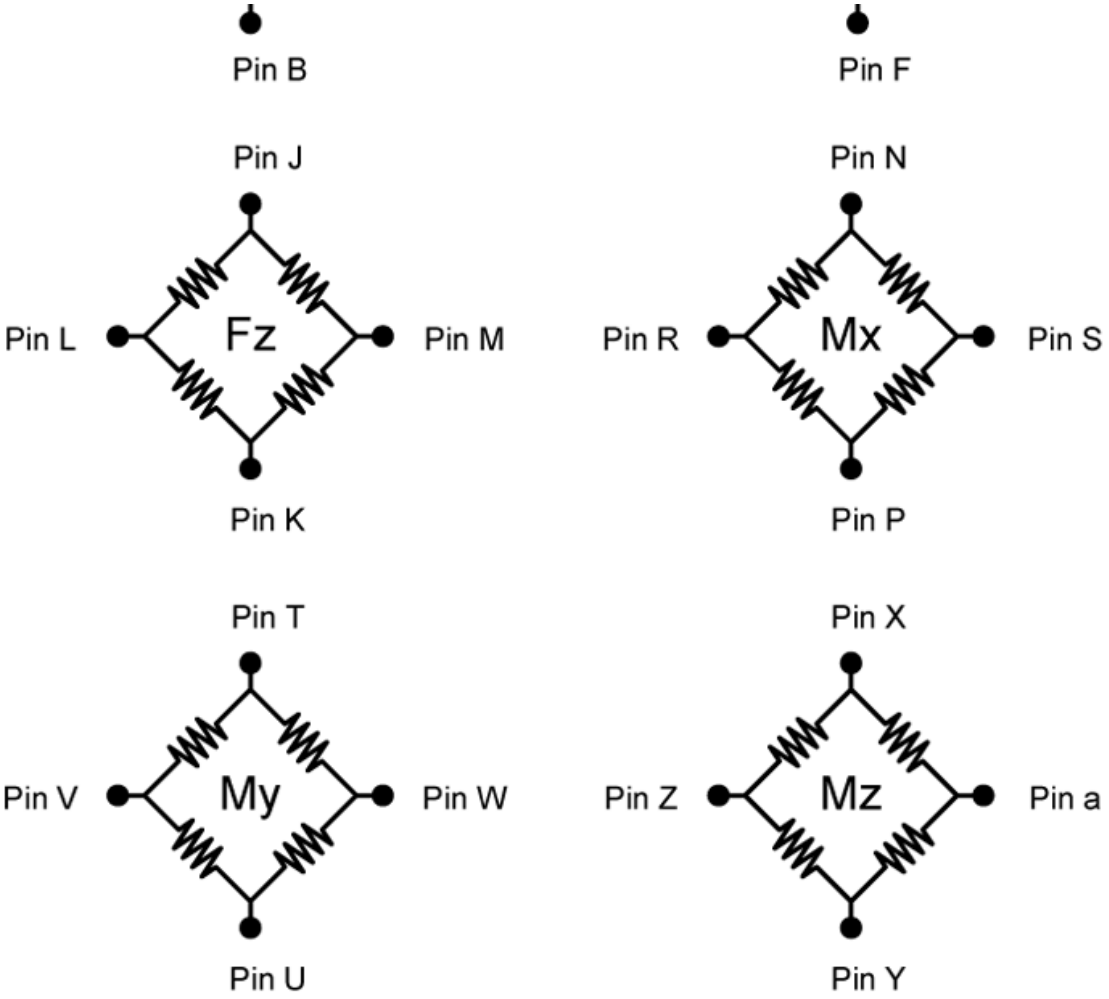
Footprint Drawing



Electrical Drawing







Bridge Fz = 350 ohms

Bridges Fx; Fy; Mx; My; Mz = 700 ohms

Connector Type:

Souriau 851-02E16-26P50-44

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