# MC3A-100 SPECIFICATIONS

The MC3A is a compact, six-axis transducer with threaded inserts on its top and bottom surfaces. The body of the load cell is manufactured from a high-strength aluminum alloy with an anodized finish to protect the exterior from corrosion. Elastomeric 0-ring seals provide internal protection of the strain gages and wiring from industrial environments and moisture exposure. A waterproof version is available for use in tow tanks, ocean engineering, and other underwater applications.

Units: Metric ▼ Capacity: 445 N ▼

| | | | |
|---|---|---|---|
| **Dimensions(WxLxH)** | 76 x 76 x 76.2 mm | **IP Rating** | IP60 |
| **Weight** | 0.909 Kg. | **Sensing elements** | Strain gage bridge |
| **Channels** | Fx, Fy, Fz, Mx, My, Mz | **Amplifier** | Required |
| **Body Material** | Aluminum | **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 | 222 | 222 | 445 | N | 11 | 11 | 5.6 | N-m |
| Sensitivity | 5.4 | 5.4 | 1.35 | µv/v-N | 266 | 266 | 213 | µv/v-N-m |
| Natural frequency | - | - | - | Hz | 300 | 300 | - | Hz |
| Stiffness (X 105) | 21.04 | 21.04 | 298 | N/m | - | - | 0.0226 | 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

# MC3A-250 SPECIFICATIONS

The MC3A is a compact, six-axis transducer with threaded inserts on its top and bottom surfaces. The body of the load cell is manufactured from a high-strength aluminum alloy with an anodized finish to protect the exterior from corrosion. Elastomeric 0-ring seals provide internal protection of the strain gages and wiring from industrial environments and moisture exposure. A waterproof version is available for use in tow tanks, ocean engineering, and other underwater applications.

Units: Metric ▼ Capacity: 1112 N ▼

| | | | |
|---|---|---|---|
| **Dimensions(WxLxH)** | 76 x 76 x 76.2 mm | **IP Rating** | IP60 |
| **Weight** | 0.909 Kg. | **Sensing elements** | Strain gage bridge |
| **Channels** | Fx, Fy, Fz, Mx, My, Mz | **Amplifier** | Required |
| **Body Material** | Aluminum | **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 | 556 | 556 | 1112 | N | 28 | 28 | 14 | N-m |
| Sensitivity | 2.16 | 2.16 | 0.54 | µv/v-N | 106.3 | 106.3 | 85.06 | µv/v-N-m |
| Natural frequency | - | - | - | Hz | 500 | 500 | - | Hz |
| Stiffness (X 105) | 52.58 | 52.58 | 745 | N/m | - | - | 0.0564 | 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

# MC3A-500 SPECIFICATIONS

The MC3A is a compact, six-axis transducer with threaded inserts on its top and bottom surfaces. The body of the load cell is manufactured from a high-strength aluminum alloy with an anodized finish to protect the exterior from corrosion. Elastomeric 0-ring seals provide internal protection of the strain gages and wiring from industrial environments and moisture exposure. A waterproof version is available for use in tow tanks, ocean engineering, and other underwater applications.

Units: Metric ▼ Capacity: 2224 N ▼

| | | | |
|---|---|---|---|
| **Dimensions(WxLxH)** | 76 x 76 x 76.2 mm | **IP Rating** | IP60 |
| **Weight** | 0.909 Kg. | **Sensing elements** | Strain gage bridge |
| **Channels** | Fx, Fy, Fz, Mx, My, Mz | **Amplifier** | Required |
| **Body Material** | Aluminum | **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 | 1112 | 1112 | 2223 | N | 56 | 56 | 28 | N-m |
| Sensitivity | 1.08 | 1.08 | 0.27 | µv/v-N | 53.16 | 53.16 | 42.53 | µv/v-N-m |
| Natural frequency | - | - | - | Hz | 700 | 700 | - | Hz |
| Stiffness (X 105) | 105.2 | 105.2 | 1490 | N/m | - | - | 0.113 | 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

# MC3A-1000 SPECIFICATIONS

The MC3A is a compact, six-axis transducer with threaded inserts on its top and bottom surfaces. The body of the load cell is manufactured from a high-strength aluminum alloy with an anodized finish to protect the exterior from corrosion. Elastomeric 0-ring seals provide internal protection of the strain gages and wiring from industrial environments and moisture exposure. A waterproof version is available for use in tow tanks, ocean engineering, and other underwater applications.

Units: Metric ▼ Capacity: 4448 N ▼

| | | | |
|---|---|---|---|
| **Dimensions(WxLxH)** | 76 x 76 x 76.2 mm | **IP Rating** | IP60 |
| **Weight** | 0.909 Kg. | **Sensing elements** | Strain gage bridge |
| **Channels** | Fx, Fy, Fz, Mx, My, Mz | **Amplifier** | Required |
| **Body Material** | Aluminum | **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 |

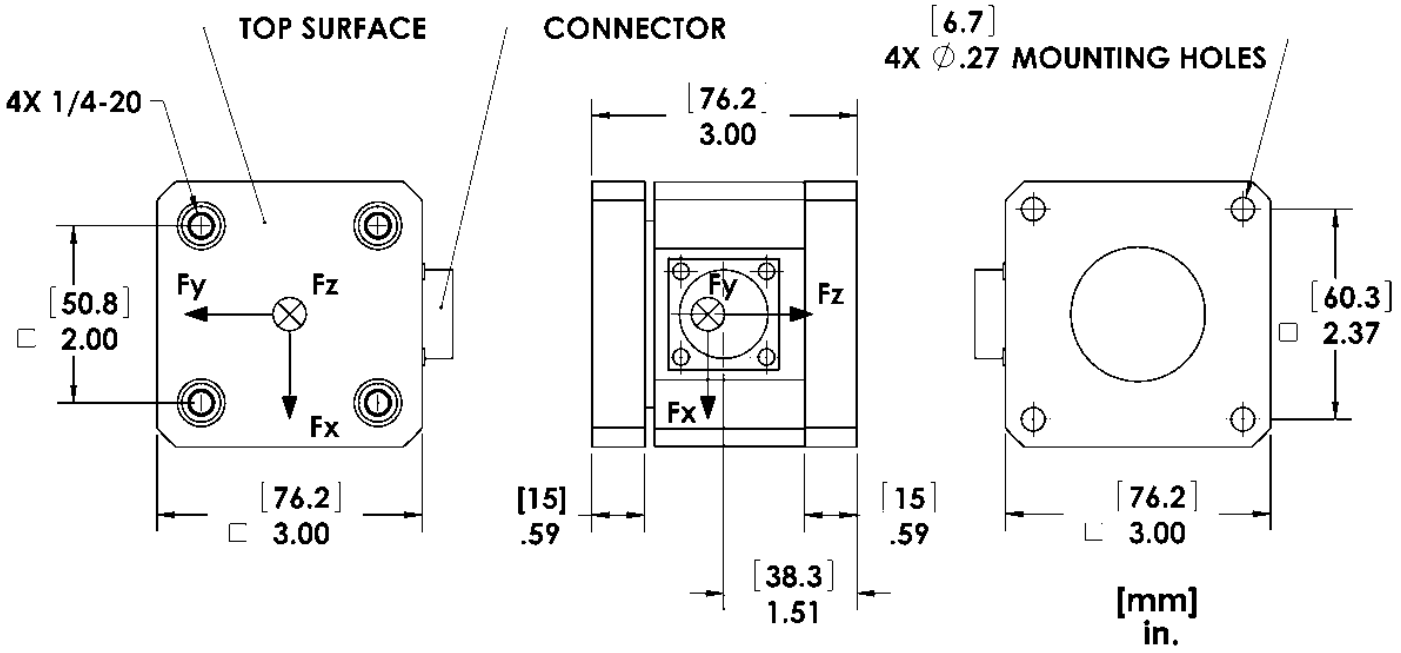
| **Channel** | **Fx** | **Fy** | **Fz** | **Units** | **Mx** | **My** | **Mz** | **Units** |
|---|---|---|---|---|---|---|---|---|
| Capacity | 2223 | 2223 | 4446 | N | 113 | 113 | 56 | N-m |
| Sensitivity | 0.54 | 0.54 | 0.135 | µv/v-N | 26.58 | 26.58 | 21.26 | µv/v-N-m |
| Natural frequency | - | - | - | Hz | 1000 | 1000 | - | Hz |
| Stiffness (X 105) | 210 | 210 | 2979 | N/m | - | - | 0.226 | N-m/rad |

Resolution — *To determine the resolution of your system, please use our Output Calculator.*

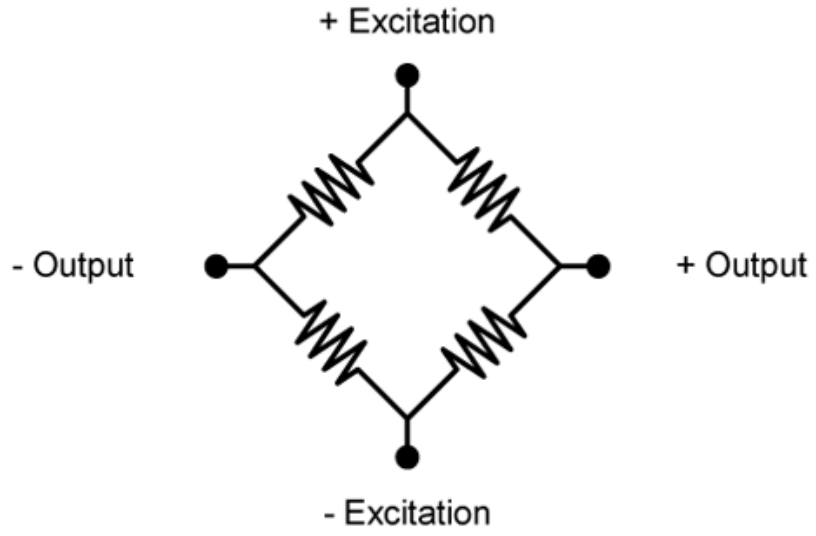
Published specifications subject to change without notice.

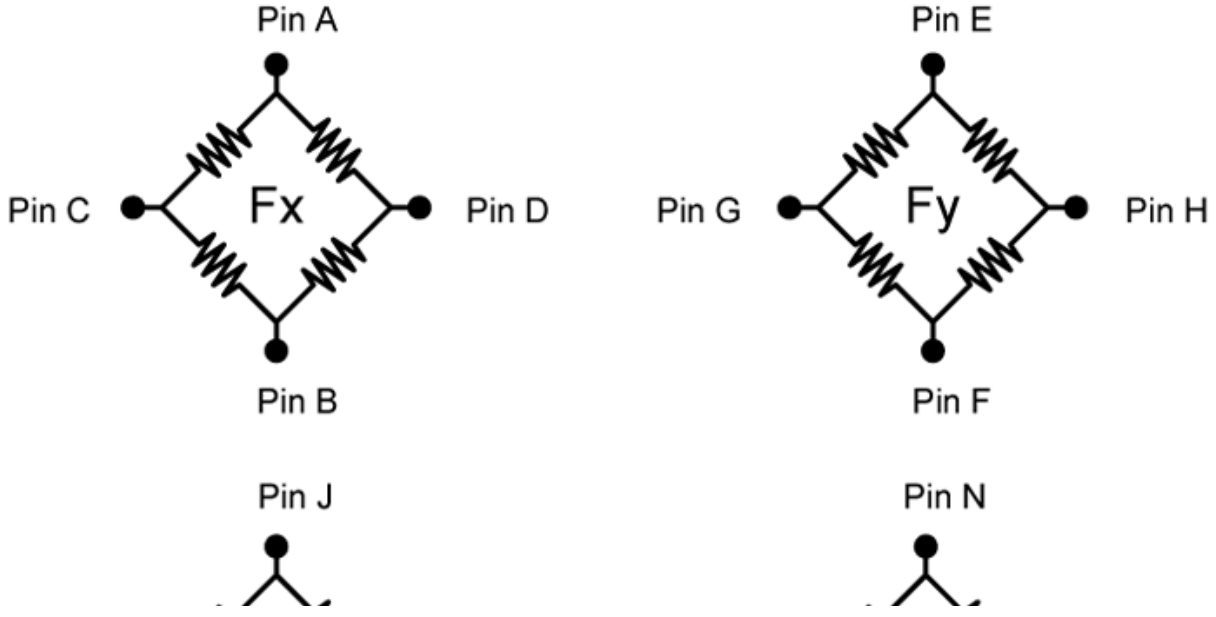
Last modified:2016-08-23

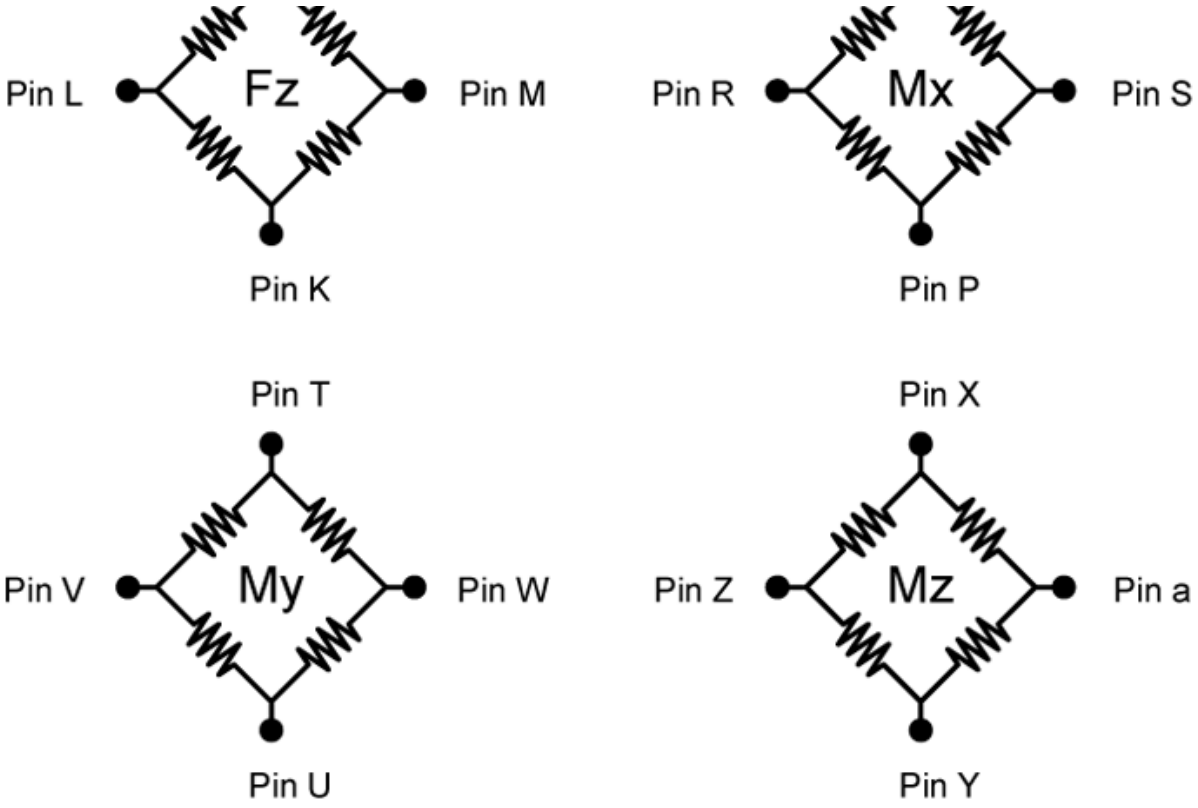
TECHNICAL DRAWINGS
Footprint Drawing (click on image to enlarge)
Electrical Drawing (click on image to enlarge)
TECHNICAL DRAWING
Footprint Drawing




Electrical Drawing






Bridge Fz = 700 ohms

Bridges Fx; Fy; Mx; My; Mz = 350 ohms

**Connector Type:**

Souriau 851-02E16-26P50-44



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