

# SF3-100 SPECIFICATIONS

AMTI's SF3, formally designated the MC3-SSUDW, is a six-component force sensor that features a stainless steel body and an oil-filled pressure compensation bladder to enable short-term (<24 hours) continuous submersion in fresh water.



Units:  Capacity:

<b>Dimensions(WxLxH)</b>	76 x 76 x 76.2 mm	<b>IP Rating</b>	IP68 *
<b>Weight</b>	1.97 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>	Stainless 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	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	-	-	-	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](#).*

Notes: \* The transducer is tested in potable tap water at a pressure of 100 psi (690 kPa) and a temperature of 70°F (21°C) for 8 hours. Any use exceeding these conditions will void the warranty.

Published specifications subject to change without notice.

Last modified:2018-03-22

## TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

Electrical Drawing

TECHNICAL DRAWING

Footprint Drawing

# SF3-250 SPECIFICATIONS

AMTI's SF3, formally designated the MC3-SSUDW, is a six-component force sensor that features a stainless steel body and an oil-filled pressure compensation bladder to enable short-term (<24 hours) continuous submersion in fresh water.



Units:  Capacity:

<b>Dimensions(WxLxH)</b>	76 x 76 x 76.2 mm	<b>IP Rating</b>	IP68 *
<b>Weight</b>	1.97 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>	Stainless 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	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	-	-	-	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](#).*

Notes: \* The transducer is tested in potable tap water at a pressure of 100 psi (690 kPa) and a temperature of 70°F (21°C) for 8 hours. Any use exceeding these conditions will void the warranty.

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Last modified:2018-03-22

## TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

Electrical Drawing

TECHNICAL DRAWING

Footprint Drawing

# SF3-1000 SPECIFICATIONS

AMTI's SF3, formally designated the MC3-SSUDW, is a six-component force sensor that features a stainless steel body and an oil-filled pressure compensation bladder to enable short-term (<24 hours) continuous submersion in fresh water.



Units:  Capacity:

<b>Dimensions(WxLxH)</b>	76 x 76 x 76.2 mm	<b>IP Rating</b>	IP68 *
<b>Weight</b>	1.97 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>	Stainless 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	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	-	-	-	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](#).*

Notes: \* The transducer is tested in potable tap water at a pressure of 100 psi (690 kPa) and a temperature of 70°F (21°C) for 8 hours. Any use exceeding these conditions will void the warranty.

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## TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

Electrical Drawing

TECHNICAL DRAWING

Footprint Drawing

# SF3-500 SPECIFICATIONS

AMTI's SF3, formally designated the MC3-SSUDW, is a six-component force sensor that features a stainless steel body and an oil-filled pressure compensation bladder to enable short-term (<24 hours) continuous submersion in fresh water.



Units:  Capacity:

<b>Dimensions(WxLxH)</b>	76 x 76 x 76.2 mm	<b>IP Rating</b>	IP68 *
<b>Weight</b>	1.97 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>	Stainless 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	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	-	-	-	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](#).*

Notes: \* The transducer is tested in potable tap water at a pressure of 100 psi (690 kPa) and a temperature of 70°F (21°C) for 8 hours. Any use exceeding these conditions will void the warranty.

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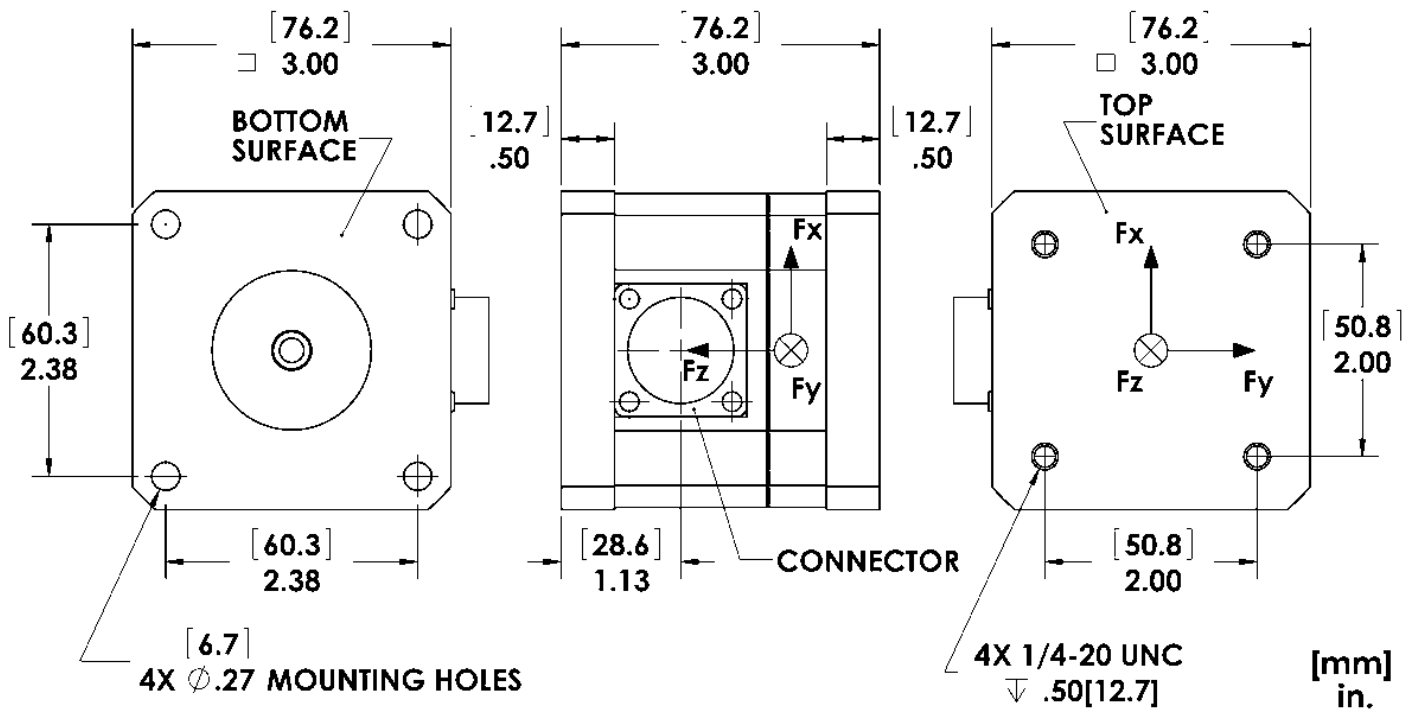
## TECHNICAL DRAWINGS

Footprint Drawing (click on image to enlarge)

Electrical Drawing

TECHNICAL DRAWING

Footprint Drawing



Electrical Drawing

No electrical schematic currently in the database

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