

Sunrise Instruments Calibration Report

Address: 2nd Floor Building B2 19#Keyuan Xishi Road Nanning Guangxi Province China 530007

Phone: +86 771-389-9499 Fax: +86 771-389-9497

Email: sri@srisensor.com



Calibration Report

Calibration No.	SRI-V-260126-B	Cal Date	2026/1/26
Model No.	M4313M2B	Serial No.	32654
Technician	Wei jing xian	Temp(C)/Hum.(%).	22.0 / 65.0
Customer	北京易如精智医学技术有限公司	Excitation(V)	5.0000
Description	6 AXIS FORCE SENSOR	Cable Length	
Comments			

Voltage Calibration

<u>Bridge</u>	<u>Capacity</u>	<u>Zero Offset</u>	<u>Nonlinearity</u>	<u>Hysteresis</u>	<u>Output @ Capacity</u>	<u>Sensitivity</u>
	N/Nm	N	%FS	%FS	V	V/EU
FX	100	3.3400	0.29	0.38	DECOUPLE	
FY	100	-2.3052	0.35	0.39		
FZ	-100	-1.6260	0.38	0.31		
MX	-8	0.1656	0.19	0.36		
MY	8	0.1355	0.23	0.43		
MZ	8	-0.1922	0.26	0.35		

Wire Color Codes

FUNCTION

+EXC

+SIG

-EXC

-SIG

Sensor ID

ID Return

CONNECTOR

Reference Load Cell

<u>Manufacturer</u>	<u>Model Type</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Cal Due Date</u>
SUNRISE	GOLDEN TYPE	M3001	121	2026/8/6

Calibrated by

Approved by

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Technician	Chen Feng Sheng	Temp(C)/Hum.(%).	22.0 / 65.0
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CROSSTALK

<u>Bridge</u>	<u>Load</u>	<u>FX</u>	<u>FY</u>	<u>FZ</u>	<u>MX</u>	<u>MY</u>	<u>MZ</u>
	N/Nm	% FS	% FS	% FS	% FS	% FS	% FS
FX	100	0.00	0.46	0.35	0.26	0.17	0.13
FY	100	0.42	0.00	0.49	0.15	0.17	1.85
FZ	-100	0.51	0.46	0.00	0.26	0.23	2.19
MX	-8	0.97	0.62	0.65	0.00	0.53	0.52
MY	8	0.83	0.89	0.97	0.35	0.00	2.45
MZ	8	0.55	0.71	0.49	0.29	0.19	0.00

Bridge to Transducer body resistance greater than 5G Ohm when measured with 50V excitation

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SENSOR TYPE B ----- OUTPUT UNRELATED TO EXCITATION VOLTAGE.

Decoupled Matrix

[DECOUPLED] =

0.08922	0.20826	-0.08746	0.17583	0.08637	-0.17917	-0.08503	-0.20710
-0.01847	-0.16705	0.02542	0.16464	-0.01999	0.22010	0.02564	-0.21628
0.15586	-0.01843	0.22991	0.01669	0.15492	-0.01663	0.23014	0.01879
-0.00017	-0.00299	-0.00856	0.00414	0.00878	-0.00278	0.00004	0.00168
0.00568	-0.00343	-0.00572	0.00215	-0.00319	-0.00105	0.00324	0.00233
-0.01154	0.00642	0.01132	0.00036	-0.01119	0.00642	0.01129	0.00043

The six axis loads can be decoupled as follows:

Step 1: Obtain the raw data of Channels 1 through 8 into mV
[DAT] = {rawchn1, rawchn2, rawchn3, rawchn4, rawchn5, rawchn6, rawchn7, rawchn8}
where rawchn1, rawchn2, rawchn3, rawchn4, rawchn5, rawchn6 , rawchn7 and rawchn8 are in mV

Step 2: To calculate decoupled loads
[RESULT]T = [DECOUPLED]*[DAT]T
where [RESULT] = {FX,FY,FZ,MX,MY,MZ}. Force Unit: N. Moment Unit: Nm
[DECOUPLED] is the above decoupled matrix