

# Sunrise Instruments Calibration Report

Address: 2nd Floor Building B2 19#Keyuan Xishi Road Nanning Guangxi Province China 530007  
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Email: sri@srisensor.com



|                 |                   |                 |           |
|-----------------|-------------------|-----------------|-----------|
| Calibration No. | SRI-OR-H001483    | Cal Date        | 2025/10/9 |
| Model No.       | M2213H3           | Serial No.      | 35137     |
| Technician      | Wei Jing Xian     | Temp(C)/Hum.(%) | 24/70     |
| Customer        | 遨博 (江苏) 机器人有限公司   | Excitation(V)   | 5.0000    |
| Description     | TORQUE D96mm 80Nm | Cable Length    | 2m        |
| Comments        | SHCS M3:3N.m      |                 |           |

## 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> |
|---------------|-----------------|--------------------|---------------------|-------------------|--------------------------|--------------------|
|               | Nm              | mV/V               | %FS                 | %FS               | mV/V                     | mV/V/EU            |
| MZ            | -80             | -0.0267            | 0.03                | 0.08              | -1.2617                  | 1.5771E-02         |

## Wire Color Codes

| <u>FUNCTION</u> | <u>Mz</u> |
|-----------------|-----------|
| +EXC            | red       |
| +SIG            | green     |
| -EXC            | black     |
| -SIG            | brown     |
| Sensor ID       |           |
| ID Return       |           |

## 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 Standard   | SRI_2000N-1      | 30729             | 2026/6/11           |
| Traceable to the National Institute of Metrology China (NIMC) |                   |                  |                   |                     |

This calibration follows the calibration document SRILAB-BZ-001:2024 which defined in the Sunrise Instruments

The load cell calibration system consists of a 300KN load frame CMT5305 made by SANS Testing Machine Co., Golden reference load cell by Interface. Data acquisition system by National Instruments.

Calibrated by

Approved by

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## CROSSTALK

| <u>Bridge</u> | <u>Load</u> | <u>MZ</u> |
|---------------|-------------|-----------|
|               | N/Nm        | % FS      |
| FX            | -300        | 0.05      |
| FY            | 300         | 0.05      |
| FZ            | -150        | 0.11      |
| MX            | 13          | 0.06      |
| MY            | 13          | 0.04      |
| MZ            | -80         | 0.00      |

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

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