

3000 SERIES SUBSEA LINEAR ACTUATOR

General Specifications:

- Maximum Output Force: 700 lbf
- Maximum Continuous Output: 500 lbf at 2.0 in/s (24VDC or higher)
- Stroke Length: 2 inch to 10 inch available (4 inch model shown)
- Integrated Servo Control and Motor Driver
- Internal Pressure Compensator
- 9-pin micro wet-mate connector standard
- Communication physical layer options: RS-232, RS-485, CAN, Ethernet, analog voltage control, and analog current control

Operating Environment:

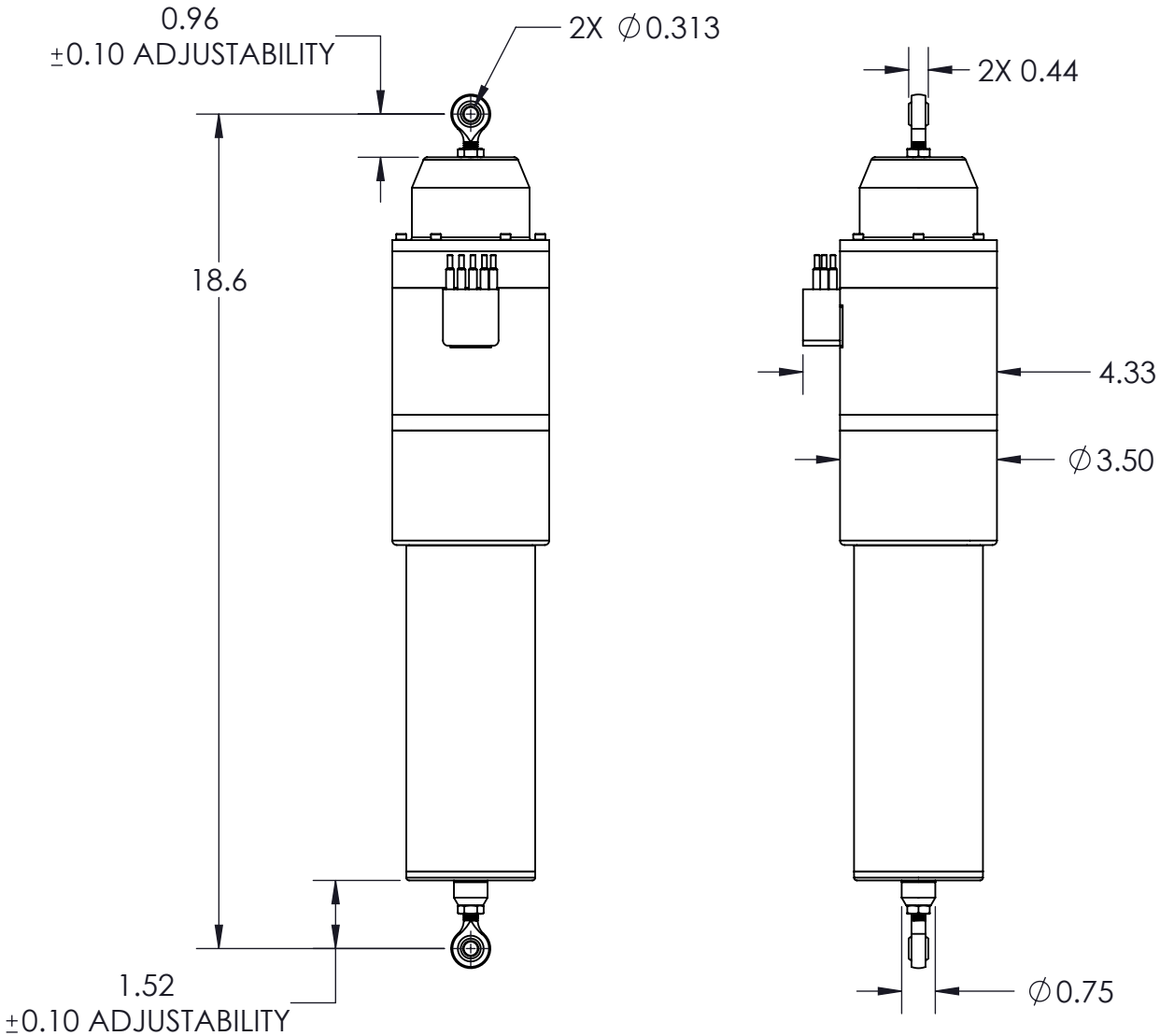
- Designed for mission-critical subsea use
- IP69K sealed housing
- Corrosion resistant housing material options
 - Stainless steel, passivated
 - Aluminum, hardcoat anodized†
 - Titanium
- Maximum Operational Pressure: 10,000 psi (>6000m depth)
- Operating Temperature Range: -20°C to 65°C
- Storage Temperature Range: -30°C to 85°C
- Standard operating voltage range: 12-55 Volts DC‡.

Onboard Motor Driver and Servo System:

- Closed-loop position control with PID tuning
- Configurable limits for current, power, velocity, and acceleration
- Configurable motion profile generator
- Contactless non-wearing absolute position sensor
- Does not require homing
- 0.010" Accuracy, 0.001" Resolution
- Standard Protocol: MODBUS
- Standard Baud Rate: 115200

†Units with aluminum housings utilize stainless steel hardware, including fasteners, rod ends, compensator spring, connector, and pushrod.

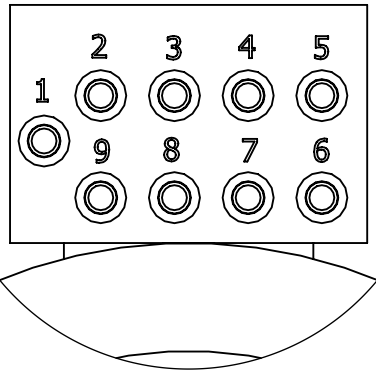
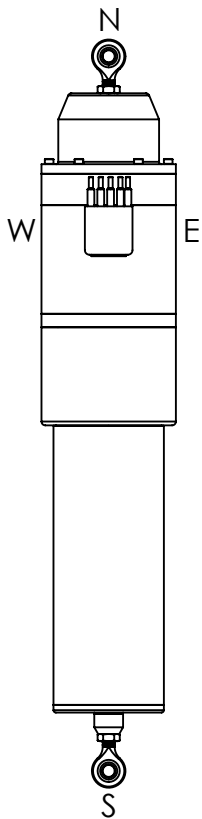
‡Voltages up to 400V available. May impact dimensions. Contact 2G for details.



MODEL SHOWN: 3000L-SS4CCN-9S01S (4 INCH STROKE)
CONTACT 2G FOR DIMENSIONS OF OTHER STROKE LENGTHS AND MOUNTING OPTIONS.

MATERIAL	UNLESS OTHERWISE SPECIFIED: - DIMENSIONS ARE IN INCHES - DIMENSIONS IN [] ARE IN mm - TOLERANCES: DECIMALS: .X ±.05 .XX ±.015 .XXX ±.005 ANGULAR: MACHINED: ±0.5° OTHER: ±2° - THREAD DEPTHS ON TAPPED HOLES ARE MINIMUMS - TAP DRILL DIAMETERS ARE REFERENCE - MAX FILLET RADIUS ON INSIDE SHARP CORNERS: 0.005 - BREAK ALL SHARP EDGES 0.010 MAX AND REMOVE BURRS - SURFACE FINISH: ≤63 Ra (µin)	INITIALS		DATE		 2G ENGINEERING WWW.2G-ENG.COM 608-825-4799
MATERIAL & FINISH COMMENTS:		DRAWN	DJF	08/24/2023		
		APPROVED	DJF	08/25/2023		
		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF 2G ENGINEERING. ANY DISTRIBUTION OR REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF 2G ENGINEERING IS PROHIBITED.				
		INTERPRET GEOMETRIC DIMENSIONING & TOLERANCING PER ASME Y14.5-2009				
TITLE: 3000 SERIES LINEAR ACTUATOR						
SIZE B		THIRD ANGLE PROJECTION 		DWG. NO. 3000L		REV B
SCALE: 1:4				WEIGHT:		SHEET 1 OF 2

SERIES		HOUSING MATERIAL		STROKE LENGTH		PUSHROD MOUNT		FIXED END MOUNT		CONNECTOR ORIENTATION		COMMUNICATION		VOLTAGE		SOFTWARE	
3000L	SUBSEA	SS	STAINLESS STEEL, PASSIVATED	2	2 INCH	B	Ø 1/4" ROD END	B	Ø 1/4" ROD END	N	TOWARD FIXED END	9S	RS-232 AND RS-485	01	12-55VDC OPERATIONAL RANGE	S	MODBUS/CANOPEN
		AL	ALUMINUM, BLACK HARDCOAT ANODIZED	4	4 INCH	C	Ø 5/16" ROD END	C	Ø 5/16" ROD END	S	TOWARD PUSHROD	9V	RS-232 AND 0-10V ANALOG VOLTAGE CONTROL			G	2G PACKETS/RAW CAN FRAMES
		TI	TITANIUM	6	6 INCH	D	Ø 3/8" ROD END	D	Ø 3/8" ROD END	E	90° CW FROM FIXED END	9A	RS-232 AND 4-20mA ANALOG CURRENT CONTROL				
				8	8 INCH	E	Ø 3/16" CLEVIS	E	NOSE MOUNT	W	270° CW FROM FIXED END	9K	RS-232 AND CAN				
				10	10 INCH	F	Ø 1/4" CLEVIS					9E	ETHERNET				



PIN	9S	9V	9A	9K	9E
1	VIN -	VIN -	VIN -	VIN -	VIN -
2	VIN -	VIN -	VIN -	VIN -	VIN -
3	VIN +	VIN +	VIN +	VIN +	VIN +
4	VIN +	VIN +	VIN +	VIN +	VIN +
5	COMMS GND	COMMS GND	COMMS GND	COMMS GND	COMMS GND
6	RS-232 TX	RS-232 TX	RS-232 TX	RS-232 TX	ETHERNET TX+
7	RS-232 RX	RS-232 RX	RS-232 RX	RS-232 RX	ETHERNET TX-
8	RS-485 -	0-10V ANALOG INPUT	4-20 mA ANALOG INPUT	CAN LO	ETHERNET RX+
9	RS-485 +	0-10V ANALOG OUTPUT	4-20mA ANALOG OUTPUT	CAN HI	ETHERNET RX-

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WWW.2G-ENG.COM

[Click here for user manual and communication protocol information.](#)

2G ENGINEERING CAN CUSTOMIZE ANY ACTUATOR TO SUIT YOUR APPLICATION.

EXAMPLES:

- EXTERNAL COMPENSATOR
- CUSTOM CONNECTOR
- CUSTOM PUSHROD AND END MOUNTS
- NON-COMPENSATED/INDUSTRIAL UNITS
- SELF-LOCKING ACME SCREW

MATERIAL

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.XX ±.015
.XXX ±.005
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SIZE
B

THIRD ANGLE PROJECTION

DWG. NO.
3000L

REV
B

SCALE: 1:5

WEIGHT:

SHEET 2 OF 2