3100 SERIES	
SUBSEA ROTARY ACTUATOR	

### **GENERAL SPECIFICATIONS:**

- OUTPUT TORQUE: UP TO 150 FT-LB PEAK(HT GEARING)
- OUTPUT SPEED: UP TO 150 RPM NO-LOAD (HS GEARING)
- INTEGRATED SERVO CONTROL AND MOTOR DRIVER
- INTERNAL PRESSURE COMPENSATOR
- OPTIONAL SPRING-ENGAGED, POWER-OFF BRAKE
- LED SHAFT POSITION INDICATOR RING
- STANDARD CONNECTOR: 9-PIN LOW-PROFILE WET-MATE CONNECTOR
- COMMUNICATION PHYSICAL LAYER OPTIONS: RS-232, RS-485, CAN, ETHERNET, ANALOG VOLTAGE CONTROL, AND ANALOG CURRENT CONTROL

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- MAXIMUM RADIAL LOAD:
  - 200 LB WITH SHAFT CANTILEVERED, LOAD APPLIED AT END
  - 2000 LB WITH SHAFT SUPPORTED AT END
- OUTPUT SHAFT AXIAL LOAD: 350 LBF MAX
- AVAILABLE RIGHT-ANGLE GEARBOX. CONTACT 2G FOR DETAILS.

## **OPERATING ENVIRONMENT:**

- DESIGNED FOR MISSION-CRITICAL SUBSEA USE
- PRESSURE-BALANCED OIL-FILLED HOUSING
- CORROSION RESISTANT HOUSING MATERIAL OPTIONS
  - STAINLESS STEEL, PASSIVATED
  - ALUMINUM, HARDCOAT ANODIZED
  - TITANIUM
- OPERATIONAL DEPTH RATING: >6000 METERS SEAWATER
- DESIGN PRESSURE: 10,000 psi
- OPERATING TEMPERATURE RANGE: -20°C TO 65°C
- STORAGE TEMPERATURE RANGE: -30°C TO 85°C
- OPERATING VOLTAGE:
  - 24 VDC STANDARD (12-55 VDC RANGE)
  - UP TO 400V AVAILABLE. CONTACT 2G.<sup>[2</sup>

# **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
- 0.002° RESOLUTION, 0.2° PRECISION, 1° ACCURACY
- COMMS PROTOCOL: MODBUS & 2G PACKETS
- DEFAULT BAUD RATE: 115200

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2G ENGINEERING CAN CUSTOMIZE ANY ACTUATOR TO SUIT YOUR APPLICATION.
CERTAIN OPTIONS MAY IMPACT DIMENSIONS, PERFORMANCE, AND LEAD TIME.
CONTACT 2G TO CONFIRM SPECIFICATIONS FOR YOUR APPLICATION.

 BRAKE OPTION ADDS LENGTH. CONTACT 2G FOR DIMENSIONS.
DIMENSIONS & PERFORMANCE OF HIGH-VOLTAGE UNITS MAY DIFFER FROM STANDARD 24V UNITS. CONTACT 2G FOR DETAILS.

LED SHAFT POSITION INDICATOR	
MOUNTING FLAN COMPATIBLE WIT ISO 5210/5211 - F	TH FO7 SIZE
	INTEGRATED PRESSURE COMPENSATOR

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MATERIAL:	UNLESS OTHERWISE SPECIFIED: - DIMENSIONS ARE IN INCHES - DIMENSIONS IN [] ARE IN mm - TOL FRANCES:	DRAWN	INITIALS DJF	DATE 09/01/2021	{	
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	- TAP DRILL DIAMETERS ARE REFERENCI - MAX FILLET RADIUS ON INSIDE SHARP CORNERS: 0.005 - BRFAK AII SHARP EDGES 0.010 MAX		D ANGLE		DWG.	
	AND REMOVE BURRS - SURFACE FINISH: ≤63 Ra (µin)	INTERPRET G & TOLERAN	SC			
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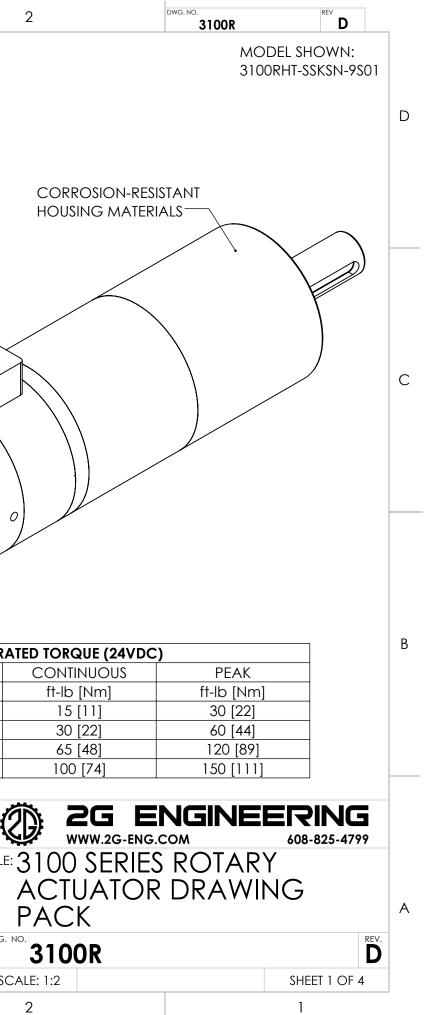
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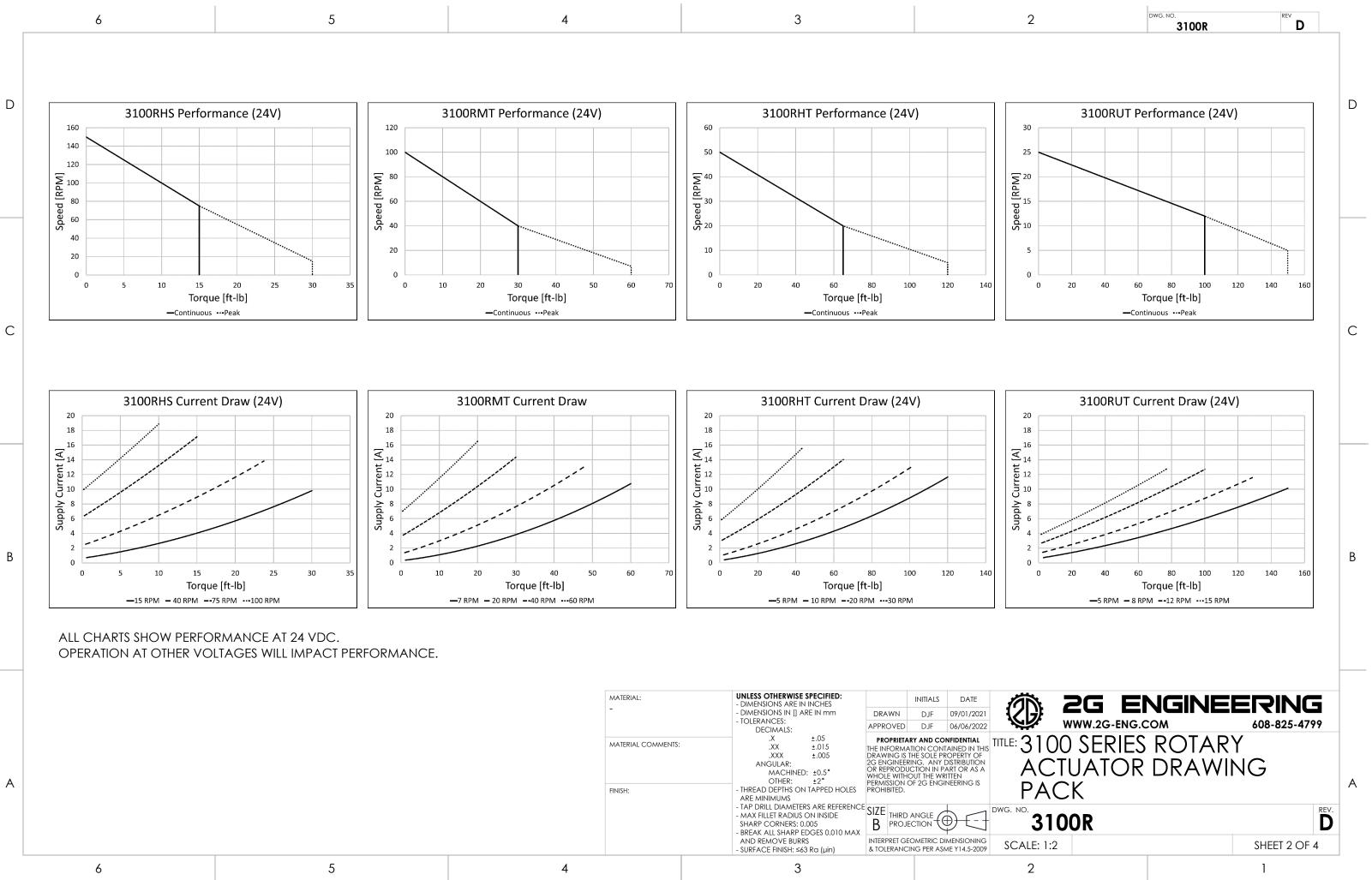
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							$\mathbf{i}$				7	RS-232 RX		R	S-232 RX	F	S-232 RX	RS-232 RX	ETHERNET TX-
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		3100R	SUBSEA	HS	HIGH SPEED		SS STA	INLESS STEEL	KS	25MM DIAMETE 65MM LONG KEYED		N UP		95	RS-232 AND RS	5-485 <b>01</b>	12-55VDC OPE RANG		
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3100R	SUBSEA	HS	HIGH SPEED		SS	STAINLESS STEEL	KS	25MM DIAMETER, 65MM LONG, KEYED	N	UP		95	RS-232 AND RS-485	01	12-55		
		мт	MID TORQUE		AL ANODIZED ALUMINUM				S	DOWN		9V	RS-232 AND 0-10V ANALOG VOLTAGE CONTROL				
		HT	HIGH TORQUE	-	TI	TITANIUM	CUSTOM SHAFTS AVAILABLE.		CUSTOM SHAFTS		Е	RIGHT	-	9A	RS-232 AND 4-20mA ANALOG CURRENT CONTROL	   vo	OLTAGE
		UT	ULTRA HIGH TORQUE						w	LEFT		9K	rs-232 and can				
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CUSTOM OPTIONS AVAILABLE. CONTACT 2G FOR APPLICATION ENGINEERING ASSISTANCE.

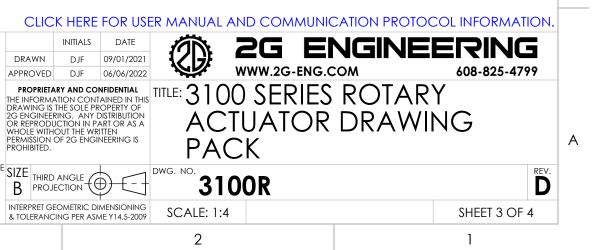
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#### GES AS HIGH AS 400V AVAILABLE.

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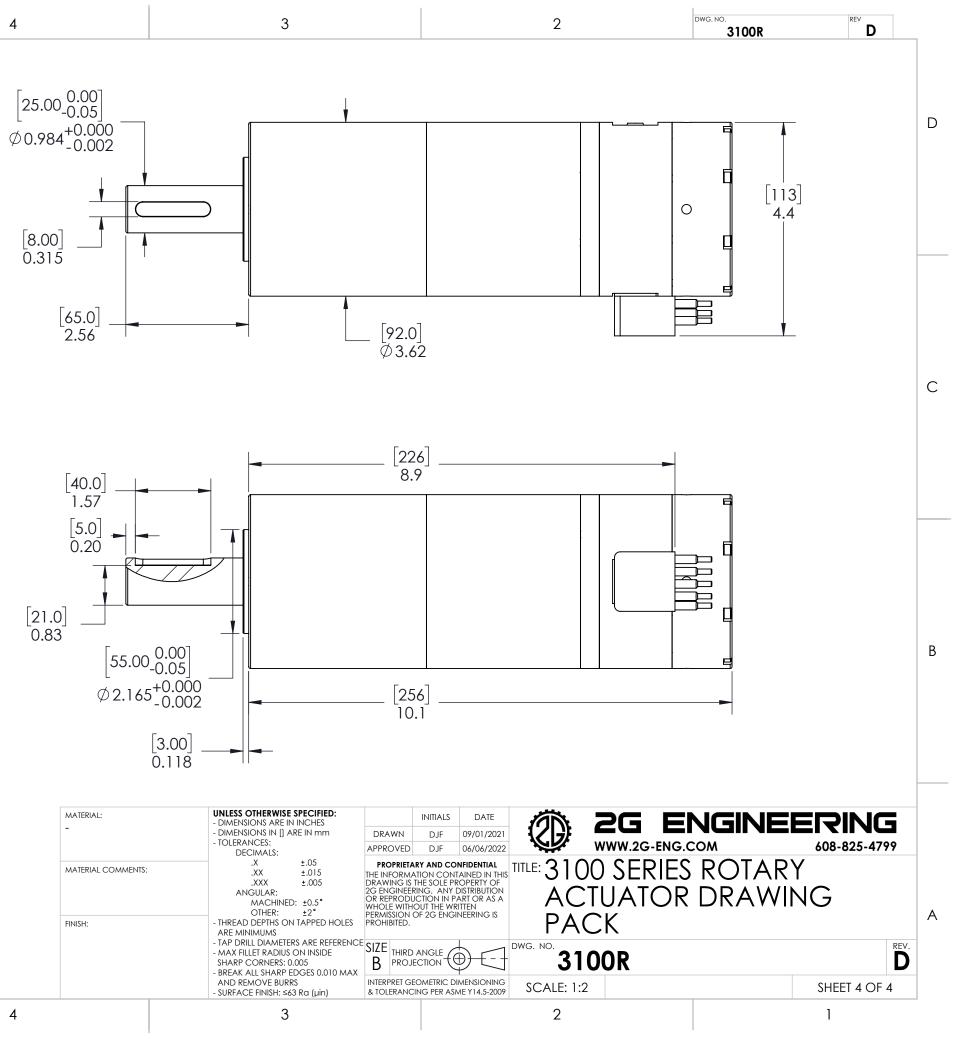
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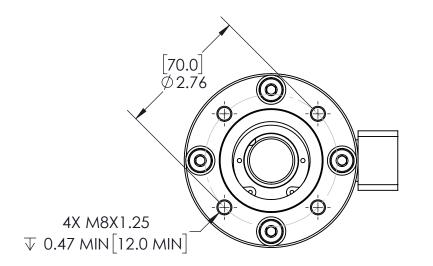
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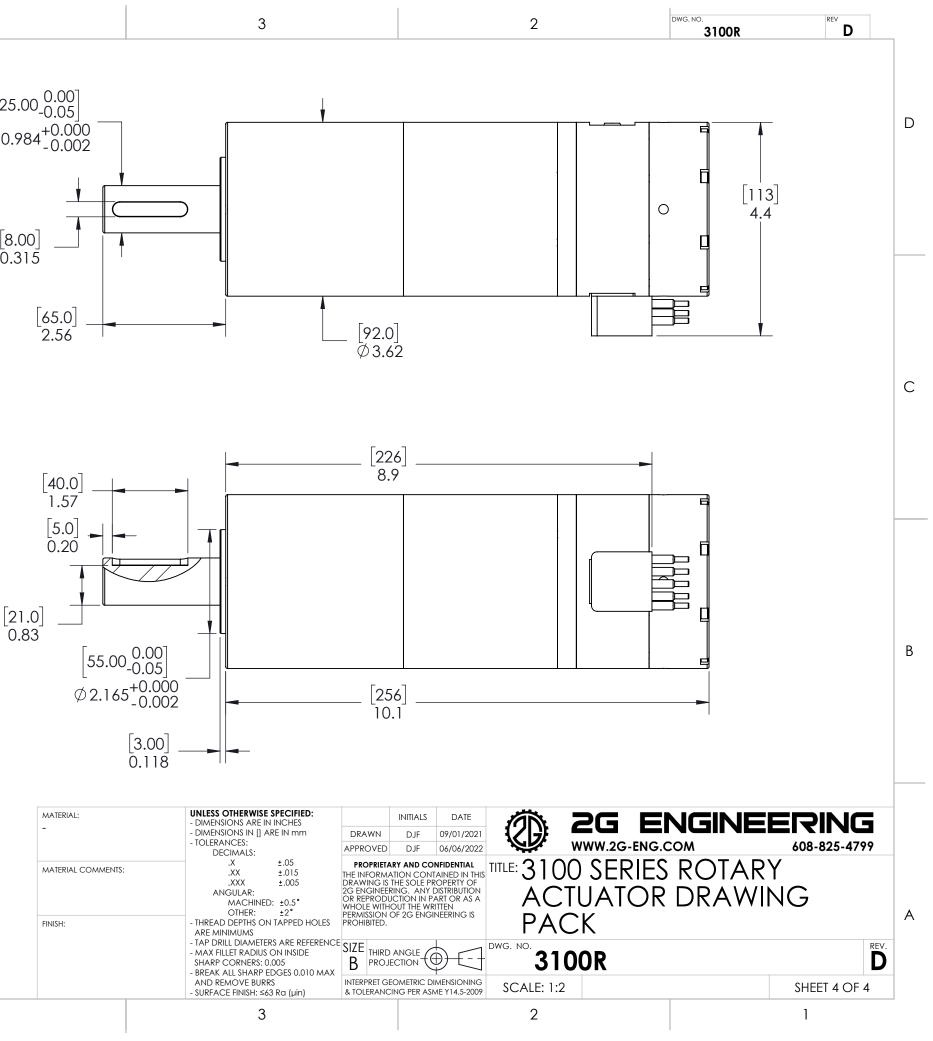
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APPROXIMATE WEIGHTS	STAINLESS	ALUMINUM	TITANIUM
DRY/SURFACE	21 lbs 9.5 kg	14 lbs 6.4 kg	16 lbs 7.3 kg
WET/SUBMERGED	17 lbs 7.7 kg	10 lbs 4.5 kg	12 lbs 5.4 kg







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	- SURFACE FINISH: ≤63 Rα (µin)	& TOLERA	NCING PER AS	ME Y14.5-2009	50

MODEL SHOWN: 3100RHT-SSKSN-9S01 CERTAIN OPTIONS MAY IMPACT DIMENSIONS. CONTACT 2G FOR COMPLETE DIMENSIONS AND 3D MODELS.

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