

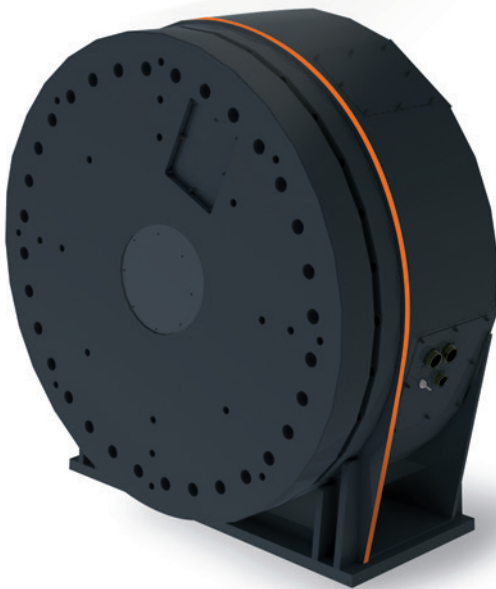
# Polarization Positioners - Heavy Duty

AL-2860-1P • AL-2861-1P

The MVG-Orbit/FR Legacy Series Polarization Positioners provide accurate, balanced rotation, and controllable velocity for the positioning of very large devices in test configurations. Their rugged yet straight-forward construction ensures maximum reliability and trouble-free operation, yielding the best size and weight/performance ratio.

Typically, the unit includes the body, precise slew bearings, a DC motor, gear reducer, encoder/synchro, and limit switch assemblies. The turntable surface is designed with a threaded mounting hole pattern for ease of use. A Safe/Operate switch is included to ensure safety.

AL-2860-1P





## Applications

- General Purpose Positioning Subsystems
- Far-Field & Near-Field Antenna Measurements
- Indoor & Outdoor Use

## Product Highlights

- Operating Loads up to 33,000 lbs (14,970 kg)
- Turntable Diameters up to 48.0 in (1,219 mm)
- Excellent Angular Position Accuracy
- Low Backlash Design
- Precision Bearings
- Closed Loop Servo Control
- Industry-Standard Wiring
- Tachometers for Optimum Speed Regulation & Control
- Wide Operating Temperature Range: - 4° F to 140° F (- 20° C to 60° C)
- Fully Enclosed Design of Drive Gear Train & Data Take-Off
- Wide Variety of Available Options

## Specifications - Legacy Series Heavy Duty Polarization Positioners

PARAMETER	UNITS	POSITIONER MODEL	
			
		<b>AL-2860-1P</b>	<b>AL-2861-1P</b>
Dimensional Drawing Number	DCD	18-6912	18-6912

### OPERATIONAL

Bending Moment	ft-lbs	32,000	40,000
	kg-m	4,420	5,530
Operating Load	lbs	26,400	33,000
	kg	11,980	14,970
Delivered Torque	ft-lbs	6,000	18,000
	kg-m	830	2,490
Withstand Torque	ft-lbs	25,000	25,000
	kg-m	3,460	3,460
Drive Power	hp	3/4	5
Nominal Speed	rpm	0.2	0.4
Standard Angle Transducer Format		Absolute Encoder	Absolute Encoder
Standard Accuracy	deg	± 0.02	± 0.02
Maximum Backlash	deg	0.04	0.04

### PHYSICAL

Height	in	53	53
	mm	1,350	1,350
Weight	lbs	3,080	3,080
	kg	1,397	1,397
Turntable Diameter	in	48.0	48.0
	mm	1,219	1,219

### ENVIRONMENTAL

Operating Temperature	- 4° F to 140° F (- 20° C to 60° C)
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PARAMETER	UNITS	POSITIONER MODEL
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AL-2861-1P

### OPTIONS

EN001	Incremental Encoder		Opt	Opt
	Accuracy	deg	± 0.02	± 0.02
EN002	Direct Incremental Encoder (High Accuracy)		Opt	Opt
	Accuracy	deg	± 0.005	± 0.005
EN003	Direct Absolute Encoder (High Accuracy)		Opt	Opt
	Accuracy	deg	± 0.005	± 0.005
SR	Slip Ring <sup>3</sup>		SR051L SR101L SR201L SR301L SR402L SR502L	SR051L SR101L SR201L SR301L SR402L SR502L
RJ	Rotary Joint <sup>3</sup>		RJ12L RJ18L RJ26L RJ40L RJ50L	RJ12L RJ18L RJ26L RJ40L RJ50L
TH	Central Thru-Hole Inner Diameter		TH002-HD TH003-HD	TH002-HD TH003-HD
		in	8	8
		mm	203	203
EX	Internal Harnessing		EX002	EX002
CF	Connector Format		CF001 CF002	CF001 CF002
LS	Leveling Screw (set)		–	–
MM	Mounting Thread		MM002 MM003	MM002 MM003

(-) N/A    Opt Optional

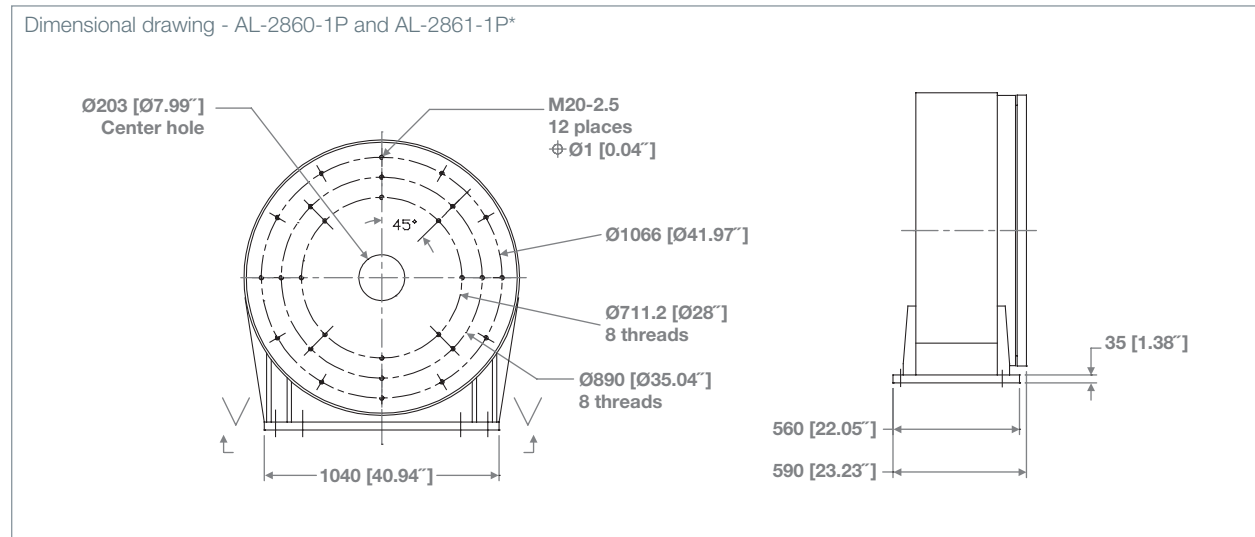
## Supplied Accessories

### Digital Documentation Set

User Manual (Installation, Setup, Operation & Maintenance)

### Technical Notes

- 1** All accuracy data is based on no-load conditions.  
Contact MVG-ORBIT/FR for accuracy under load conditions
- 2** All models are equipped with adjustable limit switches capable of approx 20° to 900° total travel. When rotary joint and slip ring options are specified, limit switches remain but are electrically disabled.  
Single-axis positioners are factory-set at:
- Polarization Axis: 400° (± 200°)
- 3** Slip Ring & Rotary Joint Option:
- Certain slip ring options may require an extension cap that protrudes above the turntable surface. Positioner height may increase. Consult MVG-ORBIT/FR
  - Slip ring contacts are provided with dedicated connectors
  - When rotary joint and/or slip ring options are specified, no central thru-hole is available to the user. Option TH002-HD and TH003-HD are available in lieu of rotary joint and/or slip ring options



\* Example drawing for general reference, please consult MVG-Orbit/FR for ICD.



Contact your local sales representative for more information

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[www.mvg-world.com/positioners](http://www.mvg-world.com/positioners)