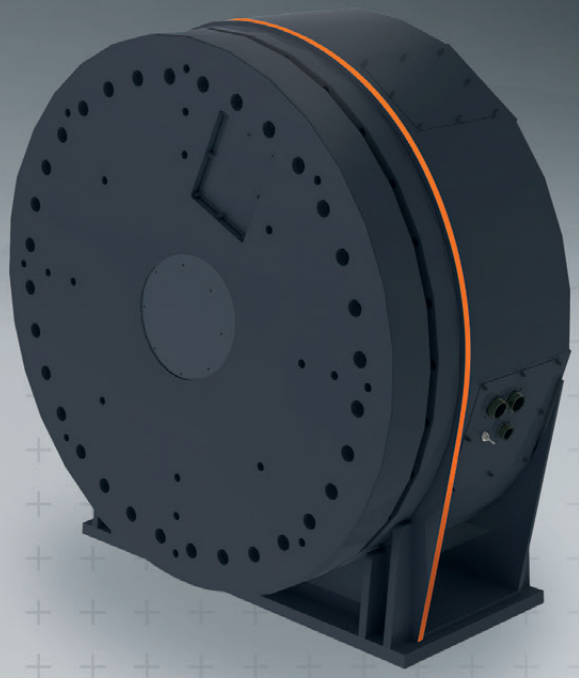
LEGACY SERIES POL

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.

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	
		 AL-2860-1P	 AL-2861-1P
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)		

PARAMETER		UNITS	POSITIONER MODEL	
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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[3]**		SR051L SR101L SR201L SR301L SR402L SR502L	SR051L SR101L SR201L SR301L SR402L SR502L
RJ	**Rotary joint[3]**		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)

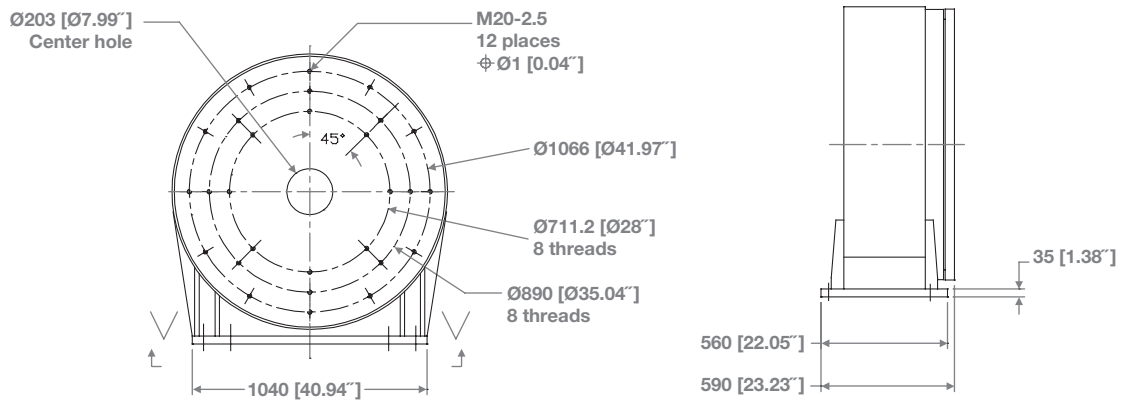
Technical Notes

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

Dimensional drawing - AL-2860-1P and AL-2861-1P*



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