

GURLEY LP20 SERIES MODULAR INCREMENTAL ENCODERS

MOTION TYPE:

ROTARY

USAGE GRADE:

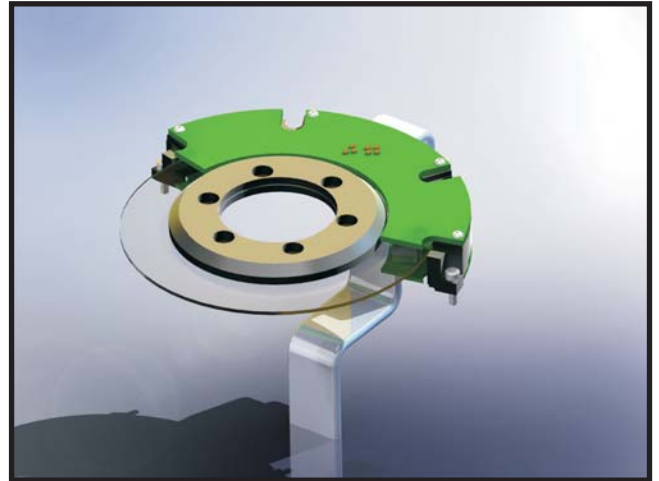
MEDICAL/NON-MIL LOW DOSE
RADIATION APPLICATIONS

OUTPUT:

INCREMENTAL

MAX RESOLUTION:

DISC DEPENDENT



HIGH PERFORMANCE / LOW PROFILE

The Gurley **LP20** series modular encoders represent a versatile range of rotary incremental encoders. Its modular construction provides friction-free operation and the wide selection of disc sizes affords the design engineer great flexibility.

Features/benefits include:

- low profile read head design provides high performance where space is limited
- vacuum compatibility for semiconductor and aerospace applications
- data (A-quadr-B), index and commutation tracks available
- minimal adjustment required by customer during installation
- radiation tolerant version optional (call factory for more information)

There are presently two standard systems available, each with A-quadr-B, index and two commutations tracks (shown with redundant reads heads; single head versions available)

- 80mm OD x 30mm ID with 2,048 lines or 8,192 counts after quadrature
- 158mm OD x 103mm ID with 8,192 lines or 32,768 counts after quadrature

ISO 9001
CERTIFIED

Gurley Precision Instruments
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ingenuity[®]@work

SPECIFICATIONS

Electrical	
Input Power	V_{CC} : +5VDC 0.25 VDC@ 10 mA I_{LED} : +50mA max
Light Source	Screened and derated infra-red LED
Output Signals	TTL/CMOS compatible Sine, Cosine, full-cycle ungated index pulse and motor commutation signals
Mechanical	
Materials Encoder Body Disk	Aluminum or stainless steel Vacuum-deposited chrome pattern on glass
Weight Read Head Disc/Hub	Depends on final optical diameter/size and hub material
Performance	
Frequency Response	dependent on both the line count and speed, call factory
Quadrature Error	$\pm 30^\circ$ typical (depends on user's installation)
Disc Accuracy Dia $\leq 3"$ Dia $> 3"$	± 10 arcs ± 5 arcs
Environmental	
Operating Temp. Non-Operating Temp. Shock	+5°C to +25°C -40°C to +70°C 20g RMS, 60G peak

As part of our continuing product improvement program, all specifications are subject to change without notice.



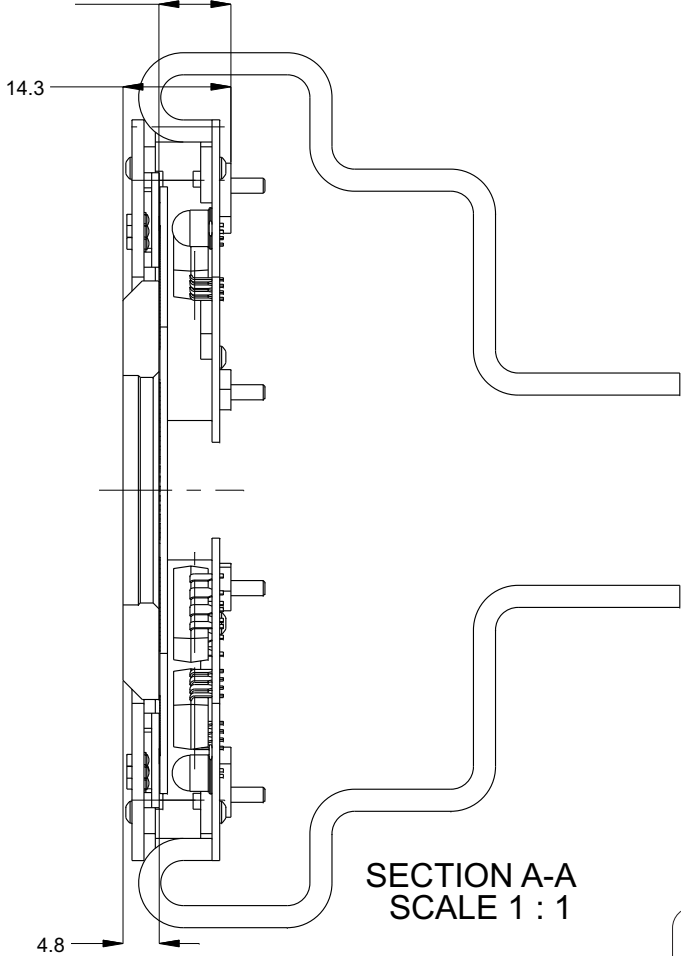
STANDARD DISC/HUB OPTIONS

Gurley offers two disc hubs as catalog items. We can also mount discs to customer-furnished hubs or provide hubs designed for your specific application. We strongly suggest that you consult with us regarding the proper design of the disc/hub assembly and mounting of the Read Head.

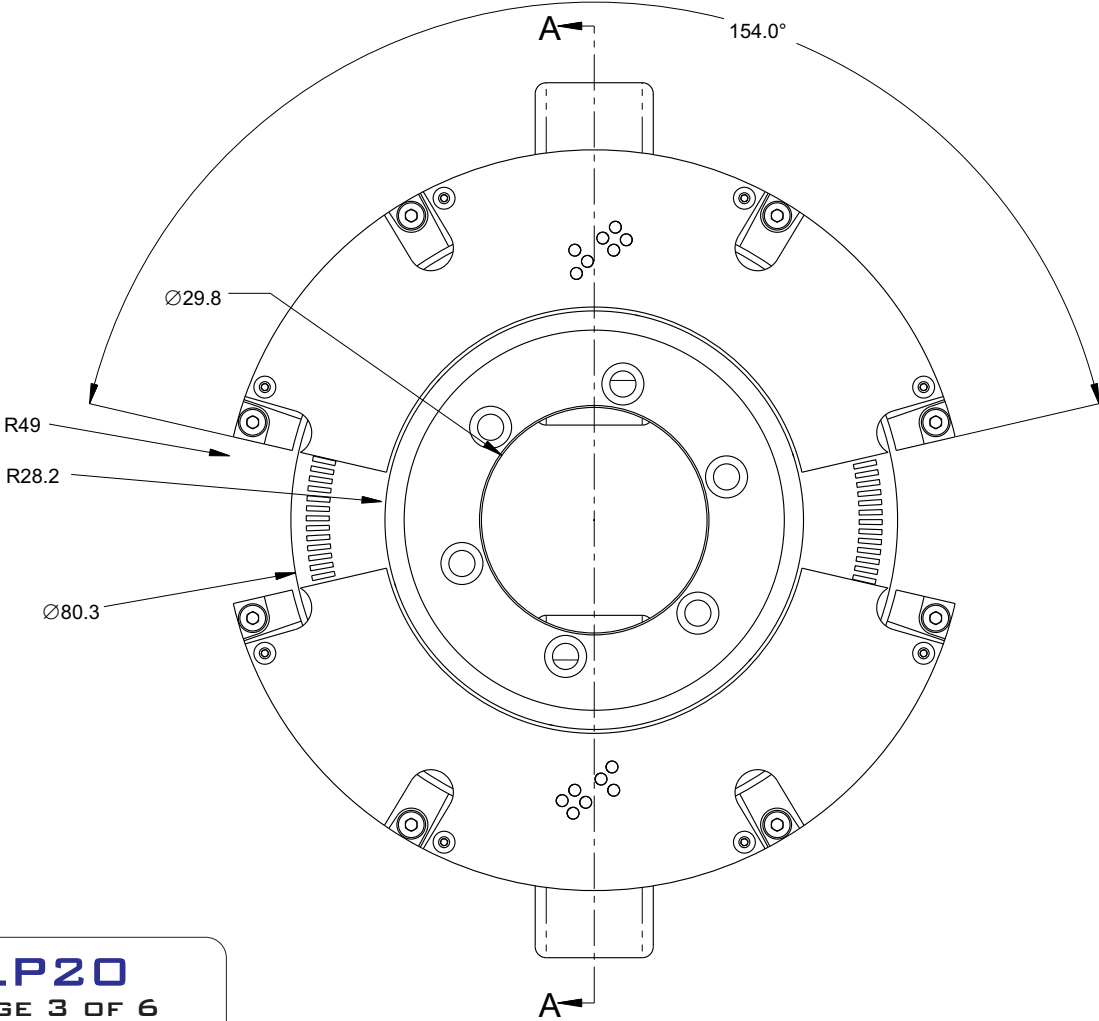
All dimensions are in mm.

Consult factory for other line counts or sizes.

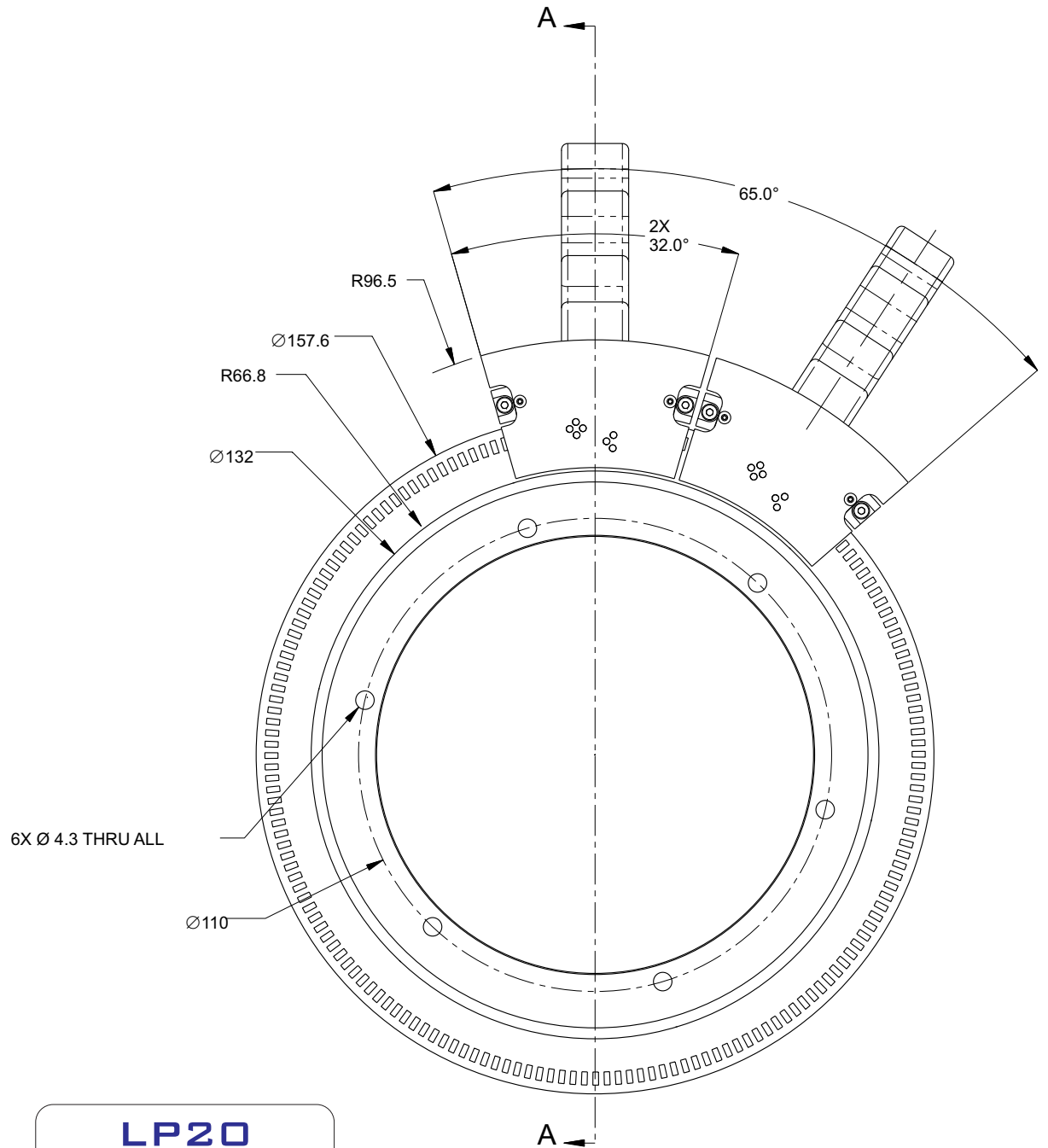
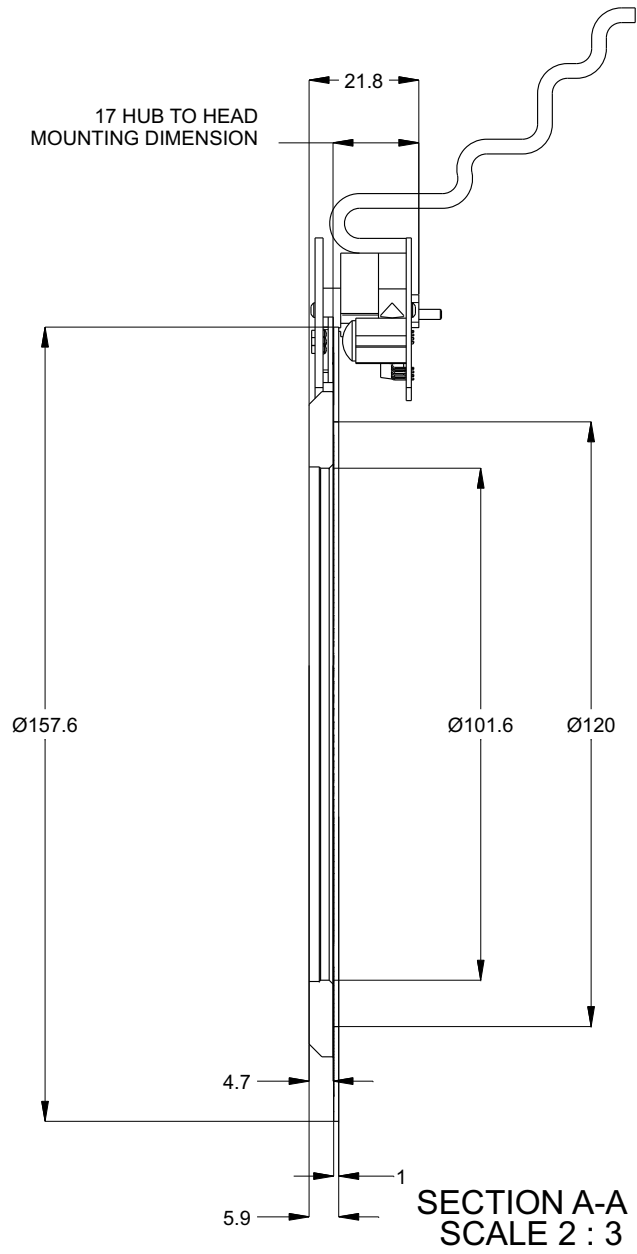
9.5 HUB TO BASE
MOUNTING SURFACE



SECTION A-A
SCALE 1 : 1



DRAWINGS



ORDERING INFORMATION

READ HEAD

	MDL	OUT	RES	TYPE	CABLE	CONN	DIA	SF
MDL	LP20							
OUT	T							
RES*	#####							
TYPE	R							
CABLE	###							
CONN	P							
DIA	####							
SF	#							
	N							

* Standard Linecounts: **02048 on 80mm OD and 08192 on 158mm OD**
Consult factory for other line counts

DISC/HUB

	DH	RES	DIA	IND	MATL	COMM	ID	SF
RES*	#####							
DIA	####							
IND	S							
MATL	G							
COMM	#							
ID (hub)	###M							
	030M							
	102M							
SF	#							
	N							

* Standard Linecounts: **02048 on 80mm OD and 08192 on 158mm OD.**
Consult factory for other line counts

SPECIAL CAPABILITIES

For special situations, we can optimize encoders to provide higher frequency response, greater accuracy, wider temperature range, reduced torque, non-standard line counts, or other modified characteristics. In addition, we regularly design and manufacture custom encoders for user-specific requirements. These range from high-volume, low-cost, limited-performance commercial applications to encoders for high-performance, high-reliability conditions. We welcome the opportunity to help you with your special encoder needs.

WARRANTY

Gurley Precision Instruments offers a limited warranty against defects in material and workmanship for a period of one year from the date of shipment.

