RAY-MOTION
dedicated to motion
www.ray-motion.com

Neutron 14D/20D/30D

Digital Encoder



Neutron Series

The combination of high-precision digital encoder and digital drive technology makes the Neutron series have higher resolution and higher linearity, lower jitter, lower zero and gain drift characteristics.It is especially suitable for applications where position accuracy is very demanding, such as high-precision welding, cutting, etching and other fields.

凌腾系列

高精度数字编码器与数字驱动技术相结合使凌腾系列具有更高的分辨率，更高的线性度，更低的抖动，更低的零点和增益漂移特性。特别适合应用在某些对位置精度要求非常苛刻的场合，例如高精度的焊接、切割、蚀刻等领域。

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Neutron Specifications
凌腾 规格参数

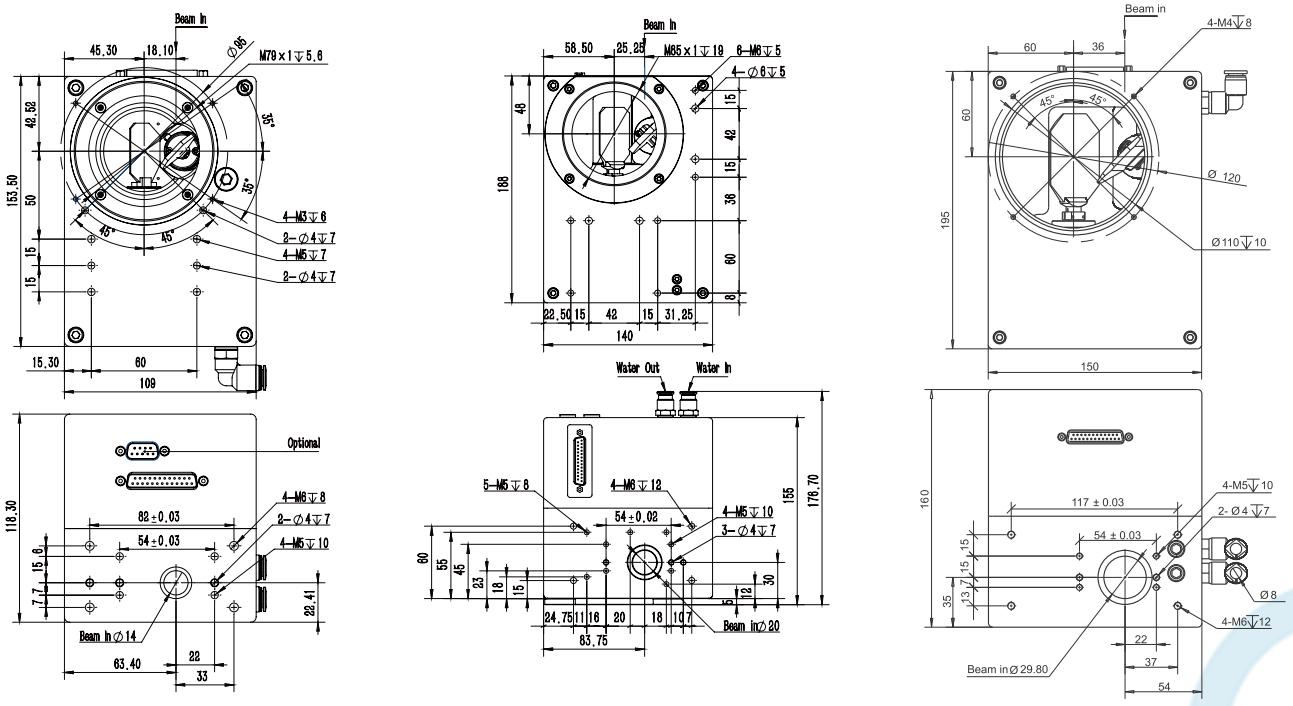
所有角度均为光学角 /All angles are in optical degrees

	Neutron14D	Neutron20D	Neutron30D
输入光束孔径 Aperture	14mm	20mm	30mm
光束偏移 Beam displacement	18. 1mm	25. 25mm	36mm
追踪时间 Tracking error time	200us	350us	650us (4)
最大激光功率 Max laser power	500W	1000W 2000W (3)	2500W 5000W (3)
零点漂移 Offset drift			＜15urad/K
增益漂移 Gain drift			＜8ppm/K
可重复性 Repeatability			＜2urad
长期漂移 Long-term drift(After 60min warm-up)			
Offset drift			＜50urad
Gain drift			＜50ppm
线性度 Linearity			99. 9%

阶跃响应时间 /Step response time	Neutron14D	Neutron20D	Neutron30D
1% 全范围响应时间 1% of full scale	0. 6ms	0. 75ms	1. 7ms
10% 全范围响应时间 10% of full scale	1. 1ms	2ms	6ms
标记速度 Marking speed(1)	2m/s	1m/s	0. 7m/s
定位速度 Positioning speed	12m/s	6m/s	2m/s
书写速度 Writting speed(High quality)(2)	350cps	200cps	-
标准扫描角度 Typical scan angle			40 degrees
接口协议 Interface (optional)			XY2-100/RL2-100 (5)
工作环境温度 Operating temperature			25±10°C
额定电源容量 Power requirements			±15V DC, 150W . RMS max 3A
驱动方式 Driver mode			Digital
位置分辨率 Resolution(optional)			16/18Bit

1. with F-Theta objective,f=160mm
2. Single-stroke characters of 1mm height
3. The mirror of 1064nm can stand max laser power,with air cooling.
4. Maybe changed based on the mirror size
5. The instruction sending channel is compatible with SL2-100 protocol

上述资料如有更改，将不作另行通知 The above information is subject to change without notice 12/2024



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