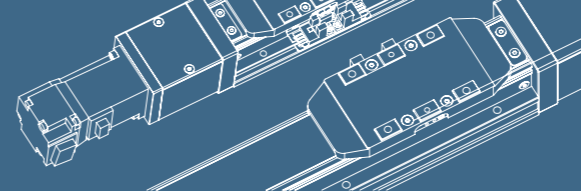


GTH8 单轴 / 1-axis

▶ 轨道内嵌
Integrated Linear Bearing
一般环境使用

▶ 螺杆驱动
Ball Screw Drive



2023 综合目录 **BTR**

免费服务热线: 0769-88189802

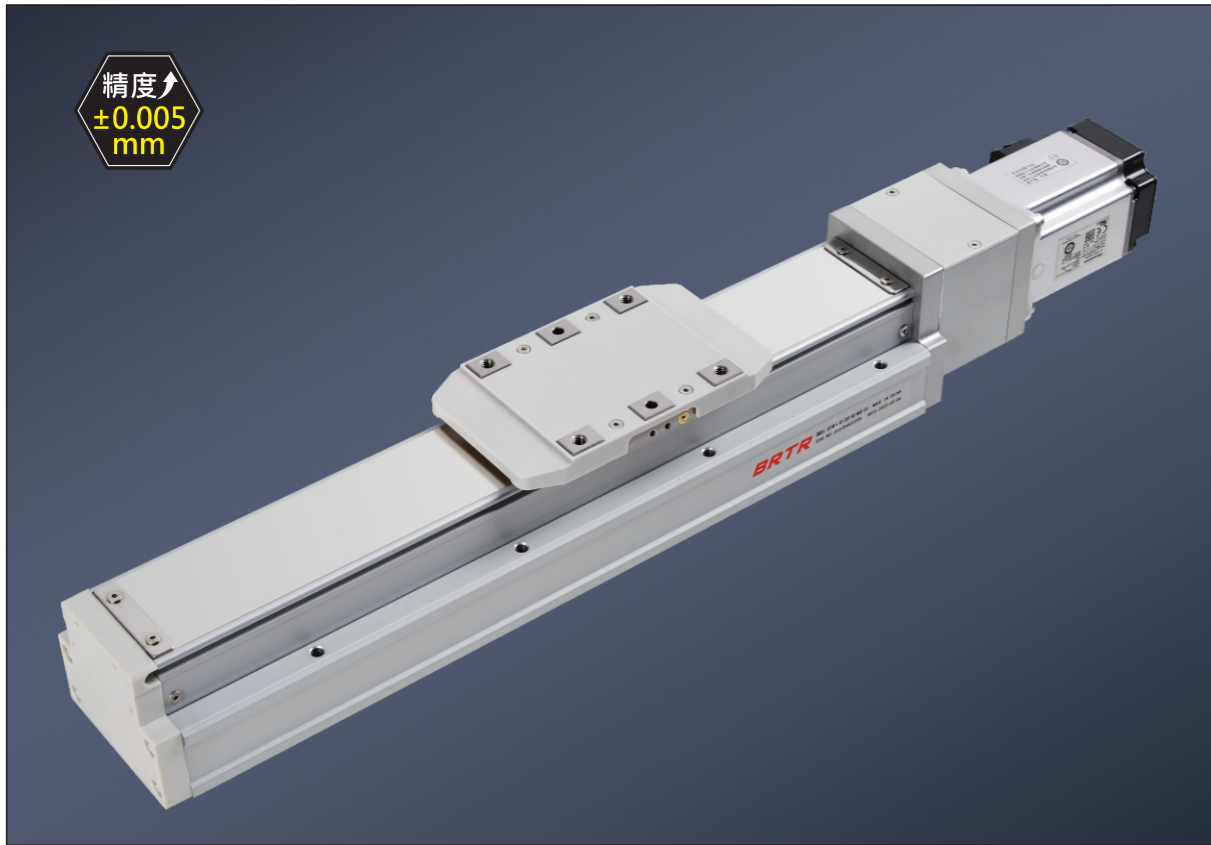
应用列

一般/螺杆式样
GTH series

无尘/螺杆式样
GCH

直交连接
XYGT

参考资料
Reference



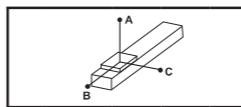
精度
±0.005 mm

基本式样 Specification

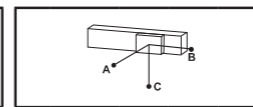
| 性能 | 螺杆等级代号 | L | | | C | | |
|--------|-----------------|-----------------------------------|---------|------|----------------------------------|----|--|
| | 螺杆等级 | C7 转造 C7 Rolled Ballscrew | | | C5 研磨 C5 Ground Ballscrew | | |
| | 位置重复精度 | ± 0.01 | | | ±0.005 | | |
| | 标准行程 | 50-1250mm / 50 间隔 (50 increments) | | | 50-700mm / 50 间隔 (50 increments) | | |
| 性能 | 螺杆导程 | mm | 5 | 10 | 20 | | |
| | 最高转速 | rpm | 3600 | 3600 | 3600 | | |
| | 最高速度 | mm/s | 300 | 600 | 1200 | | |
| | Maximum Payload | Horizontal | kg | 50 | 30 | 18 | |
| | | Vertical | kg | 15 | 8 | 3 | |
| | 定格推力 | N | 1388 | 694 | 347 | | |
| | 最大加速度 | G | 0.3 | 0.3 | 0.6 | | |
| | 滚珠螺杆 | 基本动额定负荷 | N | — | — | — | |
| | | 基本静额定负荷 | N | — | — | — | |
| | 直线滑轨 | 动态水平负载 | N | — | | | |
| 静态水平负载 | | N | — | | | | |
| 固定侧轴承 | 基本静额定负荷 | N | — | | | | |
| | 静态容许负荷 | N | — | | | | |
| 部品 | AC伺服马达容量 | W | 400 | | | | |
| | 滚珠螺杆外径 | mm | Ø16 | | | | |
| | 联轴器 | mm | 10X14 | | | | |
| | 原点感应器 | 外挂 | Outside | | | | |

※1 马达加速/减速设定0.2秒。Acceleration and deceleration value is set 0.2 second.
※2 长行程时，会产生螺杆偏摆，需将速度调降。(线速度请参阅尺寸图下方表格)
During a long stroke, it causes ballscrew deflection, the speed must reduce. (Please refer to the linear velocity from the data sheet below the dimension graph.)

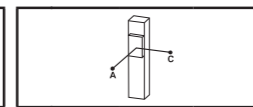
容许负载力距表 Allowable Overhang



(单位 Unit: mm)

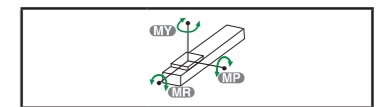


(单位 Unit: mm)



(单位 Unit: mm)

静额定扭矩 Static Loading Moment



(单位 Unit: N·m)

| 水平安装 | A | B | C |
|------------|------|------|---------|
| 导程 5 Lead | 20kg | 1275 | 127 197 |
| | 30kg | 725 | 72 112 |
| | 50kg | 380 | 38 58 |
| 导程 10 Lead | 10kg | 1269 | 246 345 |
| | 20kg | 588 | 104 148 |
| | 30kg | 352 | 58 82 |
| 导程 20 Lead | 5kg | 988 | 380 440 |
| | 10kg | 471 | 174 204 |
| | 18kg | 248 | 88 104 |

| 壁挂安装 | A | B | C |
|------------|------|-----|----------|
| 导程 5 Lead | 20kg | 197 | 127 1275 |
| | 30kg | 112 | 72 725 |
| | 50kg | 58 | 38 380 |
| 导程 10 Lead | 10kg | 345 | 246 1269 |
| | 20kg | 148 | 104 588 |
| | 30kg | 82 | 58 352 |
| 导程 20 Lead | 5kg | 440 | 380 988 |
| | 10kg | 204 | 174 471 |
| | 18kg | 104 | 88 248 |

| 垂直安装 | A | C |
|------------|-------|---------|
| 导程 5 Lead | 5kg | 647 647 |
| | 10kg | 323 323 |
| | 15kg | 215 215 |
| 导程 10 Lead | 3kg | 937 937 |
| | 5kg | 561 561 |
| | 8kg | 351 351 |
| 导程 20 Lead | 2kg | 990 990 |
| | 2.5kg | 792 792 |
| | 3kg | 660 660 |

| MY | 318 |
|----|-----|
| MP | 318 |
| MR | 626 |

*力矩表所表示的数据，代表荷重的重心位置单一方向容许悬出的长度。
The data represented by the moment table is the center of gravity of the load. The length of the overhang is allowed in a single direction.
*符合型录规范的正常使用时，保证寿命为10000公里。
Operation life is 10,000km when the product is using under the specified conditions.
*倒吊使用无法套用标准规范，如有需求请咨询我司业务。
Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

搭配伺服马达一览表 Suitable Motor Brand

| 厂牌 Brand | 马达记号 Mark | 刹车有无 Brake | 马达容易 Watt | 电源电压 AC-Voltage | 伺服马达型号 Motor Model | 驱动器型号 Driver Model |
|---------------|-----------|--|-----------|-----------------|--------------------|--------------------|
| 三菱 Mitsubishi | M | 无刹车 (水平式样) No Brake (Horizontal Type) | 400 | 220 | HG-KR43 | MR-J4-40A |
| | | 有刹车 (垂直式样) With Brake (Vertical Type) | 400 | 220 | HG-KR43B | MR-J4-40A |
| 松下 Panasonic | P | 无刹车 (水平式样) No Brake (Horizontal Type) | 400 | 220 | MHMD042G1U | MBDHT2510 |
| | | 有刹车 (垂直式样) With Brake (Vertical Type) | 400 | 220 | MHMD042G1V | MBDHT2510 |
| 台达 Delta | T | 无刹车 (水平式样) No Brake (Horizontal Type) | 400 | 220 | ECMA-C20604ES | ASD-B20421-B |
| | | 有刹车 (垂直式样) With Brake (Vertical Type) | 400 | 220 | ECMA-C20604FS | ASD-B20421-B |

型号表示方式 Ordering Method

GTH8 - L 5 - 100 - BC - M40B - C 4 - 0001

本体型号 Model

行程 Stroke
 转造级 Rolled Ballscrews
 50-1250mm
 研磨级 Ground Ballscrews
 50-700mm
 *间隔50 Pitch 50 mm

马达位置 Motor Position
 BC 马达外露 Motor Exposed
 BM 马达下折 Motor Bottom Side
 BR 马达左折 Motor Right Side
 BL 马达右折 Motor Left Side

螺杆菌等级 Ball Screw Accuracy Grade
 L 转造级 Rolled Ballscrews
 C 研磨级 Ground Ballscrews

螺杆菌导程 Ball Screw Lead
 5 5mm
 10 10mm
 20 20mm

螺杆菌厂牌、功率 Motor Brand · Power Output
 M 三菱 Mitsubishi 05 - B
 P 松下 Panasonic 10 -
 Y 安川 Yaskawa 20 -
 T 台达 Delta 40 400W

原点感应器 Home Sensor
 外挂型 Outside
 C 马达侧 Motor Side
 D 反马达侧 Opposite Motor Side
 无 SENSOR No Sensor
 E 无 SENSOR No Sensor

端点极限感应器 Limit Sensor
 外挂型 Outside
 3 1只 1 Pc
 4 2只 2 Pc
 无 SENSOR No Sensor
 5 无 SENSOR No Sensor

*若无刹车则表示。If No Brake, No Description.
 *选择行程50时，有以下限制：When the stroke is 50mm, the sensor installation has the following restrictions:
 1. 原点与极限需放置与不同侧。Home sensor and limit sensor has to be installed on the different side of body.
 2. 滑座左右两侧皆需安装感应片。Both sides of slider need to install the sensor trigger device.

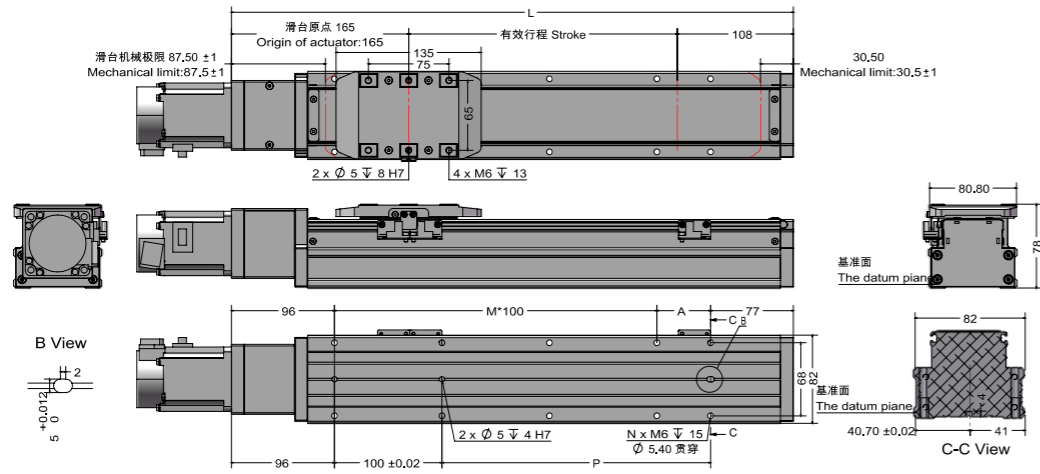
特注式样 Customization Order No.

*选用C研磨级螺杆菌，有行程限制。详见基本式样。
C precision-level ground ball screws are not available in all stroke lengths, please consult the model datasheet.

BC 马达外露 Motor Exposed

2D CAD 3D CAD CAD图纸可至www.beartrace.cn下载

单位 Unit: mm



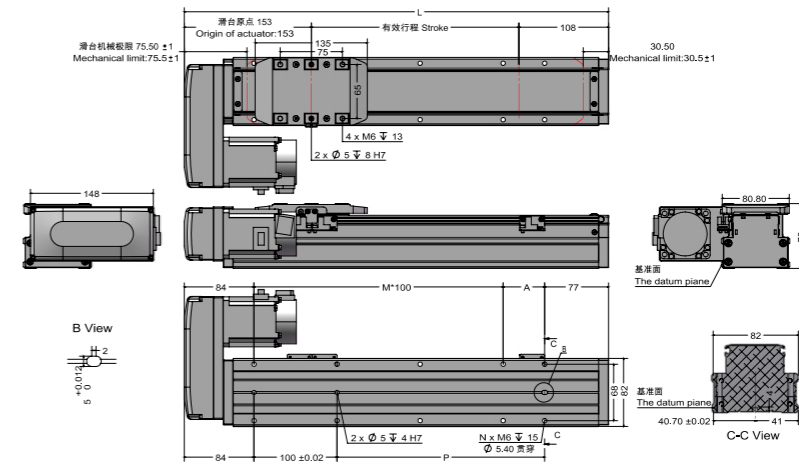
| 有效行程 Stroke | 50 ⁻² | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
|------------------------|------------------|------|------|-----|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|-------|-------|-------|-------|--|
| 极限行程 Limit Stroke (±1) | 70 | 120 | 170 | 220 | 270 | 320 | 370 | 420 | 470 | 520 | 570 | 620 | 670 | 720 | 770 | 820 | 870 | 920 | 970 | 1020 | 1070 | 1120 | 1170 | 1220 | 1270 | |
| L | 323 | 373 | 423 | 473 | 523 | 573 | 623 | 673 | 723 | 773 | 823 | 873 | 923 | 973 | 1023 | 1073 | 1123 | 1173 | 1223 | 1273 | 1323 | 1373 | 1423 | 1473 | 1523 | |
| A | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | |
| M | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | 12 | 13 | |
| N | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 | 28 | 28 | 30 | |
| P | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
| KG | 3.91 | 4.29 | 4.7 | 5 | 5.35 | 5.68 | 6 | 6.35 | 6.64 | 6.97 | 7.41 | 7.71 | 8.12 | 8.41 | 8.65 | 8.96 | 9.37 | 9.62 | 10.01 | 10.28 | 10.7 | 11.12 | 11.54 | 11.96 | 12.38 | |
| 线速度 Linear Speed mm/s | 300 | | 292 | | 250 | | 225 | | 200 | | 175 | | 150 | | 133 | | 117 | | 108 | | 100 | | 92 | | 83 | |
| 导程 Lead 5 | 300 | | 292 | | 250 | | 225 | | 200 | | 175 | | 150 | | 133 | | 117 | | 108 | | 100 | | 92 | | 83 | |
| 导程 Lead 10 | 600 | | 583 | | 500 | | 450 | | 400 | | 350 | | 300 | | 267 | | 233 | | 217 | | 200 | | 183 | | 167 | |
| 导程 Lead 20 | 1200 | | 1167 | | 1000 | | 900 | | 800 | | 700 | | 600 | | 533 | | 467 | | 433 | | 400 | | 367 | | 333 | |

※2行程50时, 因本体上锁式固定孔会被滑座遮挡, 仅能使用4支螺丝固定, 建议客户本体下锁式固定孔锁附。When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix, as a result, suggest that fixing actuator body from the bottom to the top.

BL 马达左折 Motor Left Side

2D CAD 3D CAD CAD图纸可至www.beartrace.cn下载

单位 Unit: mm



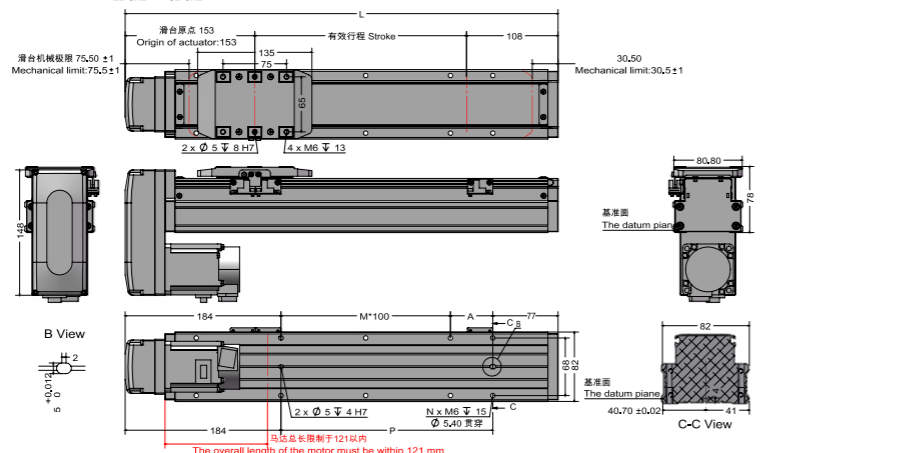
| 有效行程 Stroke | 50 ⁻² | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
|------------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|------|-------|--|
| 极限行程 Limit Stroke (±1) | 70 | 120 | 170 | 220 | 270 | 320 | 370 | 420 | 470 | 520 | 570 | 620 | 670 | 720 | 770 | 820 | 870 | 920 | 970 | 1020 | 1070 | 1120 | 1170 | 1220 | 1270 | |
| L | 311 | 361 | 411 | 461 | 511 | 561 | 611 | 661 | 711 | 761 | 811 | 861 | 911 | 961 | 1011 | 1061 | 1111 | 1161 | 1211 | 1261 | 1311 | 1361 | 1411 | 1461 | 1511 | |
| A | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | |
| M | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | 12 | 13 | |
| N | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 | 28 | 28 | 30 | |
| P | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
| KG | 3.95 | 4.33 | 4.74 | 5.09 | 5.39 | 5.72 | 6.04 | 6.39 | 6.68 | 7.01 | 7.45 | 7.75 | 8.16 | 8.45 | 8.69 | 9 | 9.41 | 9.66 | 10.08 | 10.32 | 10.74 | 11.16 | 11.58 | 12 | 12.42 | |
| 线速度 Linear Speed mm/s | 300 | | 292 | | 250 | | 225 | | 200 | | 175 | | 150 | | 133 | | 117 | | 108 | | 100 | | 92 | | 83 | |
| 导程 Lead 5 | 300 | | 292 | | 250 | | 225 | | 200 | | 175 | | 150 | | 133 | | 117 | | 108 | | 100 | | 92 | | 83 | |
| 导程 Lead 10 | 600 | | 583 | | 500 | | 450 | | 400 | | 350 | | 300 | | 267 | | 233 | | 217 | | 200 | | 183 | | 167 | |
| 导程 Lead 20 | 1200 | | 1167 | | 1000 | | 900 | | 800 | | 700 | | 600 | | 533 | | 467 | | 433 | | 400 | | 367 | | 333 | |

※2行程50时, 因本体上锁式固定孔会被滑座遮挡, 仅能使用4支螺丝固定, 建议客户本体下锁式固定孔锁附。When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix, as a result, suggest that fixing actuator body from the bottom to the top.

BM 马达下折 Motor Bottom Side

2D CAD 3D CAD CAD图纸可至www.beartrace.cn下载

单位 Unit: mm



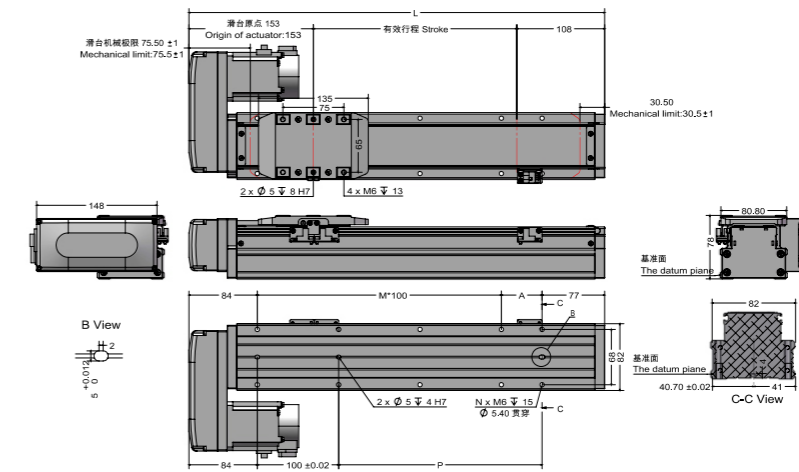
| 有效行程 Stroke | 50 ⁻² | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
|------------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|------|-------|--|
| 极限行程 Limit Stroke (±1) | 70 | 120 | 170 | 220 | 270 | 320 | 370 | 420 | 470 | 520 | 570 | 620 | 670 | 720 | 770 | 820 | 870 | 920 | 970 | 1020 | 1070 | 1120 | 1170 | 1220 | 1270 | |
| L | 311 | 361 | 411 | 461 | 511 | 561 | 611 | 661 | 711 | 761 | 811 | 861 | 911 | 961 | 1011 | 1061 | 1111 | 1161 | 1211 | 1261 | 1311 | 1361 | 1411 | 1461 | 1511 | |
| A | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | |
| M | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | |
| N | 4 | 4 | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 | 28 | |
| P | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
| KG | 3.95 | 4.33 | 4.74 | 5.09 | 5.39 | 5.72 | 6.04 | 6.39 | 6.68 | 7.01 | 7.45 | 7.75 | 8.16 | 8.45 | 8.69 | 9 | 9.41 | 9.66 | 10.08 | 10.32 | 10.74 | 11.16 | 11.58 | 12 | 12.42 | |
| 线速度 Linear Speed mm/s | 300 | | 292 | | 250 | | 225 | | 200 | | 175 | | 150 | | 133 | | 117 | | 108 | | 100 | | 92 | | 83 | |
| 导程 Lead 5 | 300 | | 292 | | 250 | | 225 | | 200 | | 175 | | 150 | | 133 | | 117 | | 108 | | 100 | | 92 | | 83 | |
| 导程 Lead 10 | 600 | | 583 | | 500 | | 450 | | 400 | | 350 | | 300 | | 267 | | 233 | | 217 | | 200 | | 183 | | 167 | |
| 导程 Lead 20 | 1200 | | 1167 | | 1000 | | 900 | | 800 | | 700 | | 600 | | 533 | | 467 | | 433 | | 400 | | 367 | | 333 | |

※1 马达下折时, 若选用刹车马达, 或超出马达总长度限制时, 无法套用标准P/N孔, 如有需求, 请联系我司业务。When motor with brake assembled on lower side, or the total length over than spec limit, it may not use standard pinhole. Please contact our sales department if you need more information & requirement.
※2 行程50时, 因本体上锁式固定孔会被滑座遮挡, 仅能使用4支螺丝固定, 建议客户本体下锁式固定孔锁附。When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix, as a result, suggest that fixing actuator body from the bottom to the top.

BR 马达右折 Motor Right Side

2D CAD 3D CAD CAD图纸可至www.beartrace.cn下载

单位 Unit: mm



| 有效行程 Stroke | 50 ⁻² | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
|------------------------|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|------|-------|--|
| 极限行程 Limit Stroke (±1) | 70 | 120 | 170 | 220 | 270 | 320 | 370 | 420 | 470 | 520 | 570 | 620 | 670 | 720 | 770 | 820 | 870 | 920 | 970 | 1020 | 1070 | 1120 | 1170 | 1220 | 1270 | |
| L | 311 | 361 | 411 | 461 | 511 | 561 | 611 | 661 | 711 | 761 | 811 | 861 | 911 | 961 | 1011 | 1061 | 1111 | 1161 | 1211 | 1261 | 1311 | 1361 | 1411 | 1461 | 1511 | |
| A | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | 100 | 50 | |
| M | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 10 | 10 | 11 | 11 | 12 | 12 | 13 | |
| N | 6 | 6 | 8 | 8 | 10 | 10 | 12 | 12 | 14 | 14 | 16 | 16 | 18 | 18 | 20 | 20 | 22 | 22 | 24 | 24 | 26 | 26 | 28 | 28 | 30 | |
| P | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | |
| KG | 3.95 | 4.33 | 4.74 | 5.09 | 5.39 | 5.72 | 6.04 | 6.39 | 6.68 | 7.01 | 7.45 | 7.75 | 8.16 | 8.45 | 8.69 | 9 | 9.41 | 9.66 | 10.08 | 10.32 | 10.74 | 11.16 | 11.58 | 12 | 12.42 | |
| 线速度 Linear Speed mm/s | 300 | | 292 | | 250 | | 225 | | 200 | | 175 | | 150 | | 133 | | 117 | | 108 | | 100 | | 92 | | 83 | |
| 导程 Lead 5 | 300 | | 292 | | 250 | | 225 | | 200 | | 175 | | 150 | | 133 | | 117 | | 108 | | 100 | | 92 | | 83 | |
| 导程 Lead 10 | 600 | | 583 | | 500 | | 450 | | 400 | | 350 | | 300 | | 267 | | 233 | | 217 | | 200 | | 183 | | 167 | |
| 导程 Lead 20 | 1200 | | 1167 | | 1000 | | 900 | | 800 | | 700 | | 600 | | 533 | | 467 | | 433 | | 400 | | 367 | | 333 | |

※2行程50时, 因本体上锁式固定孔会被滑座遮挡, 仅能使用4支螺丝固定, 建议客户本体下锁式固定孔锁附。When the stroke is 50mm, if fixing the body from the top to the bottom, the fixing hole will be blocked by slider and only can be uses 4 screws to fix, as a result, suggest that fixing actuator body from the bottom to the top.