

请以英文为准
中文仅供参考

双频激光干涉仪

ZLM 700 / 800 /900

Dual – Frequency Laser Interferometer



系统部件及附件

Components and Accessories

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采用
卡尔蔡司
光学元件

德国耶拿尔测量技术有限公司制造



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性能参数/ Performance data

真空中 He-Ne 激光平均波长 <i>Mean He-Ne laser wave-length in vacuum</i>	632.8 nm 632.8 nm
激光稳频精度 <i>Wavelength stability</i>	一小时 $2 \cdot 10^{-9}$ ($\pm 0.002\text{ppm}$) / 寿命内 $2 \cdot 10^{-8}$ ($\pm 0.02\text{ppm}$) $2 \cdot 10^{-9}$ per 1 hour / $2 \cdot 10^{-8}$ per lifetime
光束直径 <i>Beam diameter</i>	6 mm (可选 3.2 mm) 0.236 in (optionally 0.126 in)
突发光束的最大输出功率 <i>Max. output of emergent expanded beam</i>	1 mW (等级 class 2) 1 mW (laser class 2)
每束光可测量的轴数 <i>Number of measuring axis per laser</i>	1, 最多可选择 6 个 1, optionally up to 6
距离测量范围 <i>Range Distance Measurement</i>	40m, 选用其他部件可扩展为 120m to 130 ft, optionally up to 390 ft
角度测量范围 <i>Range Angle Measurement</i>	$\pm 15^\circ$, 20m 轴线 $\pm 15^\circ$ up to 65 ft length
平面度测量范围 <i>Flatness measurement</i>	20m 行程 to 65 ft length
直线度测量范围 <i>Range Straightness Measurement</i>	$\pm 5\text{mm}$, 2m 或 10m 行程, 30m 需用角度干涉镜 ± 0.078 in for 6.5 ft length or 32.5 ft length
垂直度测量范围 <i>Squareness Measurement</i>	$\pm 5\text{mm}$, 2m 或 10m 行程, 30m 需用角度干涉镜 ± 0.078 in for 6.5 ft length or 32.5 ft length 30m length (optionally) with angle interferometer
最大速度 <i>Maximum velocity</i>	4m/s 直线速度 80 rad/s 角速度 1m/s translatory 80 rad/s angular velocity
加速度 <i>Maximum acceleration</i>	无限制 no limit



性能参数/ Performance data

非线性	$\pm 0.3 \text{ nm}$ (角隅反射镜)
	$\pm 0.1 \text{ nm}$ (平面反射镜)
<i>Non linearity</i>	$\pm 0,3 \text{ nm}$ (cube corner interferometer)
	$\pm 0.1 \text{ nm}$ (plane mirror interferometer)

位移测量分辨率	0.6 nm (角隅反射镜)
	0.3 nm (平面反射镜)
	0.1 nm 可选
<i>Resolution Distance measurement</i>	0.6 nm (cube corner interferometer),
	0.3 nm (plane mirror interferometer),
	0.1 nm optionally

位移测量精度	$(20^\circ \pm 0,5^\circ)$ 使用 AUK 时	$\pm 0.4 \text{ ppm}$ ($\mu\text{/m}$)
	$(20^\circ \pm 0,5^\circ)$ 真空中	$\pm 0.08 (\pm 0.02) \text{ ppm}$ ($\mu\text{/m}$)
<i>Accuracy Distance measurement</i>	$(20^\circ \pm 0,5^\circ)$ with AUK	$\pm 0.4 \text{ ppm}$ ($\mu\text{/m}$)
	$(20^\circ \pm 0,5^\circ)$ in Vakuum	$\pm 0.08 (\pm 0,02) \text{ ppm}$ ($\mu\text{/m}$)

线性测量分辨率	0.6 nm (角隅反射镜)
	0.3 nm (平面反射镜)
	0.1 nm 可选
<i>Resolution Linear measurement</i>	0.6 nm (cube corner interferometer),
	0.3 nm (plane mirror interferometer),
	0.1 nm optionally

线性测量精度	$(20^\circ \pm 0,5^\circ)$ 使用 AUK 时	$\pm 0.4 \text{ ppm}$ ($\mu\text{/m}$)
	$(20^\circ \pm 0,5^\circ)$ 真空中	$\pm 0.08 (\pm 0.02) \text{ ppm}$ ($\mu\text{/m}$)
<i>Accuracy Linear measurement</i>	$(20^\circ \pm 0,5^\circ)$ with AUK	$\pm 0.4 \text{ ppm}$ ($\mu\text{/m}$)
	$(20^\circ \pm 0,5^\circ)$ in Vakuum	$\pm 0.08 (\pm 0,02) \text{ ppm}$ ($\mu\text{/m}$)

速度测量精度	$\pm 0.5 \text{ ppm}$ 实测值
<i>Accuracy Velocity Measurement</i>	$\pm 0.5 \text{ ppm}$ to measured value

角度测量分辨率	$0.015 \mu\text{rad}$ ($3 \cdot 10^{-3}$ 弧秒)
<i>Resolution Angular Measurement</i>	$0.015 \mu\text{rad}$ ($3 \cdot 10^{-3}$ arc sec)

角度测量精度	$\pm 0.1 \text{ ppm}$ 实测值
<i>Accuracy Angular Measurement</i>	$\pm 0.1 \text{ ppm}$ to measured value



性能参数/ Performance data

平面度测量分辨率 <i>Flatness Measurement</i>	0.015 μ rad (3·10 ⁻³ 弧秒) 0.015 μ rad (3·10 ⁻³ arc sec)
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平面度测量精度 <i>Accuracy Flatness Measurement</i>	±0.2% 实测值 ±0.05 rad/米/行程 ±0.2% to measured value ±0.05 rad per meter of displacement path
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直线度测量分辨率 <i>Resolution Straightness measurement</i>	36 nm, 10 m 行程 7.25nm, 2 m 行程 36 nm for 32.5 ft 7.25 nm for 6.5 ft
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直线度测量精度 <i>Accuracy Straightness Measurement</i>	± 0.5% 实测值 2 m 行程 ± 2.5% 实测值 10 m 行程 to 2 m ± 0.5% to measured value to 10 m ± 2.5% to measured value
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垂直度测量分辨率 <i>Resolution Squareness Measurement</i>	36 nm, 10 m 行程 7.25 nm, 2 m 行程 to 2 m 36 nm for 32.5 ft to 10 m 7.25 nm for 6.5 ft
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垂直度测量精度 <i>Accuracy Squareness Measurement</i>	2 m ± 0.5% 实测值, ± 0.5 弧秒 * 10 m ± 2.5% 实测值, ± 0.5 弧秒 * to 2 m ± 0.5% to measured value ± 0.5 arc sec * to 10 m ± 2.5% to measured value ± 0.5 arc sec *
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* 公称垂直度公差

* Tolerance Squareness Normal

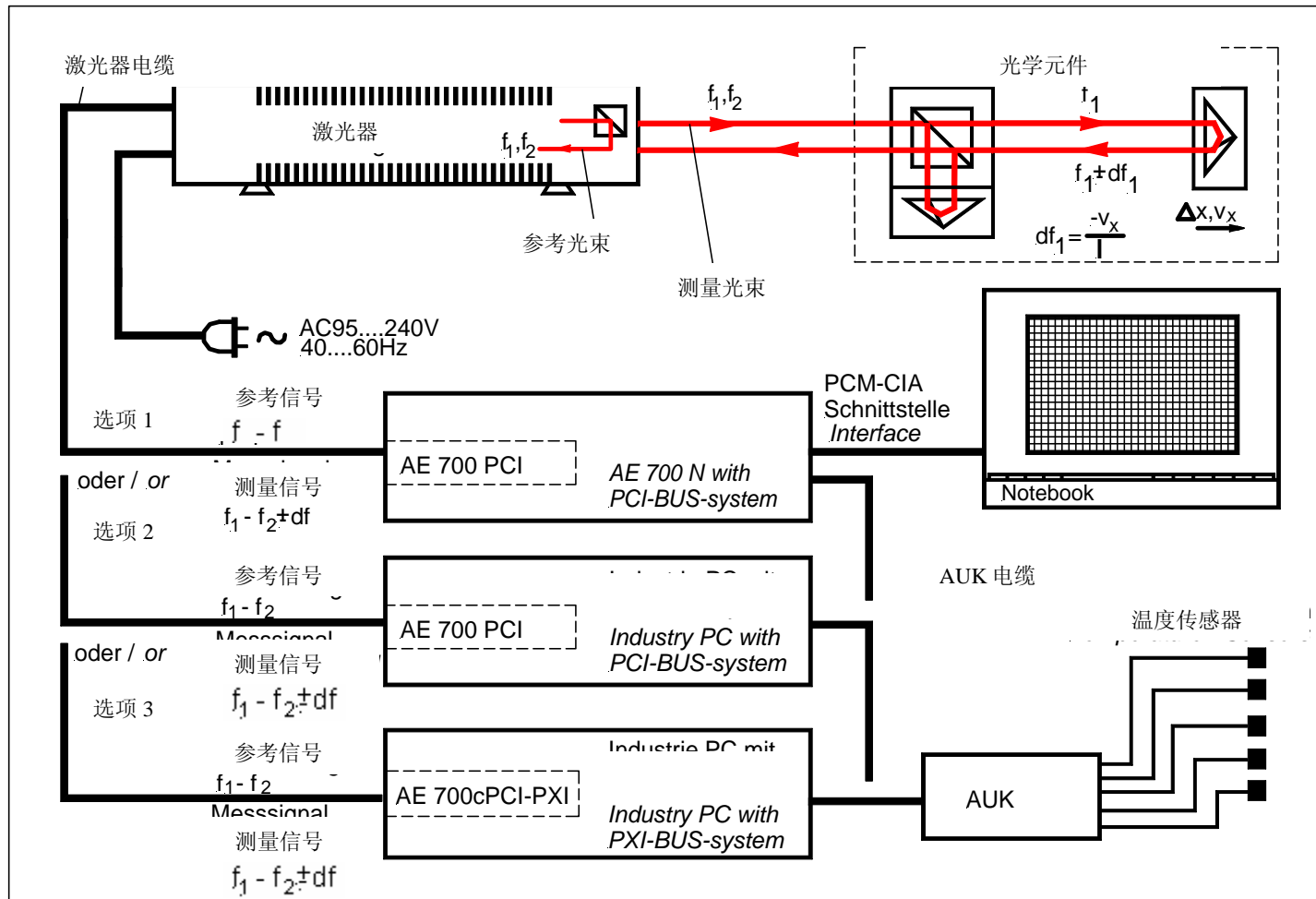
接口 <i>Interfaces</i>	积分信号 32 Bit (实时) $\Delta t \approx 20$ ns quadrature signals 32 Bit (real time) $\Delta t \approx 20$ ns
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工作环境 <i>Operating conditions</i>	温度: 15°C 30°C 湿度: < 90% 无冷凝 Temperature range: 59°F 86°F Air humidity: < 90% not condensing
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储存环境 <i>Storing conditions</i>	温度: 10°C 40°C 湿度: < 95% 无冷凝 Temperature range: 50°F 104°F Air Humidity < 95% not condensing
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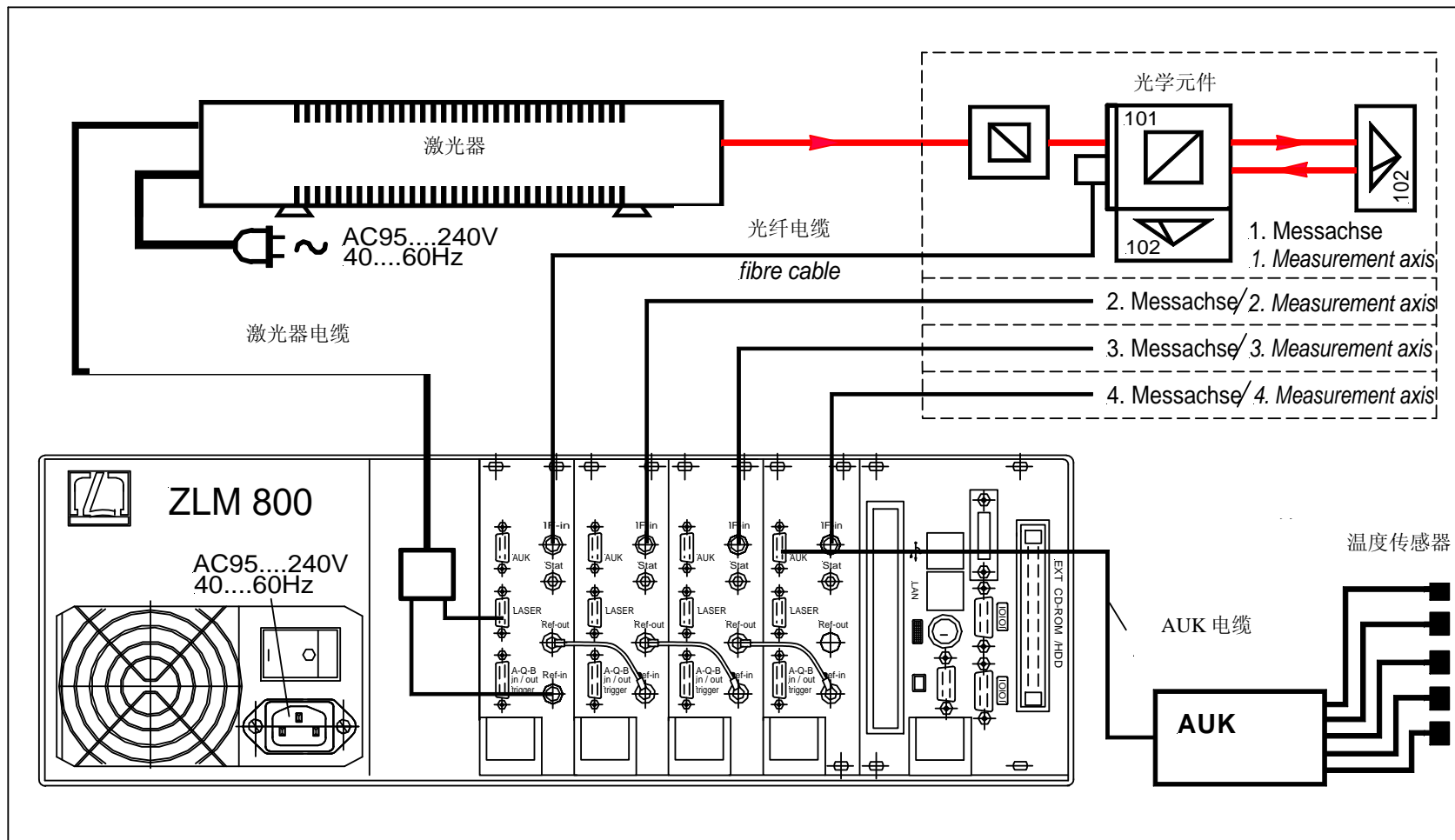


ZLM700 激光干涉仪 / Calibration-System ZLM700



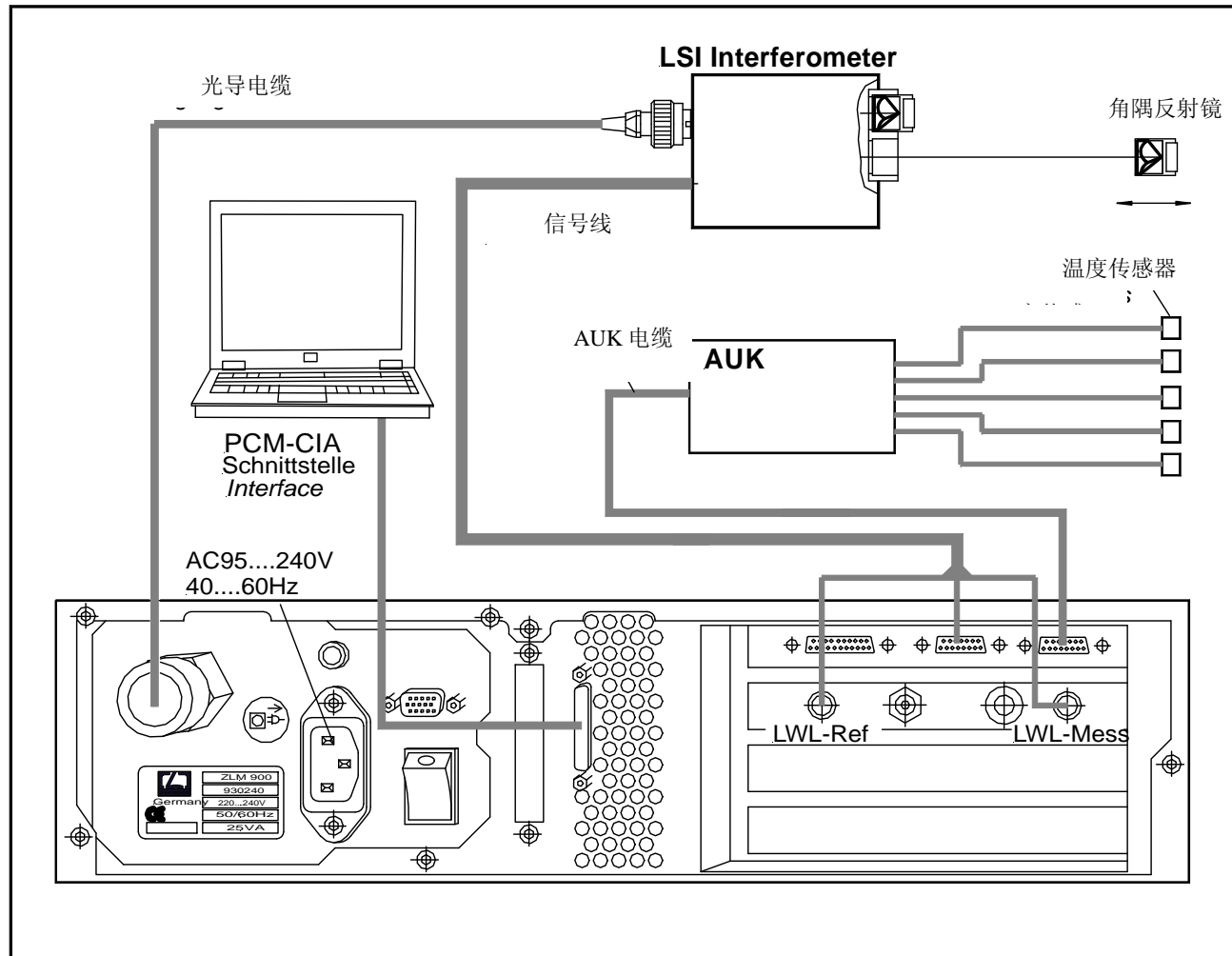


ZLM 800 多轴激光干涉仪 / Multi - Axial - System ZLM 800



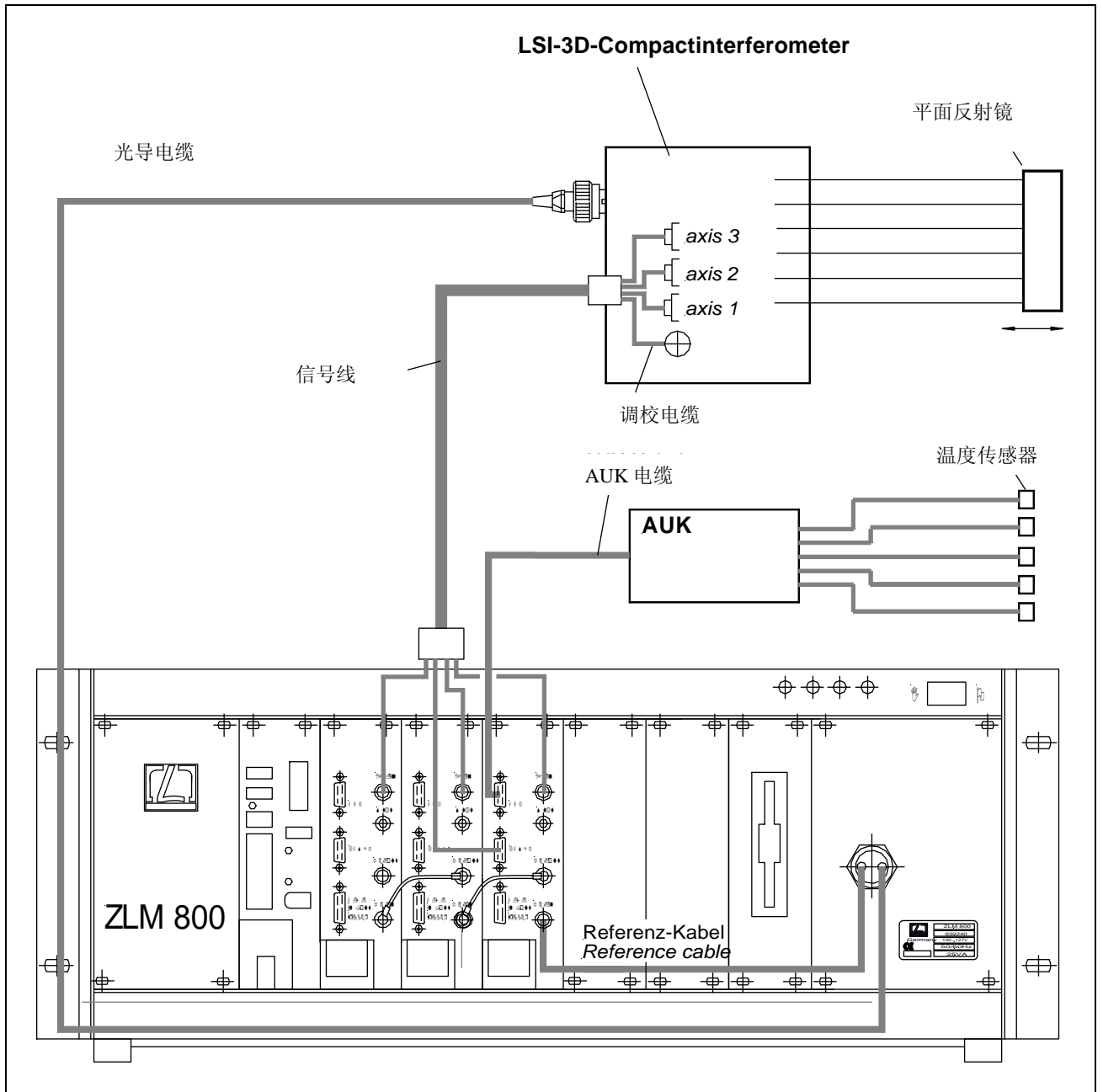


ZLM 900 LSI 激光干涉仪 / Calibration-System ZLM 900 LSI

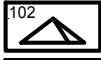
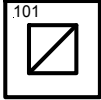


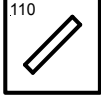




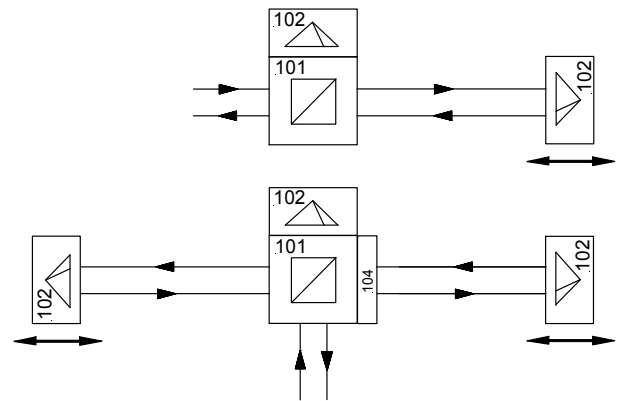
ZLM 900 LSI 激光干涉仪
Calibration-System ZLM 900LSI



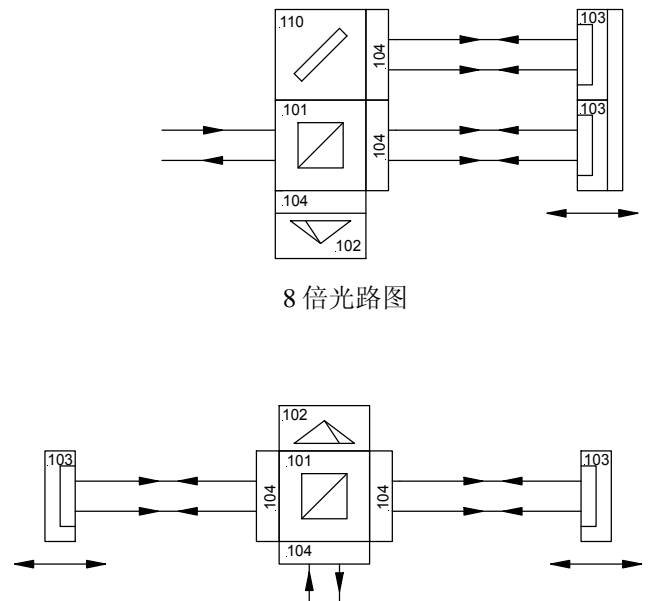
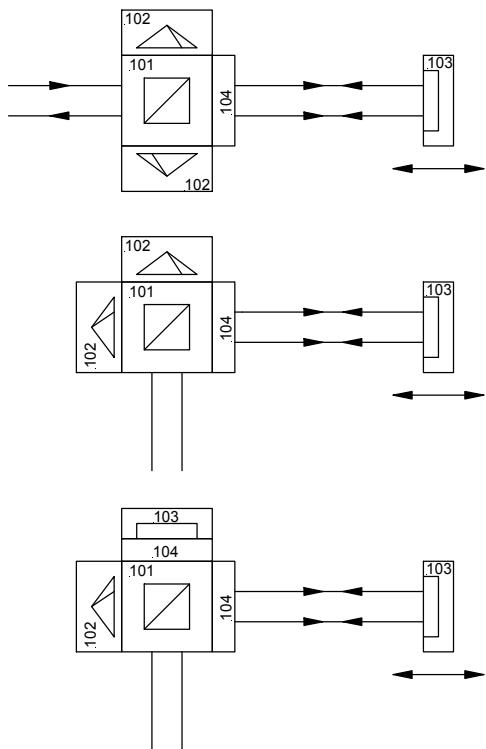


-  角隅反射镜 102
Cube corner reflector
-  偏振分光镜 101
Polarizing beam splitter
-  平面反射镜 103
Plane mirror reflector
-  $\lambda/4$ -Platte 104
1/4 波片
-  90° - 光束转向镜 110
90° - beam bender

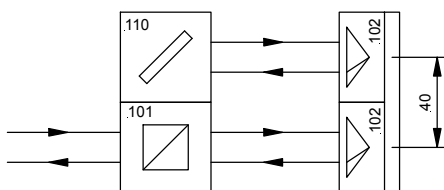
使用角隅反射镜测量位移
Distance measurement with cube corner reflector



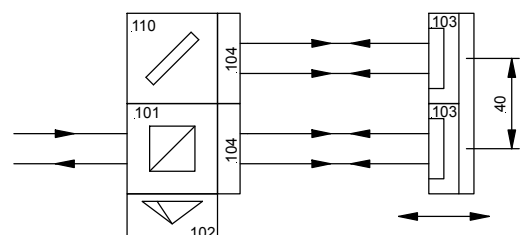
使用平面反射镜测量位移
Distance measurement with plane mirror reflector



使用角隅反射镜测量角度
Angle measurement with cube corner reflectors

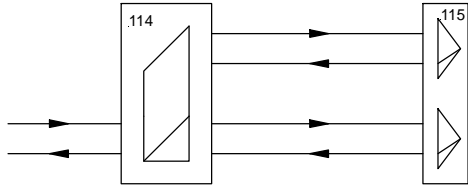


使用平面反射镜测量角度
Angle measurement with plane mirror reflectors

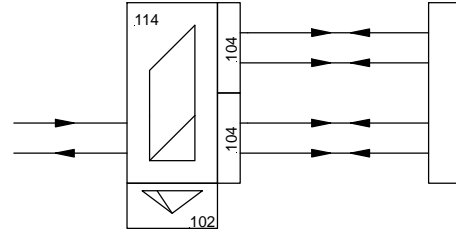




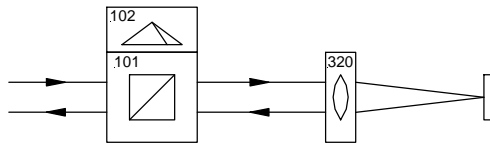
使用双光束角隅反射镜测量角度
Angle measurement with double reflector



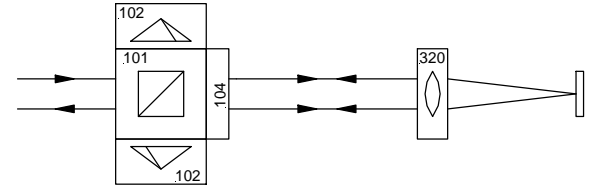
使用双光束平面反射镜测量角度
Angle measurement with plane mirror reflector



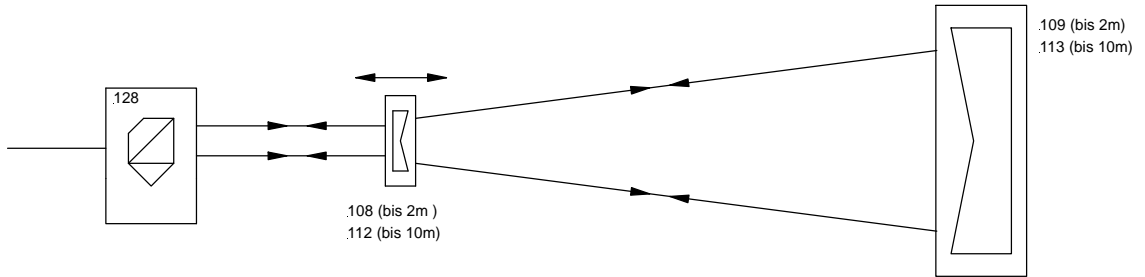
振动测量(2.5nm 分辨率)
Vibration measurement (2.5nm resolution)



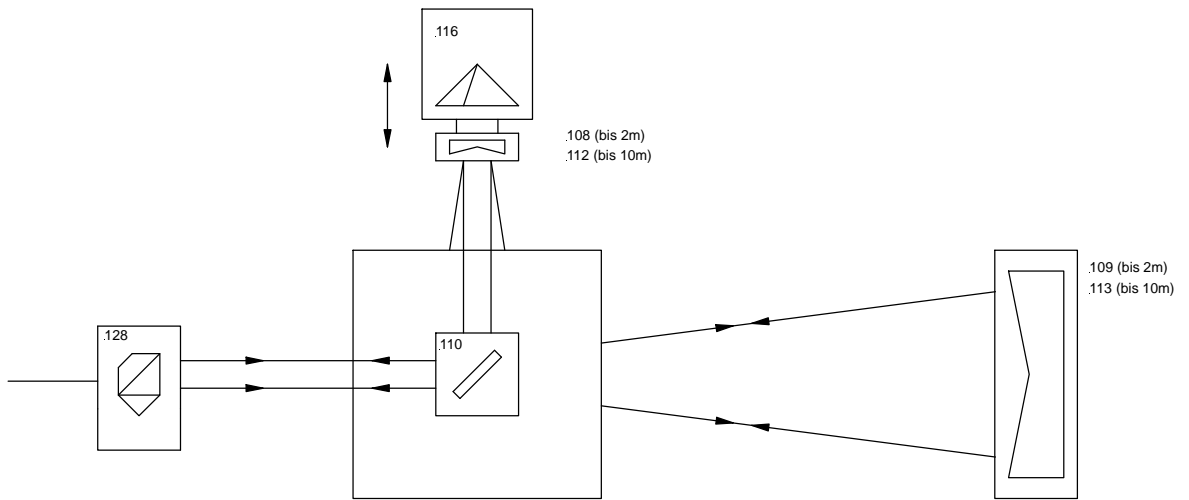
振动测量 (1.25nm 分辨率)
Vibration measurement (1.25nm resolution)



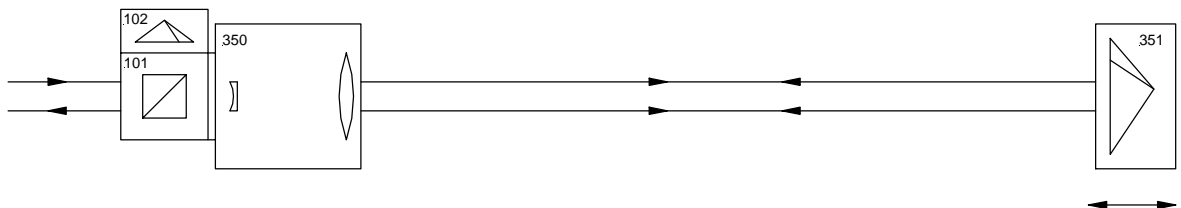
直线度测量/*Straightness measurement*



垂直度测量 / *Squareness measurement*



120m 的距离测量 / *390ft distance measurement*



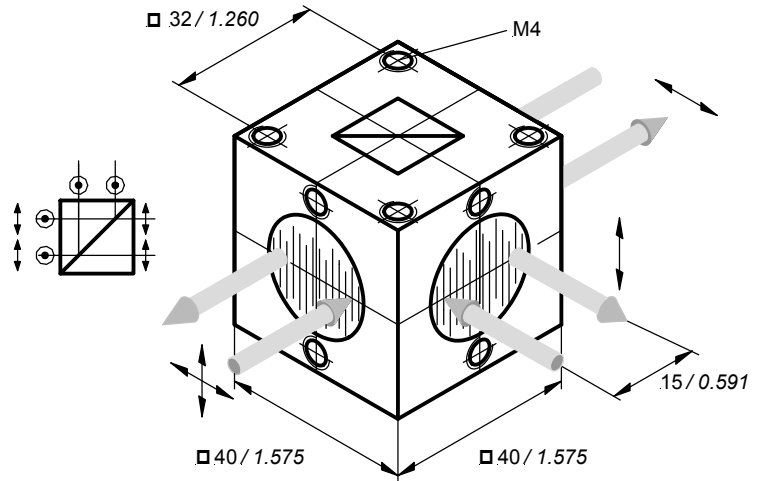


偏振分光镜 101
Polarizing beam splitter 101

$R_{\perp} \geq 98\%$ $T_{\perp} \geq 97\%$
 $R_{\parallel} \leq 1\%$ $T_{\parallel} \leq 0,1\%$

重量 / Weight: 240g

料号 / Order No.:
269302-4010.124

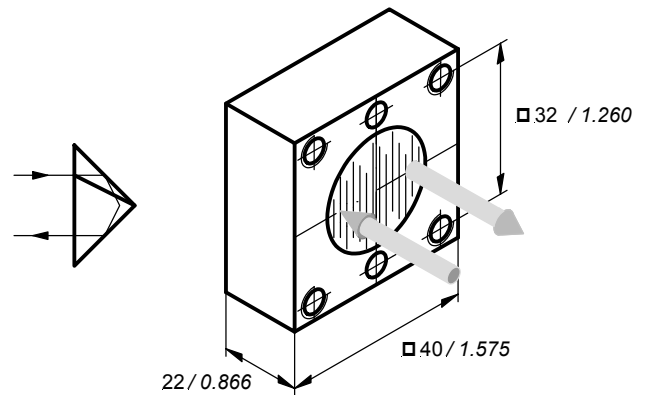


角隅反射镜 102
Cube corner reflector 102

反射率 $\geq 90\%$ 涂银
R over 3 reflections $\geq 90\%$ silvered

重量 / Weight: 202g

料号 / Order No.:
269302-4010.224

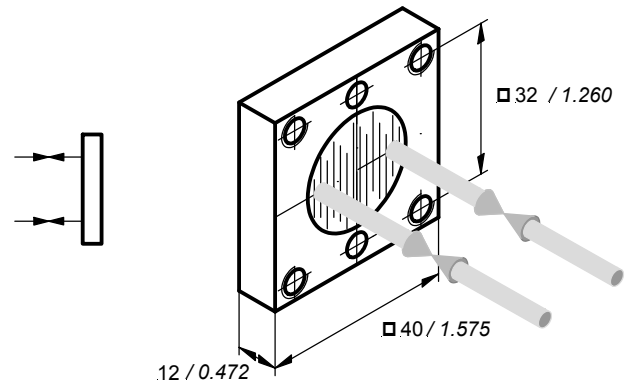


平面反射镜 103
Plane mirror reflector 103

$R \geq 99.97\%$

重量 / Weight: 112g

料号 / Order No.:
269302-4010.324

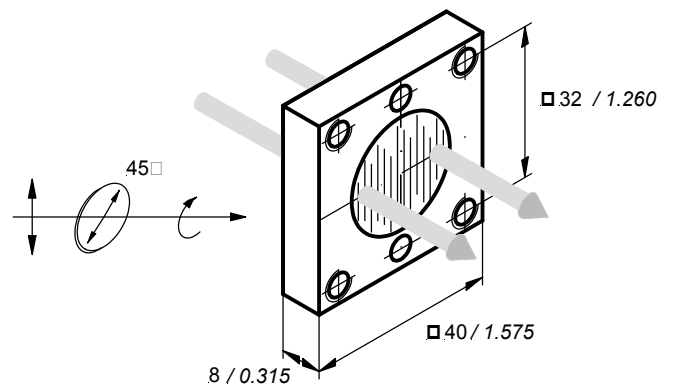


$\lambda/4$ - 波片 104
Quarter wave plate 104

晶体轴 45° - $\phi 40$
Crystallographic axis 45° to $\phi 40$

重量 / Weight: 112g

料号 / Order No.:
269302-4010.424



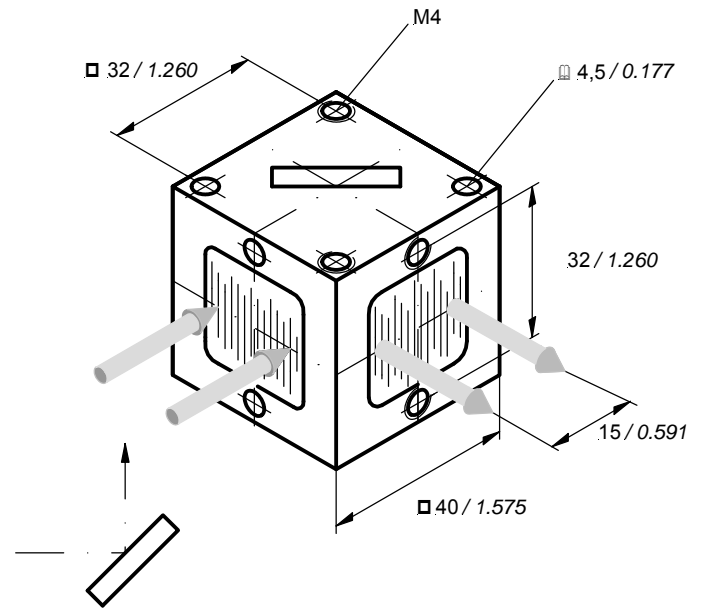

90° 光束转向镜 110
 90° beam bender 110

用于双光束转向,
非传导性偏振-中性镜面喷涂
for double beam,
dielectric polarization – neutral mirror coating

$R \geq 99\%$

重量 /Weight: 240g

料号 / Order No.:
269302-4011.024

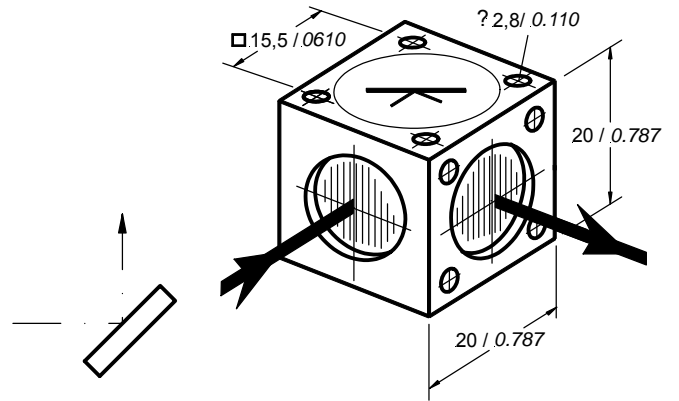

90° 光束转向镜 205
 90° beam bender 205

用于单光束转向,
非传导性偏振-中性镜面喷涂
for single beam,
dielectric polarization – neutral mirror coating

$R \geq 99\%$

重量 /Weight: 23g

料号 / Order No.:
269302-4012.424

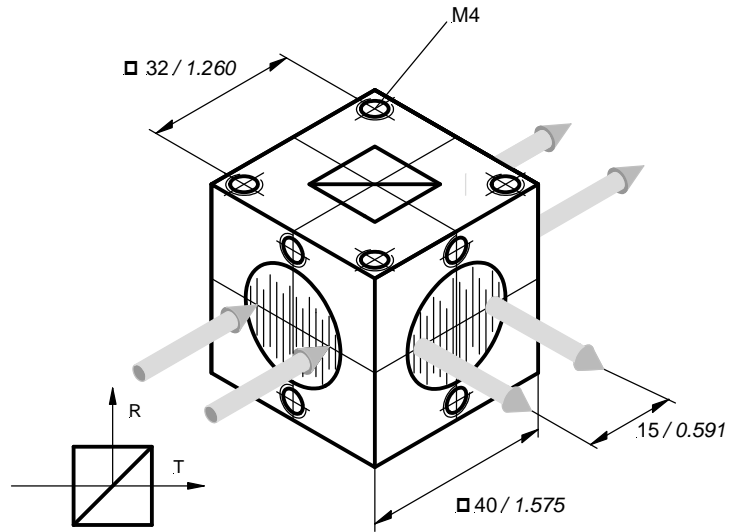




分光镜 A
Beam splitter A

用于双光束的分光
for double beam

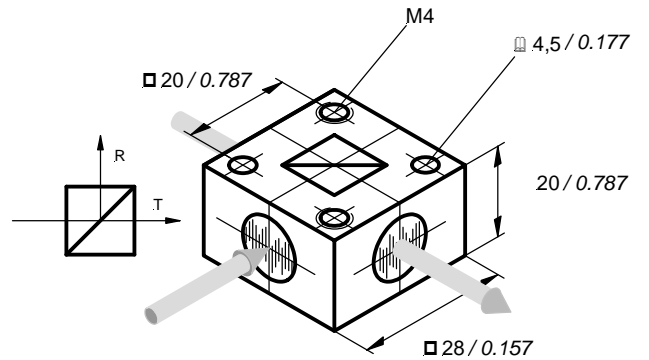
重量 / *Weight*: 240g



分光镜 B
Beam splitter B

用于单光束的分光
for single beam

重量 / *Weight*: 74g



分光比 <i>Splitting ratio</i>	料号 <i>Article-No.</i>	R / % (反射率 <i>Reflection</i>)	T / % (传输率 <i>transmission</i>)	料号 <i>Order No.:</i>
非传导偏振-中性镜面喷涂 <i>with dielectric polarization – neutral mirror coating</i>				
A 1:1	201	⊥ 50 50	⊥ 50 50	269302-4011.424
A 1:2	212	⊥ 33 33	⊥ 67 67	269302-4017.824
A 1:3	211	⊥ 25 25	⊥ 75 75	269302-4017.624
B 1:1	203	⊥ 50 50	⊥ 50 50	269302-4012.124
B 1:2	210	⊥ 33 33	⊥ 67 67	269302-4017.924
B 1:3	209	⊥ 25 25	⊥ 75 75	269302-4017.724
金属喷涂 <i>with metal coating</i>				
A 2.5:1	207	⊥ 72 61	⊥ 21 32	269302-4011.724
A 4:1	202	⊥ 80 70	⊥ 14 24	269302-4011.824
B 2.5:1	208	⊥ 72 61	⊥ 21 32	269302-4012.324
B 4:1	204	⊥ 80 70	⊥ 14 24	269302-4012.224



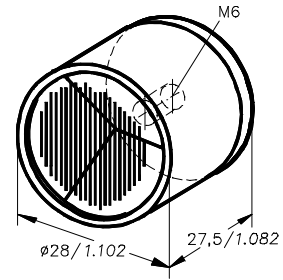
角隅反射镜 304

Triple reflector 304

圆柱型结构
cylindrical construction

重量/Weight: 71g

料号/Order No.:
269302-4059.124



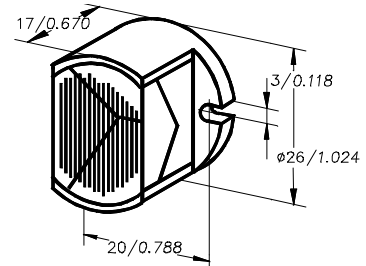
小型角隅反射镜 316

Triple reflector small 316

补光型结构
extra light construction

重量/Weight: 12g

料号/Order No.:
269302-4016.024



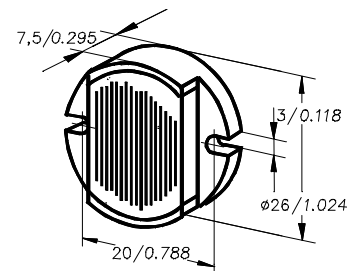
小型平面反射镜 317

Plane mirror reflector small 317

补光型结构
extra light construction

重量/Weight: 4g

料号/Order No.:
269302-4016.124



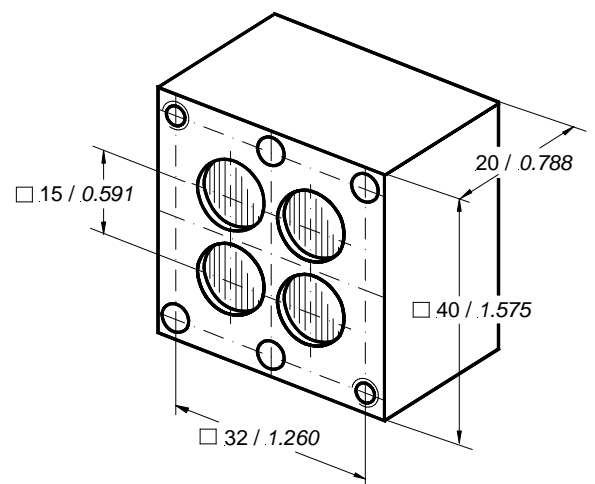
双角隅反射镜 160

Double triple reflector 160

用于角度测量基座 15mm
for angle measurement base 15mm

重量/Weight: 202g

料号/Order No.:
269302-4014.624

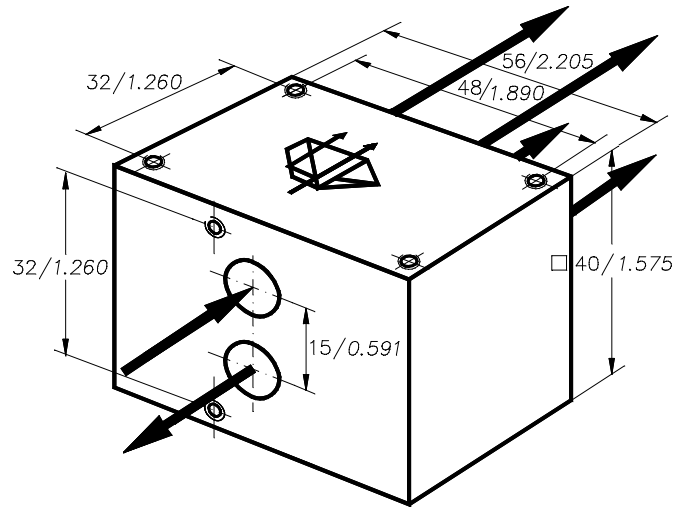




直线度干涉镜 128
Straightness interferometer 128

重量/ *Weight*: 386g

料号 / *Order No.*:
269302-4012.824

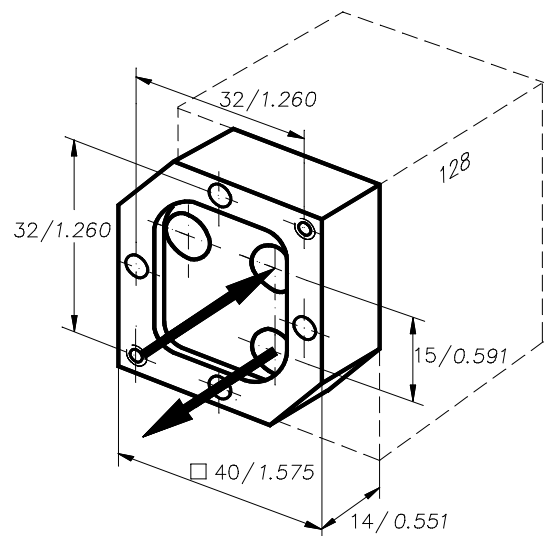


光束平移移棱镜 120
Beam offset prism 120

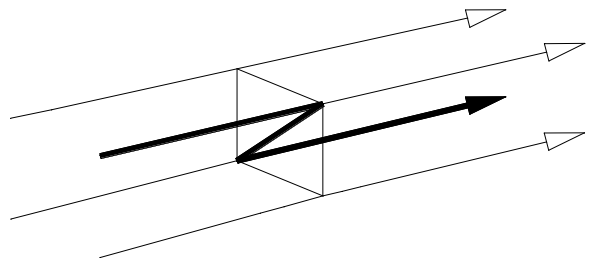
用于直线度测量光束的平移
use beam turn by straightness measurement vertical

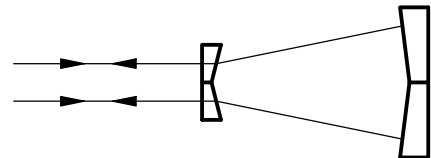
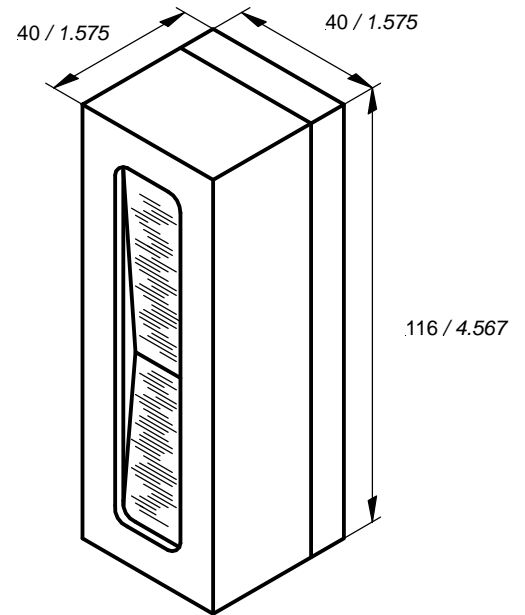
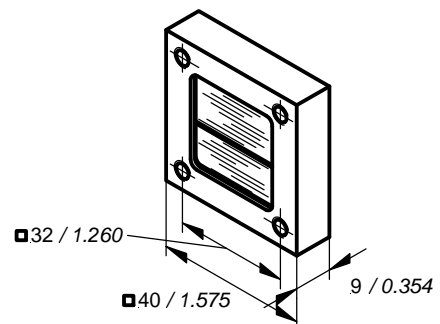
重量/ *Weight*: 108g

料号 / *Order No.*:
269302-4008.424



光路图
Schematic beampath



**2m 测角反射镜 109***Angular reflector 6.4 ft 109*重量/ *Weight*: 890g料号 / *Order No.*:**269302-4010.924****10m 测角反射镜 113***Angular reflector 32.8 ft 113*重量/ *Weight*: 890g料号 / *Order No.*:**269302-4011.324****2m 双光楔镜 108***Double wedge 6.5 ft 108*重量/ *Weight*: 106g料号 / *Order No.*:**269302-4017.124****10m 双光楔镜 112***Double wedge 32.8 ft 112*重量/ *Weight*: 106g料号 / *Order No.*:**269302-4017.224**



用于直线度和垂直度测量—扩展光学模块

Extension modules for straightness and squareness measurement

五棱镜 111

Pentaprism 111

直角尺

精度: 1"

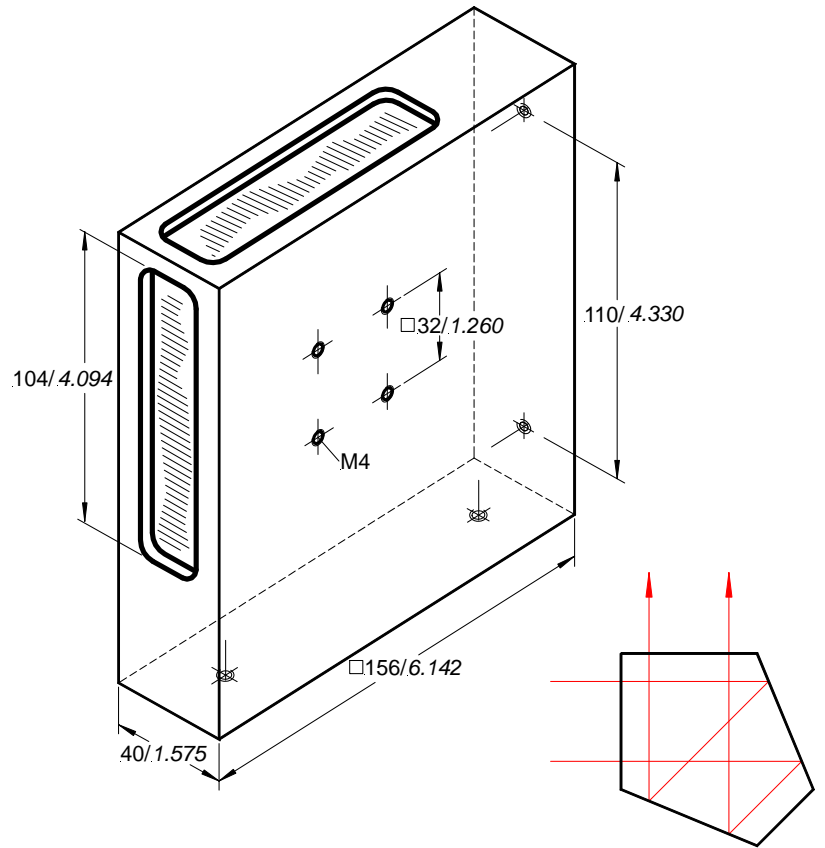
Squareness master

Precision: 1"

重量 / Weight: 3800g

料号 / Order No.:

269302-4011.124



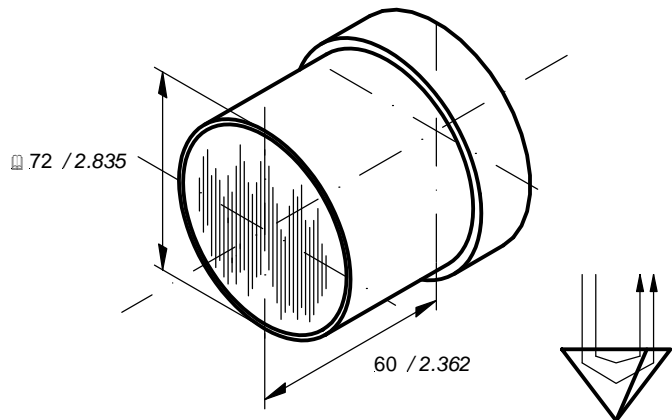
角隅反射镜 116

Triple reflector 116

重量 / Weight: 820g

料号 / Order No.:

269302-4011.624

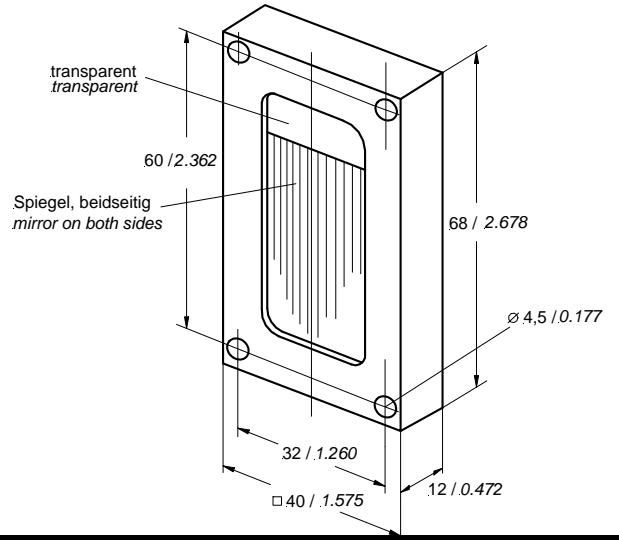




特制镜子 321
Special mirror 321

重量 / Weight: 145g

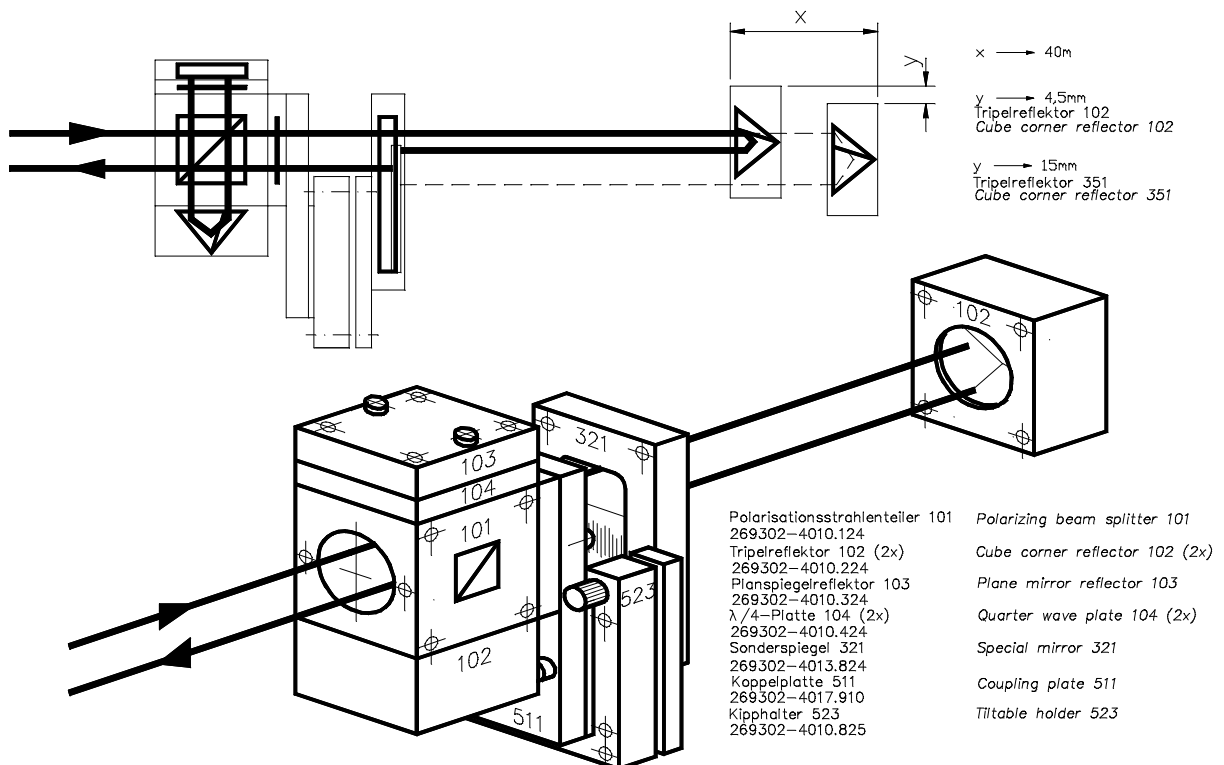
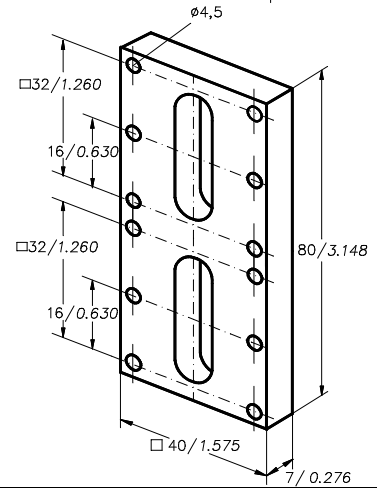
料号 / Order No.:
269302-4013.824



耦合波片 511
Coupling plate 511

重量 / Weight: 130g

料号 / Order No.:
269302-4017.910





角度干涉镜 114

Angle interferometer 114

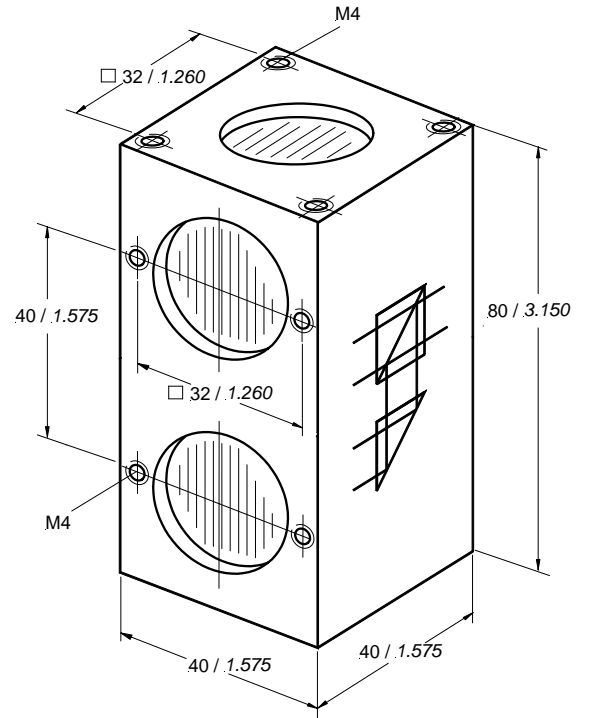
标准距离 40mm

Basic distance 1.575 in

重量/ Weight: 480g

料号 / Order No.:

269302-4015.324



双角隅反射镜 115

Double corner reflector 115

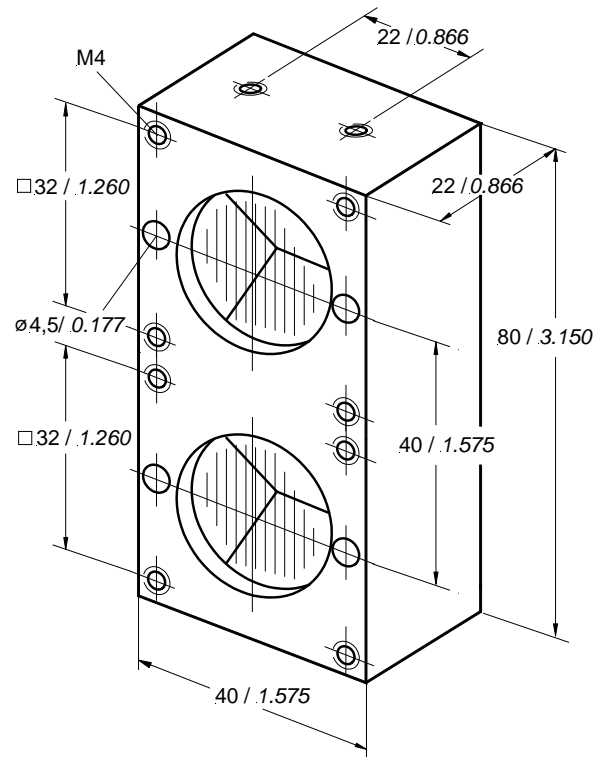
标准距离 40mm

Basic distance 1.575 in

重量/Weight: 480g

料号 / Order No.:

269302-4015.424



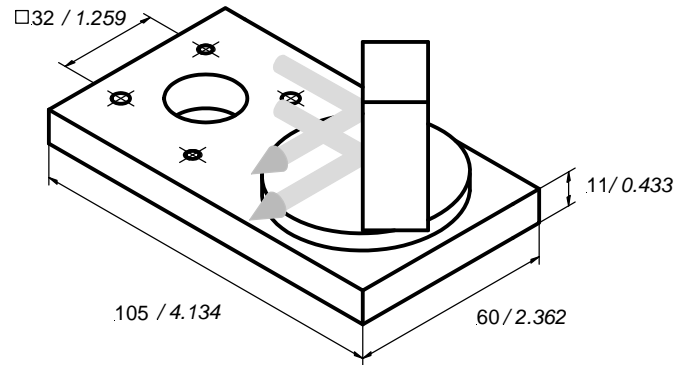


带旋转镜的基板 118
Base plate with turn mirror 118

用于角度干涉镜 114
For angular interferometer 114

重量/ Weight: 590g

料号 / Order No.:
269302-4015.524

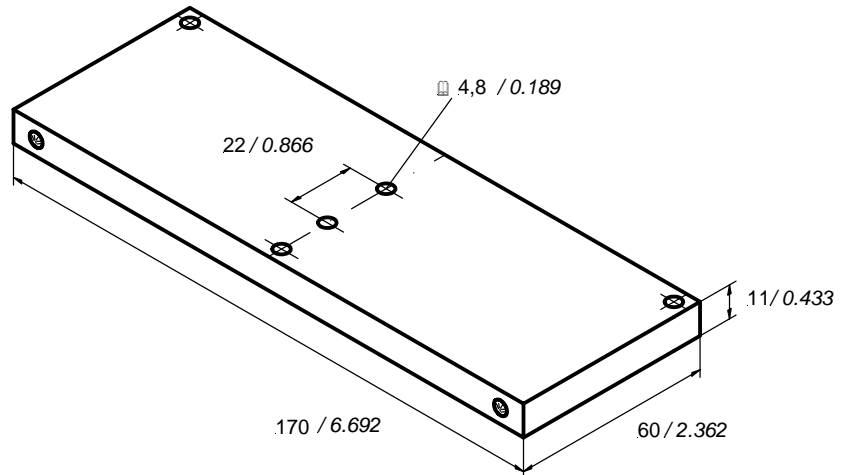


位移测量的双角隅反射镜基板 115
Base distance plates for double triple reflector 115

位移测量基板 150
Base distance plate 150

重量 / Weight: 875g

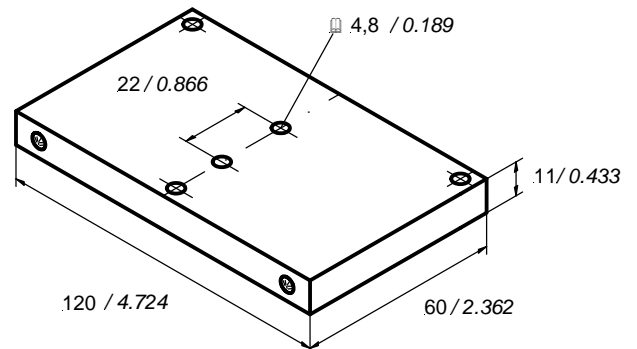
料号 / Order No.:
269302-4011.625



位移测量基板 100
Base distance plate 100

重量/ Weight: 515g

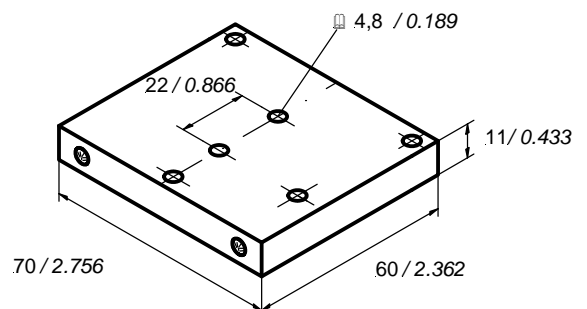
料号 / Order No.:
269302-4011.725



位移测量基板 50
Base distance plate 50

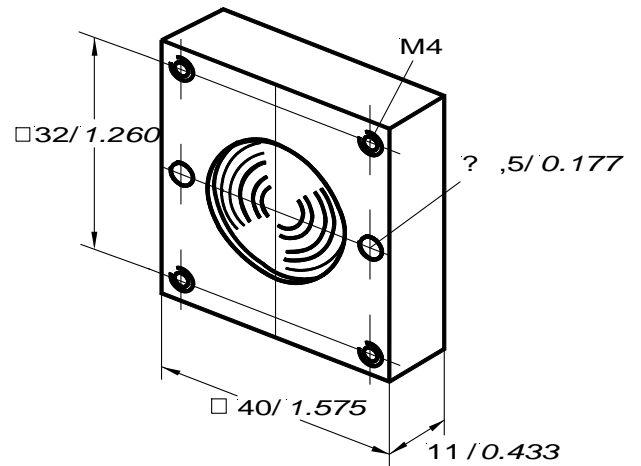
重量/ Weight: 257g

料号 / Order No.:
269302-4011.825

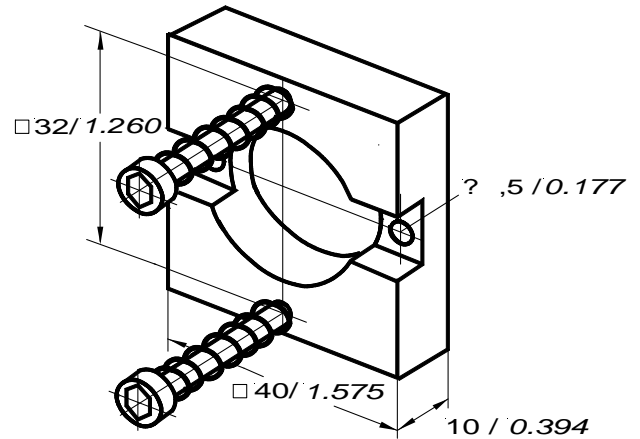



振动测量辅助镜 320
Vibrometer ancillary lens 320

重量 / Weight: 105g

 料号 / Order No.:
269302-4006.424

振动仪调整板 548
Vibrometer adjusting plate 548

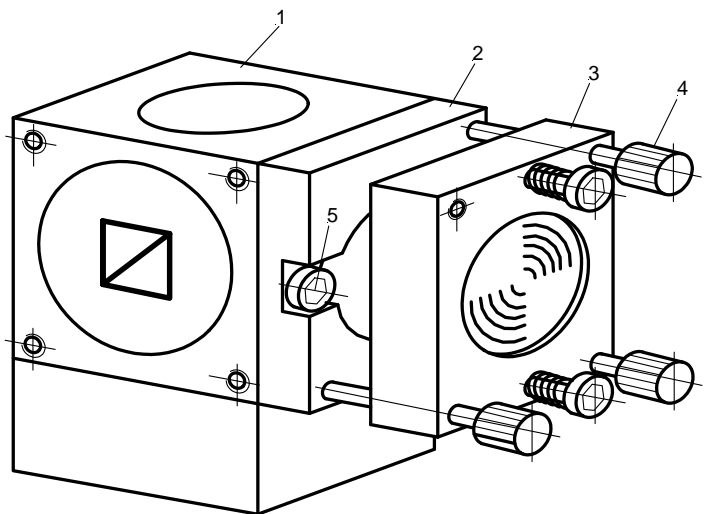
重量 / Weight: 108g

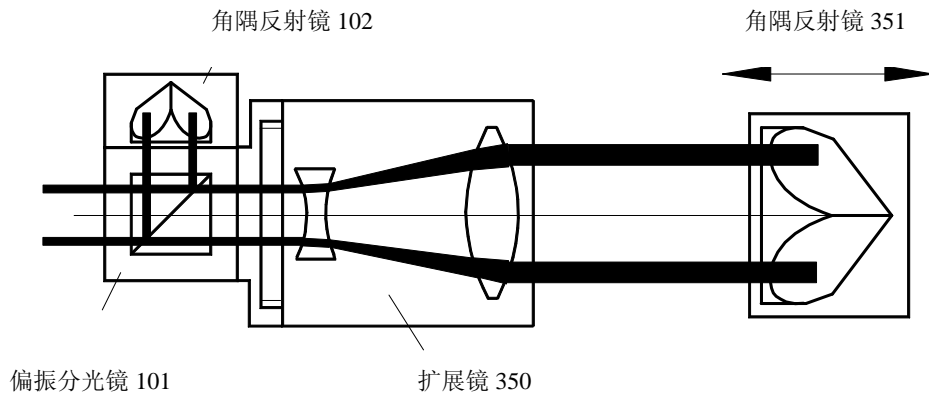
 料号 / Order No.:
269302-4006.425

 1 偏振分光镜 101
Polarizing beam splitter 101

 2 振动仪调整板 548
Vibrometer adjusting plate 548

 3 振动辅助镜 320
Vibrometer ancillary lens 320

 4 滚花头螺丝 29 mm
Knurled screw 1.142 in

 5 插头式螺丝 10 mm
Socket-head screw 0.394 in


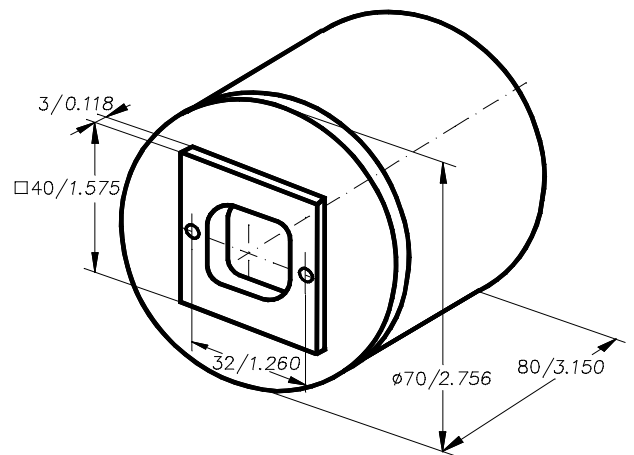


扩展镜 350

Expansive system 350

重量 / Weight: 1 282g

料号 / Order No.:
265444-5000.127

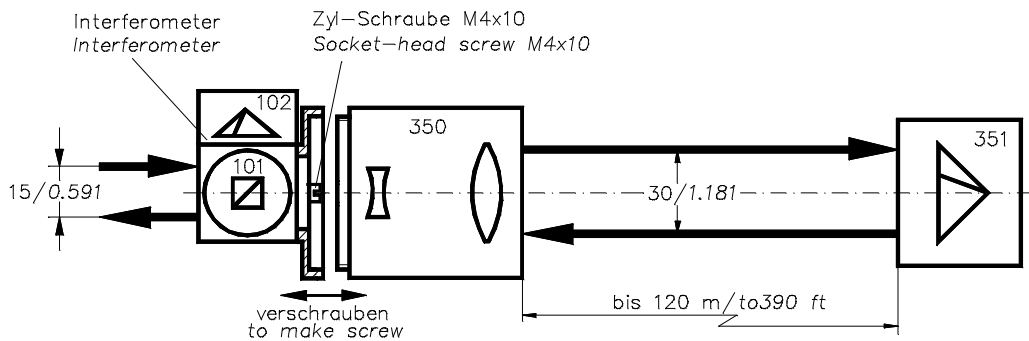
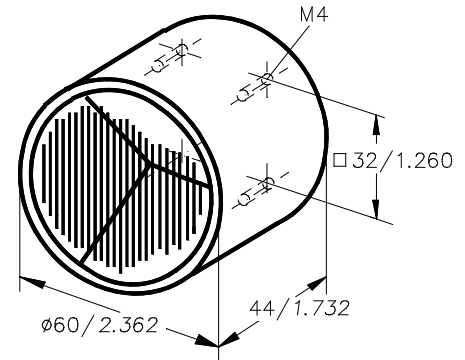


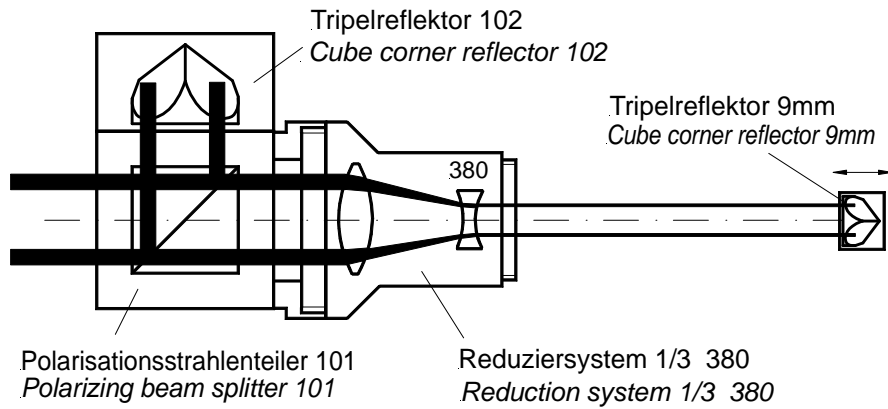
角隅反射镜 351

Triple reflector 351

重量 / Weight: 306g

料号 / Order No.:
269302-4003.024



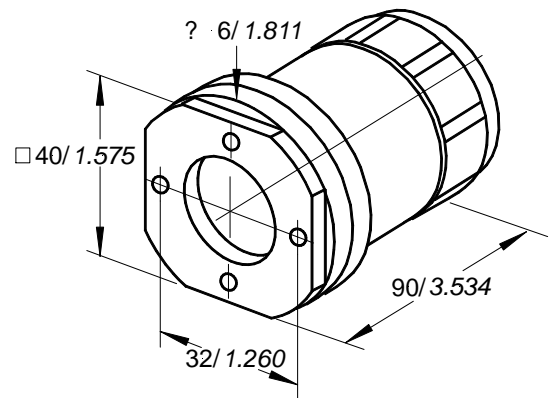


1/3 缩光镜 380

Reduction system 1/3 380

重量 / Weight: 282g

料号 / Order No.:
269302-4006.024

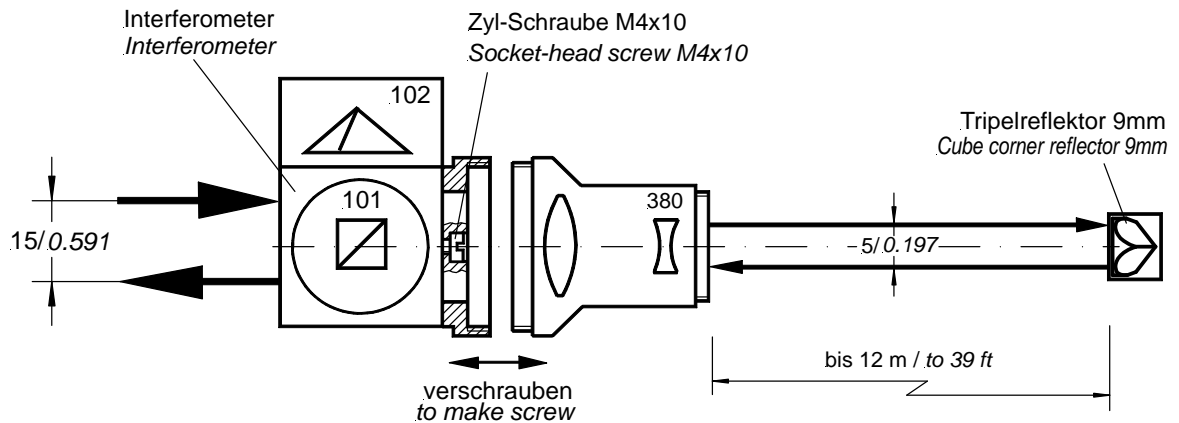
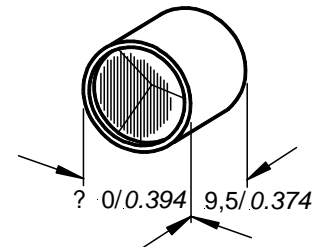


角隅反射镜 9mm

Triple reflector 9mm

重量 / Weight: 1g

料号 / Order No.:
269302-4003.424

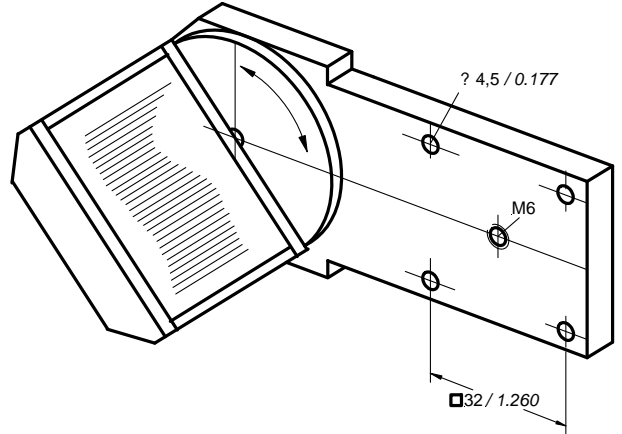




旋转镜 327
Turning mirror 327

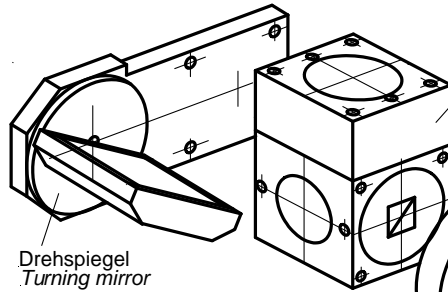
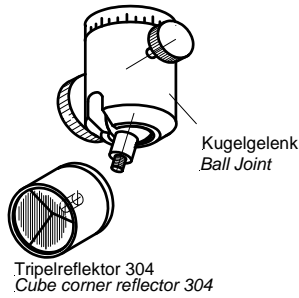
料号 / Order No.:
269302-4013.724

用于对角测量
for diagonal measurement

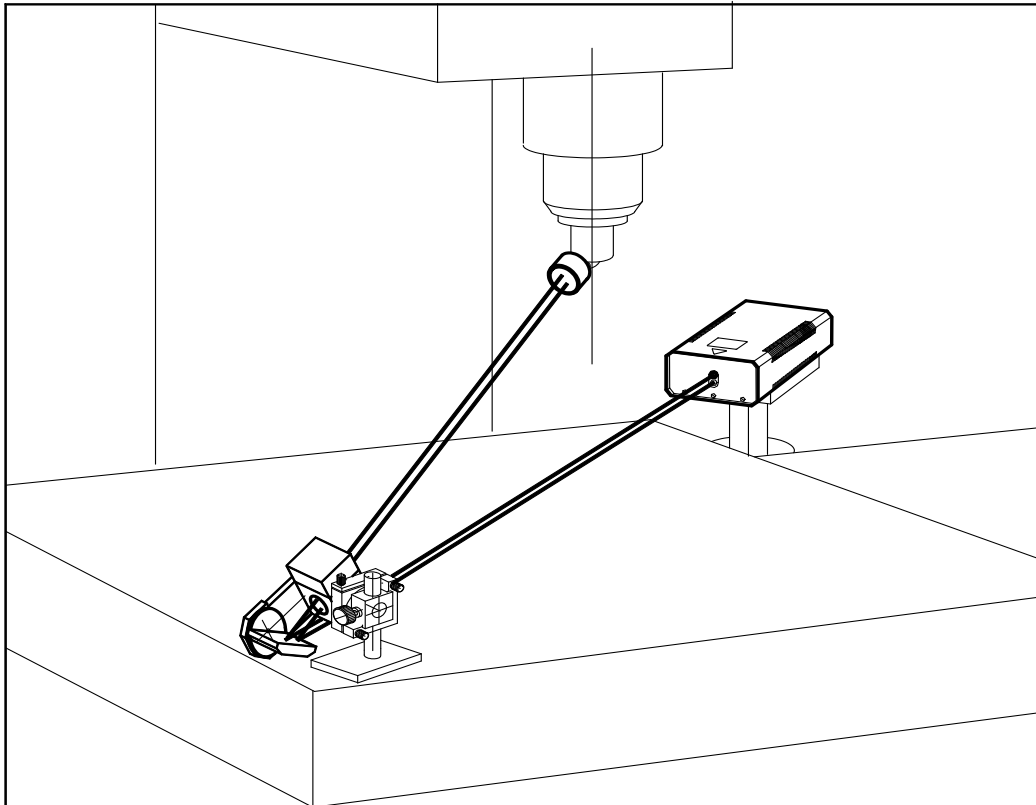
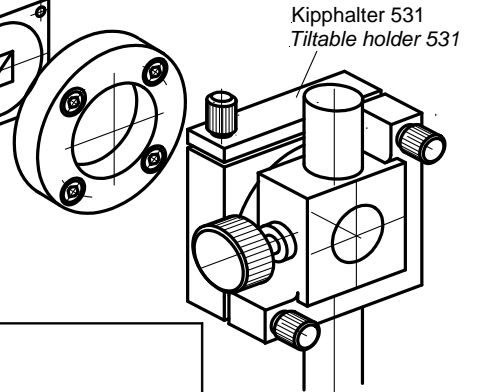


对角测量
Diagonal Measurement

Optischer Aufbau für Diagonalmessung
optical setup for diagonal measurement



Interferometer
Polarisationsteiler 101
Polarizing beam splitter 101
Tripelreflektor 102
Cube corner reflector 102



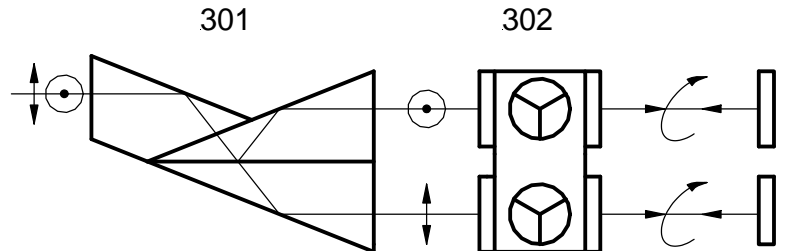


平行式干涉镜，用于平面镜反射镜，带光纤耦合器 (全套)

Parallel interferometer for plane mirror reflector with light wire coupling (complete)

料号 / Order No.:

269302-4002.026



平行式干涉镜 301

Parallel interferometer 301

适用于高真空

无磁性

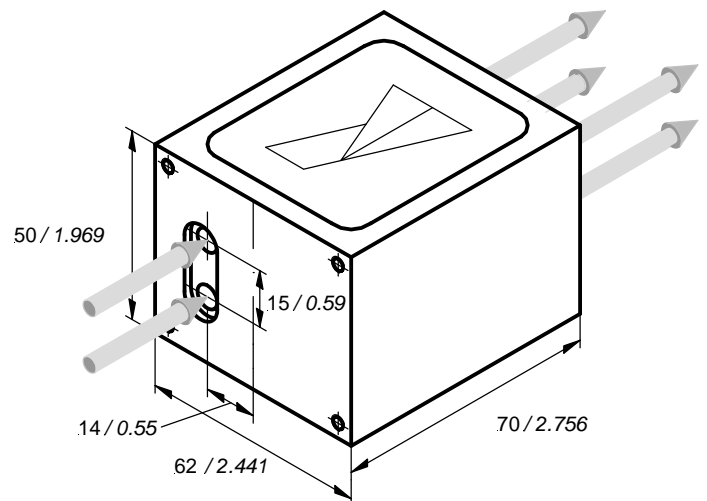
nonmagneticable

fit for high vacuum

重量 / Weight: 620g

料号 / Order No.:

269302-4013.324



光阀 302

Light valve 302

仅与平行式干涉镜 301 组合使用，用作平面镜干涉仪

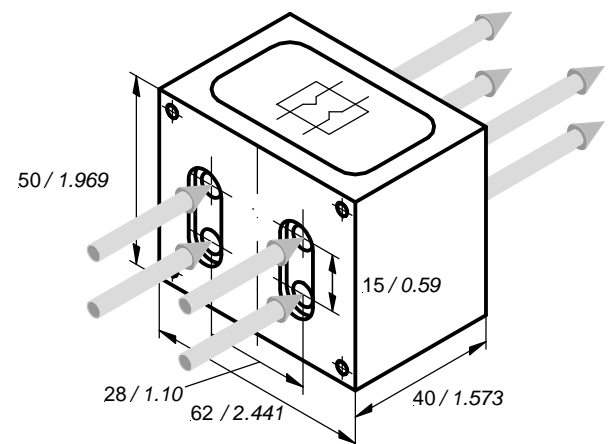
Only applicable in combination with parallel interferometer

301 as plane mirror interferometer

重量 / Weight: 420g

料号 / Order No.:

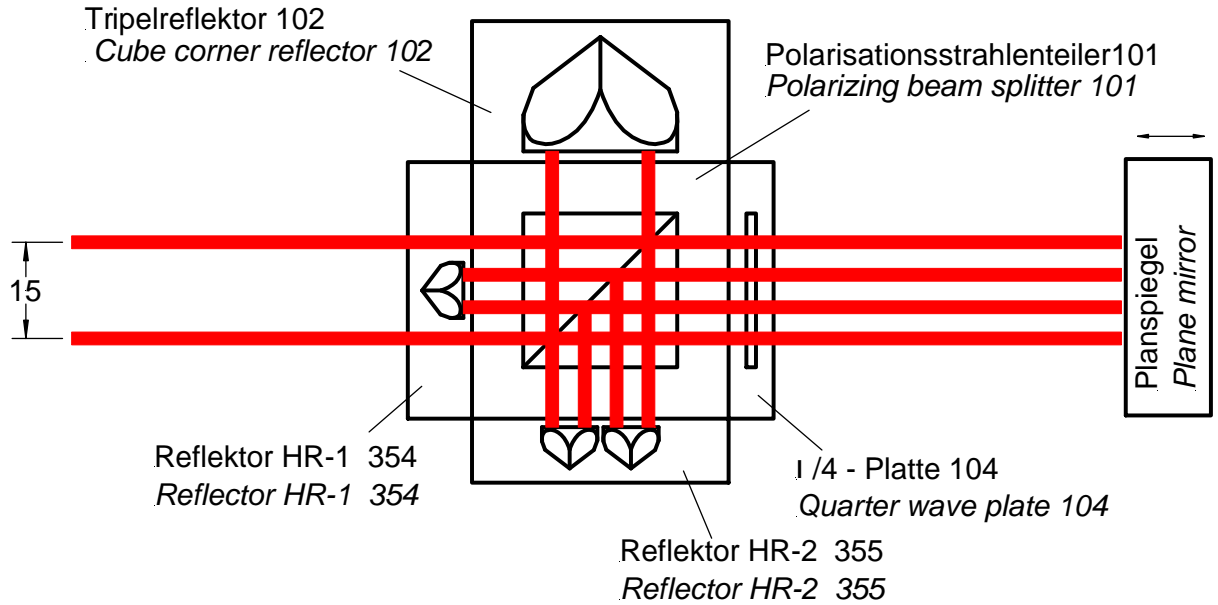
269302-4013.424





八倍光路高分辨率干涉镜(分辨率 0.6 nm)

High resolution interferometer with 8-fold beam path (resolution 0.6 nm)

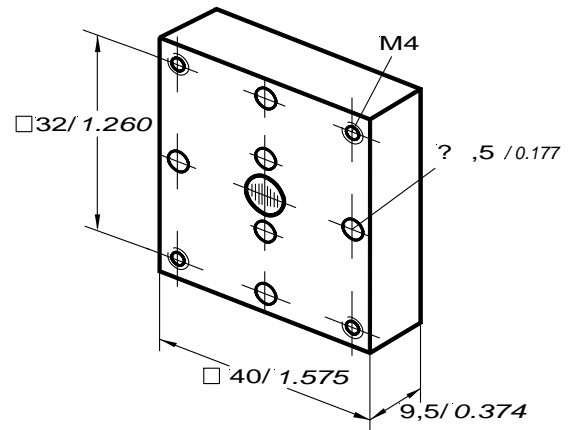


反射镜 HR - 1 354

Reflector HR - 1 354

重量/Weight: 105g

料号/Order No:
26 93 02 - 4018.324

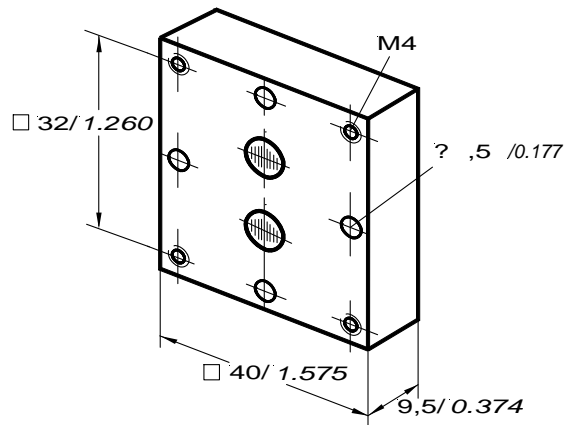


反射镜 HR - 2 355

Reflector HR - 2 355

重量/Weight: 105g

料号/Order No:
26 93 02 - 4018.424



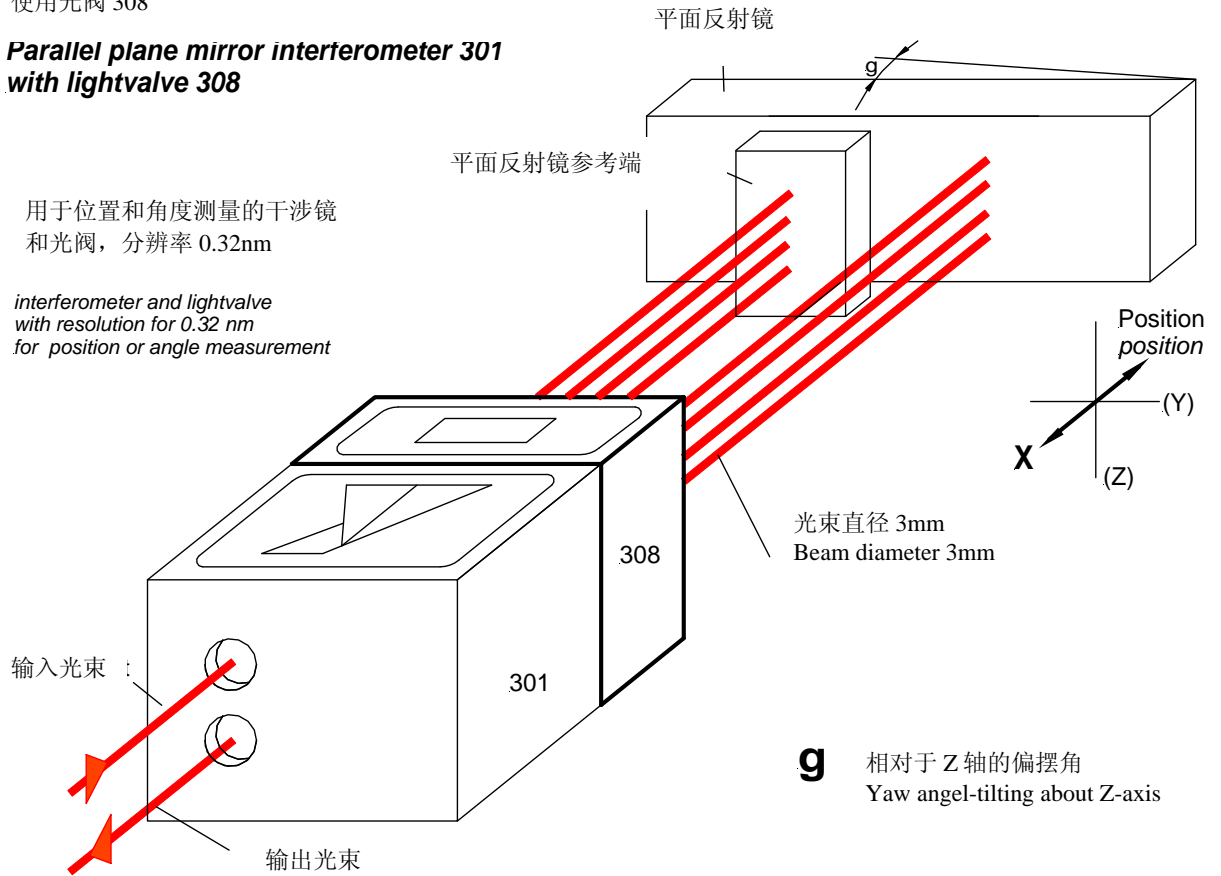


平行式平面干涉镜 301
使用光阀 308

**Parallel plane mirror interferometer 301
with lightvalve 308**

用于位置和角度测量的干涉镜
和光阀，分辨率 0.32nm

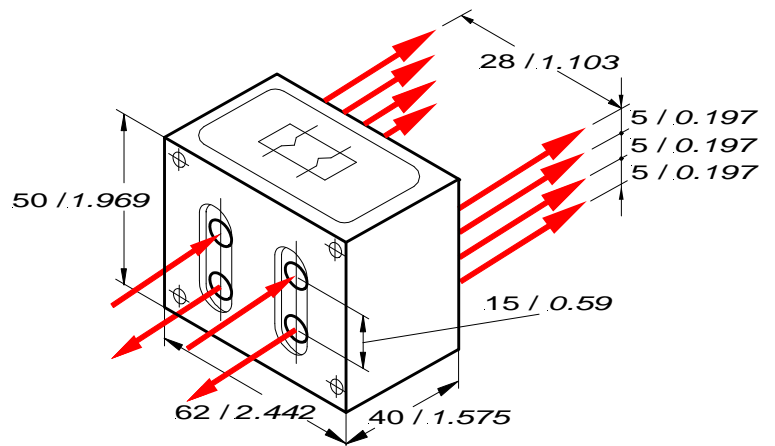
*interferometer and lightvalve
with resolution for 0.32 nm
for position or angle measurement*



g 相对于 Z 轴的偏摆角
Yaw angel-tilting about Z-axis

具有 0.32nm 分辨率的光阀 308
Lightvalve 308 for 0.32nm resolution

重量 /Weight: 420g



料号 / Order No.:
269302-4009.124

关于参考镜 536，见 M-9 页。

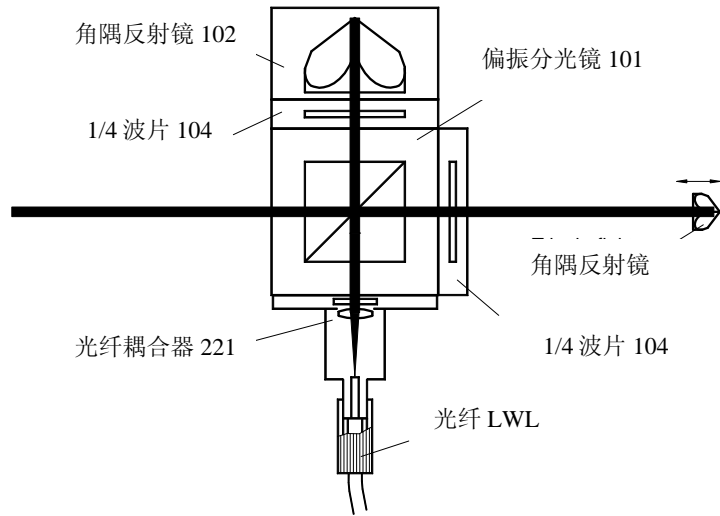


单光束测量

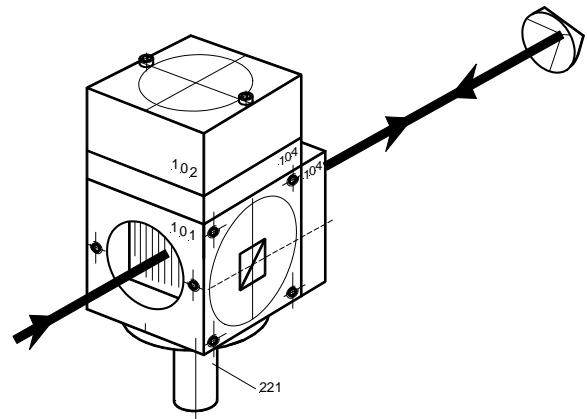
Single beam measurement

分辨率 2.5nm
Resolution 2.5nm

光束直径: 6mm
Beam diameter: 6mm

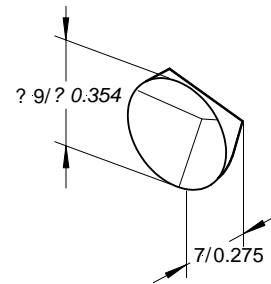


干涉镜 Interferometer	料号 Order-No.
偏振分光镜 101 Polarizing beam splitter 101	269302-4010.124
角隅反射镜 102 Cube corner reflector 102	269302-4010.224
λ/4-波片 104 Quarter wave plate	269302-4010.424
LWL-光纤耦合器 221 Fibre optics coupling 221	269302-4015.624



无插孔的角隅反射镜
Cube corner reflector without socket

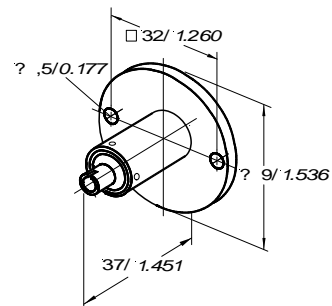
直径: 9mm
Diameter: 0.354 in
重量/Weight: 1g



LWL – 光纤耦合器 221
Fibre optics coupling 221

重量/Weight: 106g

料号 / Order No.:
269302-4015.624

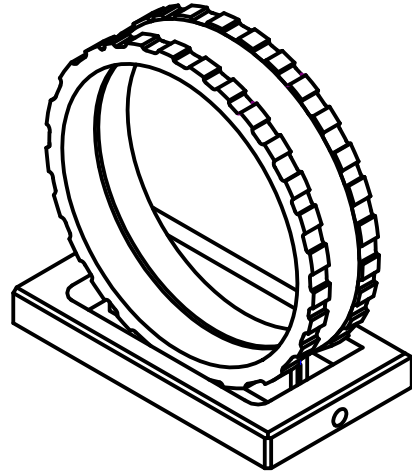




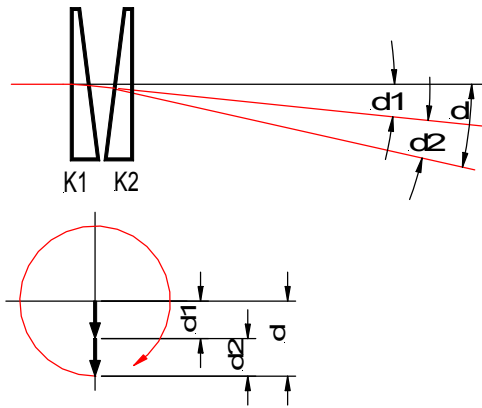
旋转光楔对 325
Rotating wedge pair 325

重量 / Weight: 535g

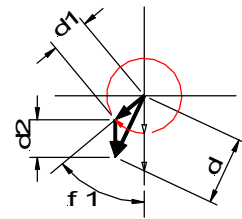
料号 / Order No.:
269302-5905.026



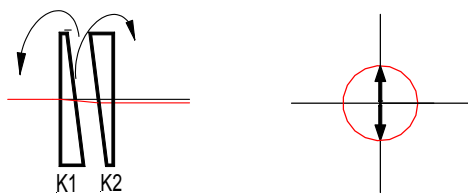
测量最大偏差位置的旋转光楔对
Rotating wedge pair in position of maximal deviation



通过任意方向旋转光楔对，可以调节 2σ 光锥。
By rotating both wedges any spatial direction within a beam cone 2σ can be adjusted

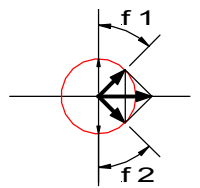


测量最小偏差位置的旋转光楔对
Rotating wedge pair in position of minimal deviation

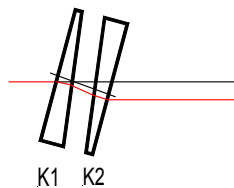


记录 $\phi 1$ 和 $\phi 2$ 周围的光楔镜，就可计算出平面镜的光束偏差。

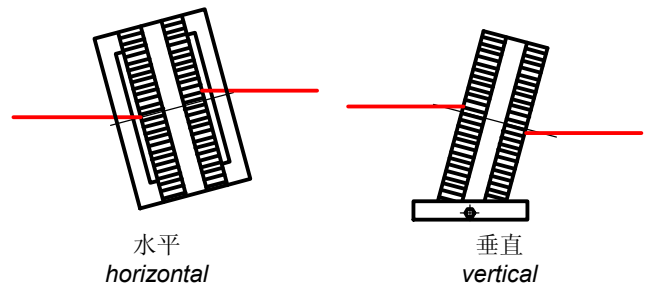
By counter rotation both wedges around $\phi 1$ and $\phi 2$ a beam deviation in one plane can be produced.



通过倾斜光楔对，就会产生一个垂直于倾斜轴的平行光束位置。
By tilting the wedge pair a parallel beam displacement perpendicular to the tilt axis occurs.



平行位移
Parallel displacement

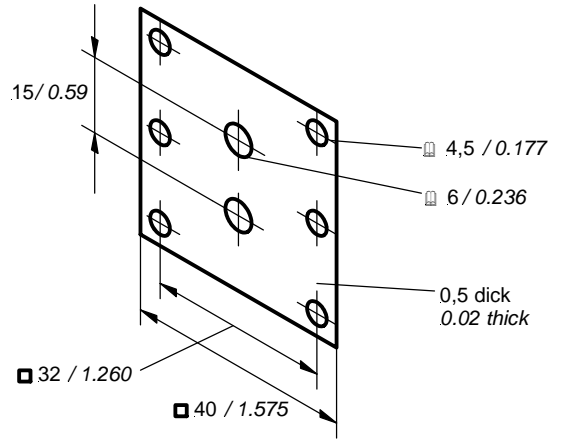




挡板 516
Stop 516

重量 / Weight: 10g

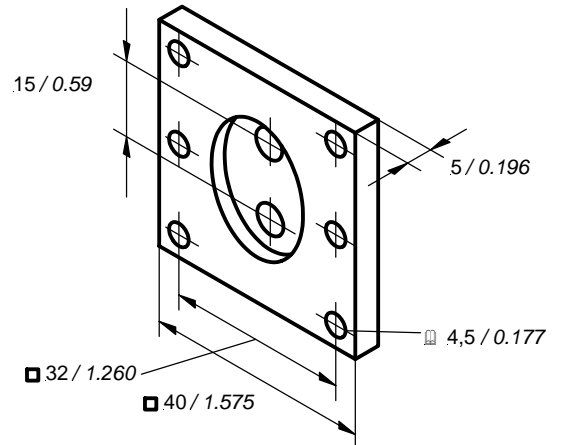
料号 / Order No.:
269302-4014.210



挡板 517
Stop 517

重量 / Weight: 44g

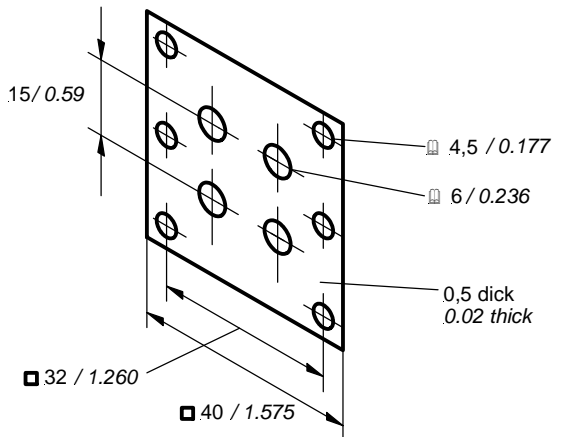
料号 / Order No.:
269302-4018.210



挡板 519
Stop 519

重量 / Weight: 10g

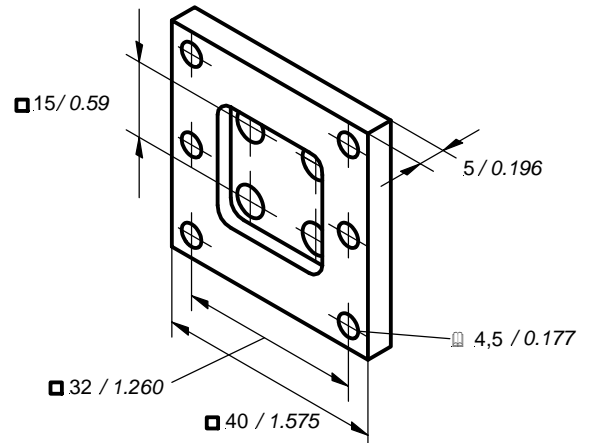
料号 / Order No.:
269302-4014.310



挡板 520
Stop 520

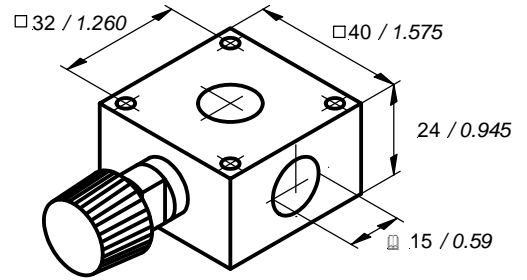
重量 / Weight: 36g

料号 / Order No.:
269302-4018.310

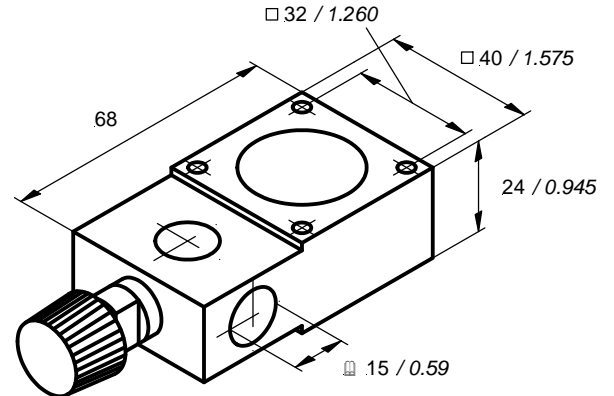



夹具 507
 Clamping device 507

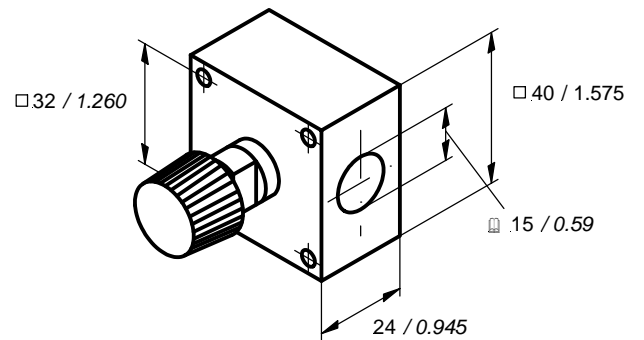
重量 / Weight: 110g

 料号 / Order No.:
269302-4010.325

夹具 508
 Clamping device 508

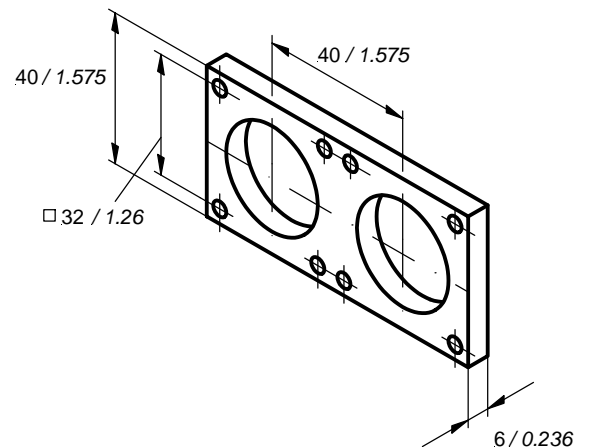
重量 / Weight: 124g

 料号 / Order No.:
269302-4010.125

夹具 509
 Clamping device 509

重量 / Weight: 110g

 料号 / Order No.:
269302-4010.225

耦合波片 510
 Coupling plate 510

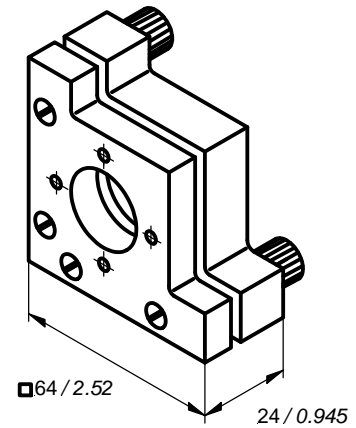
重量 / Weight: 76g

 料号 / Order No.:
269302-4014.525




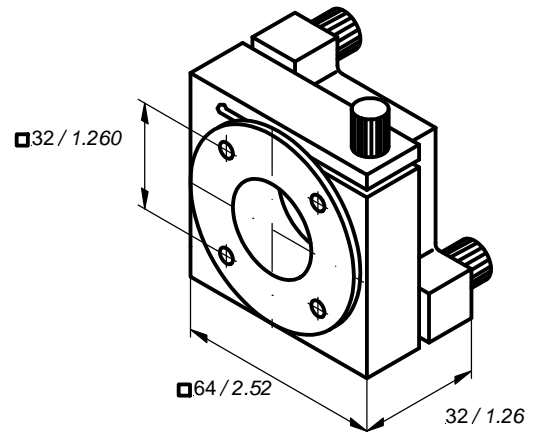
可倾斜支架 523
Tilttable holder 523

料号 / Order No.:
269302-4010.825



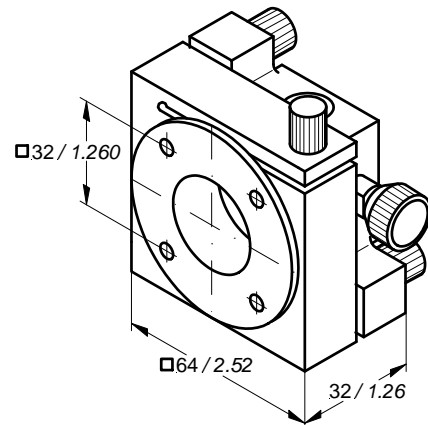
可倾斜支架 524
Tilttable holder 524

料号 / Order No.:
269302-4010.925



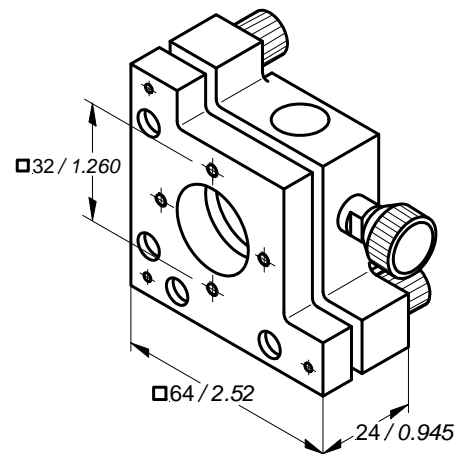
可倾斜基支架 531
Tilttable holder 531
(带夹具)
(with clamping device)

料号 / Order No.:
269302-4040.725



可倾斜支架 532
Tilttable holder 532
(带夹具)
(with clamping device)

料号 / Order No.:
269302-4040.625



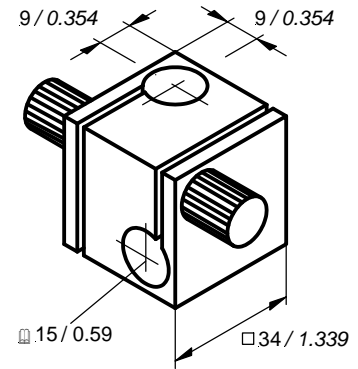


克鲁斯夹具 514

Cruise clamping device 514

料号 / Order No.:

269302-4010.525



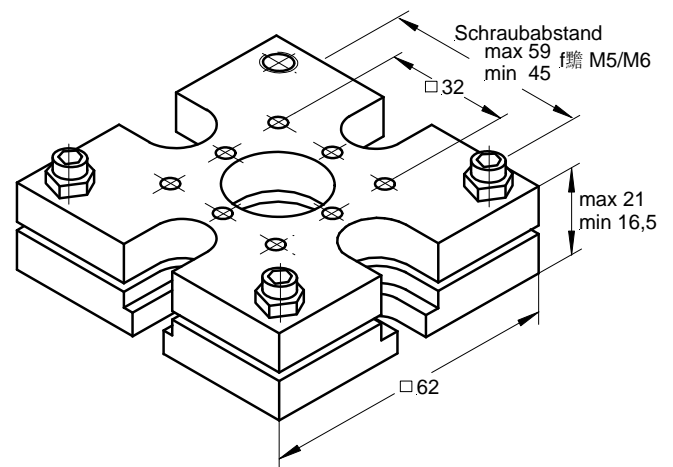
可调型安装基座 534, 用于光学元件的安装 □ 40

Adjustable mount 534 for optical components □ 40

重量 / Weight: 71g

料号 / Order No.:

269302-4014.225



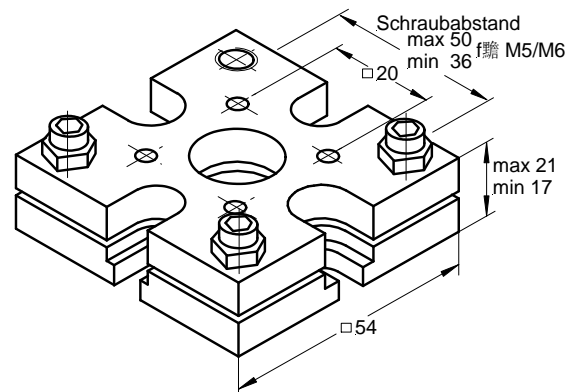
可调型安装基座 535, 用于光学元件的安装 □ 28

Adjustable mount 535 for optical components □ 28

重量 / Weight: 58g

料号 / Order No.:

269302-4014.125

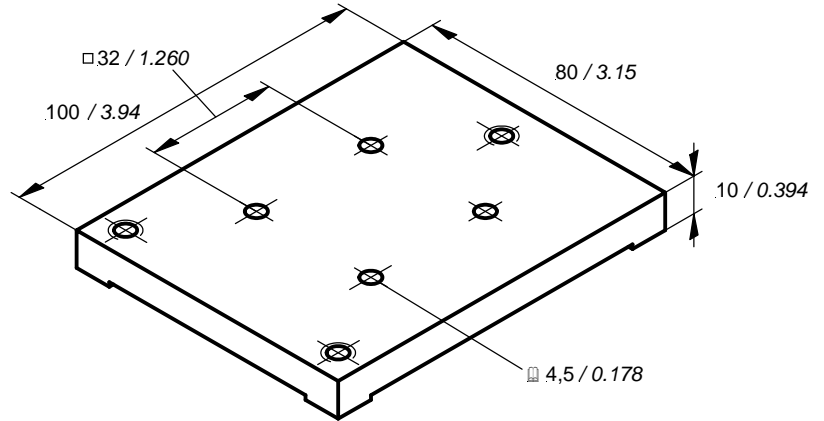




安装板 504
Mounting plate 504

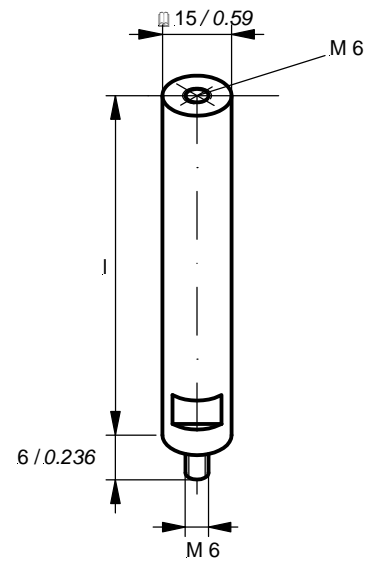
重量 / Weight: 535g

料号 / Order No.:
269302-4010.924



支柱
Columns

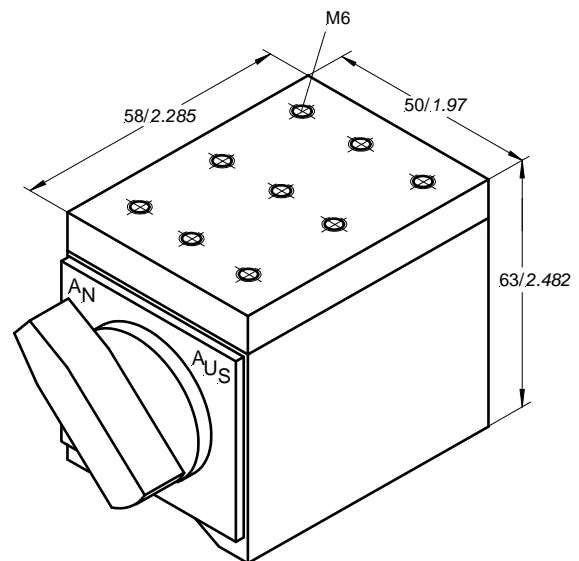
名称 Name	长度/l Length /l	重量 Weight	料号 Order No.
支柱 90 Column	90mm 3.543 in	120g 4.236 oz	26 02 97 - 9900.228
支柱 140 Column	140mm 5.512 in	192g 6.776 oz	26 02 97 - 9900.128
支柱 200 Column	200mm 7.874 in	275g 9.707 oz	26 02 97 - 9900.328



磁性基座 506
Magnetic base 506

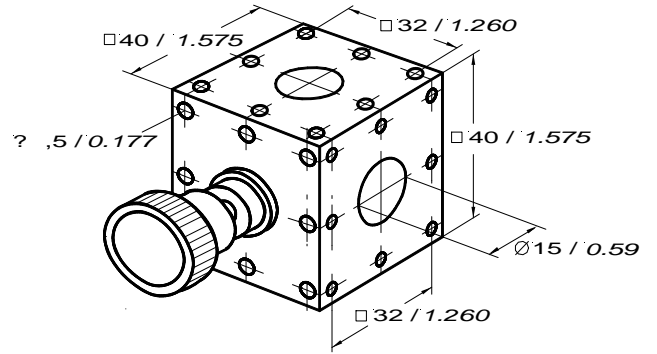
重量 / Weight: 1300g

料号 / Order No.:
260298-3000.128

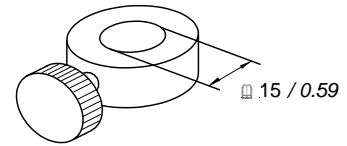



方形夹具 503
Clamping cube 503

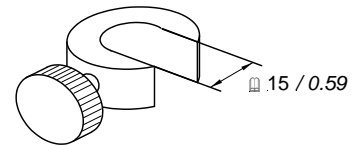
重量 / Weight: 182g

 料号 / Order No.:
269302-4010.625

领型夹具，闭口型
Collar, closed

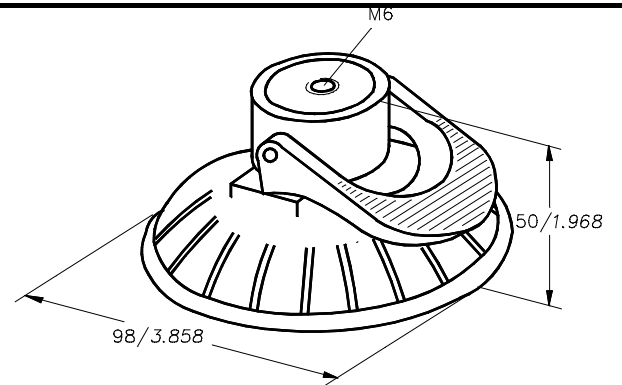
重量 / Weight: 36g

 料号 / Order No.:
260297-9900.428

领型夹具，开口型
Collar, open

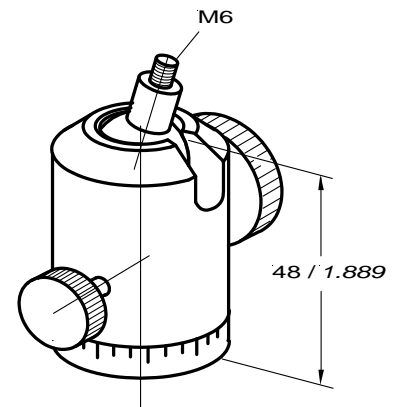
重量 / Weight: 28g

 料号 / Order No.:
260297-9900.528

真空吸盘
Vacuum base

重量 / Weight: 272g

 料号 / Order No.:
269302-4012.325

球形接头
Ball Joint

重量 / Weight: 175g

 料号 / Order No.:
260297-9900.628




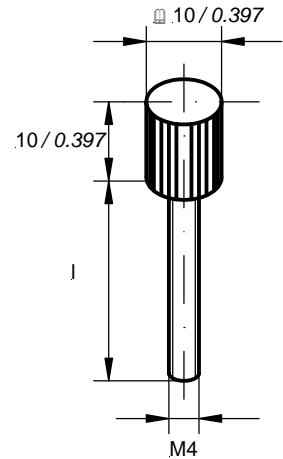
全套螺栓

Set of screws, complete

料号 / Order No.:

269302-4005.624

序号 Number	长度 /l Length /l	数量 Quantity	料号 Order No.
14	14mm 0.551in	4	269302-4011.025
20	20mm 0.788in	2	269302-4011.125
29	29mm 1.142in	6	269302-4011.225
36	36mm 1.417in	2	269302-4011.325
45	45mm 1.772in	2	269302-4011.425



插头型螺栓 M4 (DIN 912)

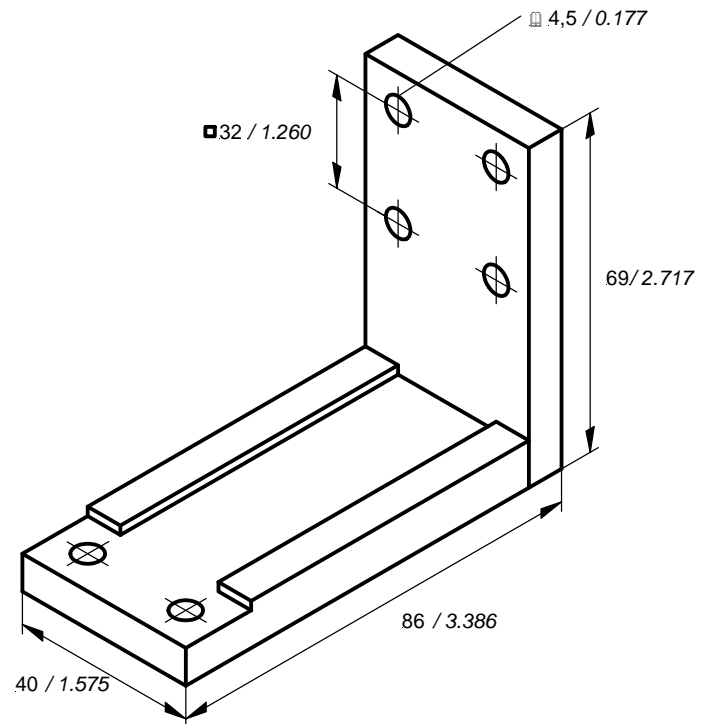
Socket – head screws M4 (DIN 912)

长度 /l Length /l	数量 Quantity
6mm 0.236in	4
10mm 0.394in	4
25mm 0.984in	2
30mm 1.181in	6
35mm 1.378in	2
46mm 1.811in	2

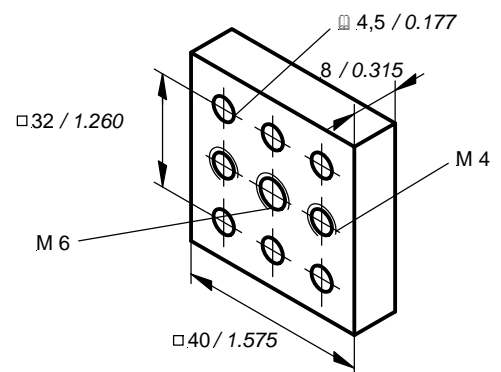
另配 M4 角螺栓用启子一个。
Supplementary 1 piece of angle screw
driver M4


角度支撑架 521
Angle bracket 521

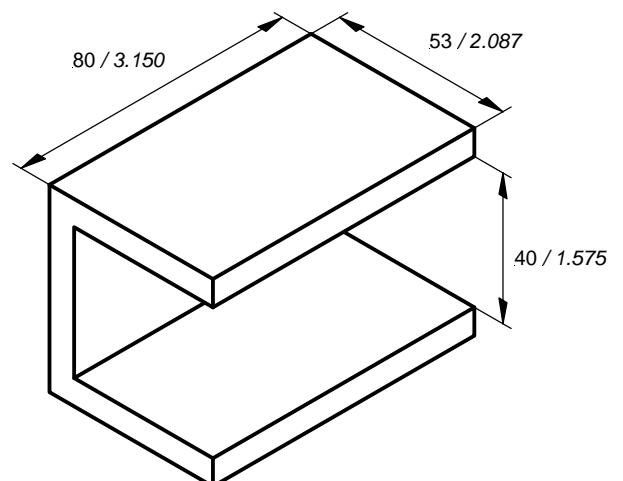
重量 / Weight: 420g

 料号 / Order No.:
269302-4010.425

连接板 522
Adapter plate 522

重量 / Weight: 94g

 料号 / Order No.:
269302-4018.110

光学套件安装助手 518
Mounting aid for optic kit

重量 / Weight: 280g

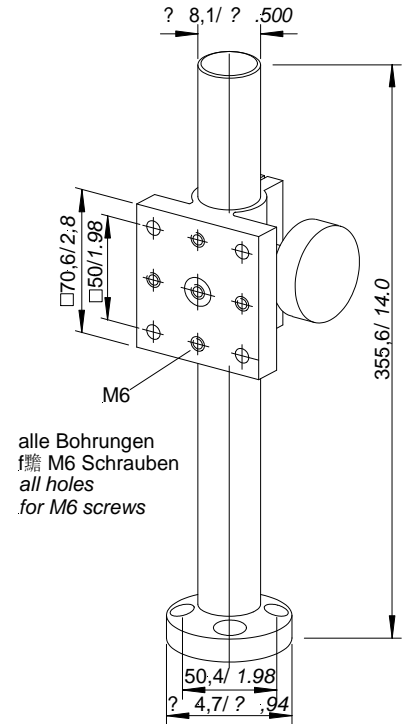
 料号 / Order No.:
269302-4014.610




带安装夹具的减振支柱
Vibration damping column with mounting clamp

重量 / Weight: 737g

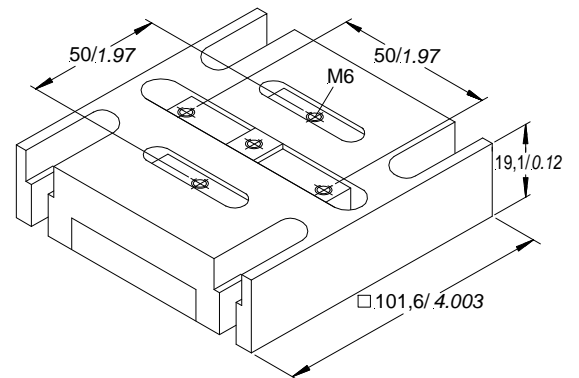
料号 / Order No.:
269302-4012.825



可调型安装板
Adjustable mounting plate

重量 / Weight: 88,5g

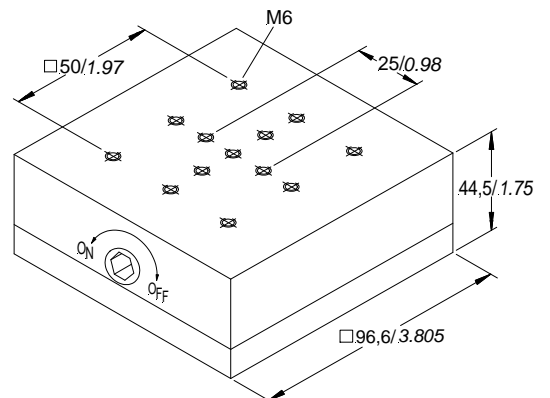
料号 / Order No.:
260297-9901.132



平面型磁性基座
Flat magnetic base

重量 / Weight: 407g

单号 / Order No.:
260297-9901.228

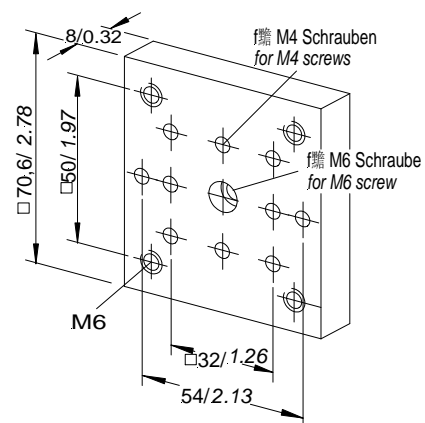




连接板 554
Adapter plate 554

重量/Weight: 272g

料号/Order No.:
269302-4042.910





激光头 *Laser measuring head*

230V 型

光束直径 6mm
with 0.236in beam diameter
220...240V/50-60Hz

料号 / Order No.:
26 93 02 – 4040.026

光束直径 3.2mm
with 0.126in beam diameter
220...240V/50-60Hz

料号 / Order No.:
26 93 02 – 4040.126

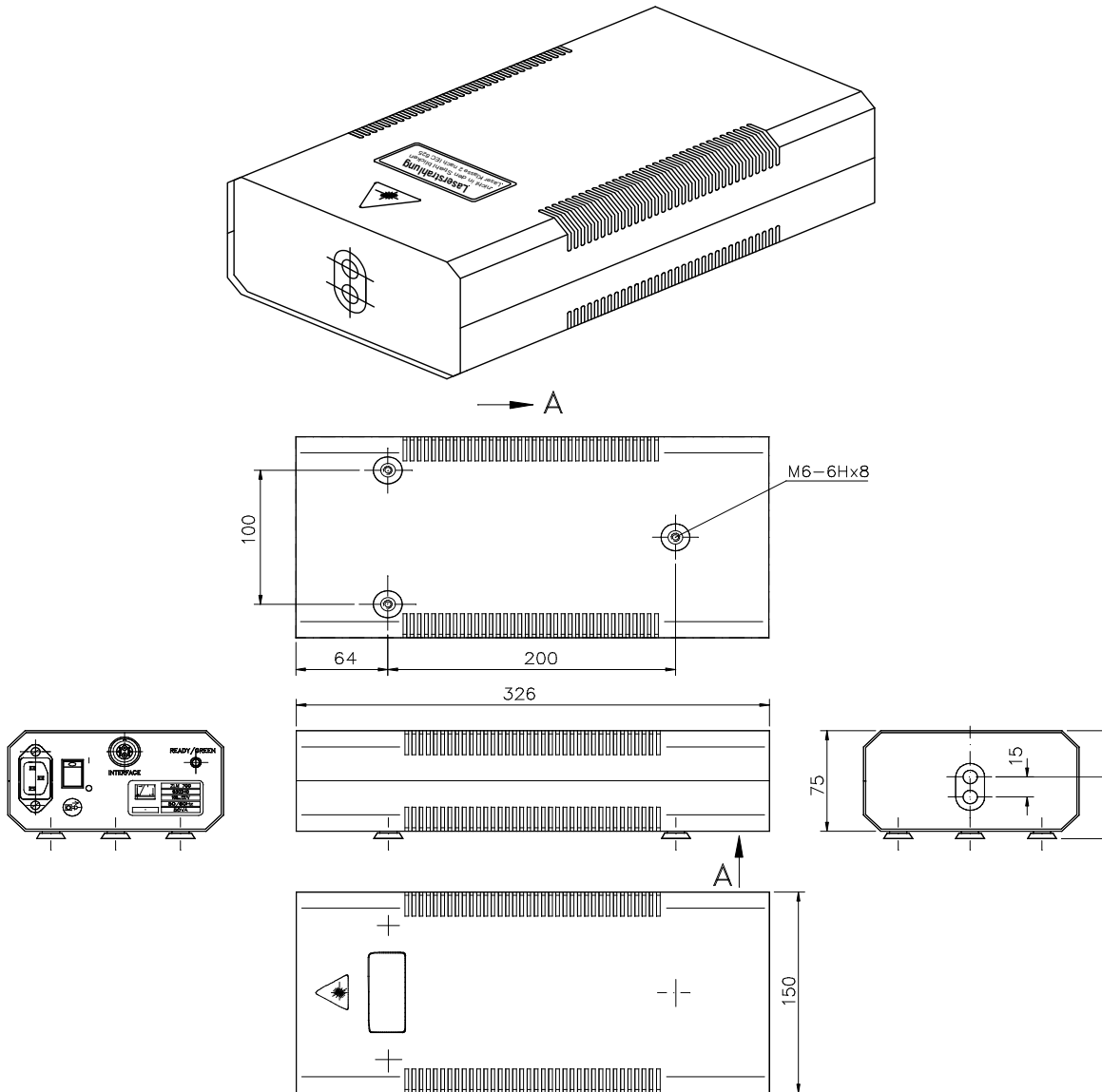
115V 型

光束直径 6mm
with 0.236in beam diameter
100...127V/50-60Hz

料号 / Order No.:
26 93 02 – 4040.626

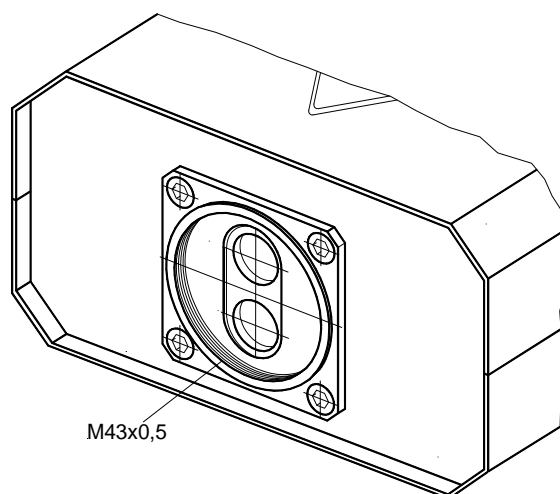
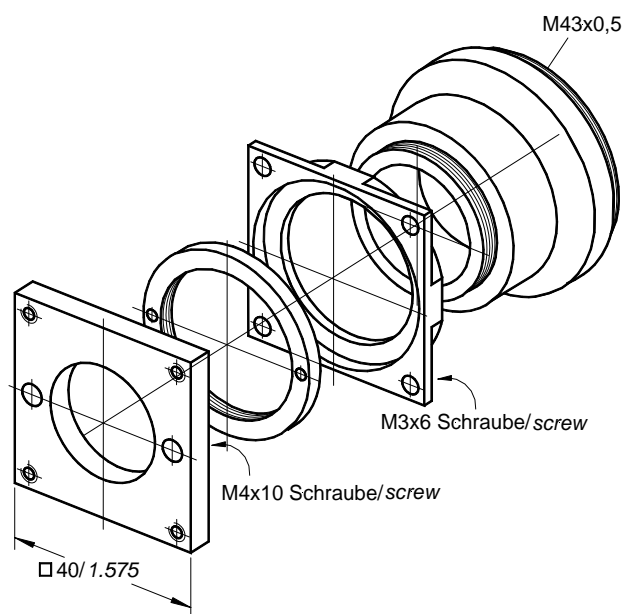
光束直径 3.2mm
with 0.126in beam diameter
100...127V/50-60Hz

料号 / Order No.:
26 93 02 – 4040.726



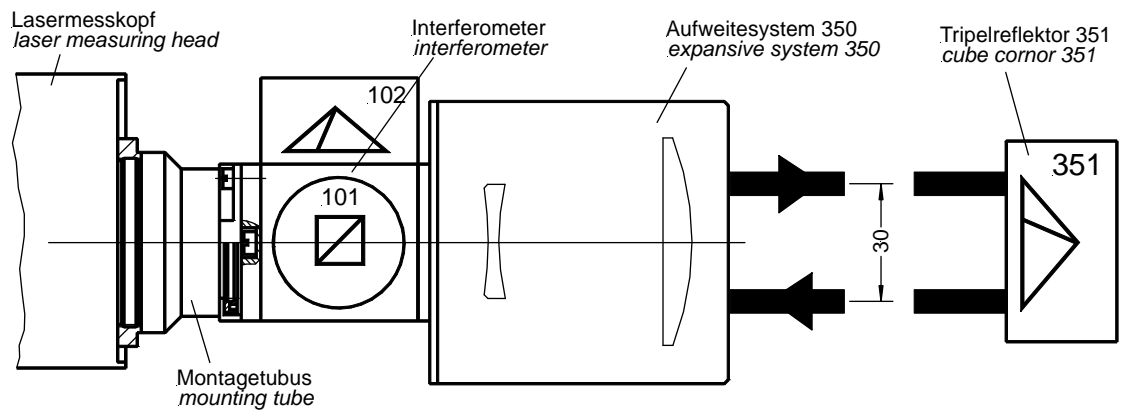
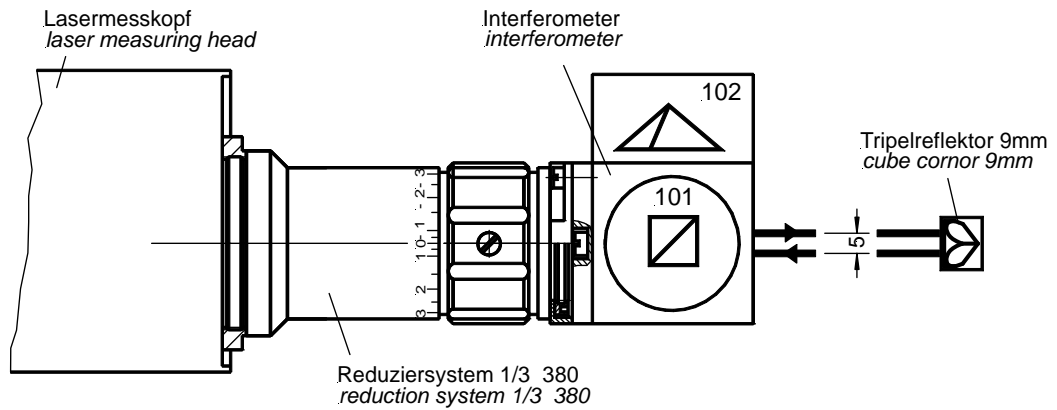
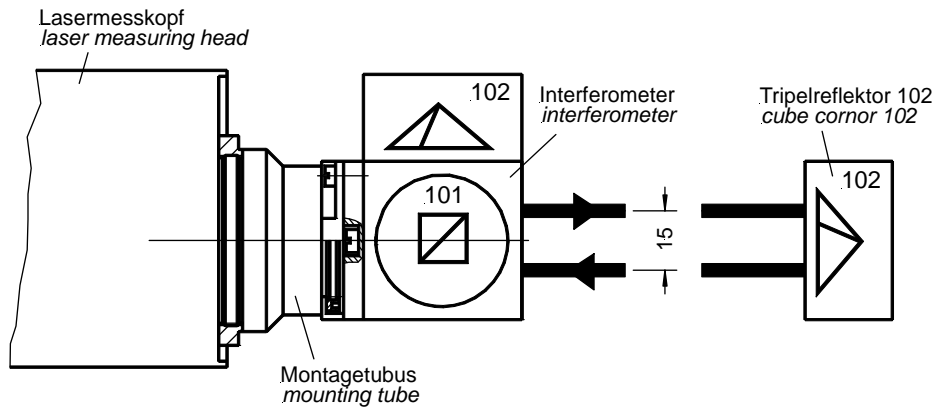
激光头螺纹型法兰
Thread flange for laser measuring head料号 / Order No.:
269302-4019.710

仅限于激光干涉仪的组装使用

光学模块的安装管
Mounting tube for optic modules料号 / Order No.:
269302-4009.625



应用示例
Examples of use

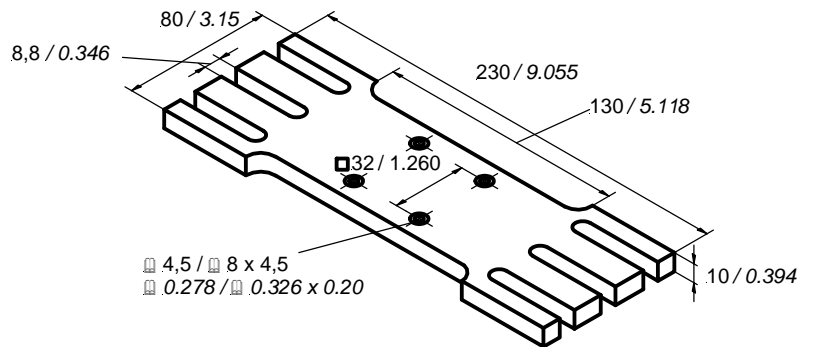




安装板 529
Mounting plate 529

重量 / Weight: 450g

料号 / Order No.:
269302-4041.310

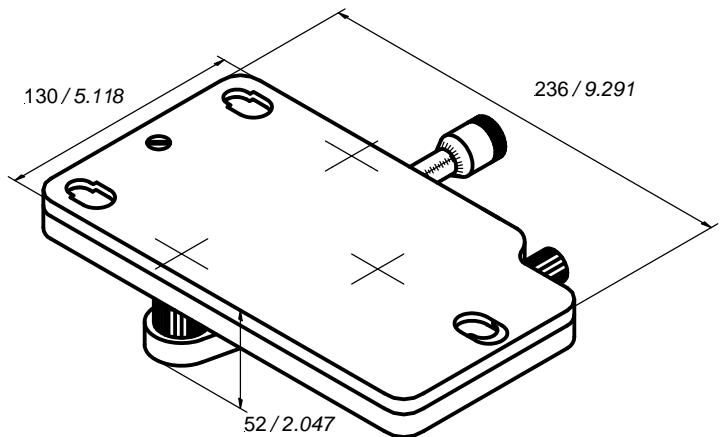


可调云台
Adjustable table

可自由调整 5 度
Adjustable in 5 degrees of freedom

重量 / Weight: 1.200g

料号 / Order No.:
269302-4040.125

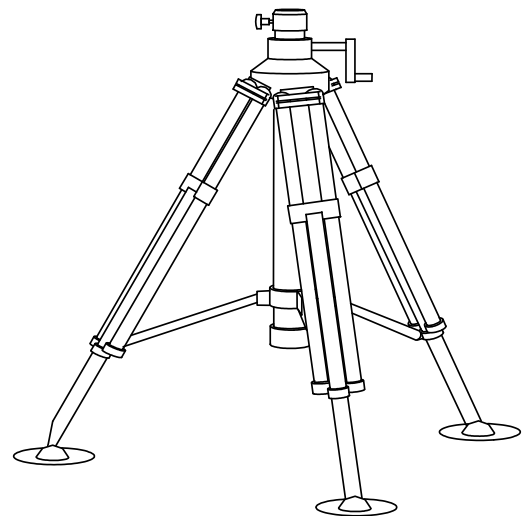


三角架
Tripod

工作高度: 55/140cm
支撑架伸展范围: 35°/45°/55°
Working height: 1.8/4.6ft
Leg spreading: 35°/45°/55°

重量 / Weight: 4.600g

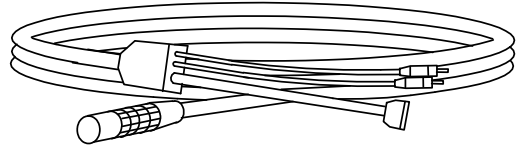
料号 / Order No.:
269302-4041.225





激光器用电缆(集成式光纤电缆)

Measurement head cable, complete (Fibre cables are integrated)

长度: 5m
length 16.4 ft料号 / Order No.:
269302-5041.524

梯度指数光纤

Gradient index fibre cable

长度: 5m
length 16.4 ft料号 / Order No.:
212.678

激光器电缆

Measurement head cable

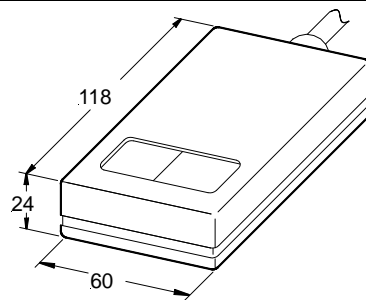
长度: 5m
length 16.4 ft料号 / Order No.:
269302-4040.124

仪表连接线 / Instrument connecting cord

型号 / Type:	料号 / Order No.:
DIN-标准	146.250
USA-标准	229.887
England-标准	228.205
Japan-标准	228.289

外部触发器开关

Switch for extern trigger

料号 / Order No.:
269302-4004.227

外部触发器电缆

Cable for extern trigger

料号 / Order No.:
269302-5001.124

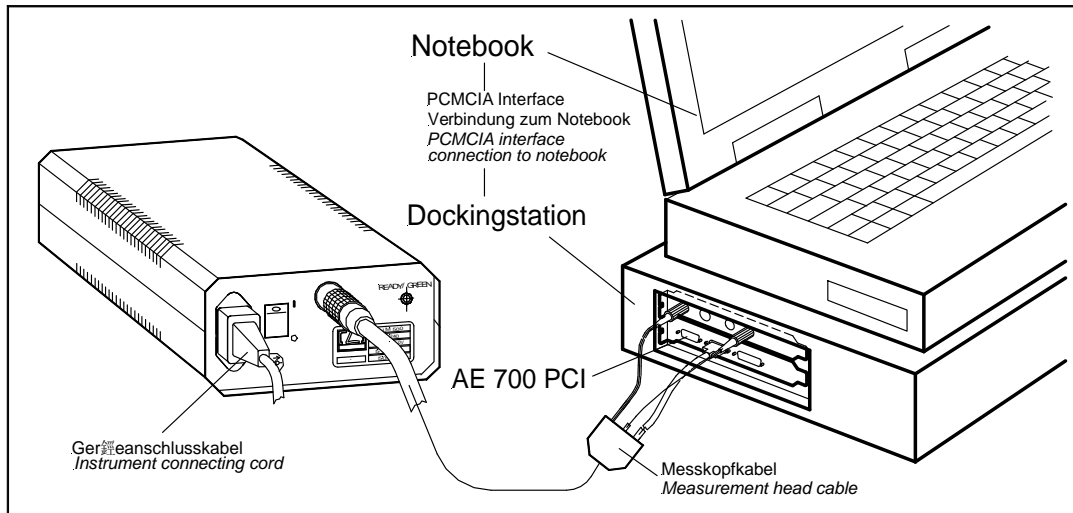


根据测量系统要求的不同（见 A-7 页），ZLM700 激光干涉仪有三种不同的数据处理器供用户选择，以方便连接到各种计算机上。

According to the scheme of the calibration system ZLM 700 (system summary, Page A-7) there are 3 variants for of connection ZLM 700 with different computer systems.

型号 1 / variant 1:

ZLM700 坞站型连接，PCI 总线系统 / ZLM700 docking station with PCI-Bus-System

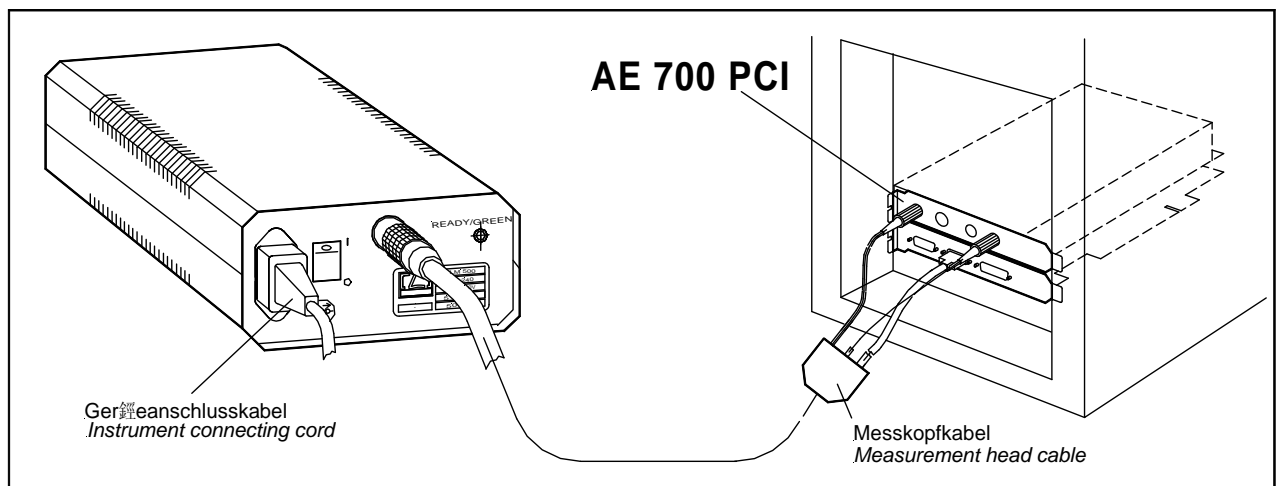


AE 700 坞站连接 PCI 总线系统
AE 700 docking station with PCI-Bus-system /

料号 / Order No.:
269302-5070.026

型号 2 / variant 2:

ZLM700 与 PC 连接，使用 PCI 总线系统
ZLM700 for PC with PCI-BUS-System



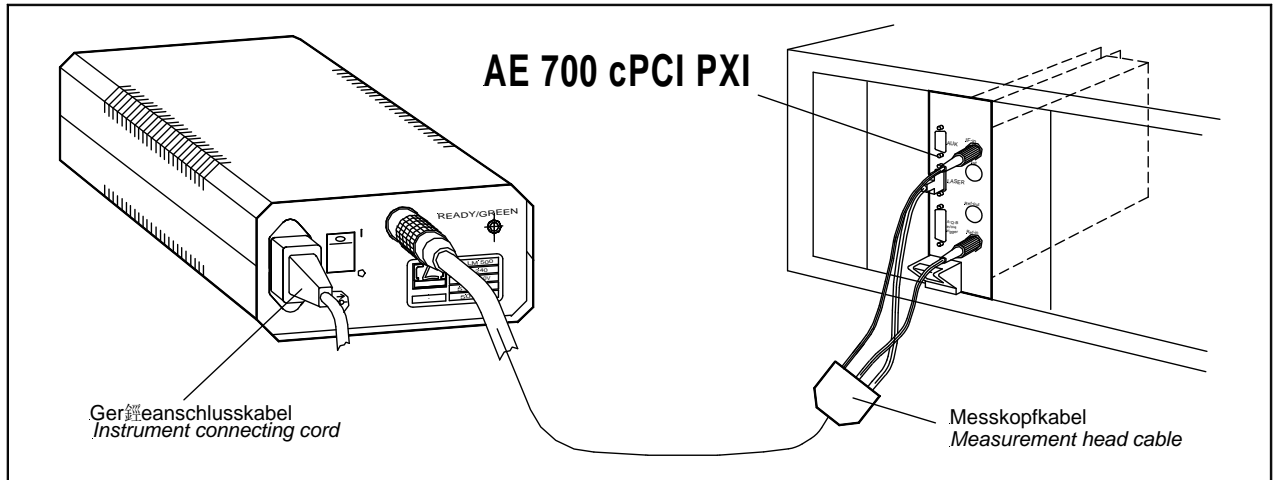
数据处理器 AE 700 PCI
Evaluation unit AE 700 PCI

料号 / Order No.:
269302-5071.026



型号 3 / variant 3:

ZLM700 连接 PC, PXI-总线系统
ZLM700 for PC with PXI-BUS-system



数据处理器 AE 700 cPCI-PXI
Evaluation unit AE 700 cPCI-PXI

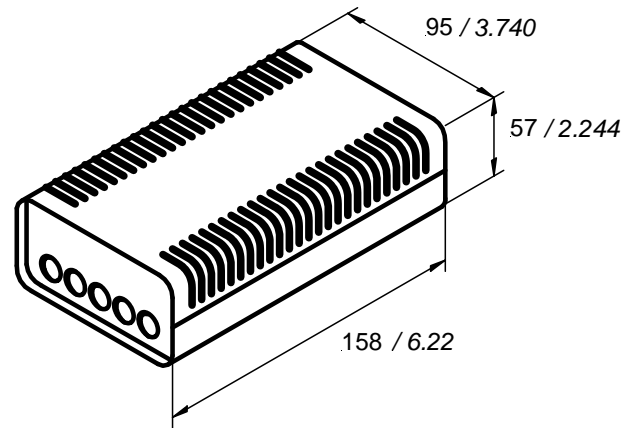
型号 / Order No.:
269302-5072.026



环境传感器 AUK

AUK environmental sensor

用于温度、压力和湿度的补偿，
可使用 5 个材料传感器
for temperature, pressure and humidity,
five surface sensors usable



料号 / Order No.:

269302-4053.226

技术规格 / Specification

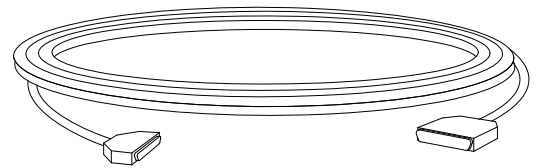
环境温度范围 <i>Air temperature range</i>	10°C...45°C
温度测量精度 <i>Air temperature accuracy</i>	< 0.1K
气压测量范围 <i>Air pressure range</i>	800-1200hPa (650-1200hPa 可选)
气压测量精度 <i>Air pressure accuracy</i>	< 1.5hPa
相对湿度范围 <i>Rel. air humidity range</i>	0...95%
相对湿度精度 <i>Rel. air humidity accuracy</i>	5%
材料温度范围 <i>Surface temperature range</i>	10°C...45°C (50°F...113°F)
材料温度精度 <i>Surface temperature accuracy</i>	50mK

AUK 连接线

AUK connecting cable

料号 / Order No.:

269302-4040.224

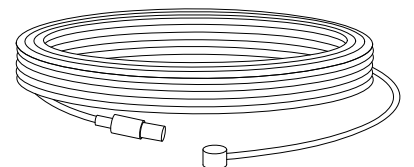


材料温度传感器 2

Surface temperature sensor 2

料号 / Order No.:

269300-3904.824

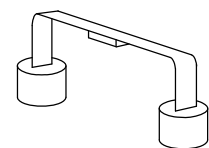


磁性支架 2

Magnetic holder 2

料号 / Order No.:

269300-3900.524





	料号: 德语	料号: 英语
动态测量软件 <i>Dynamics measurement software</i>		
位移测量 <i>Distance measurement</i> 单轴系统动态测量软件 <i>Dynamic measurement software for one axis systems</i>	269302-4026.624	269302-4026.724
角度测量 <i>Angle measurement</i>	269302-4026.824	269302-4026.924
多轴系统动态测量 <i>Dynamics measurement for multi axis systems</i>	269302-4027.224	269302-4027.324
校正软件 <i>Calibration software</i>		
位置测量 <i>Position measurement</i>	269302-4026.024	269302-4026.124
角度和直线度测量 <i>Angle and Straightness measurement</i>	269302-4027.024	269302-4027.124
平面度测量 <i>Flatness measurement</i>	269302-4027.424	269302-4027.524
多轴系统标定软件 <i>Calibration software for multi axis systems</i>	269302-4028.224	269302-4028.324
机械误差补偿 标定软件 <i>Calibration software for machine error compensation</i>		
西门子系统 <i>System Sinumerik</i>	269302-4026.224	269302-4026.324
FANUC 系统 <i>System FANUC</i>	269302-4027.824	269302-4027.924
Bosch 系统 <i>System Bosch</i>	269302-4028.024	269302-4028.124
Heidenhain 系统 <i>System Heidenhain</i>	269302-4028.624	269302-4028.724

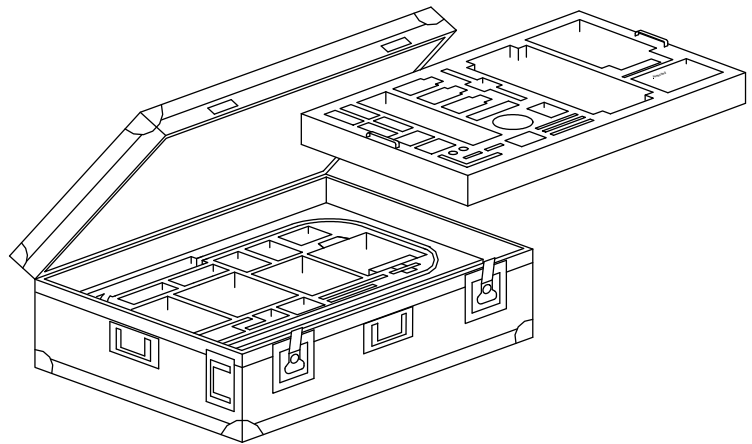


激光器的储运箱

Transport case for laser measuring head

尺寸 mm:
740 x 480 x 240
Measuring:
29.138 x 18.900 x 9.450

料号 / Order No.:
269302-4003.526

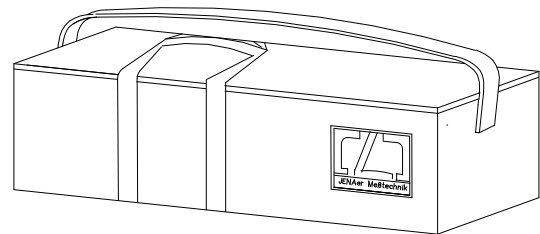


三角架和可调云台的储运箱

Transport bag for tripod and adjustment table

尺寸 mm: 1100 x 250 x 210
Measuring: 43.309 x 9.843 x 8.268

料号 / Order No.:
4003.726

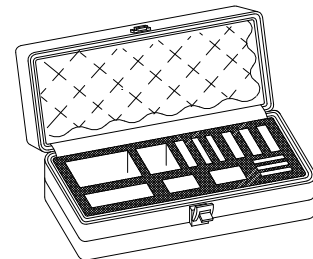


光学模块的储运箱

Box for optic modules

尺寸: 285 x 103 x 66
Measuring: 11.221 x 4.055 x 2.598

料号 / Order No.:
269302-4010.126

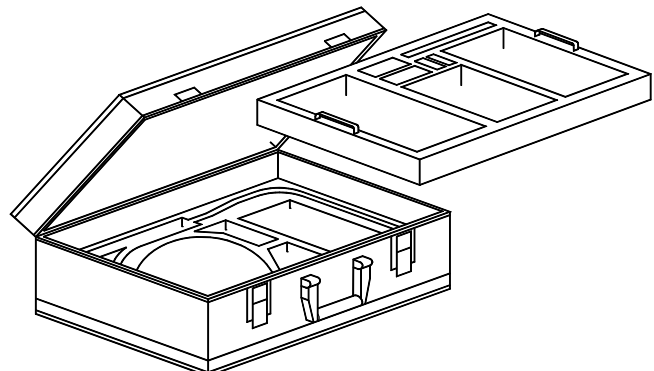


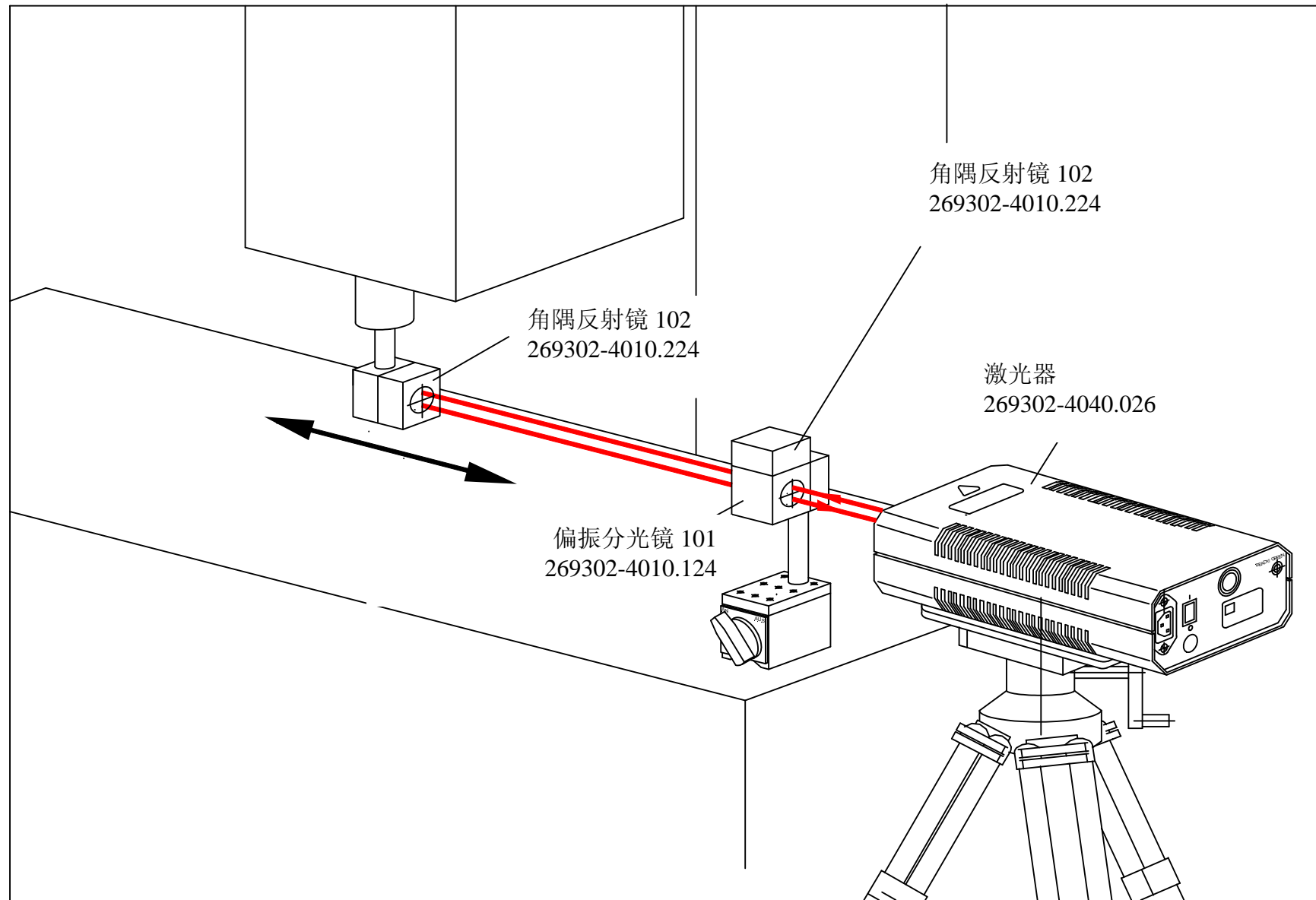
手提箱

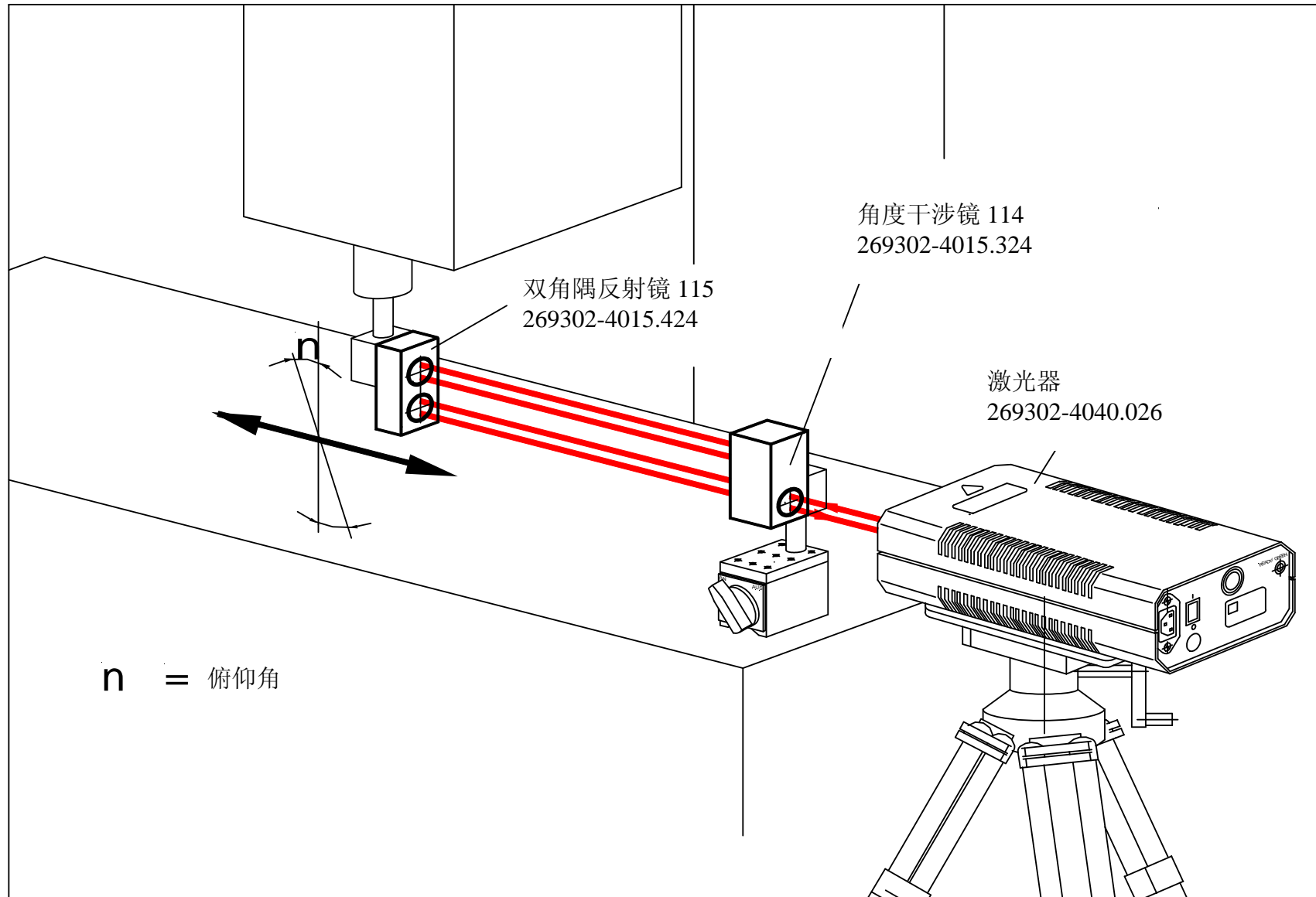
Transport case – flight hand luggage

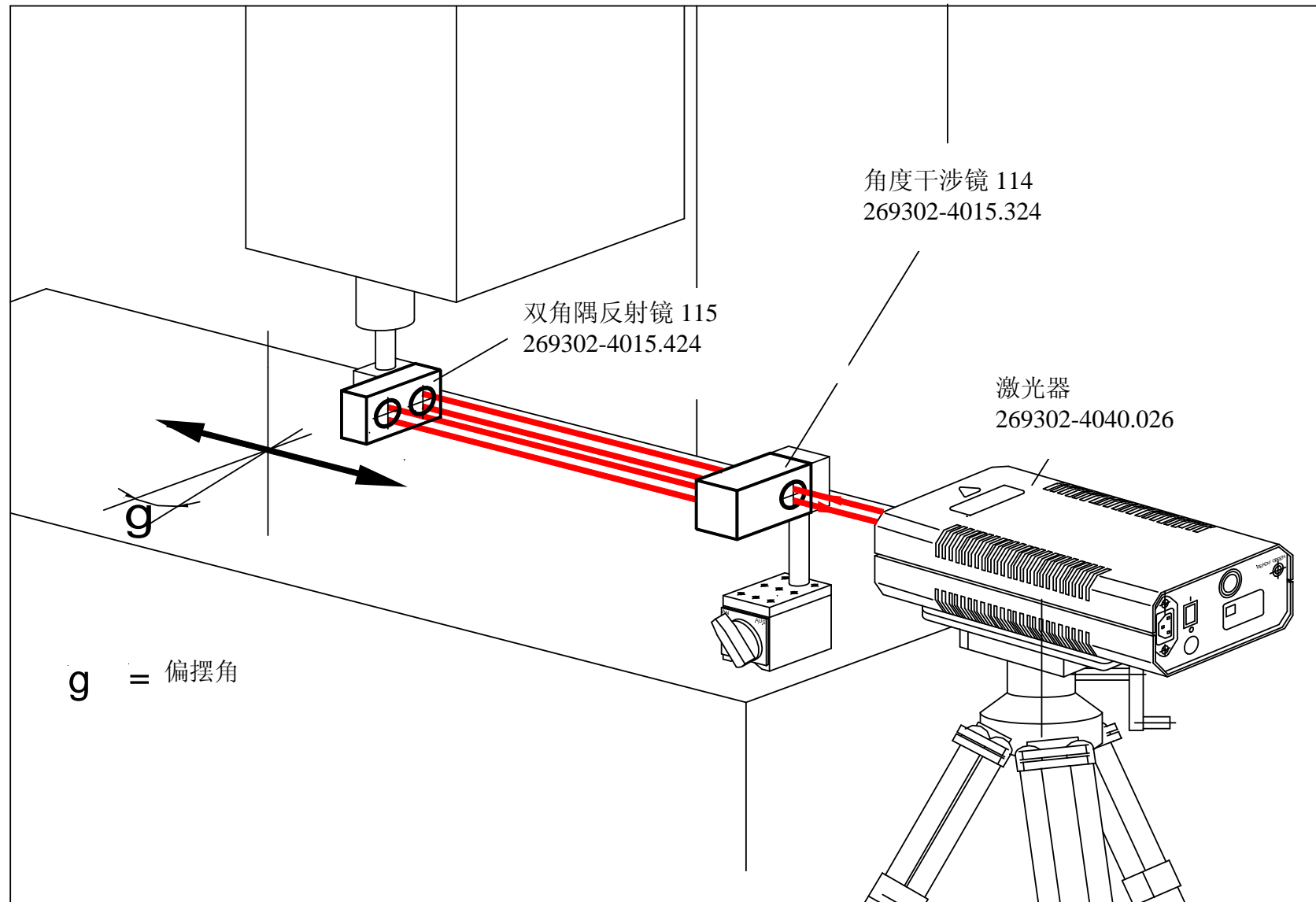
尺寸 mm: 485 x 357 x 157
Measuring: 19.094 x 14.055 x 6.181

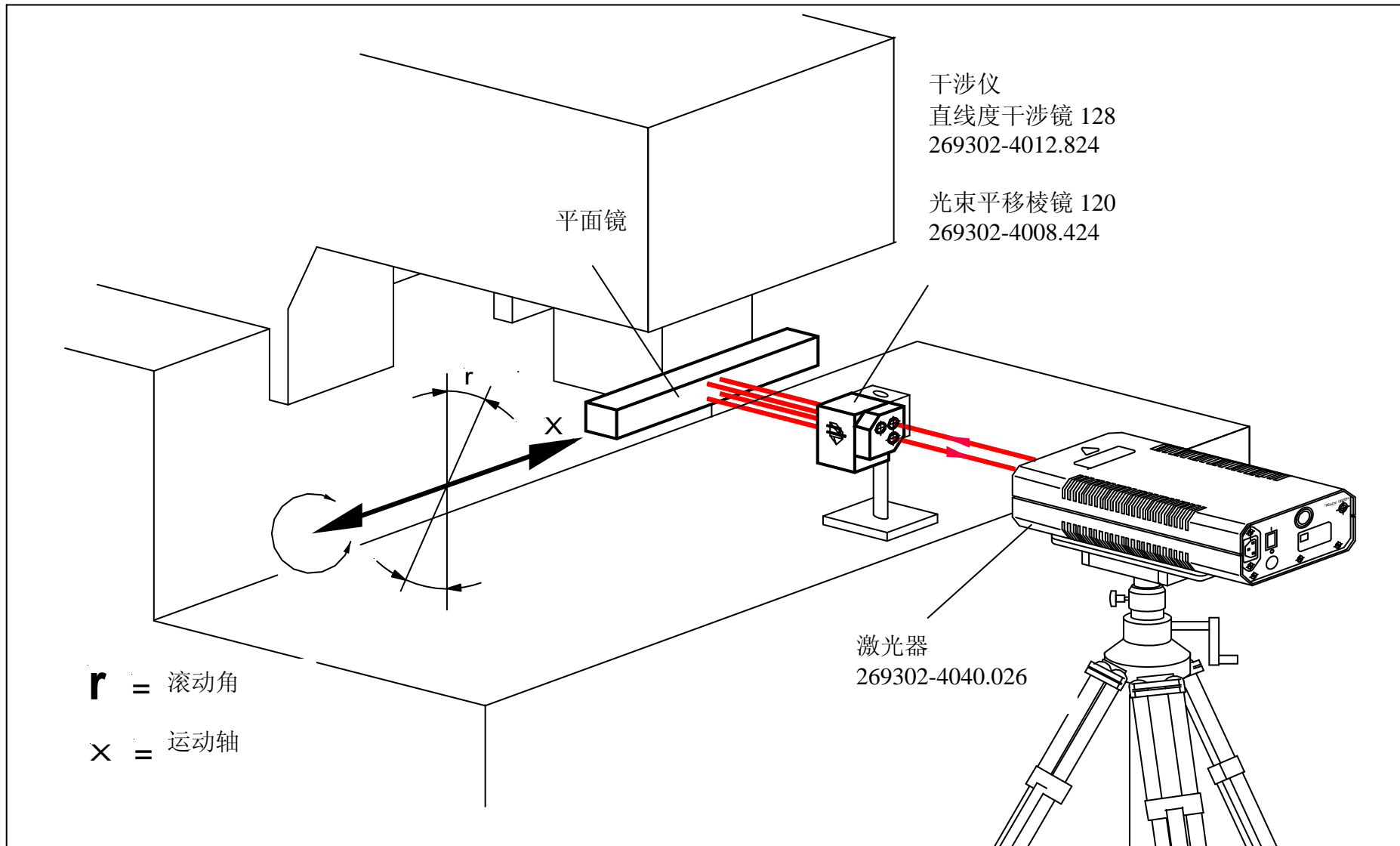
料号 / Order No.:
269302-4003.526

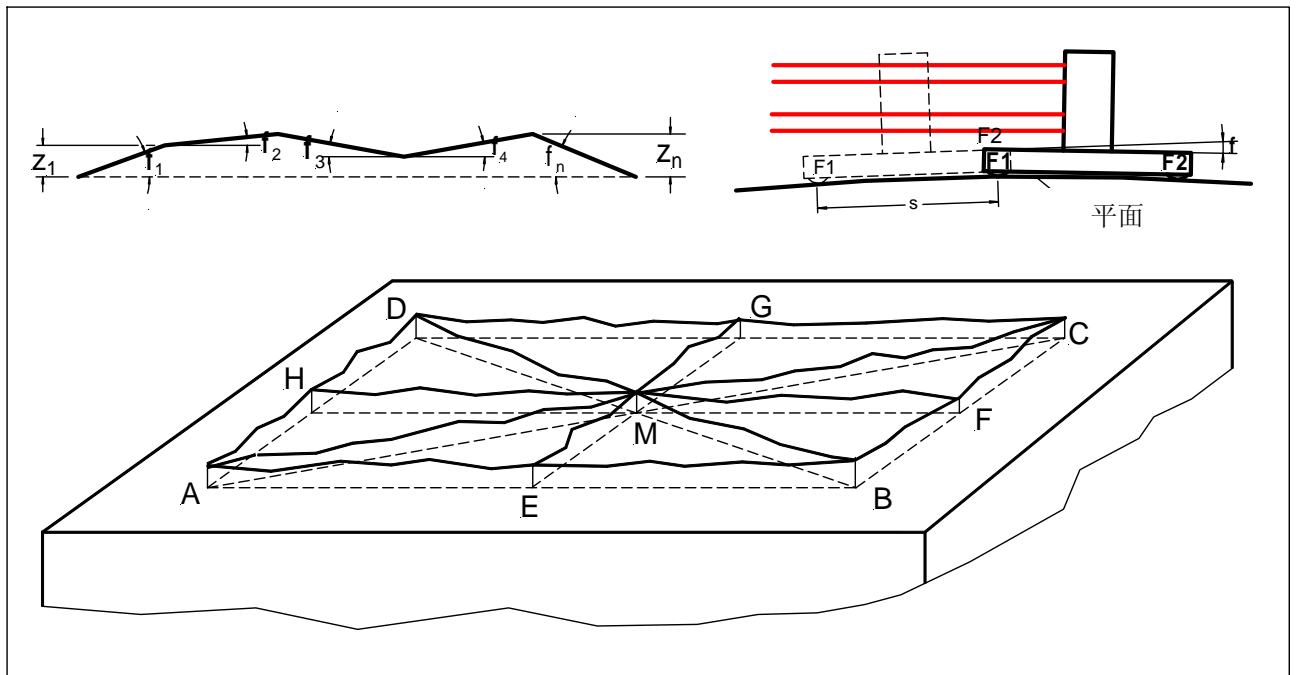
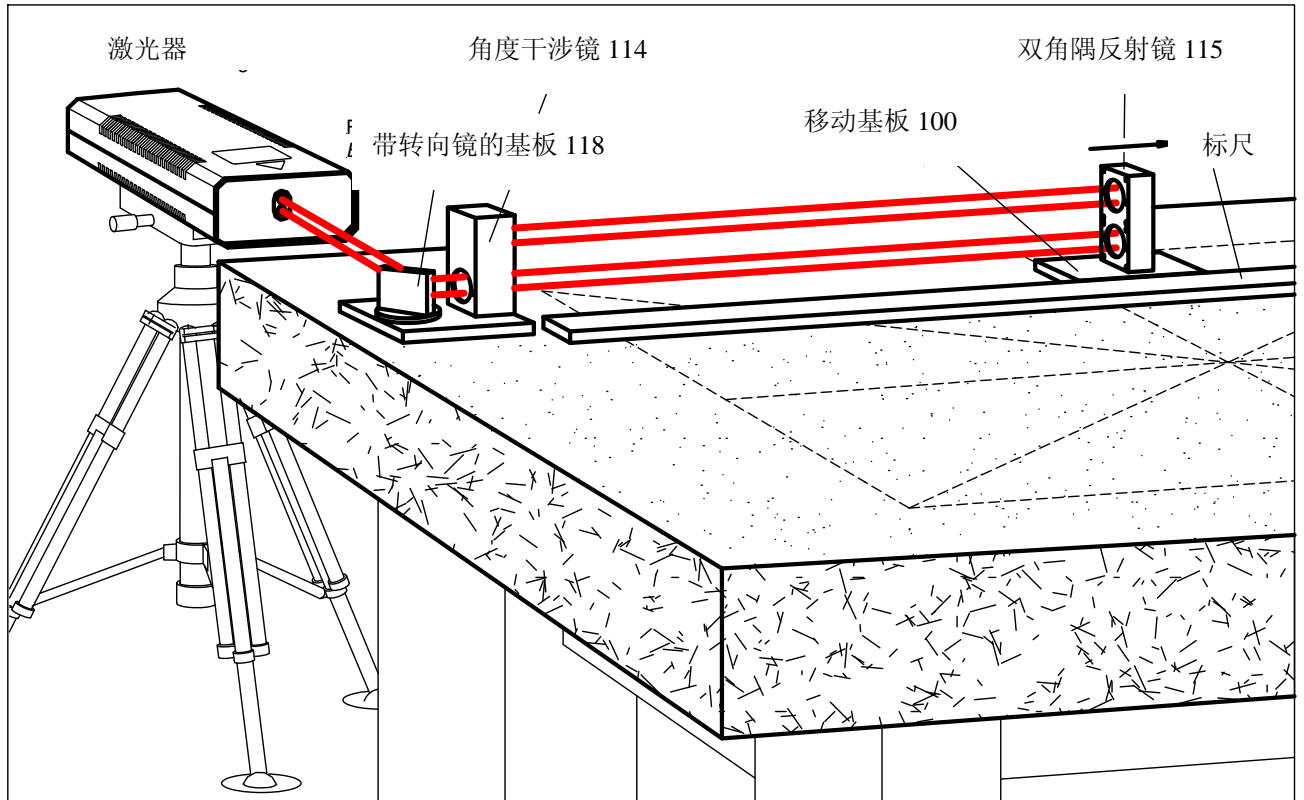


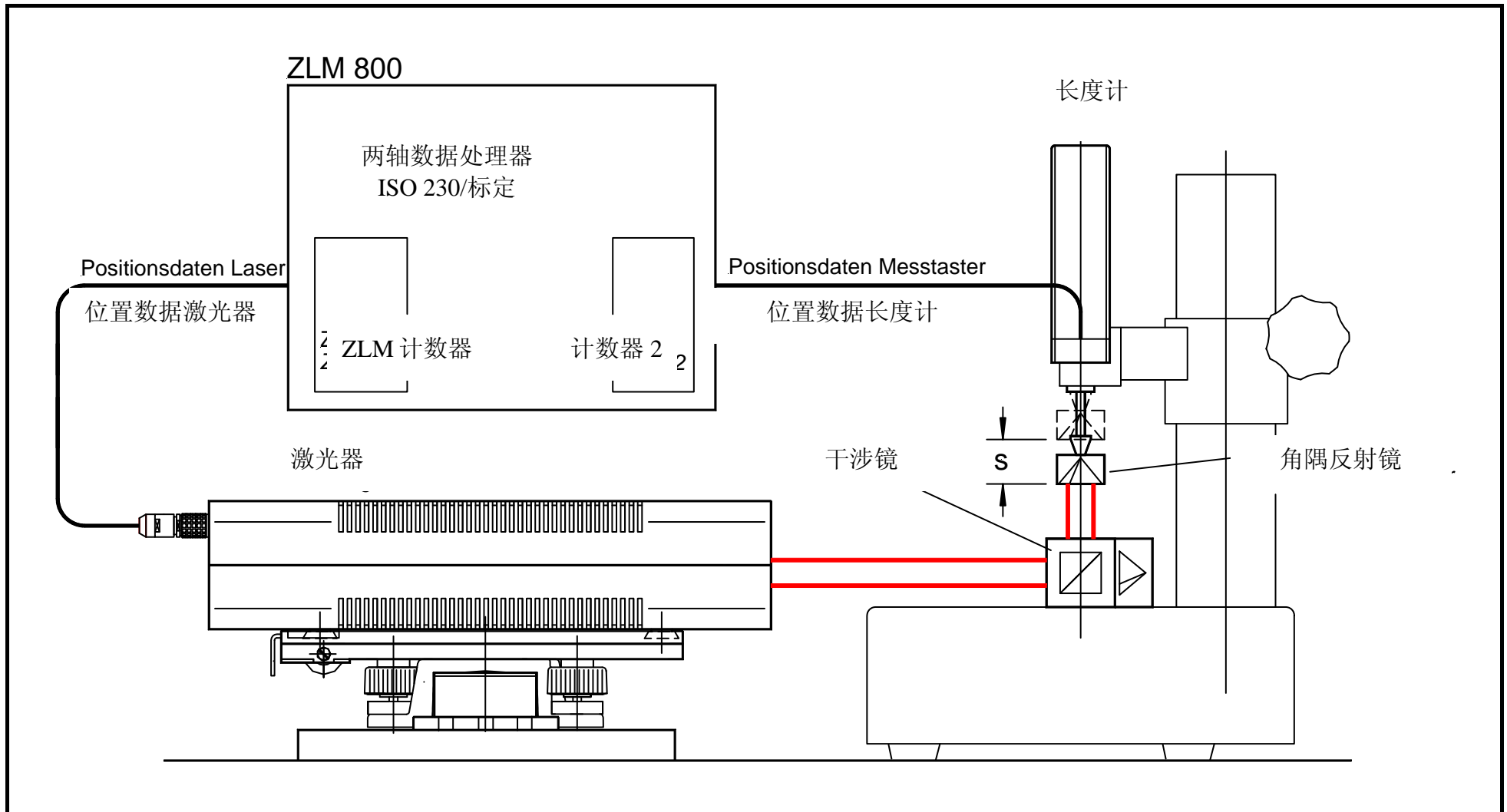




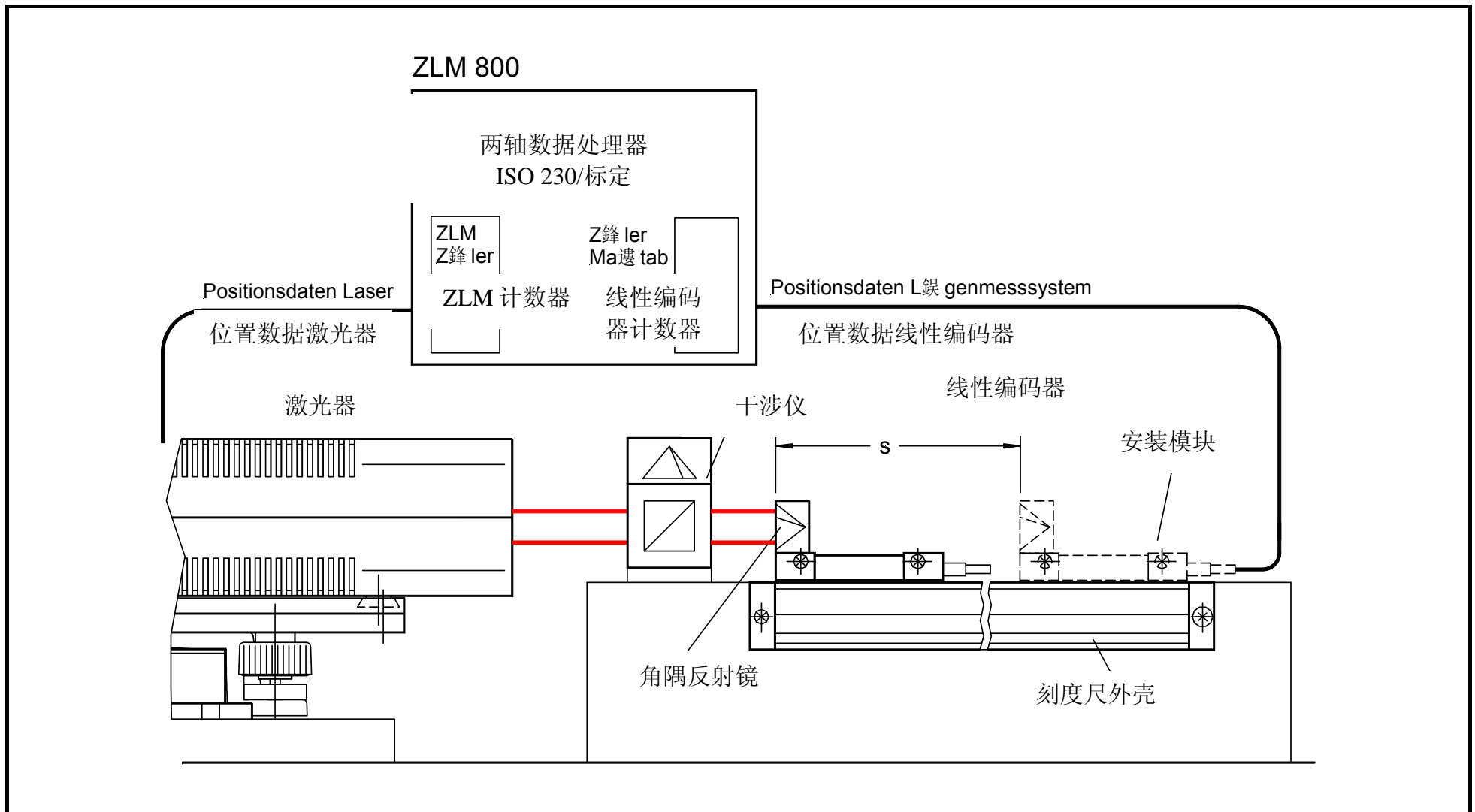




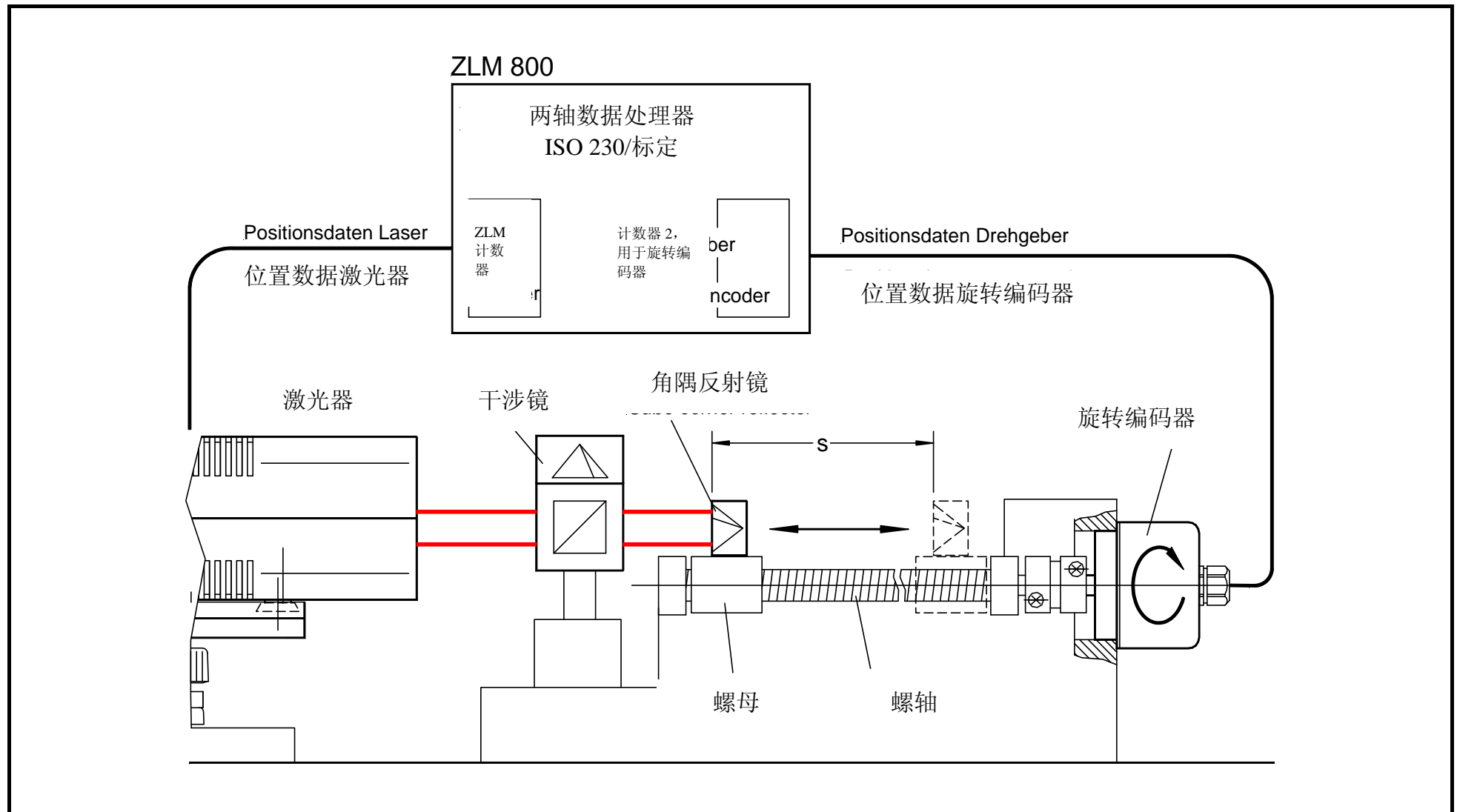




通过两轴激光干涉仪 ZLM800 同步动态标定长度计
Synchronic dynamic calibration of length gauge with ZLM800 2-axes

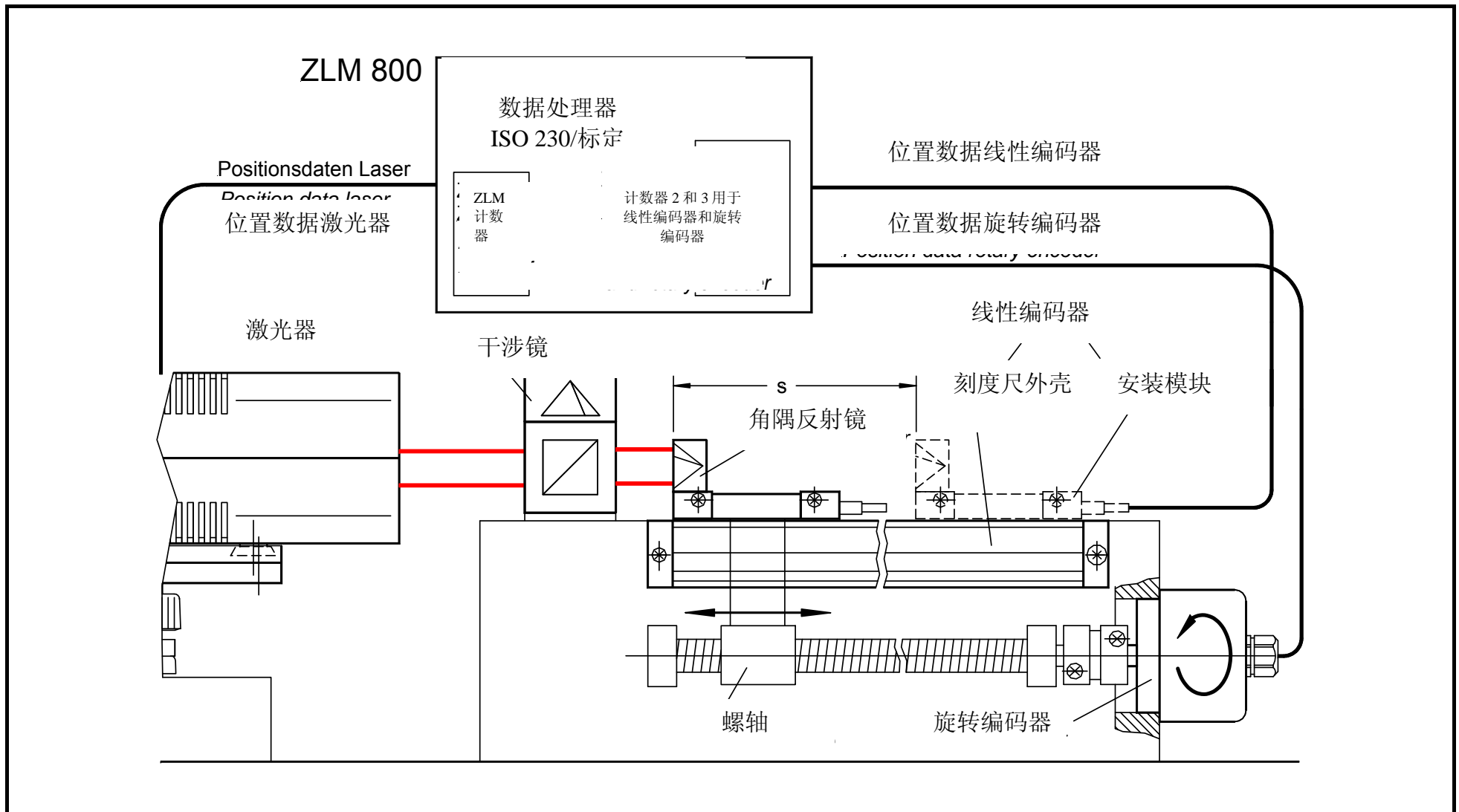


通过两轴激光干涉仪 ZLM800 同步动态标定线性编码器
Synchronic dynamic calibration of a linear encoder with ZLM800 2-axes



通过两轴干涉仪 ZLM800 比较器同步动态标定旋转编码器的螺距

Synchronic dynamic calibration of a rotary encoder for screw pitch with the ZLM800-comparator counter 2-axes



通过三轴激光干涉仪 ZLM800 同步动态标定线性编码器和旋转编码器

Synchronic dynamic calibration of a linear encoder and a rotary encoder with ZLM800 3-axes



万能尺和回转测量装置

Universal Scale - and Rotating Measuring Device

ROTAROD 250/18000

料号 / Order No.:

269302-6000.120

分辨率/Resolution:

0.005° = 18" 1 fach Interpolation

0.001° = 3.6" 5 fach Interpolation

ROTAROD 260/18000

料号 / Order No.:

269302-6000.220

分辨率/Resolution:

0.005° = 18" 1 fach Interpolation

0.001° = 3.6" 5 fach Interpolation

ROTAROD 800/36000

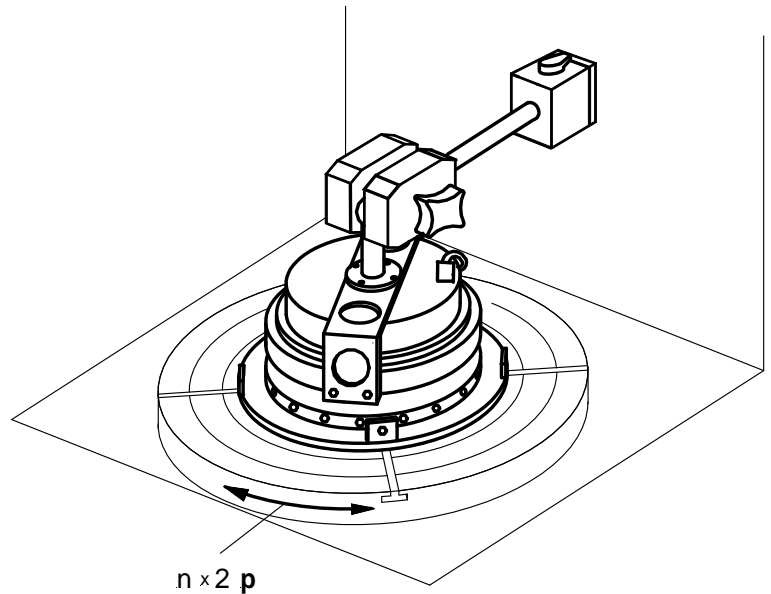
料号 / Order No.:

269302-6000.320

分辨率/Resolution:

0.00010° = 0.36" 25 fach Interpolation

0.00005° = 0.18" 50 fach Interpolation



2D-3D-圆度测试装置

2-D-3D-Measuring Device for the Circular Test

Ball Bar DBB 110

料号 / Order No.:

269302-6000.520

标准长度 / Standard lengths:

150mm, 200mm, 250mm, 300mm

精度 / Accuracy:

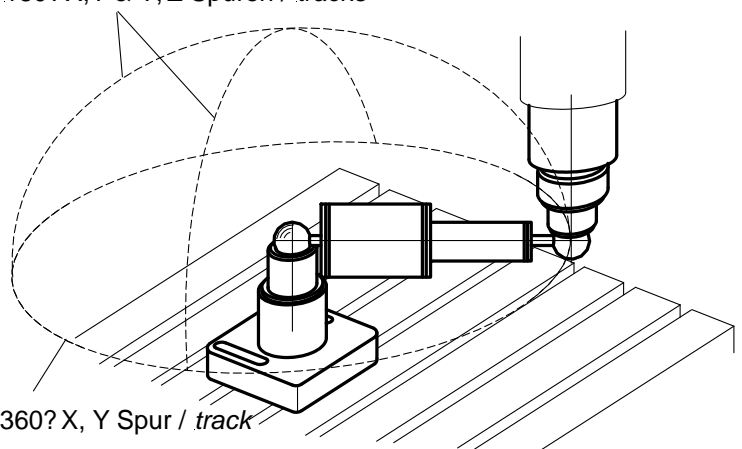
± 1µm

测量帧幅 / Measuring step:

0.05µm

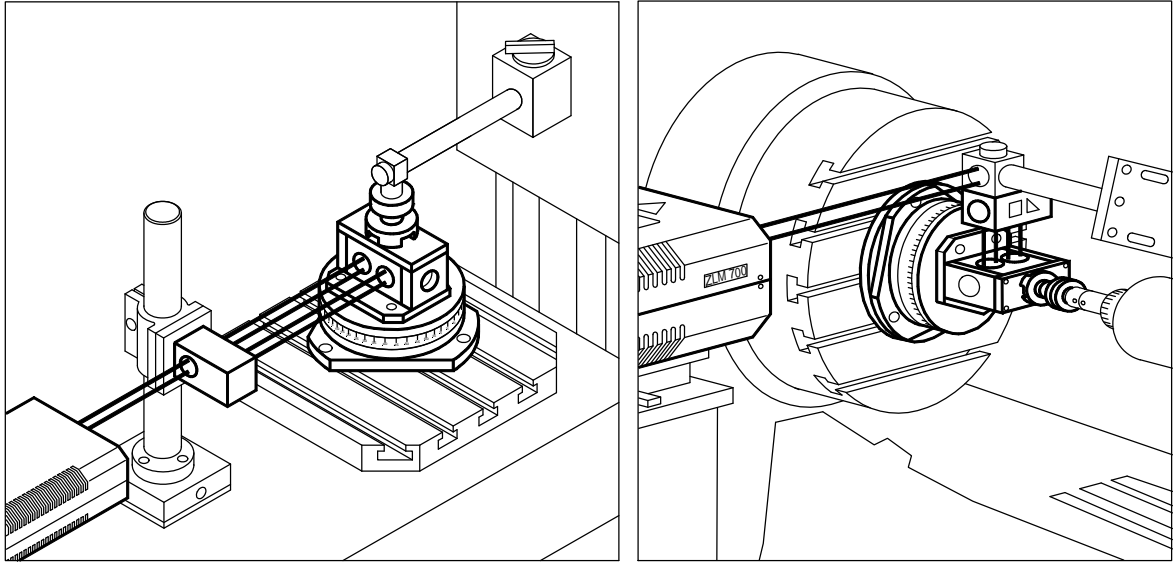
180° X, Y & Y, Z Spuren / tracks

360° X, Y Spur / track



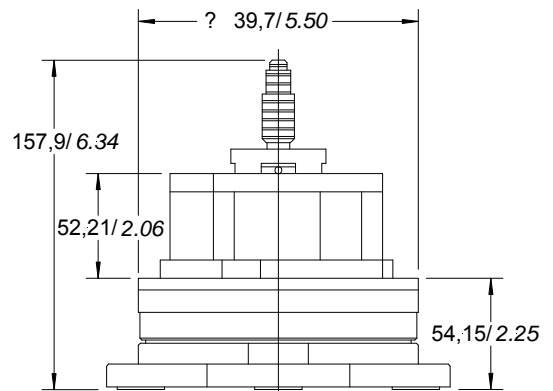


全角测量
Full Angular Measurement



全角测量套件
Full angle measurement kit

料号 / Order No.:
269302-6000.820



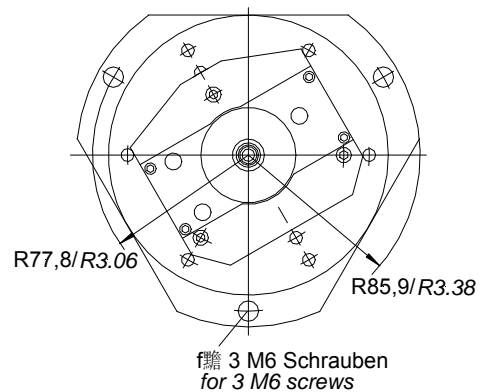
其他必须件:
Additional is required:

角度测量附件
Accessories for angle measurement

(参看 C-9 页/
catalogue page C-9)

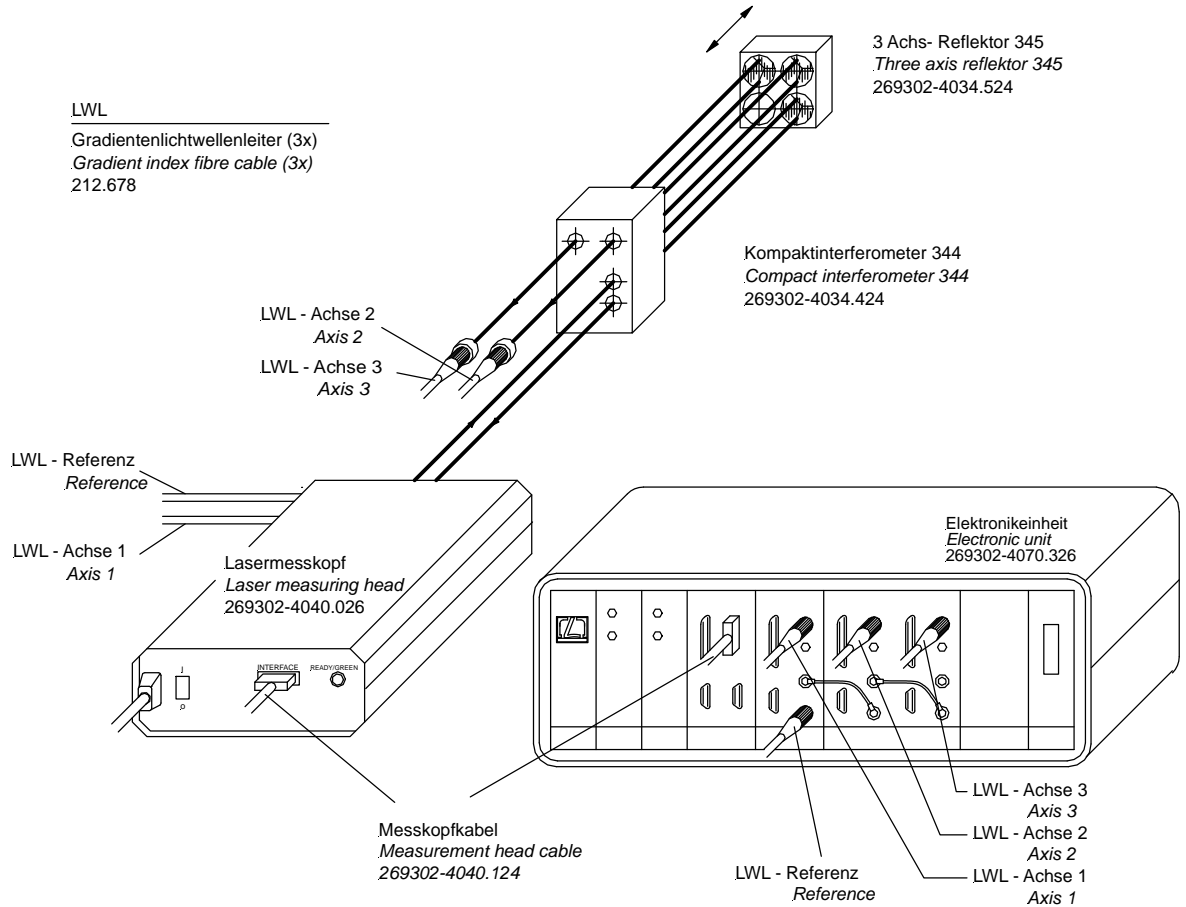
安装附件
Mounting components

(参看 E-5 和 E-9 页/
catalogue page E-5 and E-9)

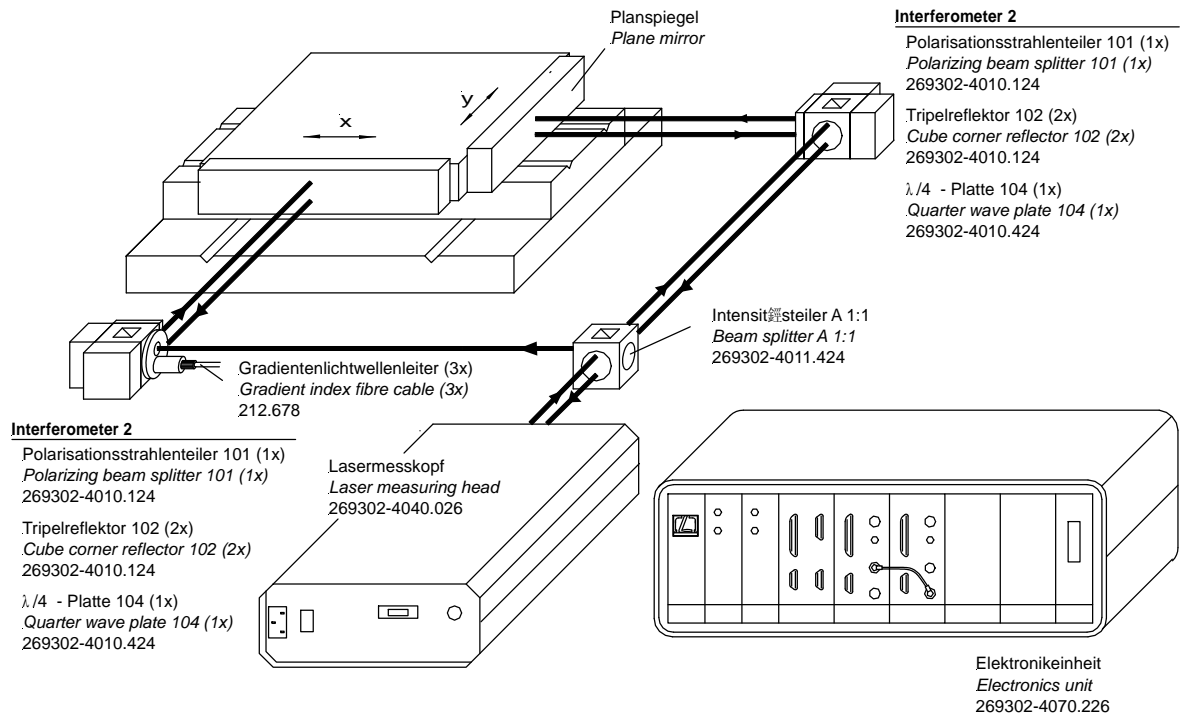




多轴标定系统
Three axis calibration system

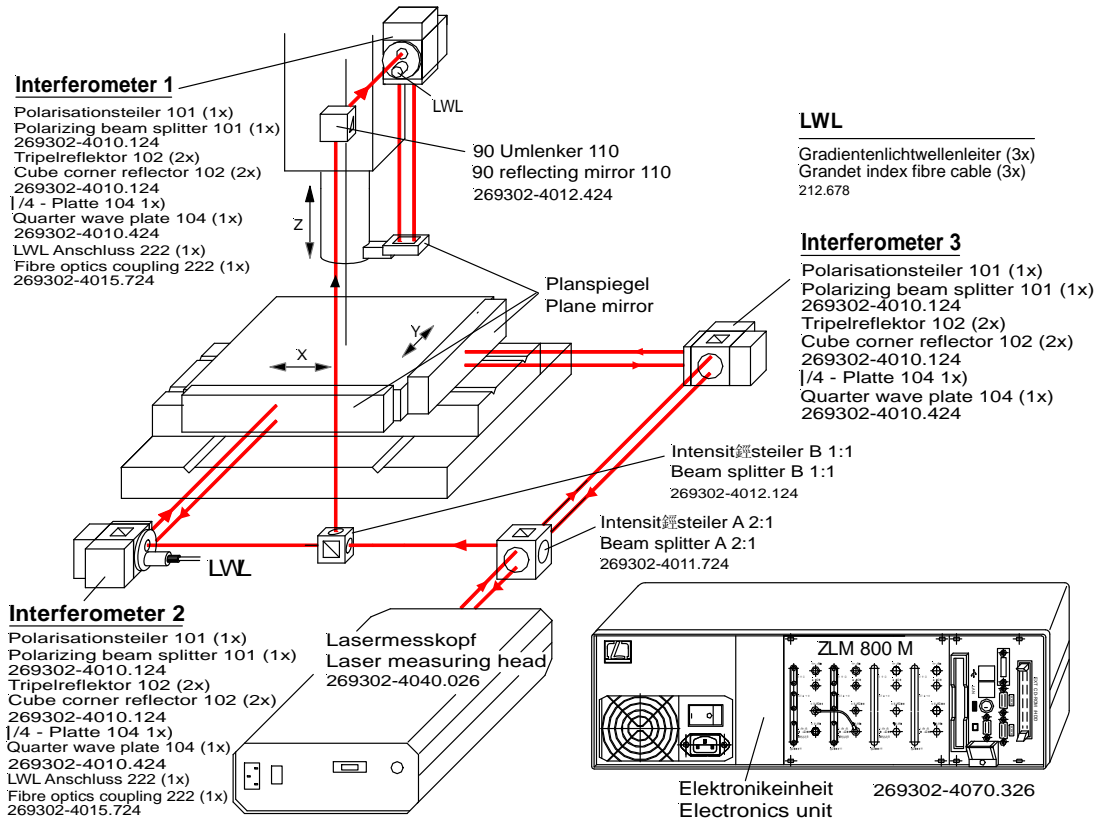


两轴测量系统
Two axis system

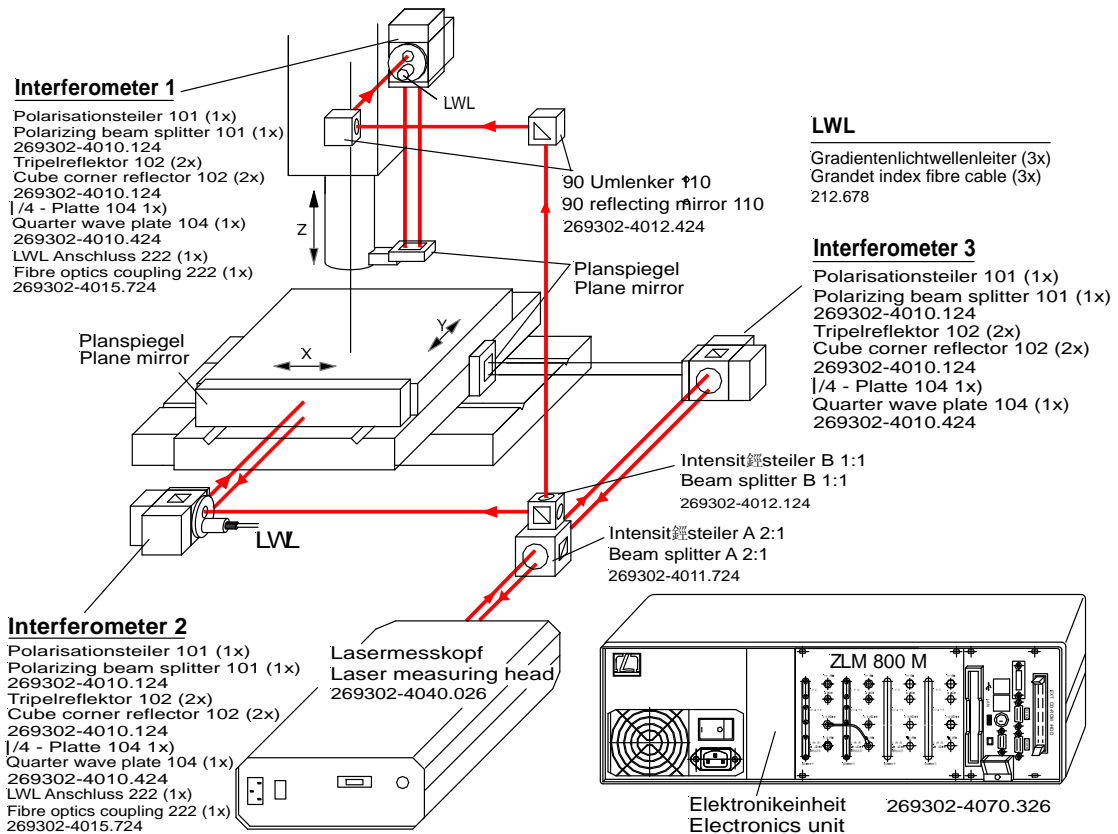




三轴测量系统 / Three axes system 情况 1: 在两个水平层面上 / Variant 1 in two levels:



三轴测量系统 / Three axes system 情况 2: 在三个水平层面上 / Variant 2 in three levels:

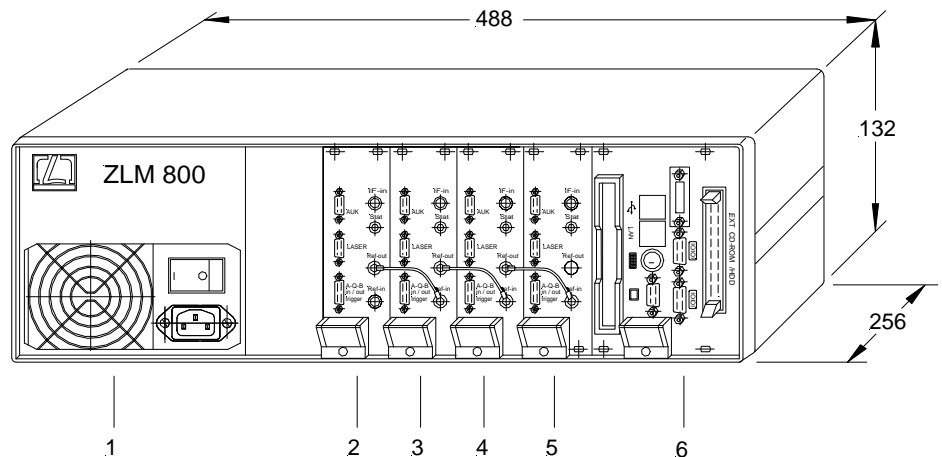




电气部分
Electronics unit

1. AE 800cPCI-PXI

1 电源
Power supply



2 轴板（主站）

使用光纤电缆连接激光器（参考端）和第一个干涉仪

接口:

- 32 bit TTL / 16x12 bit ADC
- A-Quad-B 信号 输入/输出 2. 计数器
- 上下脉冲

Axis board (master) with fibre optics connector from laser (reference) and first interferometer
Interface:

- 32 bit TTL / 16x12 bit ADC
- A-Quad-B signals input/output 2. counter
- up and down pulses

3-5 四轴板(从站) 使用光纤电缆连接干涉仪

接口:

- 32 bit TTL / 16x12 bit ADC
- A-Quad-B 信号 输入/输出 2. 计数器
- 上下脉冲

Up to four axis boards (slave) with fibre optics connector from interferometers
Interface:

- 32 bit TTL / 16x12 bit ADC
- A-Quad-B signals input/output 2. counter
- up and down pulses

6 处理器插入 CPU，用于 cPCI (PXI)和奔腾 III, 850 MHz, 操作系统 NT4.0/2000

接口有：键盘、鼠标、显示器、以太网、LAN、USB 1/2、RS 232、IEEE 488
可选外部软盘

Processor insert CPU for cPCI (PXI) with Pentium III, 850 MHz, operating system NT 4.0/2000
Interfaces for keyboard, mouse, monitor, ethernet, LAN, USB 1/2, RS 232, IEEE 488
Optionally external floppy



名称 Name	说明 Type	料号 / Order No.:	
		230 V	115 V
ZLM 800/cPCI-PXI/1S	1 轴 <i>one axis</i>	269302-5070.126	269302-5071.126
ZLM 800/cPCI-PXI/2S	2 轴 <i>two axis</i>	269302-5070.226	269302-5071.226
ZLM 800/cPCI-PXI/3S	3 轴 <i>three axis</i>	269302-5070.326	269302-5071.326
ZLM 800/cPCI-PXI/4S	4 轴 <i>four axis</i>	269302-5070.426	269302-5071.426

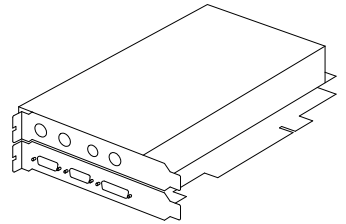
电气部分

Electronics unit

2. AE 800 PCI

多轴测量系统，用于工业 PC 和 PCI 总线系统

Multi-Axial-System by usage from industry PC with PCI-BUS-system



AE 800 PCI / 主站
 AE 800 PCI / Master

料号 / Order No.:
269302-5071.026

1 测量轴-卡槽 (主站)

使用光纤电缆连接激光器 (参考端) 和第一个干涉仪

接口:

- 32bit TTL / 16x12 bit ADC
- A-Quad-B 信号 输入/输出 2. 计数器
- 上下脉冲

1 Measuring Axis - Slot card (master)

with fibre optics connector from laser (reference) and first interferometer

Interfaces:

- 32 bit TTL / 16x12 bit ADC
- A-Quad-B signals input/output 2. Counter
- up and down pulses

AE 800 PCI / 从站
 AE 800 PCI / Slave

料号 / Order No.:
269302-5071.526

2-4 测量轴 - 卡槽 (从站)

使用光纤电缆连接其他干涉仪

接口:

- 32 bit TTL / 16x12 bit ADC
- A-Quad-B 信号 输入/输出 2. 计数器
- 上下脉冲

2-4 Measuring Axes:- Slot-card (slave)

with fibre optics connector for another interferometers

Interfaces:

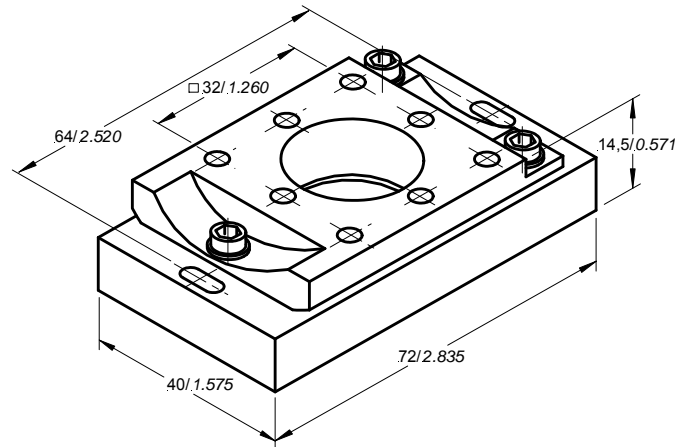
- 32 bit TTL
- A-Quad-B signals input/output 2. counter
- up and down pulses



光学模块用可调安装板 **588** □ 40
 Adjustable mount 588 for optical components □ 40

重量/Weight: 71g

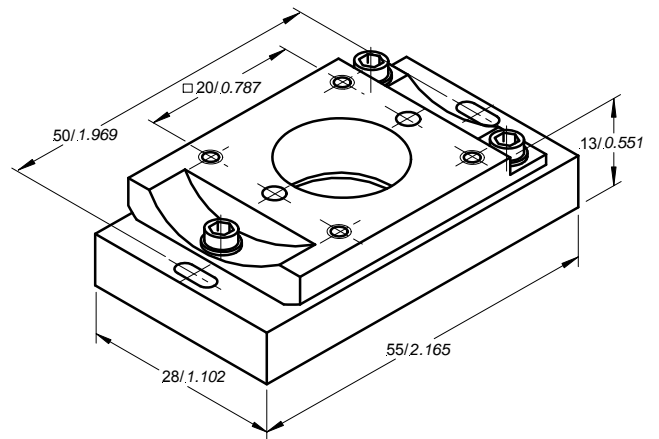
料号 / Order No.:
269302-4009.025



光学模块用可调安装板 **589** □ 28
 Adjustable mount 589 for optical components □ 28

重量 /Weight: 58g

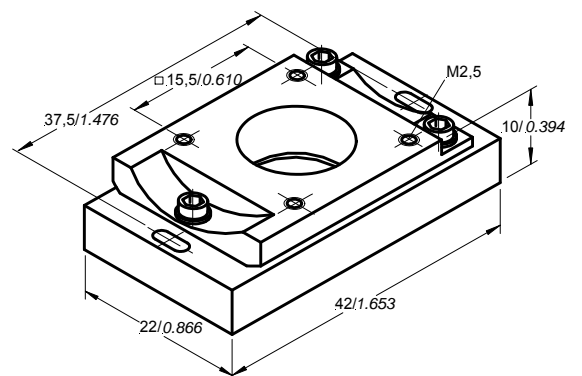
料号 / Order No.:
269302-4009.125

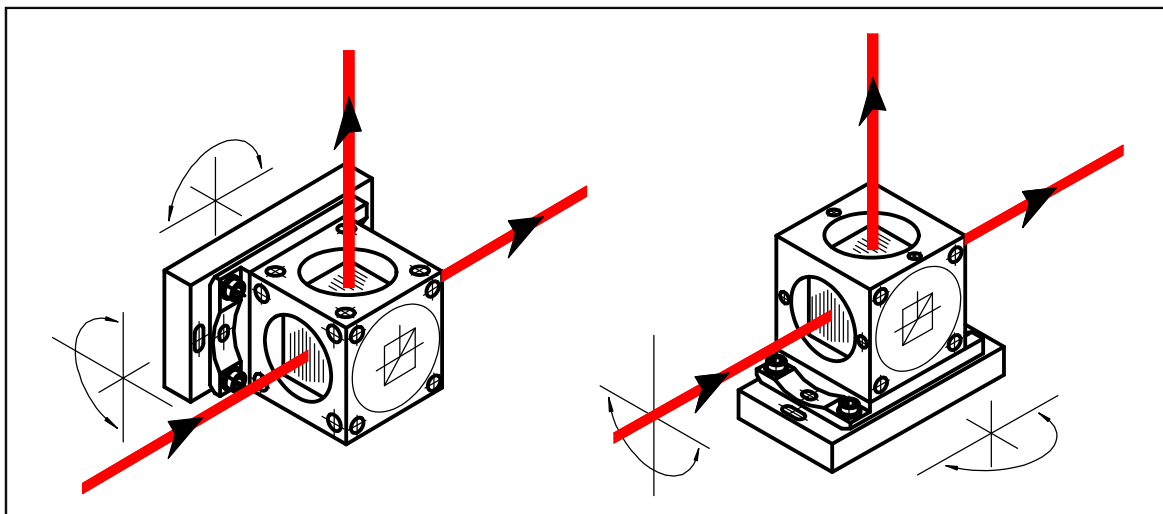


光学模块用可调安装板 **590** □ 20
 Adjustable mount 590 for optical components □ 20

重量 /Weight: 28g

料号 / Order No.:
269302-4009.225



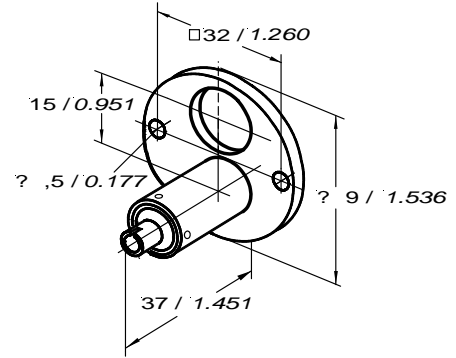




LWL – 光纤耦合器 222
Fibre optics coupling 222

重量 / Weight: 106g

料号 / Order No.:
269302-4015.724

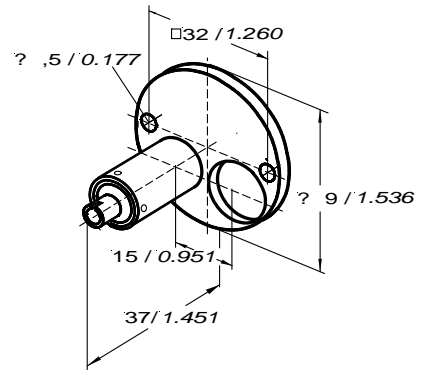


LWL – 光纤耦合器 223
Fibre optics coupling 223

重量 / Weight: 106g

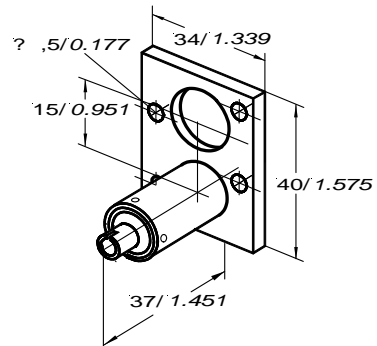
料号 / Order No.:
269302-4015.824

订购时需确定安装位置靠右或靠左
(图示为靠左)
Installation position right or left by order
(Graph installation position left)

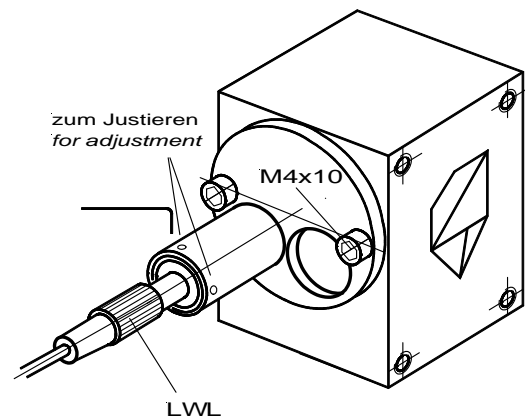
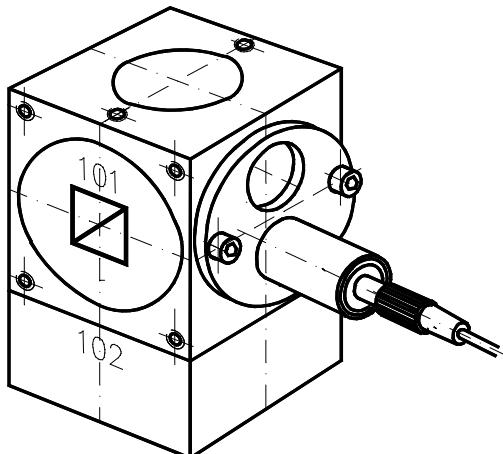


LWL – 用于平行度的光纤耦合器 224
Fibre optics coupling for parallel interferometer

料号 / Order No.:
269302-4015.924



应用举例 / Application examples

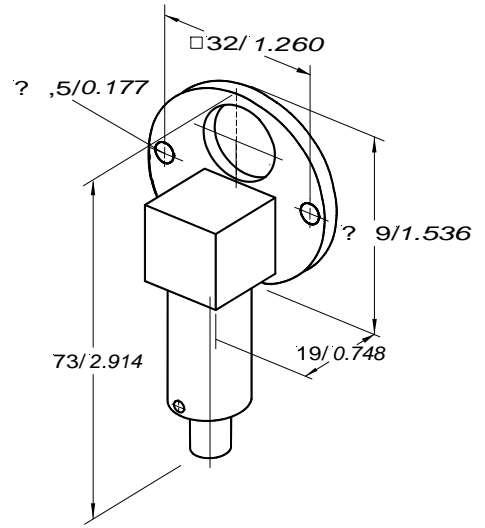




LWL – 光纤耦合器 222 下垂型
Fibre optics coupling 222 bent

重量 / Weight: 51g

料号 / Order No.:
269302-4020.624

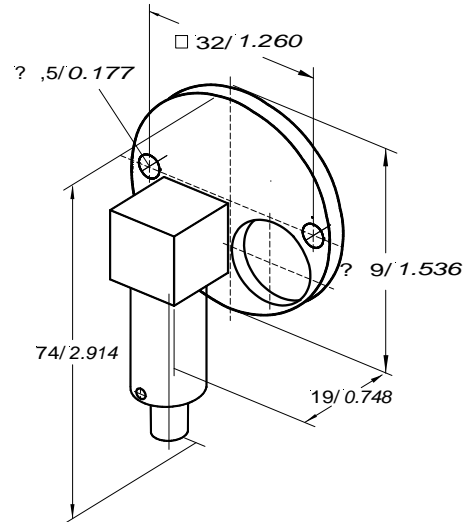


LWL – 光纤耦合器 223 下垂型
Fibre optics coupling 223 bent

重量 / Weight: 51g

料号 / Order No.:
269302-4020.924

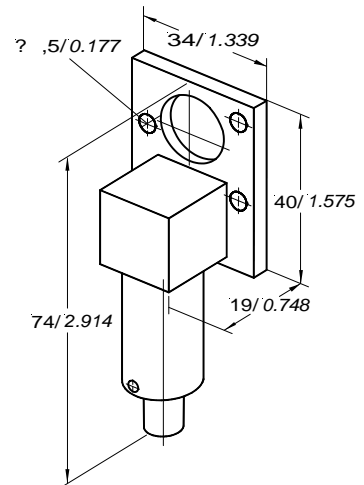
订购时需确定安装位置靠右或靠左
(图示安装位置为靠左)
Installation position right or left by order
(Graph installation position left)



LWL – 用于平行式干涉镜的光纤耦合器 224 下垂型
Fibre optics coupling for parallel interferometer bent

重量 / Weight: 48g

料号 / Order No.:
269302-4021.024





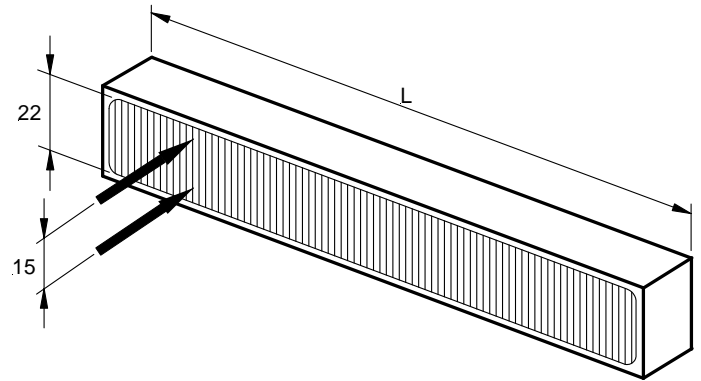
平面反射镜

Plane mirror reflectors

反射率 $R \geq 99\%$

- 纯光学镜
all optical glasses
- Cerodur
Cerodur

长度“L”最大为 800 mm
lengths „L“ to c 800 mm



根据用户要求定做

by the individual customer's design requirements

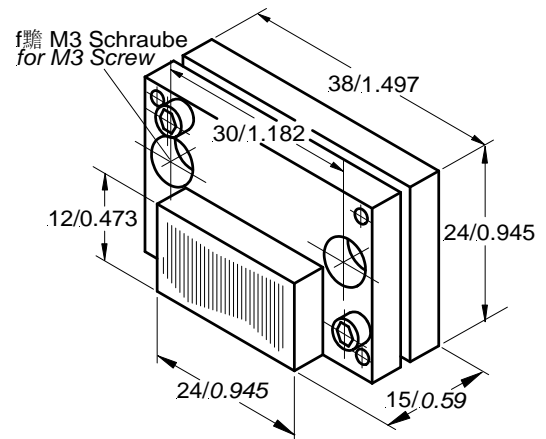
带支架的可调型参考镜 536

Reference mirror 536 adjustable, with holder

(对应的干涉镜 301 (见 C-17 页),
干涉镜 356 (见 M-14 页))

料号 / Order No.:

269302-4002.224





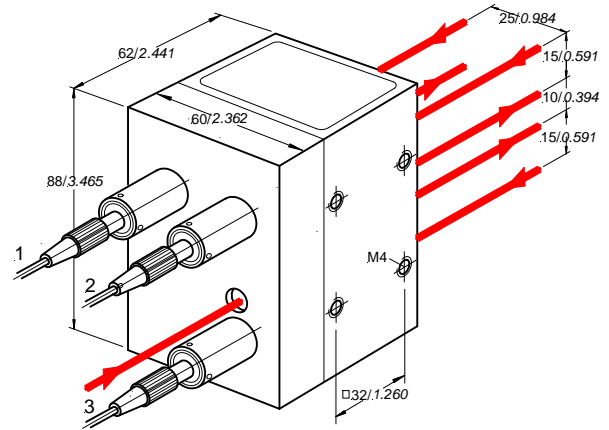
紧凑型干涉镜 344，带单独的光纤接头

Compact interferometer 344 with separate fibre optic connectors

重量 / Weight: 1512g

料号 / Order No.:

269302-4034.426



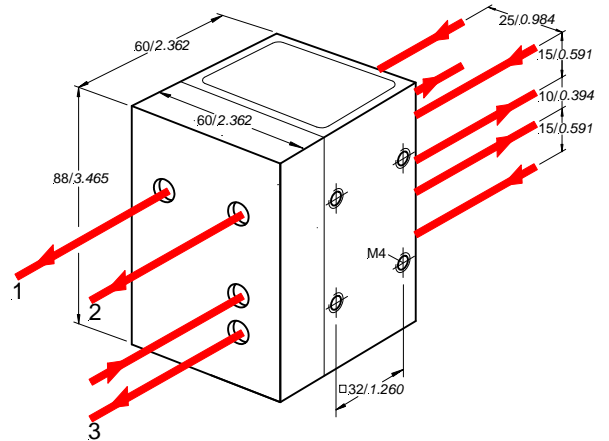
紧凑型干涉镜 344，激光束直接返回到激光器头里

Compact interferometer 344 (laser beams are inject directly into the laser head)

重量 / Weight: 1512g

料号 / Order No.:

269302-4034.424



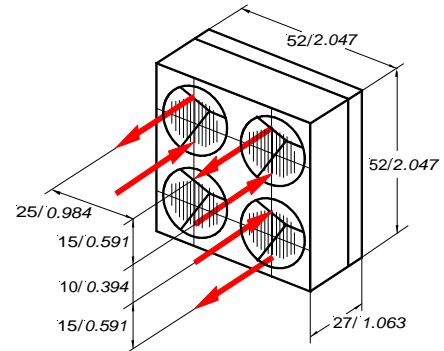
三轴反射镜 345

Three axis reflector 345

重量 / Weight: 306g

料号 / Order No.:

269302-4034.524



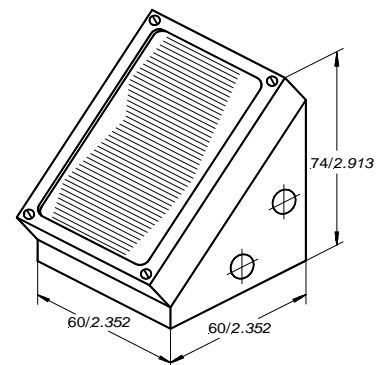
90° 光束转向镜 346

90° beam bender 346

重量 / Weight: 1282g

料号 / Order No.:

269302-4034.624



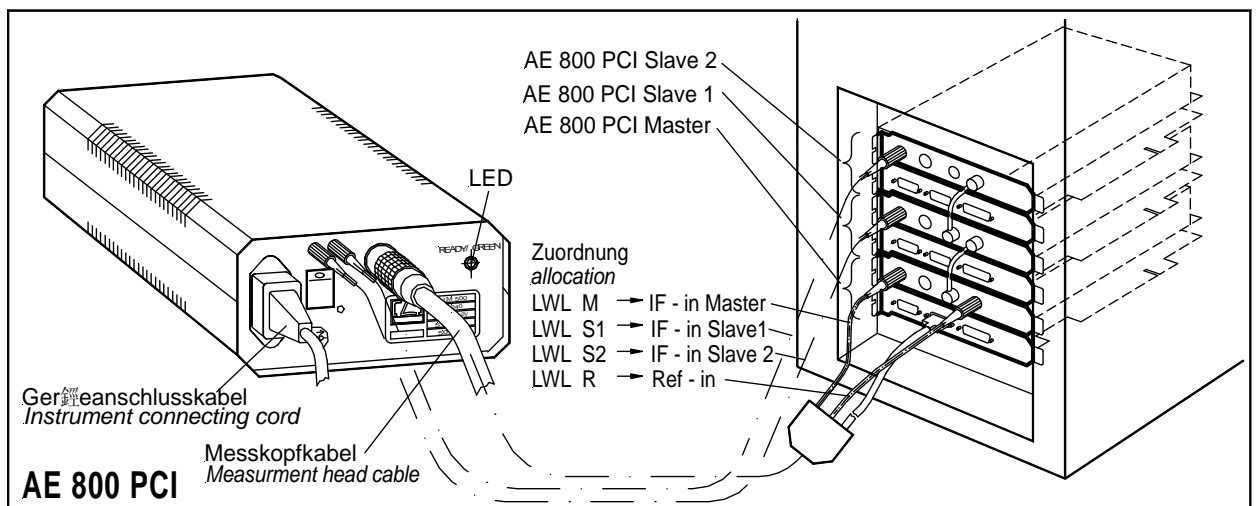
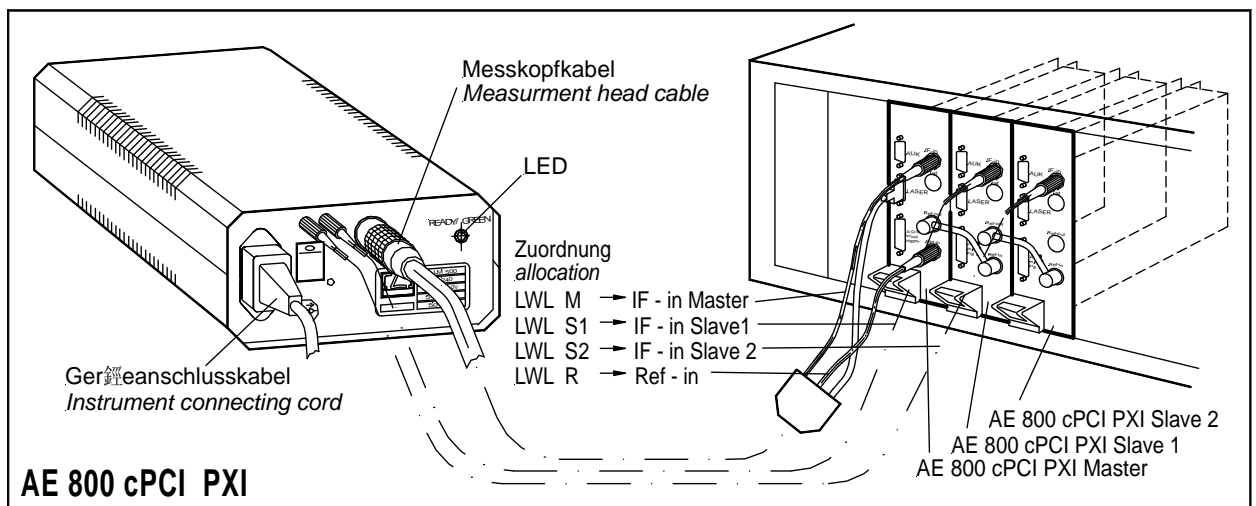
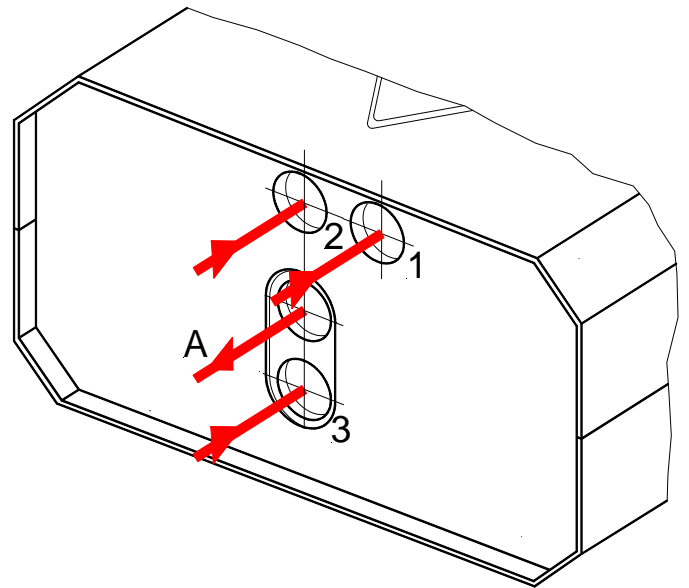


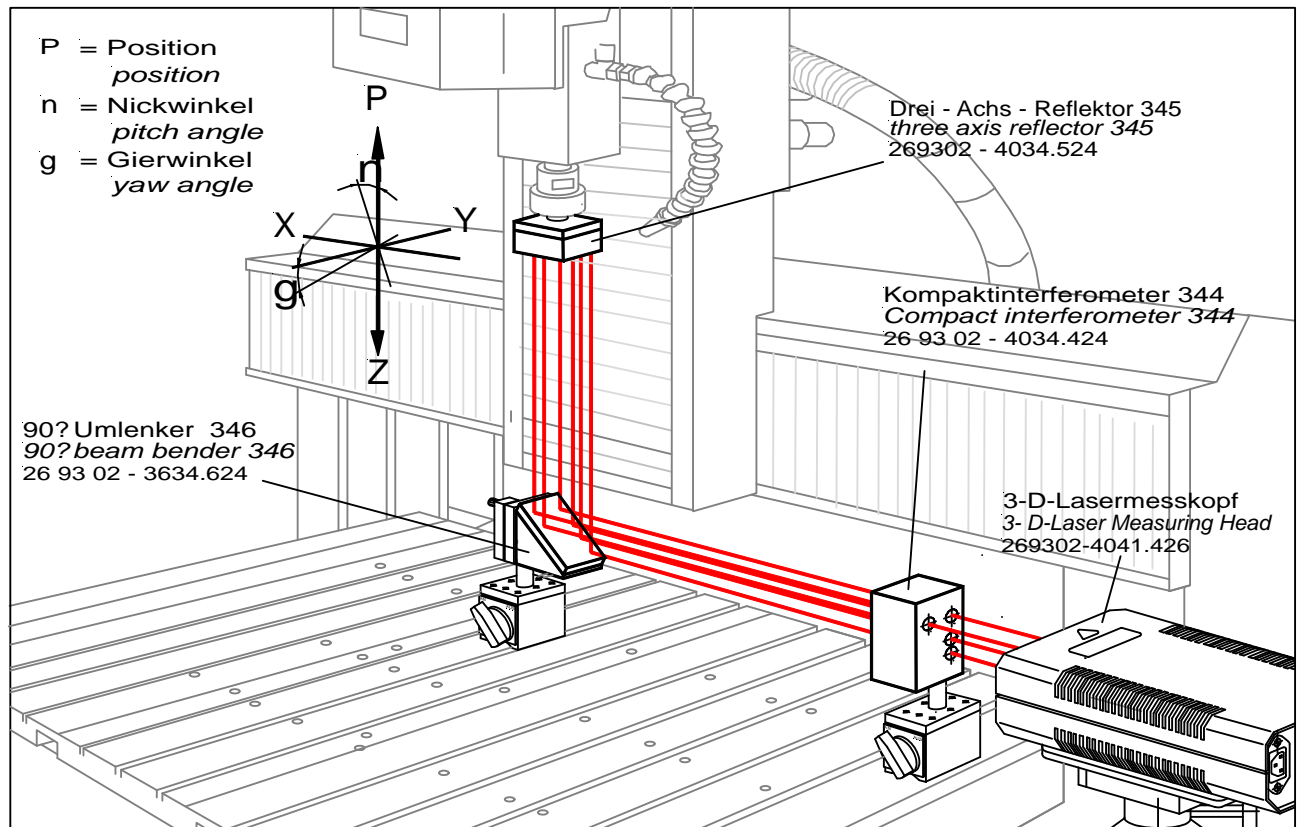
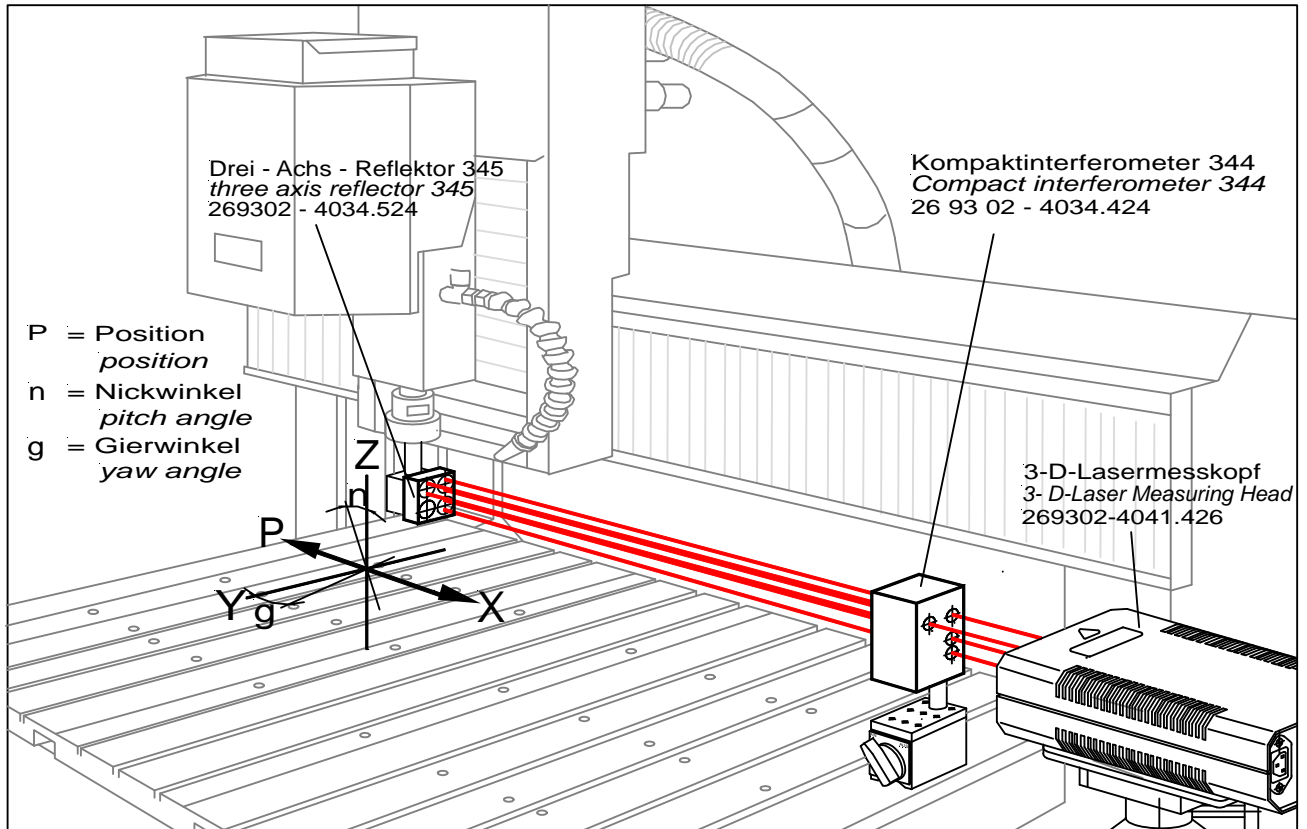
三轴测量的激光头
Laser measuring head for 3axis measurement

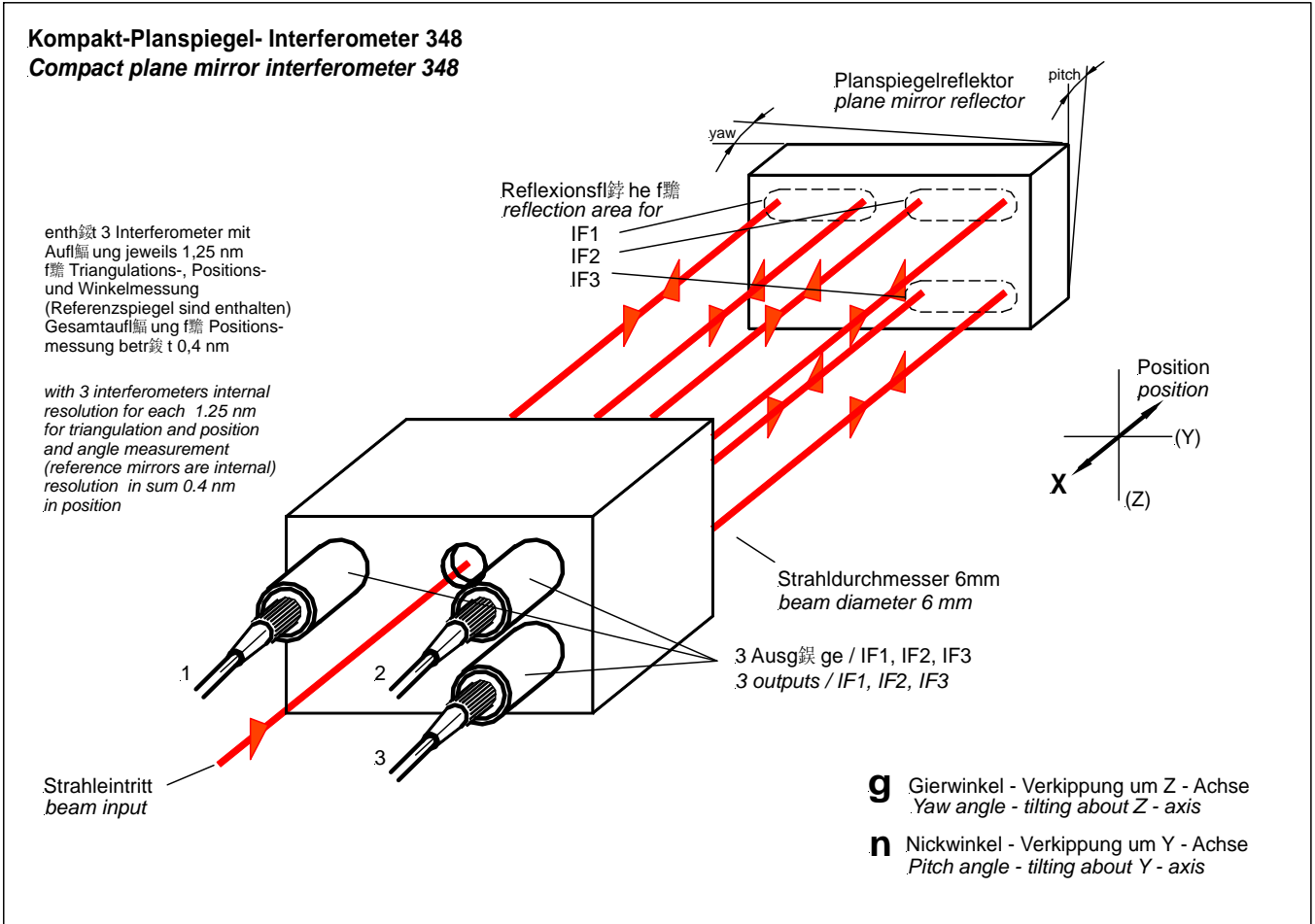
料号 / Order No.:
269302-4001.426

A = 输出光束
Laser beam output

1; 2; 3 = 输入光束



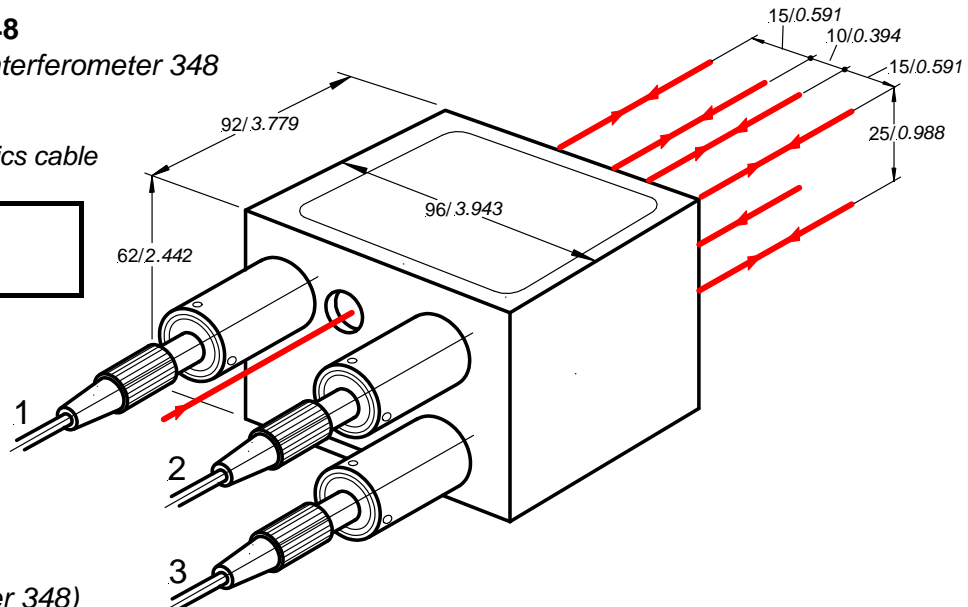




三轴测量紧凑型平面干涉镜 348
3 axis compact plane mirror interferometer 348

带三个光纤电缆耦合器
With three couplings for fibre optics cable

料号 / Order No.:
269302-4004.824



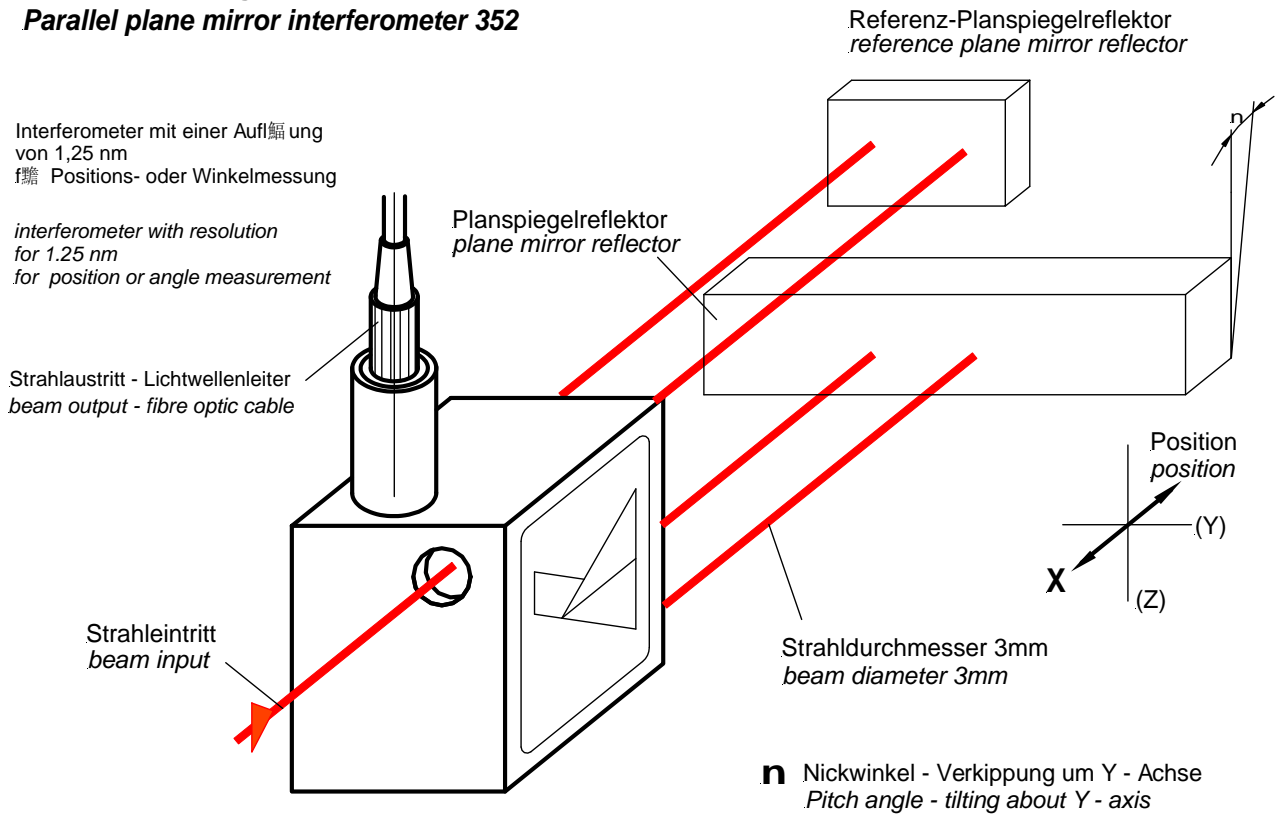
平面镜 (用于干涉镜 348)
Plane mirror (for interferometer 348)

尺寸 / Dimensions: 50 x 35 x 8
重量 / Weight: 34g

料号 / Order No.:
269302-4014.400



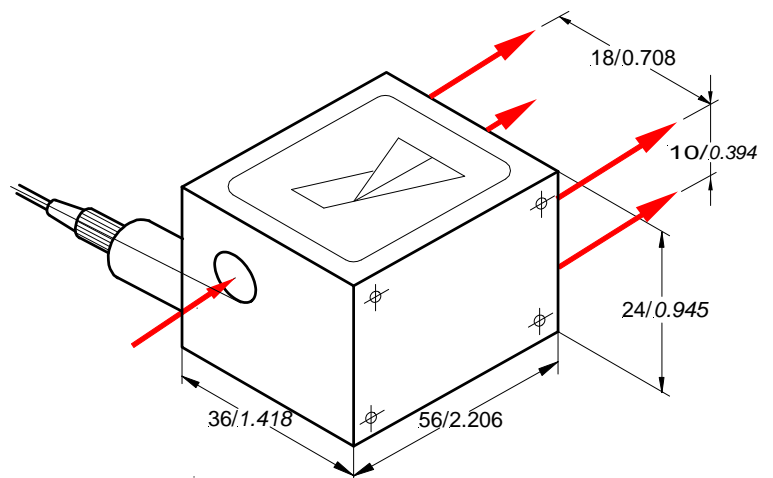
Parallel-Planspiegel- Interferometer 352
Parallel plane mirror interferometer 352



平行式平面干涉镜 352
Parallel plane mirror interferometer 352

分辨率 1.25nm
with 1.25nm resolution

料号 / Order No.:
269302-4002.324

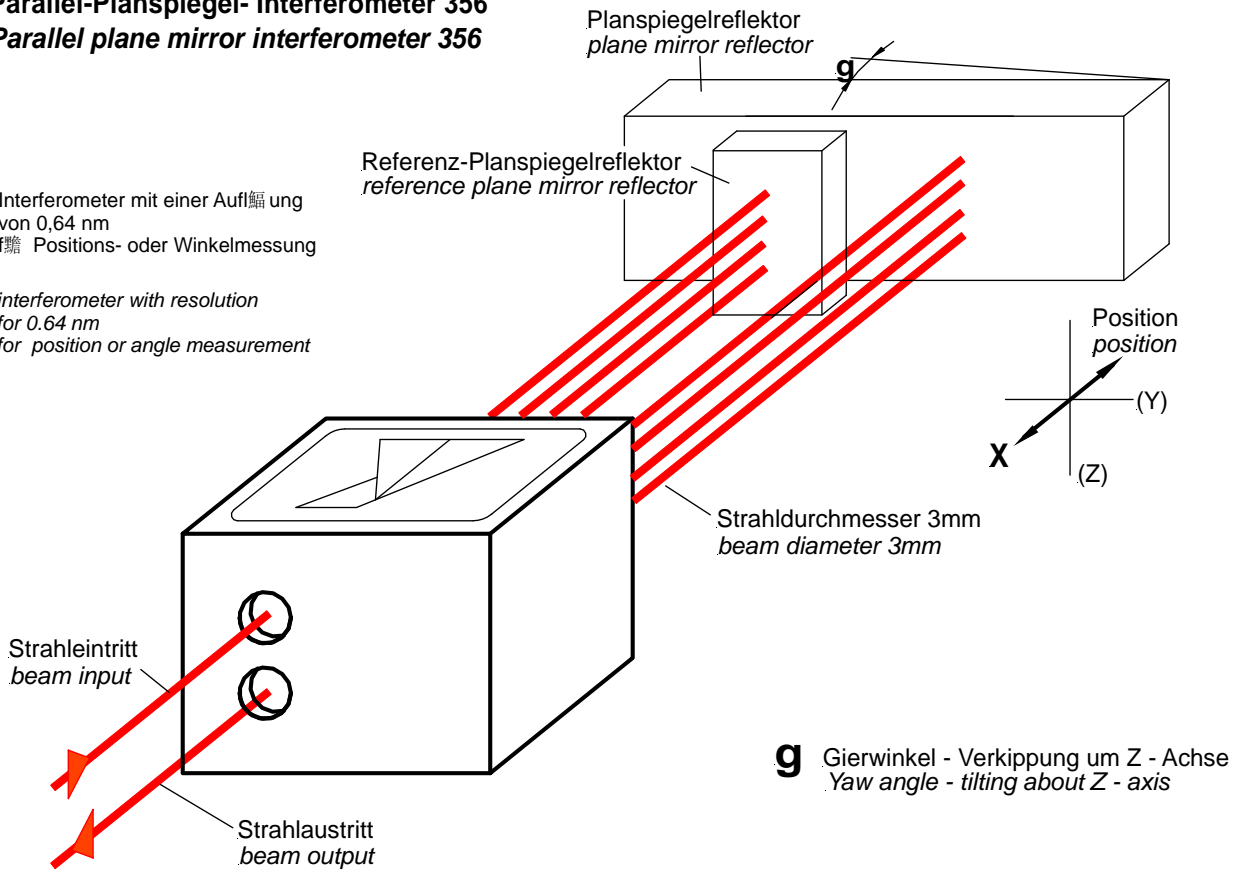




Parallel-Planspiegel- Interferometer 356
Parallel plane mirror interferometer 356

Interferometer mit einer Auflösung von 0,64 nm
Positions- oder Winkelmessung

interferometer with resolution for 0.64 nm
for position or angle measurement

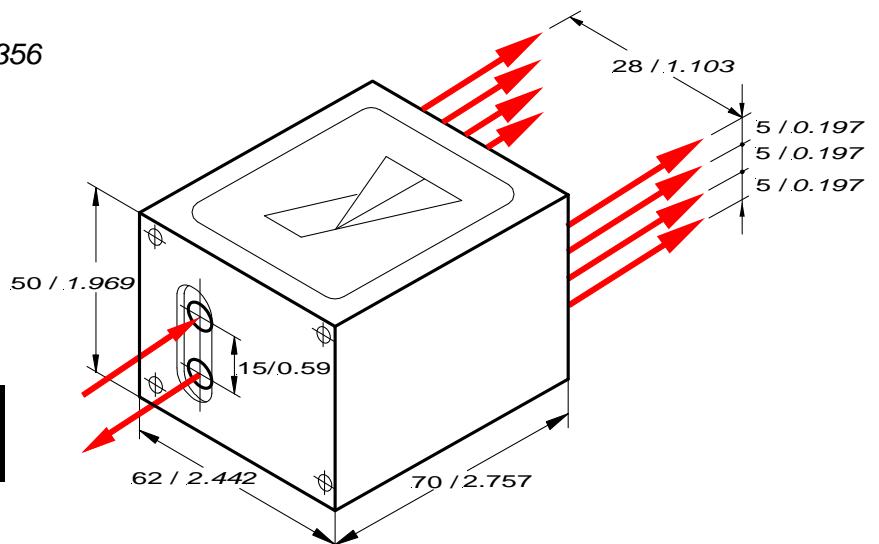


平行平面干涉镜 356
Parallel plane mirror interferometer 356

分辨率 0.64nm
with 0.64nm resolution

重量 /Weight: 620g

料号 / Order No.:
269302-4019.024



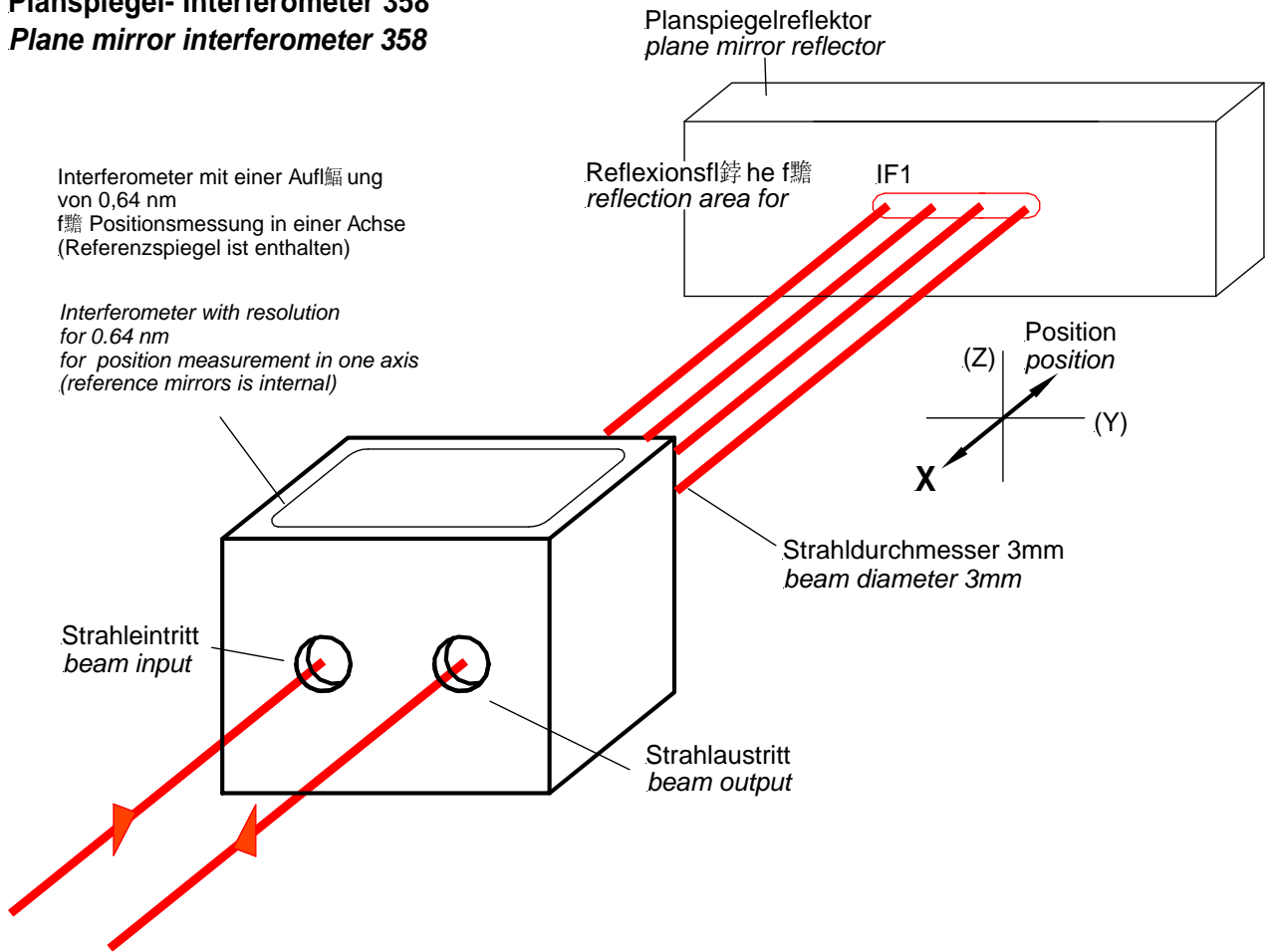
其他模块，参考镜 536 (见 M-09 页)
in addition to it: Reference mirror 536 (Page M-09)



Planspiegel- Interferometer 358
Plane mirror interferometer 358

Interferometer mit einer Auflösung von 0,64 nm
Positionsmessung in einer Achse
(Referenzspiegel ist enthalten)

Interferometer with resolution for 0.64 nm
for position measurement in one axis
(reference mirrors is internal)

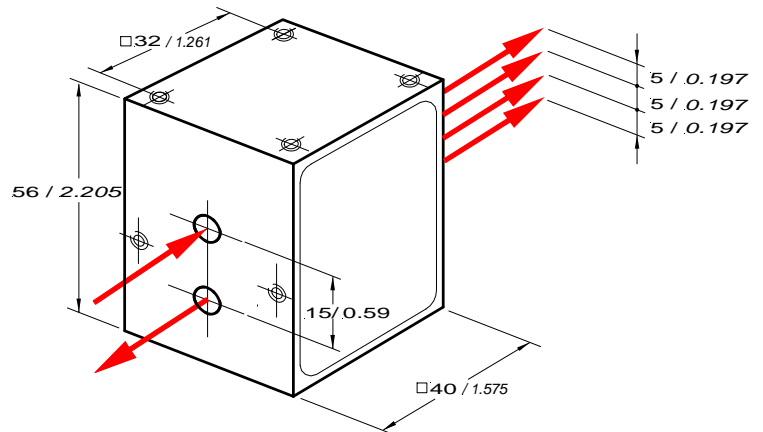


平面干涉镜 358
Plane mirror interferometer 358

分辨率 0.64nm
with 0.64nm resolution

重量 /Weight: 386g

料号 / Order No.:
269302-4005.524

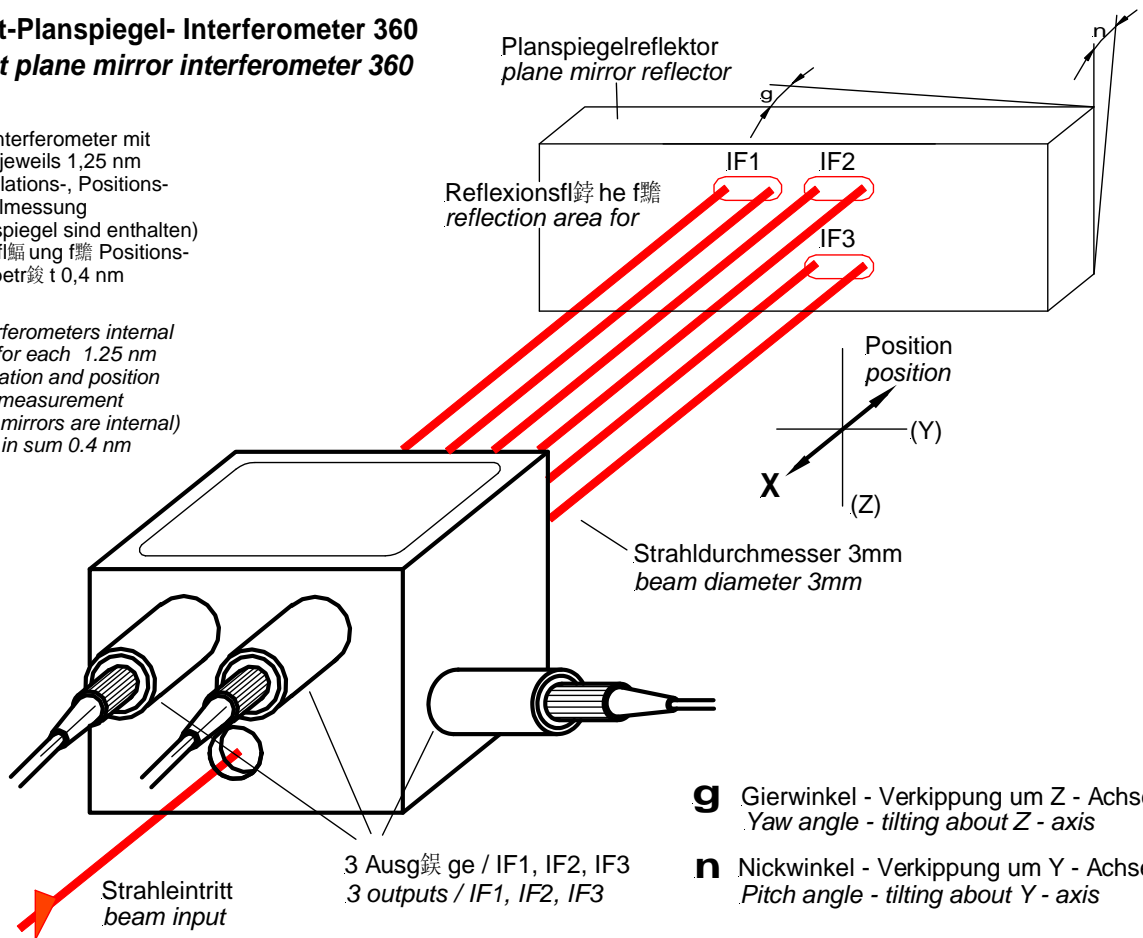




Kompakt-Planspiegel- Interferometer 360
Compact plane mirror interferometer 360

enthält 3-Interferometer mit
Auflösung jeweils 1,25 nm
für Triangulations-, Positions-
und Winkelmessung
(Referenzspiegel sind enthalten)
Gesamtauflösung für Positions-
messung beträgt 0,4 nm

with 3-interferometers internal
resolution for each 1.25 nm
for triangulation and position
and angle measurement
(reference mirrors are internal)
resolution in sum 0.4 nm
in position

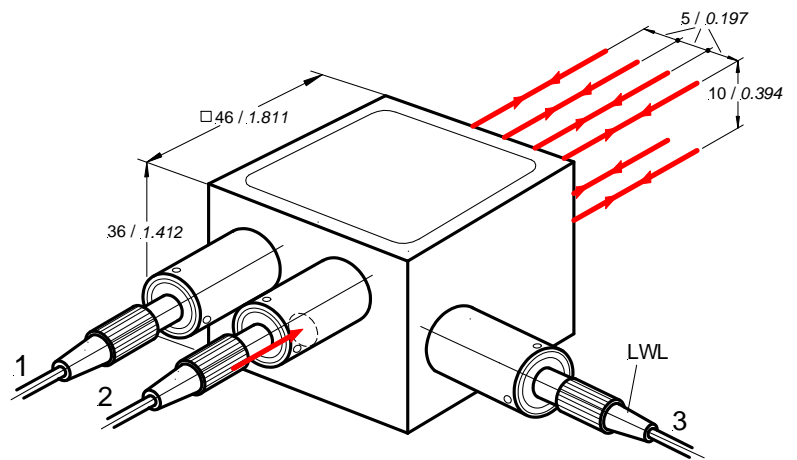


三轴测量紧凑型平面干涉镜 360
3 axes compact plane mirror interferometer 360

带三个光纤耦合器
with three couplings for fibre optics

重量 /Weight: 340g

料号 / Order No.:
269302-4018.624

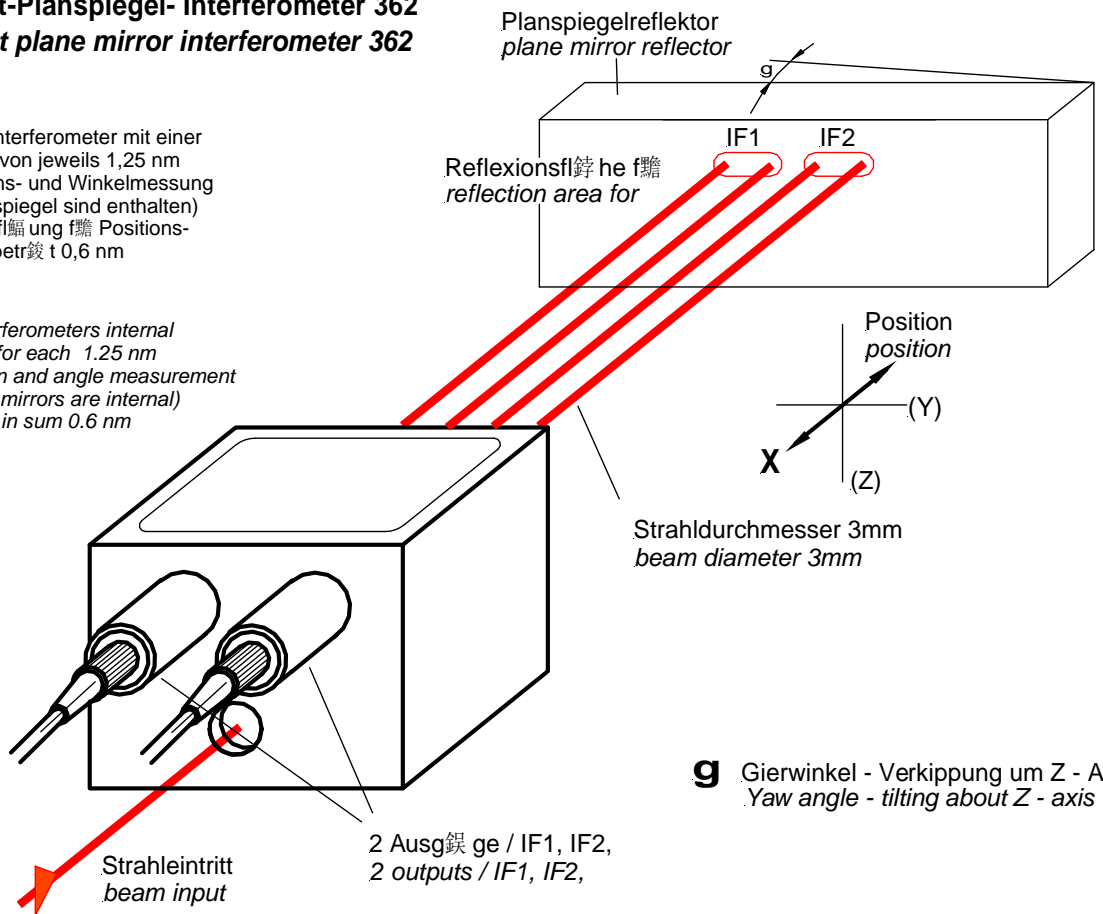




Kompakt-Planspiegel- Interferometer 362
Compact plane mirror interferometer 362

enthält 2-Interferometer mit einer Auflösung von jeweils 1,25 nm für Positions- und Winkelmessung (Referenzspiegel sind enthalten) Gesamtauflösung für Positionsmessung beträgt 0,6 nm

with 2-interferometers internal resolution for each 1.25 nm for position and angle measurement (reference mirrors are internal) resolution in sum 0.6 nm in position



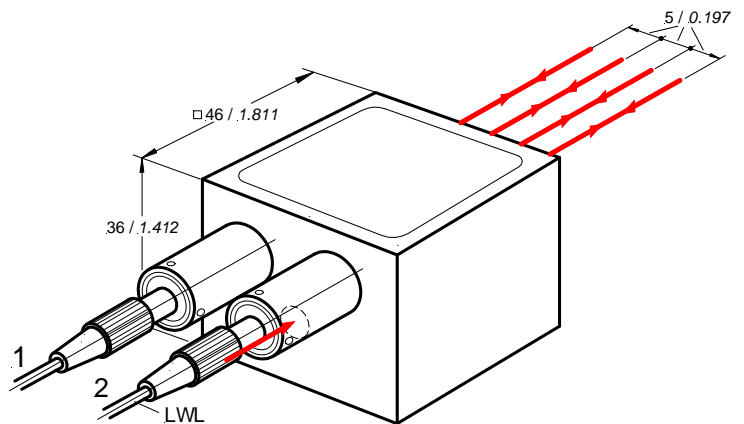
g Gierwinkel - Verkipfung um Z - Achse
Yaw angle - tilting about Z - axis

两轴测量紧凑型平面干涉镜 362
2 axes compact plane mirror interferometer 362

带两个光纤耦合器
with two couplings for fibre optics

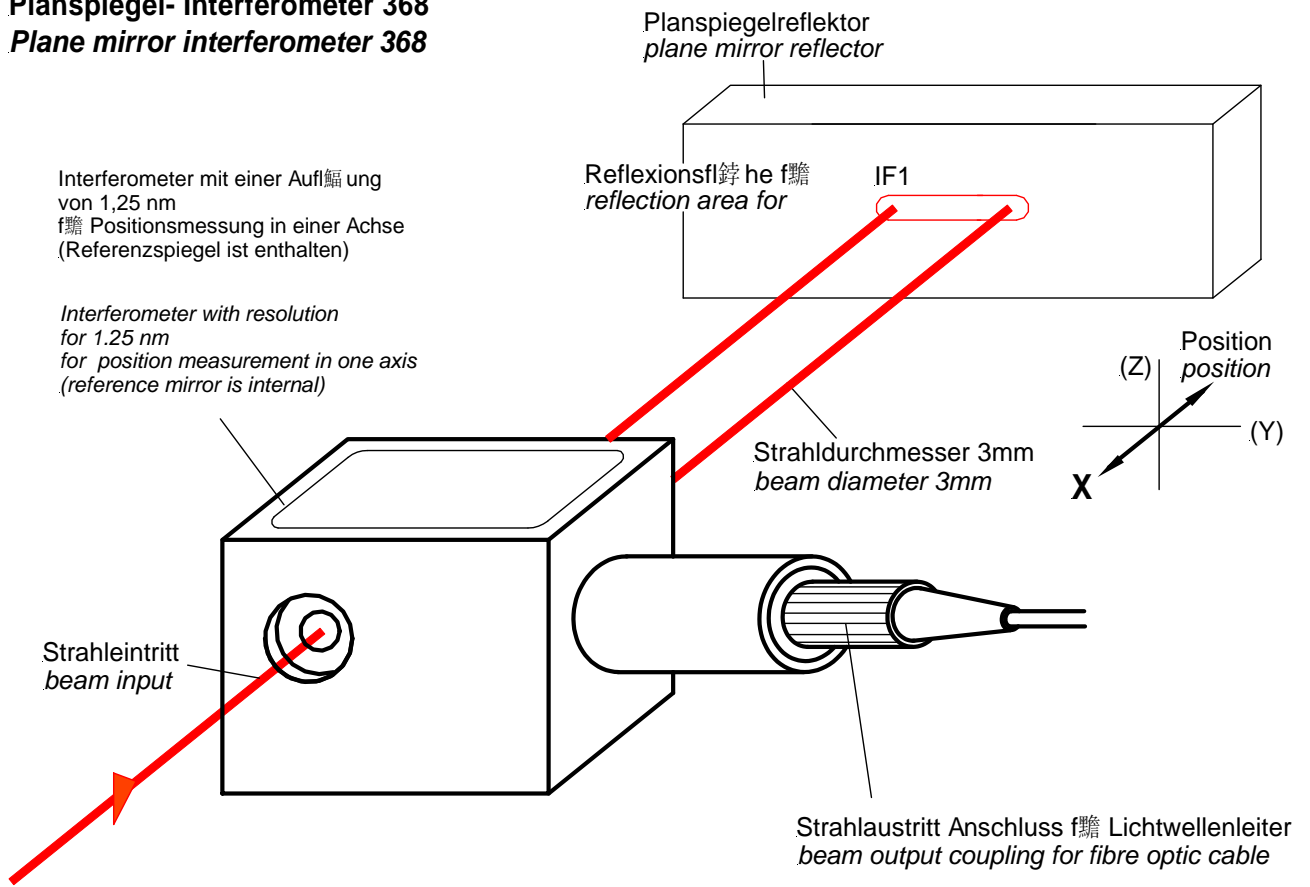
重量 /Weight: 308g

料号 / Order No.:
269302-4018.724





Planspiegel- Interferometer 368
Plane mirror interferometer 368

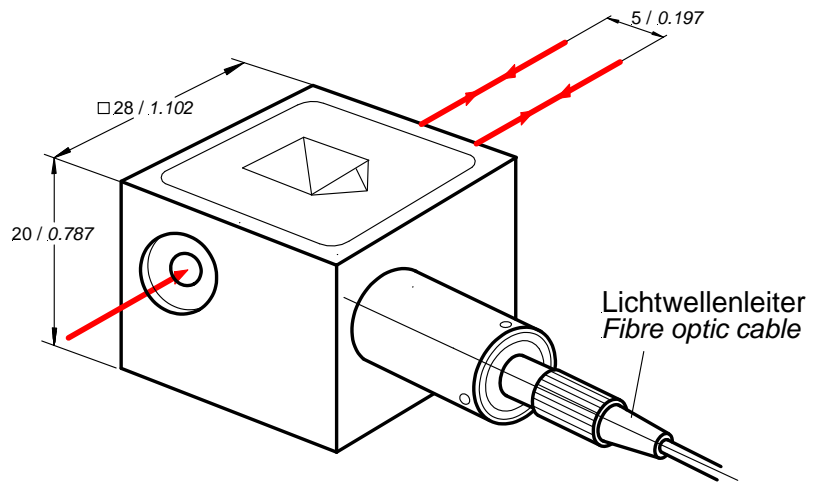


平面干涉镜 368, 1.25nm 分辨率
Plane mirror interferometer 368 with 1.25nm resolution

带一个光纤耦合器
with one coupling for fibre optics

重量 /Weight: 102g

料号 / Order No.:
269302-4002.424

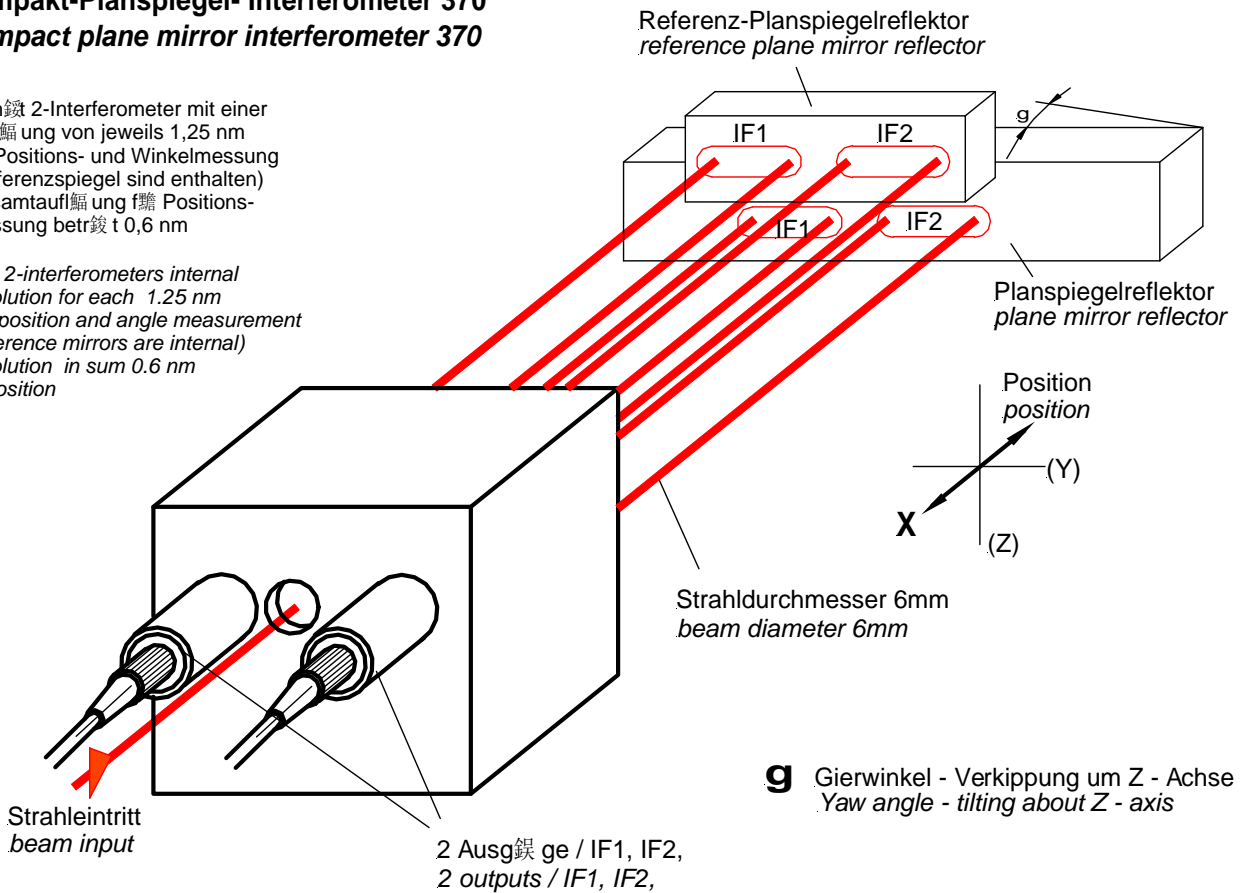




Kompakt-Planspiegel- Interferometer 370
Compact plane mirror interferometer 370

enthält 2-Interferometer mit einer Auflösung von jeweils 1,25 nm für Positions- und Winkelmessung (Referenzspiegel sind enthalten) Gesamtauflösung für Positions- messung beträgt 0,6 nm

with 2-interferometers internal resolution for each 1.25 nm for position and angle measurement (reference mirrors are internal) resolution in sum 0.6 nm in position

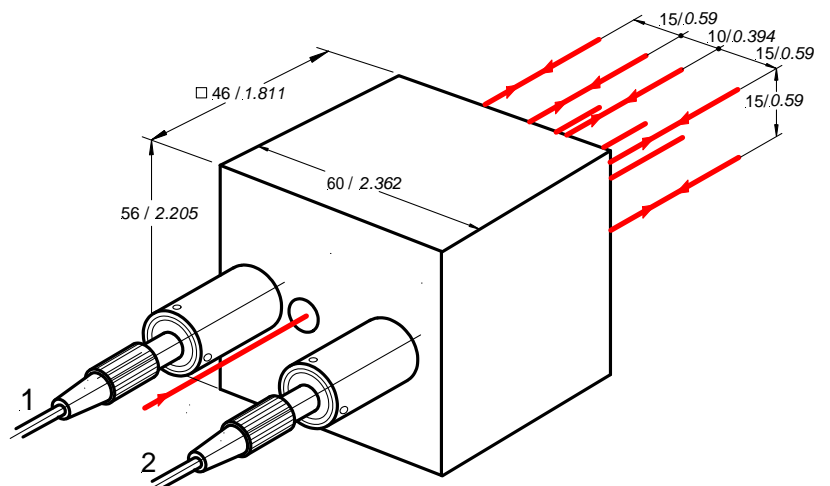


g Gierwinkel - Verkippung um Z - Achse
Yaw angle - tilting about Z - axis

两轴测量紧凑型平面干涉镜 370
2 axis compact plane mirror interferometer 370

带两个光纤耦合器
with two couplings for fibre optics cable

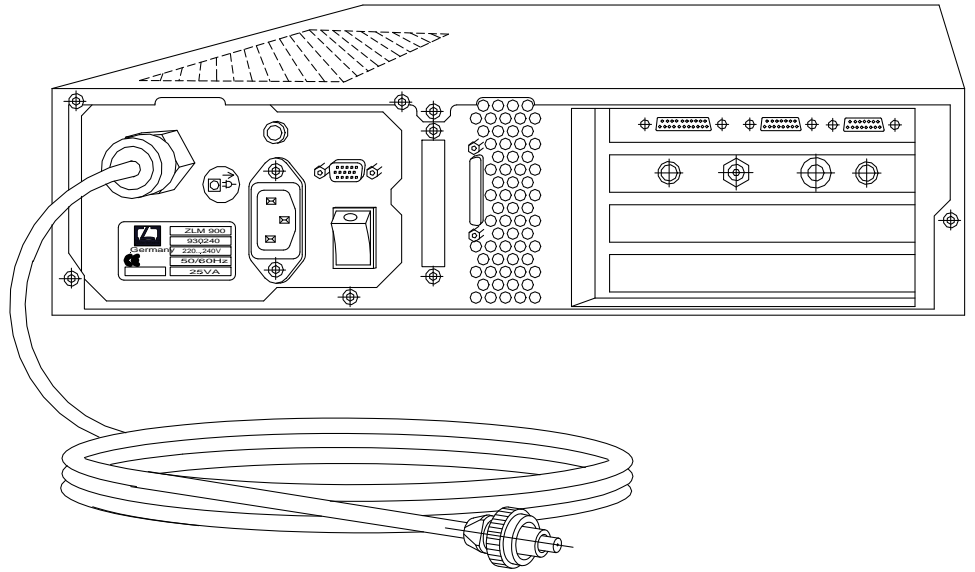
料号 / Order No.:
269302-4004.524





电气部分 AE 900 LSI
Electronics unit AE 900 LSI

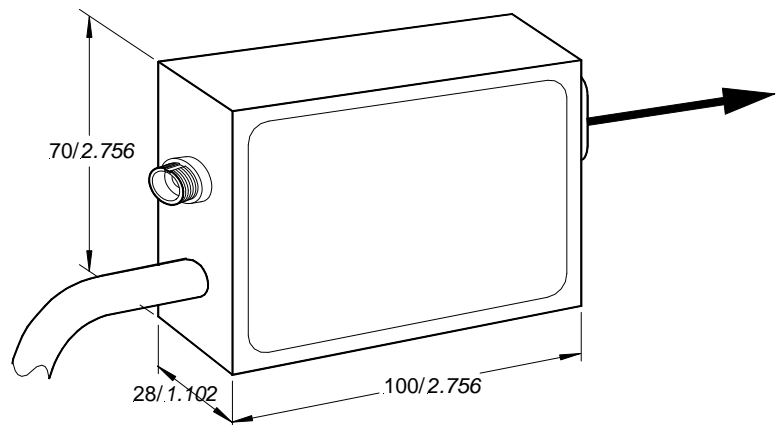
料号 / Order No.:
269302-5090.026



LSI -用于位置和角度测量单光束干涉仪
LSI Single Beam Interferometer for position and angle measuring

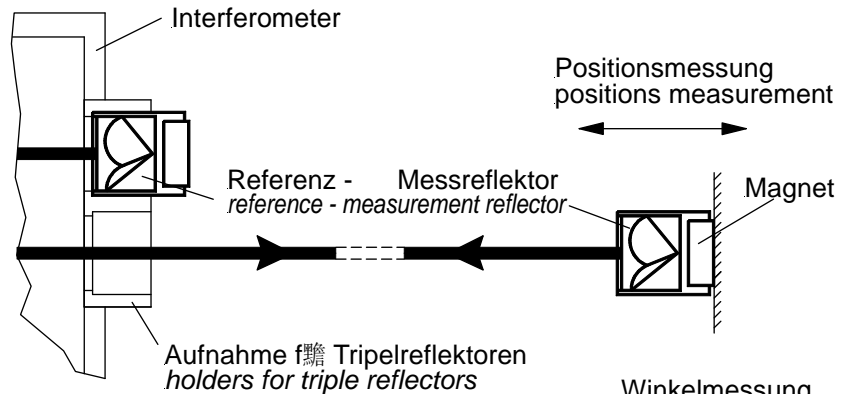
包含用于调节的光束位置传感器
contains beam position sensor for adjustment

料号 / Order No.:
269302-5003.024

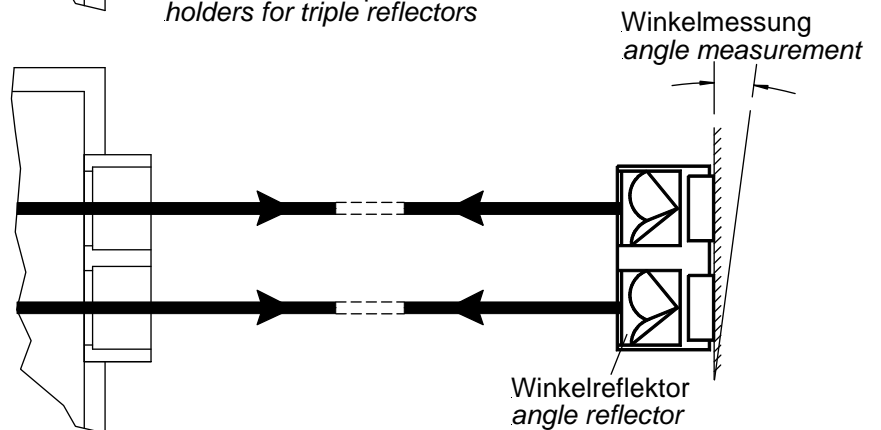




使用单束光进行位置测量
Position measurement by single beam process



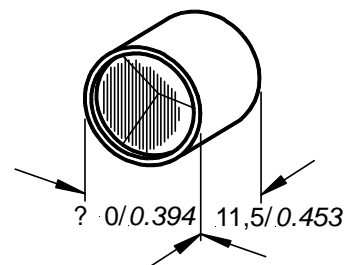
使用单束光进行角度测量
Angle measurement by single beam process



角隅反射镜 9mm (带磁性夹具)
Triple Reflector 9mm (with magnetic clamp)

重量 / Weight: 1.5g

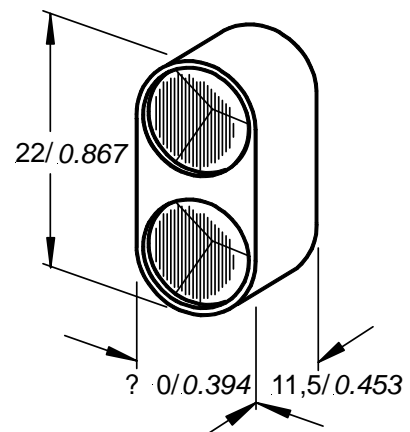
料号 / Order No.:
269302-5003.524



角度反射镜 9mm (带磁性夹具)
Angle Reflector 9mm (with magnetic clamp)

重量 / Weight: 3g

料号 / Order No.:
269302-5003.624

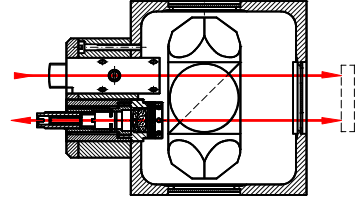




静态安装系统: 平面干涉镜 (光束直径 6mm)
Fixed Mounting Systems: Plane mirror interferometer (for 6mm beam diameter)

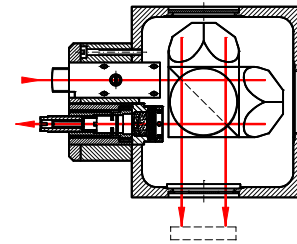
LSI 四倍光路平面干涉镜 420 (直线)
LSI 4-fold-plane-mirror-interferometer 420 (straight)

料号 / Order No.:
269302-5007.024



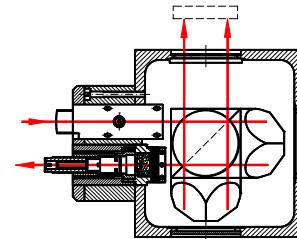
LSI 四倍光路平面干涉镜 421 (90°,右)
LSI 4-fold-plane-mirror-interferometer 421 (90°, right)

料号 / Order No.:
269302-5007.224



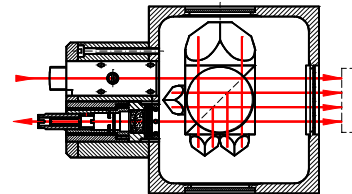
LSI 四倍光路平面干涉镜 422 (90°,左)
LSI 4-fold-plane-mirror-interferometer 422 (90°, left)

料号 / Order No.:
269302-5007.324



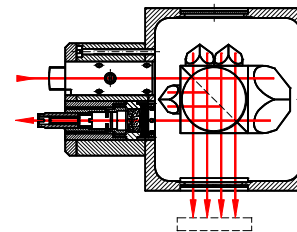
LSI 八倍光路平面干涉镜 425 (直线)
LSI 8-fold-plane-mirror-interferometer 425 (straight)

料号 / Order No.:
269302-5007.524



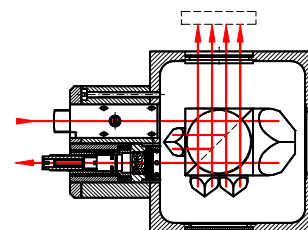
LSI 八倍光路平面干涉镜 426 (右)
LSI 8-fold-plane-mirror-interferometer 426 (right)

料号 / Order No.:
269302-5007.724



LSI 八倍光路平面干涉镜 427 (90°,左)
LSI 8-fold-plane-mirror-interferometer 427 (90°, left)

料号 / Order No.:
269302-5007.824

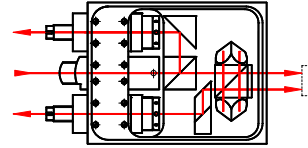




静态安装系统: 迷你型平面干涉镜(光束直径 3mm)
Fixed Mounting Systems: Small plane mirror interferometer (for 3mm beam diameter)

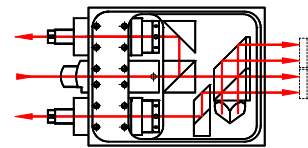
LSI-平面干涉镜 410 (内部带参考光束)
LSI-plane-mirror-interferometer 410 (with internal reference)

料号 / Order No.:
269302-5004.624



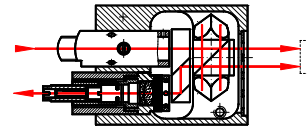
LSI 角度干涉镜 411 (内部带参考光束)
LSI angle-interferometer 411 (with internal reference)

料号 / Order No.:
269302-5004.124



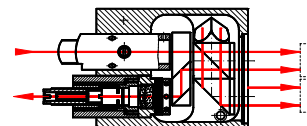
LSI 平面干涉镜 415
LSI Plane-mirror-interferometer 415

料号 / Order No.:
269302-5004.524



LSI 平面干涉镜 416
LSI Plane-mirror-interferometer 416

料号 / Order No.:
269302-5004.024





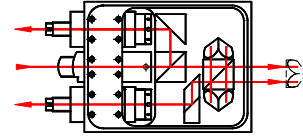
静态安装系统: 迷你型角隅反射镜干涉仪
(光束直径 3mm)

Fixed Mounting Systems: Small interferometer for cube corner reflectors (for 3mm beam diameter)

LSI-平面干涉镜 412 (内部带参考光束)

LSI-plane-mirror-interferometer 412 (with internal reference)

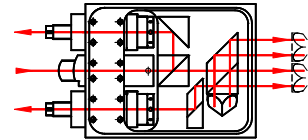
料号 / Order No.:
269302-5004.424



LSI 角度干涉镜 414 (内部带参考光束)

LSI angle-interferometer 414 (with internal reference)

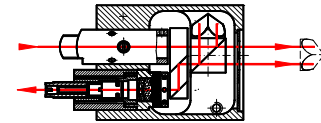
料号 / Order No.:
269302-5004.224



LSI 平面干涉镜 417

LSI Plane-mirror-interferometer 417

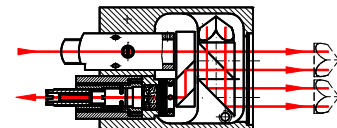
料号 / Order No.:
269302-5004.724



LSI 角度干涉镜 418

LSI angle-interferometer 418

料号 / Order No.:
269302-5004.324

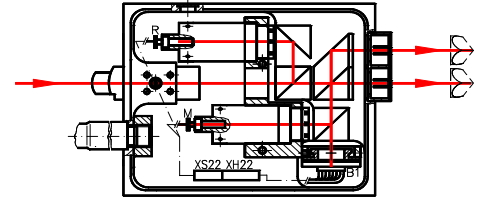




动态系统: 单光束干涉仪(光束直径 **6mm**)
Mobile Systems: Single beam interferometer (for 6mm beam diameter)

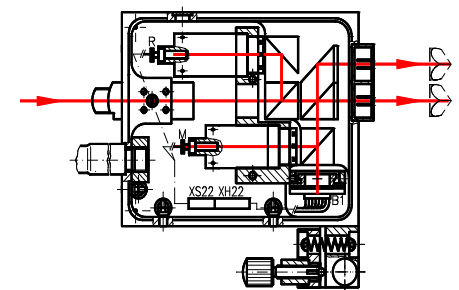
LSI 角度干涉镜 407, 内部带参考光束及调节传感器
LSI Angle interferometer 407 with internal reference and sensor for adjusting

料号 / Order No.:
269302-4003.924



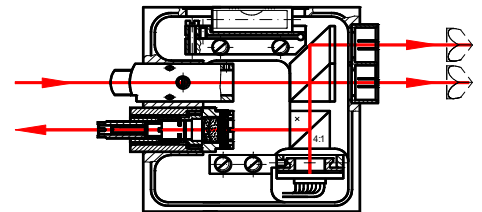
LSI 角度干涉镜 408, 内部带参考光束及调节传感器
LSI Angle interferometer 408 with internal reference and sensor for adjusting, adjustable

料号 / Order No.:
269302-4004.024



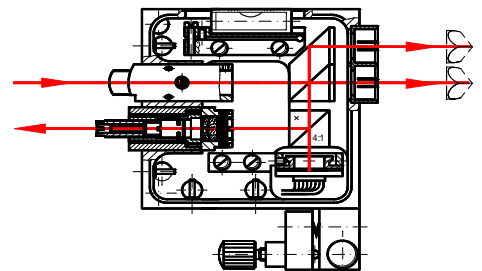
LSI 角度传感器 405, 带调节传感器和气泡水准仪
LSI Angle interferometer 405 with sensor for adjusting and bubble level

料号 / Order No.:
269302-5005.324



LSI 角度干涉镜 406, 带调节传感器和气泡水准仪
LSI Angle interferometer 406 with sensor for adjusting and bubble level, adjustable

料号 / Order No.:
269302-5004.924

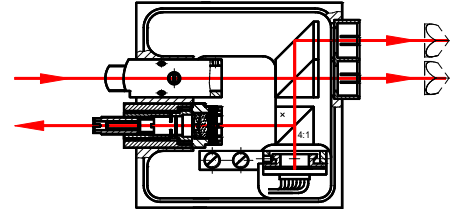




动态系统: 单束光干涉仪 (光束直径 6mm)
Mobile Systems: Single beam interferometer (for 6mm beam diameter)

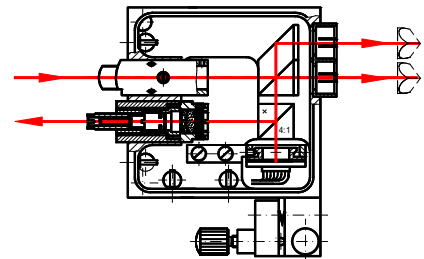
LSI 角度干涉镜 403, 带调节传感器
LSI Angle interferometer 403 sensor for adjusting

料号 / Order No.:
269302-5005.224



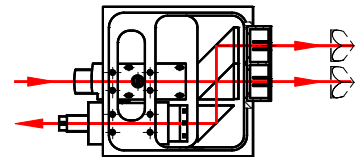
LSI 角度干涉镜 404, 带调节传感器
LSI Angle interferometer 404 sensor for adjusting, adjustable

料号 / Order No.:
269302-4004.824



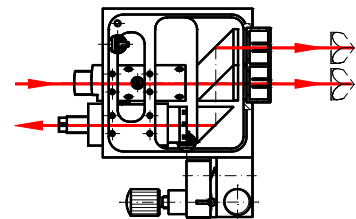
LSI 角度干涉镜 401
LSI Angle interferometer 401

料号 / Order No.:
269302-5005.424



LSI 角度干涉镜 402, 可调
LSI Angle interferometer 402, adjustable

料号 / Order No.:
269302-5003.724



以上所有内容请以英文为准，中文为翻译件，仅供参考。



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