

ECR3030

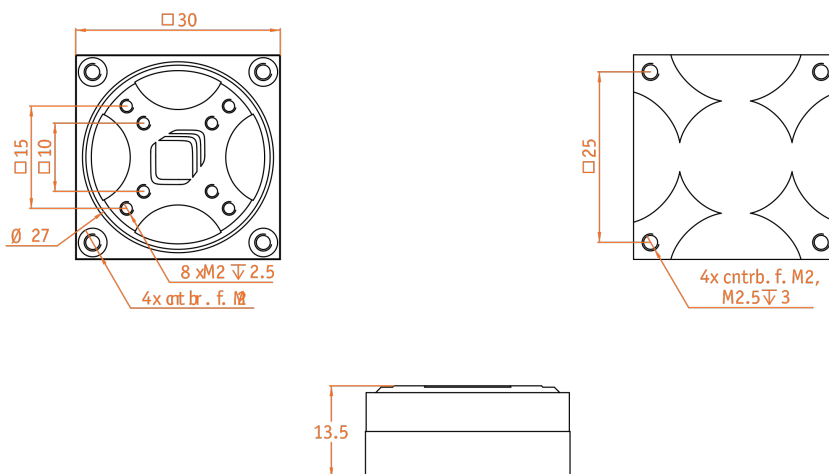
Technical Specifications

| Technology | |
|------------------------------------|-------------------------------------------------|
| travel mechanism | inertial piezo drive |
| positioner type | rotator |
| Size and Dimensions | |
| footprint; height | 30 x 30 ; 13.5 mm |
| max installation space | 30 x 30 ; 13.5 mm |
| weight (aluminium version) | 28 g |
| weight (stainless steel version) | 66 g |
| Materials | |
| positioner body | Aluminum |
| positioner body (/HV, /UHV) | stainless steel |
| actuator | PZT ceramics |
| connecting wires | copper, jacket: RT: silicon, HV/UHV: fiberglass |
| bearings | stainless steel |
| Load (@ ambient conditions) | |
| maximum load | 20 N |
| maximum dynamic torque around axis | 2 Ncm |
| Coarse Positioning Mode | |
| input voltage range | 0 - 60 V |
| travel range (step mode) | 360 ° |
| maximum drive velocity @ 300 K | 10 °/s |
| typical minimum step size @ 300 K | 0.4 m° |

| Fine Positioning Mode | |
|----------------------------------------|-------------------------------|
| fine positioning resolution | μ° |
| fine angular positioning range @ 300 K | 12 m° |
| input DC voltage range @ 300 K | 0 - 100 V |
| Accuracy of Movement | |
| repeatability of step sizes | typically 5 % over full range |
| typ. forward / backward step asymmetry | 10 % |
| wobble | 6 mrad |
| Working Conditions | |
| mounting orientation | arbitrary |
| Connectors and Feedthroughs | |
| cable | 50 cm cable with connector |
| connector type | 14-pole connector |
| connector type (/HV, /UHV) | 15-pin D-Sub connector |
| Options | |
| material options | /StSt, /Al |
| environmental options | /RT, /HV, /UHV |
| Versions | |
| /StSt/UHV Version | 1006212 |
| /StSt/HV Version | 1006210 |
| /Al/RT Version | 1006205 |



Technical Drawings



ECR3030/NUM(+)

Technical Specifications

| Technology | |
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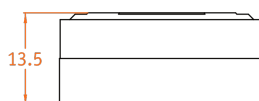
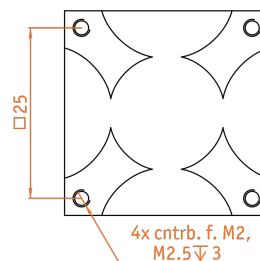
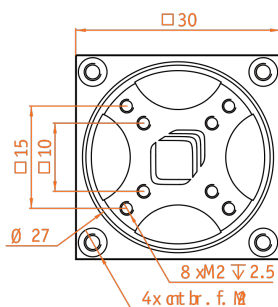
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| Accuracy of Movement | |
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| typ. forward / backward step asymmetry | 10 % |
| wobble | 6 mrad |
| Position Encoder | |
| readout mechanism | optoelectronic sensor |
| encoded travel range | 360° |
| sensor power (when measuring) | 300 mW |
| wavelength of illumination | 870 nm |
| sensor resolution | 0.01 m° |
| repeatability | 1 m° (bidirectional) |
| absolute accuracy | < 0.01% of travel range |
| Working Conditions | |
| mounting orientation | arbitrary |
| Connectors and Feedthroughs | |
| cable | 50 cm cable with connector |
| connector type | 14-pole connector |
| connector type (/HV, /UHV) | 15-pin D-Sub connector |
| Options | |
| material options | /StSt, /Al |
| encoder options | /NUM, /NUM+ |
| environmental options | /RT, /HV, /UHV |
| Versions | |
| /StSt+/UHV Version | 1011449 |
| /StSt+/HV Version | 1011448 |
| /StSt/UHV Version | 1006213 |
| /StSt/HV Version | 1006211 |
| /Al/RT Version | 1006207 |

AMC100

Piezo Positioning
Controller



Technical Drawings



AMC100

Art.Nr.: 1013507

Technical Specifications

Application System

Machine Vision

Manual Positions

Motion Control Products

Optical & Mirror Holder

Optomechanics

Holders

Factory Automation Parts

Measurement & Control

FA Electrical Parts

Laser

Tools & Clean Parts

Nanometer Stages

Precision Linear Motorized Stages

High Speed Motorized Stages

Motorized Goniometer

Multiaxis Motorized Stages

Motorized Rotation Stages

Industrial Robot

Controller & Driver & Cable

Custom-Built Motorized Stages

| General Specifications | |
|-------------------------------|--------------------------------------------------------------------------------------|
| type of instrument | 3 axes motion controller |
| number of slots | 3 |
| connector to product(pos/mic) | 3 x D-Sub H/D 26pin |
| temperature range | 0 - 40°C, non condensing |
| Modes of Operation | |
| open loop positioning | stepping signals for slip-stick positioners |
| closed loop positioning | closed loop control for ECS/NUM positioners |
| remote operation | Ethernet, WLAN (optional, planned), USB for hand-held controller (optional, planned) |
| positioning mode | stepping, fine positioning, closed loop positioning |
| no. device per operation | control of multiple device via one PC |
| Size and Dimensions | |
| chassis | 22 x 22 x 4.5 cm ³ |
| weight | 2 kg |
| Controller Hardware | |
| power supply | 12 VDC |
| power consumption | max. 30 W |
| connector | DC |
| connection cable (ELE - POS) | 1 per axis, length: 2m |
| Software Drivers | |
| Windows, Linux | Stand-alone application for Windows XP™, 7™, 8™, 10™, DLL, |
| communication speed | AquadB : up to 25 MHz, LabVIEW™ : up to 300 Hz |

| Output Signals | |
|--------------------------|-------------------------------------------------------------------------------------|
| output connectors | 26-Pin SubD connector |
| output voltage range | stepping : 0 .. 45 V |
| frequency range | stepping : 0 .. 5 kHz (1 axis), stepping : 0 .. 2 kHz (3 axes simultaneously) |
| output current | stepping : max > 16 A peak |
| maximum capacitance load | 2 µF |
| setpoint bandwidth | fine positioning : 1 kHz |
| output noise | stepping : < 5 mVpp (500 kHz bandwidth) |
| Trigger Signals | |
| trigger level definition | LVDS, LVTTL |
| input trigger | 1 per axis |
| trigger interface | GPIO - port |
| Options and Upgrades | |
| optional upgrades | PRO : activation code (art. no. 1013511), SYNC : activation code (art. no. 1013511) |
| Options | |
| software upgrades | I/O, PRO |
| Versions | |
| PRO Upgrade | 1013511 |
| I/O Upgrade | 1013885 |

