



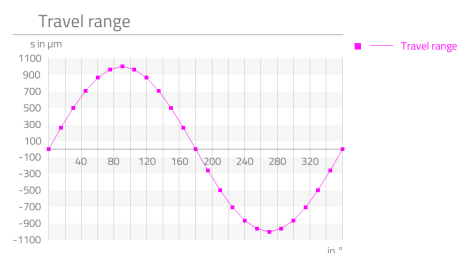
Attributes

| Highlights | Description |
|---|--|
| <ul style="list-style-type: none"> ▪ Zero backlash at ultra high resolution ▪ Step with in the range of nm ▪ Robust control without feedback system ▪ High load capacity of output bearing ▪ Connecting cable and connector assembled | <p>KeevoDrive® HighAcc 10mm - type 5 is a micro positioning system based on an eccentric with eccentricity of 1000 µm and travel range of up to 2000 µm. A stepper motor with 20 steps per rotation drives the system. It can therefore simply be operated in an open loop control. At the heart of this high-reduction and reliable micro system is a zero-backlash MaalonDrive® gear with a reduction ratio of 1000:1. The placing into operation is easily possible due to a special connecting cable with integrated plug.</p> |

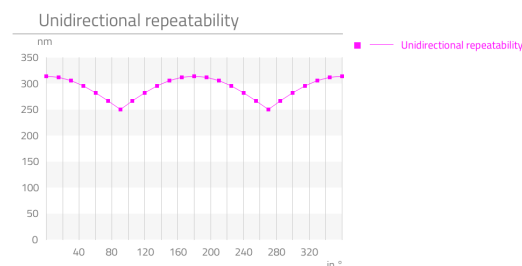
Technical parameter

The stated values are based on calculations and measurements by Micromotion GmbH, carried out according to the current state of the art. You can find our definitions at www.micromotion-drives.com.
 For further information please contact sales@micromotion.de.

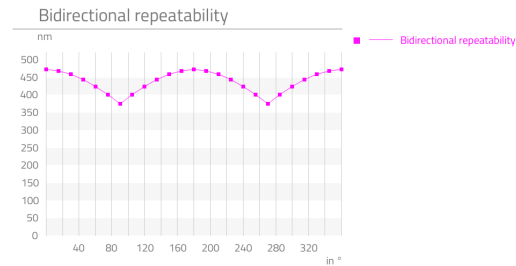
P-005



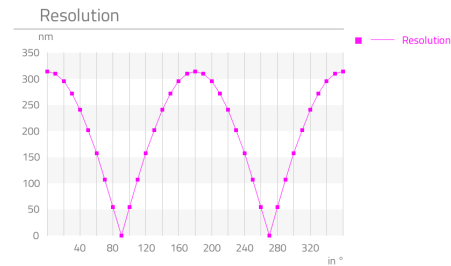
P-008



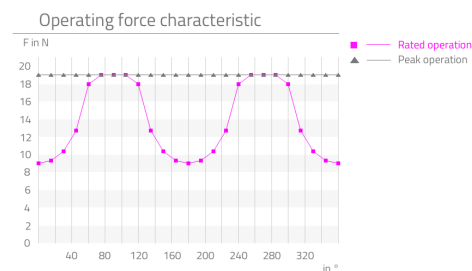
P-009



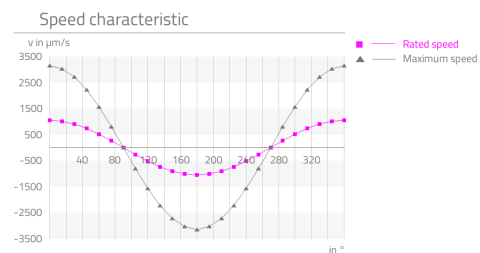
P-012



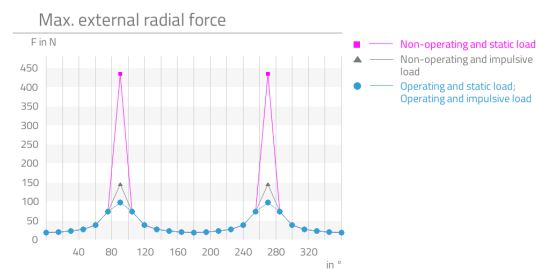
P-016



P-502



P-512



| Nr. | Parameter | Symbol | Value | Hint |
|-------|------------------------------|--------|----------|------|
| P-003 | Ratio | i | 1000 : 1 | |
| P-004 | Self-locking | | yes | |
| P-005 | Max. travel range | s | 2000 μm | |
| P-015 | Backlash | | 0 μm | |
| P-016 | Rated force | F | 9 N | |
| P-017 | Peak force | F | 19 N | |
| P-018 | Momentary peak force | F | 47 N | |
| P-034 | Lifetime for rated operation | | 1000 h | |
| P-035 | Radial backlash output shaft | | 0 μm | |
| P-036 | Axial backlash output shaft | | 0 μm | |

Technical Supply Specifications: KeevoDrive® HighAcc 10mm - Type 5



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| Nr. | Parameter | Symbol | Value | Hint |
|-------|--|--------|---|------|
| P-037 | Radial stiffness | c | 69.13 N/μm | |
| P-038 | Axial stiffness | c | 40 ^N /μm | |
| P-039 | Max. radial load on output shaft (non-operating, constant load) | F | 435 N | |
| P-040 | Max. radial load on output shaft (non-operating, impulsive load) | F | 145 N | |
| P-041 | Max. radial load on output shaft (operating, constant load) | F | 98 N | |
| P-042 | Max. radial load on output shaft (operating, impulsive load) | F | 98 N | |
| P-043 | Max. axial load on output shaft (non-operating, constant load) | F | 150 N | |
| P-044 | Max. axial load on output shaft (non-operating, impulsive load) | F | 50 N | |
| P-045 | Max. axial load on output shaft (operating, constant load) | F | 380 N | |
| P-046 | Max. axial load on output shaft (operating, impulsive load) | F | 127 N | |
| P-055 | Moment of inertia | I | 955 * 10 ⁻⁴ gcm ² | |
| P-057 | Min. permissible ambient temperature (non-operating) | T | -35 °C | |
| P-058 | Min. permissible ambient temperature (operating) | T | -20 °C | |
| P-059 | Max. permissible ambient temperature (non-operating) | T | 130 °C | |
| P-060 | Max. permissible ambient temperature (operating) | T | 70 °C | |

Motor data: Stepper AM 1020-2R-A0.25

(Data are provided by the manufacturer or are based on the data sheets of the manufacturer)

| Nr. | Parameter | Symbol | Value | Hint |
|-------|-------------------------------------|--------|------------|------|
| P-100 | Motortype | | Stepper | |
| P-102 | Maximum speed of motor | n | 21000 rpm | |
| P-103 | Resonance frequency of motor | f | 140 Hz | |
| P-105 | Holding torque of motor (unpowered) | T | 0.2 mNm | |
| P-109 | Rated current of motor | I | 250 mA | |
| P-111 | Rated voltage of motor | U | 2 V | |
| P-112 | Phase resistance of motor | R | 8 ohm | |
| P-113 | Inductance of motor | L | 2.4 mH | |
| P-114 | Amplitude BEMF of motor | U | 0.6 mV/rpm | |
| P-115 | Full step angle of motor | | 18 ° | |

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| Nr. | Parameter | Symbol | Value | Hint |
|-------|--|------------------|----------------------|------|
| P-116 | Angular accuracy of step of motor | | ±1.8 ° | |
| P-117 | Electrical time constant of motor | t | 0.32 ms | |
| P-118 | Max. coil temperature of motor | T | 130 °C | |
| P-119 | Thermal resistance of motor between coil and housing | R _{th1} | 3.9 ^K /W | |
| P-120 | Thermal resistance of motor between housing and air | R _{th2} | 53.8 ^K /W | |
| P-121 | Thermal time constant of the coil of the motor | τ _{w1} | 3200 ms | |
| P-122 | Thermal time constant of the housing of the motor | τ _{w2} | 200000 ms | |
| P-123 | Insulation voltage of motor | U | 200 V | |

Excenter data

| Nr. | Parameter | Symbol | Value | Hint |
|-------|---|--------|---------|------|
| P-501 | Eccentricity | | 1000 μm | |
| P-504 | Max. radial load on eccentric bearing (non-operating, constant load) | F | 19 N | |
| P-505 | Max. radial load on eccentric bearing (non-operating, impulsive load) | F | 19 N | |
| P-506 | Max. radial load on eccentric bearing (operating, constant load) | F | 19 N | |
| P-507 | Max. radial load on eccentric bearing (operating, impulsive load) | F | 19 N | |
| P-508 | Max. axial load on eccentric bearing (non-operating, constant load) | F | 150 N | |
| P-509 | Max. axial load on eccentric bearing (non-operating, impulsive load) | F | 50 N | |
| P-510 | Max. axial load on eccentric bearing (operating, constant load) | F | 380 N | |
| P-511 | Max. axial load on eccentric bearing (operating, impulsive load) | F | 127 N | |
| P-513 | Eccentricity error | | 20 μm | |

Material information

| Nr. | Parameter | Symbol | Value | Hint |
|-------|---------------------------------------|--------|--------------|------|
| P-900 | RoHS compliant | | yes | |
| P-901 | Lubrication of output bearing gearbox | | Longtime PD2 | |

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| Nr. | Parameter | Symbol | Value | Hint |
|-------|--------------------------------------|--------|---------------------------|------|
| P-902 | Lubrication of input bearing gearbox | | Braycote601EF | |
| P-903 | Lubrication of gear component set | | Molykote BR 2 plus | |
| P-904 | Lubrication of bearing motor | | Synthetic light ester oil | |
| P-907 | Lubrication of eccentric bearing | | Longtime PD2 | |
| P-908 | Material of gear component set | | NiFe | |
| P-909 | Material of output bearing gearbox | | 1.4108 DIN EN | |
| P-910 | Material of input bearing gearbox | | 1.4108 DIN EN | |
| P-911 | Material of bearing motor | | Stainless steel | |
| P-912 | Material of gearbox output side | | 1.4305 DIN EN | |
| P-914 | Material of motor housing | | Anodized aluminum | |
| P-915 | Material of eccentric bearing | | 1.4108 DIN EN | |

Technical Supply Specifications: KeevoDrive® HighAcc 10mm - Type 5



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Technical drawing

We are sorry, the technical drawing is not available right now.

Please contact our technical support for further enquiries:

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