



## Attributes

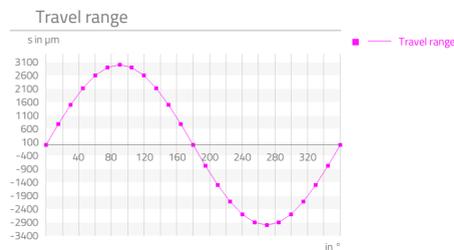
Highlights	Description
<ul style="list-style-type: none"> <li>▪ <b>High adjustment force</b></li> <li>▪ <b>Step with in the range of nm</b></li> <li>▪ <b>Robust control without feedback system</b></li> <li>▪ <b>High load capacity of output bearing</b></li> <li>▪ <b>High reliability</b></li> </ul>	<p>The KeevoDrive® HighAcc 19mm - type 1 is a micro positioning system which builds upon an eccentric with eccentricity of 3000 <math>\mu\text{m}</math> and travel range of up to 6000 <math>\mu\text{m}</math>. The system can easily be operated in an open loop control, as it is driven by a stepper motor with 200 steps per rotation. At the heart of this dynamic and reliable micro system is a low-backlash CoograDrive® gear with a reduction ratio of 80:1.</p>

## Technical parameter

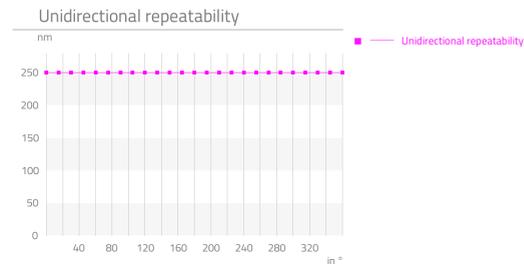
The stated values are based on calculations and measurements by Micromotion GmbH, carried out according to the current state of the art. You can find our definitions at [www.micromotion-drives.com](http://www.micromotion-drives.com).

For further information please contact [sales@micromotion.de](mailto:sales@micromotion.de).

P-005



P-008

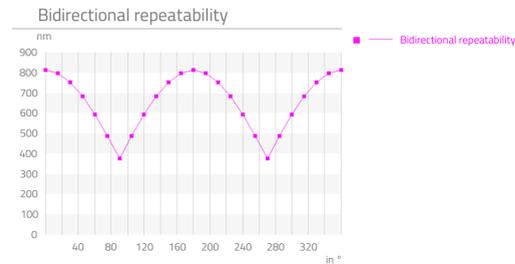


# Technical Supply Specifications: KeevoDrive® HighAcc 19mm - Type 1

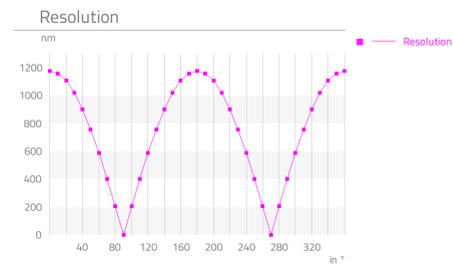


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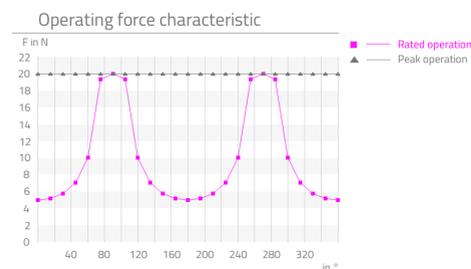
P-009



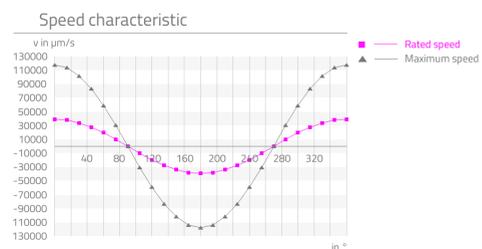
P-012



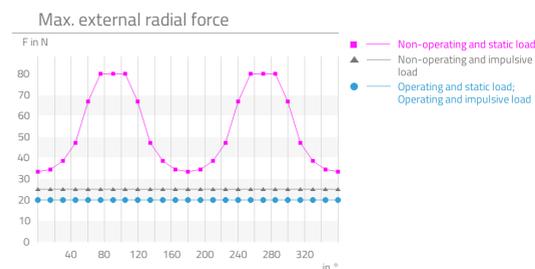
P-016



P-502



P-512



Nr.	Parameter	Symbol	Value	Hint
P-003	Ratio	i	80 : 1	
P-004	Self-locking		yes	
P-005	Max. travel range	s	6000 µm	
P-015	Backlash		0 µm	
P-016	Rated force	F	5 N	
P-017	Peak force	F	33.3333 N	
P-018	Momentary peak force	F	40 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	

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Nr.	Parameter	Symbol	Value	Hint
P-037	Radial stiffness	c	4.35 N/μm	
P-038	Axial stiffness	c	40 N/μm	
P-039	Max. radial load on output shaft (non-operating, constant load)	F	80 N	
P-040	Max. radial load on output shaft (non-operating, impulsive load)	F	25 N	
P-041	Max. radial load on output shaft (operating, constant load)	F	20 N	
P-042	Max. radial load on output shaft (operating, impulsive load)	F	20 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	900038 * 10 <sup>-4</sup> gcm <sup>2</sup>	
P-056	Weight	m	112 g	
P-057	Min. permissible ambient temperature (non-operating)	T	-20 °C	
P-058	Min. permissible ambient temperature (operating)	T	-20 °C	
P-059	Max. permissible ambient temperature (non-operating)	T	120 °C	
P-060	Max. permissible ambient temperature (operating)	T	120 °C	

## Motor data: Stepper ZSS 19.200.0,6-2g5-BC-R

(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	6000 rpm	
P-105	Holding torque of motor (unpowered)	T	0.9 mNm	
P-109	Rated current of motor	I	600 mA	
P-111	Rated voltage of motor	U	42 V	
P-112	Phase resistance of motor	R	2.1 ohm	
P-113	Inductance of motor	L	0.85 mH	
P-115	Full step angle of motor		1.8 °	
P-116	Angular accuracy of step of motor		±0.09 °	

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Nr.	Parameter	Symbol	Value	Hint
P-117	Electrical time constant of motor	t	0.367 ms	
P-118	Max. coil temperature of motor	T	120 °C	

## Excenter data

Nr.	Parameter	Symbol	Value	Hint
P-501	Eccentricity		3000 µm	
P-504	Max. radial load on eccentric bearing (non-operating, constant load)	F	33.3333 N	
P-505	Max. radial load on eccentric bearing (non-operating, impulsive load)	F	25 N	
P-506	Max. radial load on eccentric bearing (operating, constant load)	F	20 N	
P-507	Max. radial load on eccentric bearing (operating, impulsive load)	F	20 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

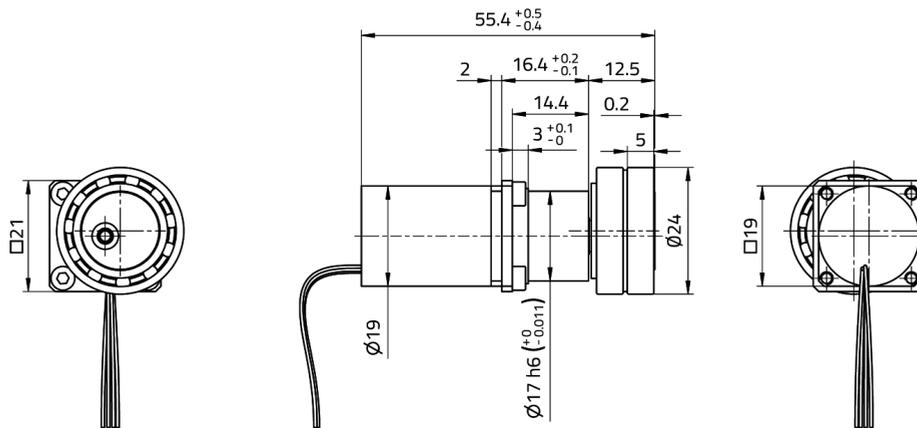
Nr.	Parameter	Symbol	Value	Hint
P-900	RoHS compliant		yes	
P-901	Lubrication of output bearing gearbox		Longtime PD2	
P-903	Lubrication of gear component set		Molykote BR 2 plus	
P-907	Lubrication of eccentric bearing		Longtime PD2	
P-908	Material of gear component set		NiFe	
P-909	Material of output bearing gearbox		1.4108 DIN EN	
P-912	Material of gearbox output side		1.4305 DIN EN	
P-915	Material of eccentric bearing		1.4108	

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## Technical drawing



Pin assignment	
Color	Signal
YEL	A+
RED	A-
BLU	B+
GRE	B-

**Cable:**  
Individual lead wires,  
Kapton-insulating, AWG 28,  
length=300mm



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