

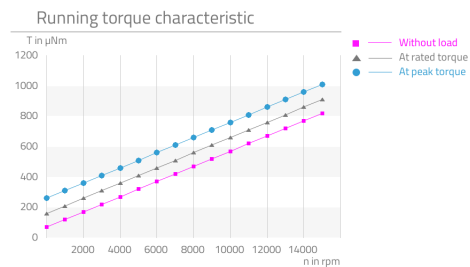


Attributes

Highlights	Description
<ul style="list-style-type: none"> ▪ Fast delivery ▪ High repeatability ▪ Zero backlash with ultra high transmission ratio ▪ Lifetime lubrication ▪ Preloaded ball bearing 	<p>The MaalonDrive® ZeroBacklash 10mm - type 2 micro positioning gear combines small outer dimensions and yet extremely high reduction ratio in a single stage. A zero-backlash MaalonDrive® gear component set with a reduction ratio of 1000:1 forms the heart of this precise and high-performance gear. The gear component set is integrated in a gearbox with preloaded ball bearings on both the input shaft as well as the output shaft. As a result, they are guided precisely and the application can be directly connected.</p>

Technical parameter

P-029



Technical Supply Specifications: MaalonDrive® ZeroBacklash 10mm - Type 2



Micromotion GmbH, Phone: +49 (0) 6131 – 669 27 – 25, E-mail: sales@micromotion.de

Nr.	Parameter	Symbol	Value	Hint
P-003	Ratio	i	1000 : 1	k
P-004	Self-locking		yes	
P-008	Repeatability unidirectional		10 arcsec	
P-009	Repeatability bidirectional		20 arcmin	
P-010	Accuracy		15 arcmin	
P-011	Transmission accuracy		30 arcmin	
P-013	Torsional stiffness		3.80	
P-014	Lost motion		20 arcmin	
P-015	Backlash		0 arcmin	
P-016	Rated torque	T	9 mNm	
P-017	Peak torque	T	19 mNm	
P-018	Momentary peak torque	T	47 mNm	
P-021	Rated input speed	n	10000 rpm	
P-022	Maximum input speed	n	30000 rpm	
P-023	Rated output speed	n	10 rpm	
P-024	Maximum output speed	n	30 rpm	
P-026	No-load starting torque	T	105 µNm	
P-027	No-load running torque	T	70 µNm	
P-028	Rated running torque	T	675 µNm	
P-034	Lifetime for rated operation		1000 h	
P-035	Radial backlash output shaft		0 µm	
P-036	Axial backlash output shaft		0 µm	
P-037	Radial stiffness	c	2.3 ^N /m	
P-038	Axial stiffness	c	40 ^N /m	
P-039	Max. radial load on output shaft (non-operating, constant load)	F	55 N	
P-040	Max. radial load on output shaft (non-operating, impulsive load)	F	20 N	
P-041	Max. radial load on output shaft (operating, constant load)	F	7 N	
P-042	Max. radial load on output shaft (operating, impulsive load)	F	7 N	
P-043	Max. axial load on output shaft (non-operating, constant)	F	150 N	
P-044	Max. axial load on output shaft (non-operating, impulsive load)	F	50 N	

Technical Supply Specifications: MaalonDrive® ZeroBacklash 10mm - Type 2



Micromotion GmbH, Phone: +49 (0) 6131 – 669 27 – 25, E-mail: sales@micromotion.de

Nr.	Parameter	Symbol	Value	Hint
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-047	Max. radial load on input shaft (non-operating, constant load)	F	15 N	
P-048	Max. radial load on input shaft (non-operating, impulsive load)	F	6 N	
P-049	Max. radial load on input shaft (operating, constant load)	F	12 N	
P-050	Max. radial load on input shaft (operating, impulsive load)	F	6 N	
P-051	Max. axial load on input shaft (non-operating, constant load)	F	30 N	
P-052	Max. axial load on input shaft (non-operating, impulsive load)	F	10 N	
P-053	Max. axial load on input shaft (operating, constant load)	F	100 N	
P-054	Max. axial load on input shaft (operating, impulsive load)	F	38 N	
P-055	Moment of inertia	I	55 * 10 ⁻⁴ gcm ²	
P-056	Weight	m	6 g	
P-057	Min. permissible ambient temperature (non-operating)	T	-80 °C	
P-058	Min. permissible ambient temperature (operating)	T	-20 °C	
P-059	Max. permissible ambient temperature (non-operating)	T	150 °C	
P-060	Max. permissible ambient temperature (operating)	T	120 °C	

Material information

Nr.	Parameter	Symbol	Value	Hint
P-900	RoHS compliant		yes	
P-901	Lubrication of output bearing gearbox		Longtime PD2	
P-902	Lubrication of input bearing gearbox		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-912	Material of gearbox output side		1.4305 DIN EN	

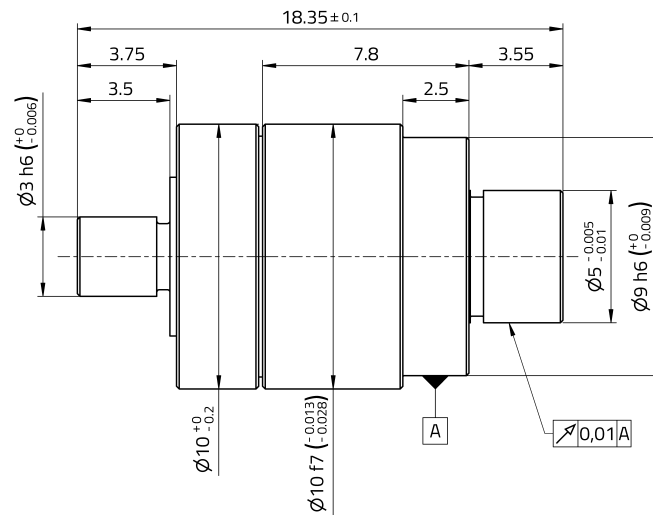
Technical Supply Specifications: MaalonDrive® ZeroBacklash 10mm - Type 2



Micromotion GmbH, Phone: +49 (0) 6131 – 669 27 – 25, E-mail: sales@micromotion.de

Nr.	Parameter	Symbol	Value	Hint
P-913	Material of gearbox input side		1.4305 DIN EN	

Technical drawing



Micromotion GmbH | An der Fahrt 13 | 55124 Mainz
+49(0)6131-66927-25 | sales@micromotion.de | www.micromotion-drives.com