

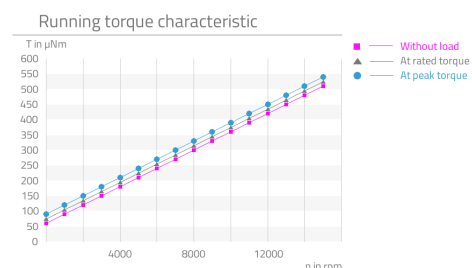


Attributes

Highlights	Description
<ul style="list-style-type: none"> ▪ Fast delivery ▪ High repeatability ▪ Zero backlash with optimised fit between speed and transmission ratio ▪ Hollow shaft thru center of rotational axis ▪ Preloaded ball bearing 	<p>The MaalonDrive® Hollow 8mm - type 1 micro positioning gear is characterised, in particular, by minimal outer dimensions and a hollow shaft through the central rotary axis. Optical or electrical signals can be guided through this shaft, thereby allowing a simple and space-saving design to be realised. At the heart of this precise and reliable micro gearbox is a zero-backlash MaalonDrive® gear with a reduction ratio of 160:1. The preloaded ball bearings on both the input shaft as well as the output shaft result in precise guiding and allow the application to be directly connected.</p>

Technical parameter

P-029



Technical Supply Specifications: MaalonDrive® Hollow 8mm - Type 1



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Nr.	Parameter	Symbol	Value	Hint
P-003	Ratio	i	160 : 1	
P-004	Self-locking		yes	
P-006	Hollow shaft		1	
P-008	Repeatability unidirectional		15 arcsec	
P-009	Repeatability bidirectional		20 arcmin	
P-010	Accuracy		14 arcmin	
P-011	Transmission accuracy		28 arcmin	
P-013	Torsional stiffness		2.29 $\frac{\text{Nm}}{\text{rad}}$	
P-014	Lost motion		15 arcmin	
P-015	Backlash		0 arcmin	
P-016	Rated torque	T	3 mNm	
P-017	Peak torque	T	6 mNm	
P-018	Momentary peak torque	T	20 mNm	
P-021	Rated input speed	n	10000 rpm	
P-022	Maximum input speed	n	30000 rpm	
P-023	Rated output speed	n	62.5 rpm	
P-024	Maximum output speed	n	187.5 rpm	
P-026	No-load starting torque	T	90 μNm	
P-027	No-load running torque	T	60 μNm	
P-028	Rated running torque	T	390 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	0.87 $\text{N}/\mu\text{m}$	
P-038	Axial stiffness	c	18.5 $\frac{\text{N}}{\text{m}}$	
P-039	Max. radial load on output shaft (non-operating, constant load)	F	20 N	
P-040	Max. radial load on output shaft (non-operating, impulsive load)	F	5 N	
P-041	Max. radial load on output shaft (operating, constant load)	F	3 N	
P-042	Max. radial load on output shaft (operating, impulsive load)	F	3 N	
P-043	Max. axial load on output shaft (non-operating, constant)	F	64 N	
P-044	Max. axial load on output shaft (non-operating, impulsive load)	F	20 N	

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Nr.	Parameter	Symbol	Value	Hint
P-045	Max. axial load on output shaft (operating, constant load)	F	185 N	
P-046	Max. axial load on output shaft (operating, impulsive load)	F	66 N	
P-047	Max. radial load on input shaft (non-operating, constant load)	F	25 N	
P-048	Max. radial load on input shaft (non-operating, impulsive load)	F	8 N	
P-049	Max. radial load on input shaft (operating, constant load)	F	11 N	
P-050	Max. radial load on input shaft (operating, impulsive load)	F	8 N	
P-051	Max. axial load on input shaft (non-operating, constant load)	F	49 N	
P-052	Max. axial load on input shaft (non-operating, impulsive load)	F	15 N	
P-053	Max. axial load on input shaft (operating, constant load)	F	147.5 N	
P-054	Max. axial load on input shaft (operating, impulsive load)	F	61 N	
P-055	Moment of inertia	I	28 * 10 ⁻⁴ gcm ²	
P-056	Weight	m	4 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	

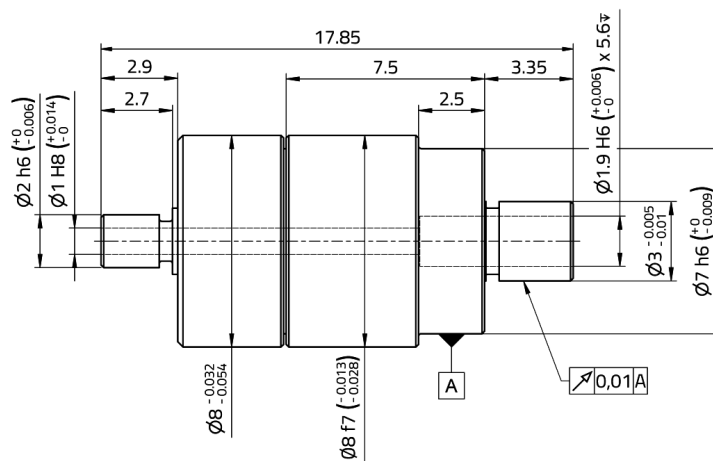
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Nr.	Parameter	Symbol	Value	Hint
P-913	Material of gearbox input side		1.4305 DIN EN	

Technical drawing



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