

Spur Gearheads

20 mNm

M11 for combination with
DC-Micromotors:
0030
M13 for combination with
DC-Micromotors:
0130

Series M11, M13

	M11 A / M13 A	M11 B / M13 B	M11 E / M13 E
Housing material	plastic	plastic	plastic
Geartrain material	plastic / metal	plastic / metal	plastic / metal
Recommended max. input speed for:			
- continuous operation	7 000 rpm	7 000 rpm	7 000 rpm
Backlash, at no-load	≤ 3 °	≤ 3 °	≤ 3 °
Bearings on output shaft	brass	brass	brass
Shaft load, max.:			
- radial (3 mm from mounting face)	≤ 0,5 N	≤ 0,5 N	≤ 1 N
- axial	≤ 1 N	≤ 0,5 N	≤ 0,5 N
Shaft press fit force, max.	≤ 5 N	≤ 4 N	≤ 6 N
Shaft play:			
- radial (5 mm from mounting face)	≤ 0,1 mm	≤ 0,2 mm	≤ 0,1 mm
- axial	≤ 0,1 mm	≤ 0,2 mm	≤ 0,25 mm
Operating temperature range	- 20 ... + 65 °C	- 20 ... + 65 °C	- 20 ... + 65 °C

Specifications

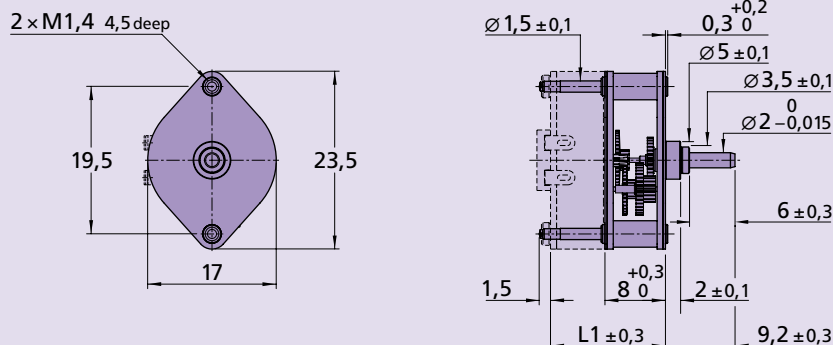
reduction ratio (rounded)	type			weight without Motor g	length with motor		output torque		direction of rotation (reversible)	efficiency grad %
	M11 A M13 A	M11 B M13 B	M11 E M13 E		0030 L1 mm	0130 L1 mm	continuous operation M _{max} mNm	intermittent operation M _{max} mNm		
19 : 1	•	•		6,1	15,2	13,2	20	50	=	81
96 : 1	•	•	•	6,6	15,2	13,2	20	50	=	66
176 : 1	•	•	•	6,6	15,2	13,2	20	50	=	66
249 : 1	•	•	•	6,6	15,2	13,2	20	50	≠	59
487 : 1	•	•	•	6,6	15,2	13,2	20	50	≠	59
916 : 1	•	•		6,8	15,2	13,2	20	50	=	53
4 629 : 1	•			6,8	15,2	13,2	20	50	≠	48

Note: Plastic cap to be ordered separately.


The Spur Gearheads are only available in combination with Thin Profile DC-Micromotors.

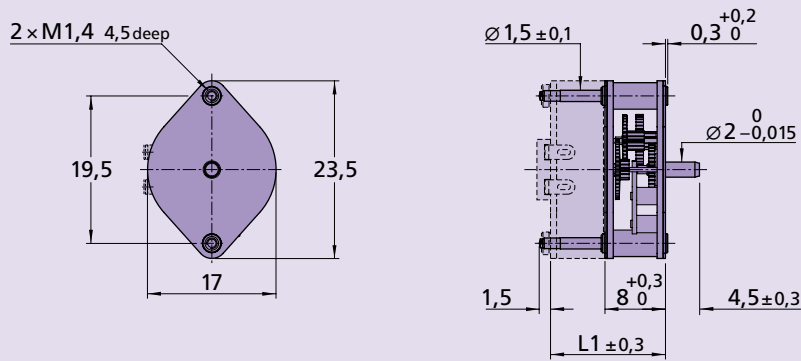
The reduction ratios are rounded, the exact values are available on request.

M1:1 




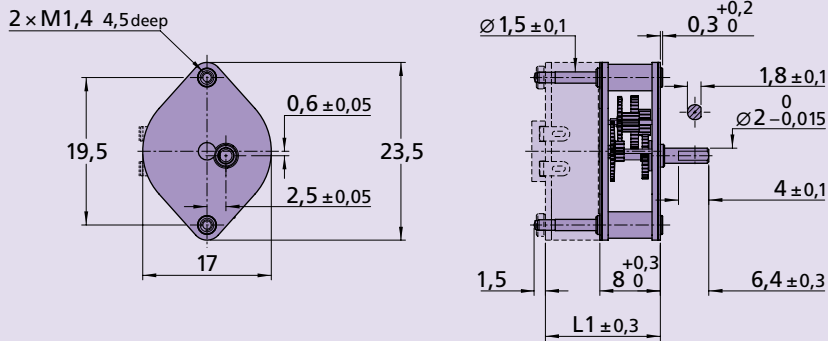
M11 A / M13 A

M1:1 




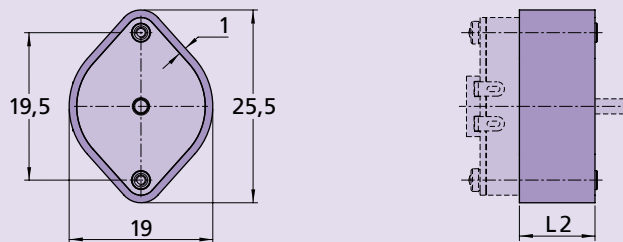
M11 B / M13 B

M1:1 



M11 E / M13 E

M1:1 



M11 / M13 Housing

Length

Series	L2
M11	10 mm
M13	8 mm

Ordering example

Housing
M11AG 176:1
M13EG 249:1