

# Planetary Gearheads

## 0,6 Nm

For combination with  
DC-Micromotors  
Stepper Motors

### Series 22E

	22E	22EC	22EK
Housing material	plastic	plastic	plastic
Geartrain material	plastic	plastic	plastic
Recommended max. input speed for:			
– continuous operation	5 000 rpm	5 000 rpm	5 000 rpm
Backlash, at no-load	≤ 3°	≤ 3°	≤ 3°
Bearings on output shaft	sintered bearings	ceramic bearings	ball bearings
Shaft load, max.:			
– radial (5 mm from mounting face)	≤ 3 N	≤ 15 N	≤ 50 N
– axial	≤ 3 N	≤ 2 N	≤ 5 N
Shaft press fit force, max.	≤ 15 N	≤ 15 N	≤ 15 N
Shaft play			
– radial (5 mm from mounting face)	≤ 0,05 mm	≤ 0,06 mm	≤ 0,07 mm
– axial	≤ 0,25 mm	≤ 0,25 mm	≤ 0,25 mm
Operating temperature range	- 30 ... + 65 °C	- 20 ... + 85 °C	- 30 ... + 85 °C

### Specifications

		2	3	3	4	4	4	5	6
Number of gear stages									
Continuous torque	mNm	200	300	400	400	500	600	600	600
Intermittent torque	mNm	400	600	800	800	1 000	1 000	1 000	1 000
Weight without motor, ca.	g	17	19	19	20	20	20	22	24
Efficiency, max.	%	78	69	67	62	61	60	55	49
Direction of rotation, drive to output		=	=	=	=	=	=	=	=
Reduction ratio <sup>1)</sup> (rounded)	Code B <sup>2)</sup>	19:1	69:1		249:1			896:1	3 225:1
	Code A <sup>2)</sup>	28:1	102:1	152:1		369:1	546:1 809:1	1 327:1 1 966:1 2 913:1 4 315:1	4 778:1 7 078:1 10 486:1 15 534:1 23 014:1
L2 [mm] = length without motor <sup>3)</sup>		27,1	32,1	32,1	37,1	37,1	37,1	42,1	47,1
L1 [mm] = length with motor	2224A/B...SR	51,3	56,3	56,3	61,3	61,3	61,3	66,3	71,3
	2230A/B...S	57,1	62,1	62,1	67,1	67,1	67,1	72,1	77,1
	2232A/B...SR	59,3	64,3	64,3	69,3	69,3	69,3	74,3	79,3
	2233A/B...S	59,7	64,7	64,7	69,7	69,7	69,7	74,7	79,7
	AM2224...-12	54,8	59,8	59,8	64,8	64,8	64,8	69,8	74,8

<sup>1)</sup> The reduction ratios are rounded, the exact values are available on request or at [www.faulhaber.com](http://www.faulhaber.com).

<sup>2)</sup> Example of ordering information: 2224 B 012 SR + 22E 19:1, not for AM2224.

<sup>3)</sup> L2 + 0,7 mm, in combination with 2224A/B...SR and 2232A/B...SR.

**Note:** These gearheads are available only with motors mounted.

