

# Planetary Gearheads

## 0,3 Nm

For combination with  
DC-Micromotors  
Brushless DC-Motors  
Stepper Motors

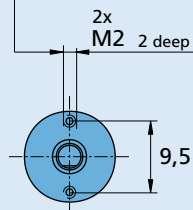
### Series 12/4

	12/4	12/4K
Housing material	metal	metal
Geartrain material	metal	metal
Recommended max. input speed for:		
– continuous operation	5 000 min <sup>-1</sup>	5 000 min <sup>-1</sup>
Backlash, at no-load	≤ 3 °	≤ 3 °
Bearings on output shaft	sintered bearings	ball bearings, preloaded
Shaft load, max.:		
– radial (6 mm from mounting face)	≤ 4 N	≤ 20 N
– axial	≤ 3 N	≤ 5 N
Shaft press fit force, max.	≤ 15 N	≤ 5 N
Shaft play		
– radial (6 mm from mounting face)	≤ 0,05 mm	≤ 0,04 mm
– axial	≤ 0,1 mm	= 0 mm
Operating temperature range	- 30 ... + 100 °C	- 30 ... + 100 °C

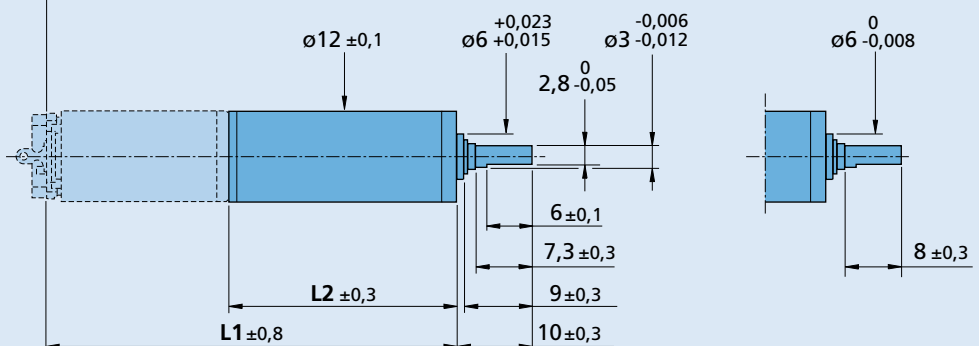
#### Technical data

		1	2	3	4	5
Number of gear stages						
Continuous torque	mNm	300	300	300	300	300
Intermittent torque	mNm	450	450	450	450	450
Mass without motor, ca.	g	12	15	18	21	24
Efficiency, max.	%	90	80	70	60	55
Direction of rotation, drive to output		=	=	=	=	=
Reduction ratio (exact)		4:1	16:1	64:1	256:1	1 024:1
L2 [mm] = length without motor		15,1	19,7	24,3	28,9	33,5
L1 [mm] = length with motor						
	1016A...SR	31,0	35,6	40,2	44,8	49,4
	1024A...SR	39,0	43,6	48,2	52,8	57,4
	1224A...SR	39,3	43,9	48,5	53,1	57,7
	1028A...B	43,2	47,8	52,4	57,0	61,6
	1218A...B	33,1	37,7	42,3	46,9	51,5
	1226A...B	41,1	45,7	50,3	54,9	59,5
	DM1220...59	32,5	37,1	41,7	46,3	50,9

Orientation with respect to motor terminals not defined



For more combinations see table.  
Example of combination with 1224...SR.



12/4

12/4 K