

For combination with:
DC-Micromotors:
M2232U..CS, M2232U..GS

Series M22P

	M22P...YS	M22P...YB
Housing material	metal	metal
Geartrain material (all metal gears optional)	metal with plastic first stage	metal with plastic first stage
Recommended max. input speed for:		
– continuous operation	5,000 rpm	5,000 rpm
Backlash, at no-load	≤ 3°	≤ 3°
Bearings on output shaft	sleeve bearings	ball bearings
Shaft load, max.:		
– radial (10 mm from mounting face)	≤ 8 N	≤ 10 N
– axial	≤ 6 N	≤ 6 N
Shaft press fit force, max.	≤ 49 N	≤ 49 N
Shaft play (on bearing output):		
– radial	≤ 0.08 mm	≤ 0.05 mm
– axial	≤ 0.20 mm	≤ 0.20 mm
Operating temperature range	– 10 to + 60 °C (20% to 85% RH)	– 10 to + 60 °C (20% to 85% RH)

Specifications

reduction ratio (nominal)	number of gear stages	weight sleeve type	weight ball bearing type	length without motor L2	length with motor M2232U L1	output torque		direction of rotation (reversible)	efficiency
						continuous operation	intermittent operation		
		g	g	mm	mm	M max. mNm	M max. mNm		%
4:1	1	27	26	14.40	46.40	100	300	=	80
14:1	2	31	30	18.05	50.05	100	300	=	80
16:1	2	31	30	18.05	50.05	150	450	=	70
19:1	2	31	30	18.05	50.05	150	450	=	70
24:1	2	31	30	18.05	50.05	150	450	=	70
53:1	3	35	34	21.70	53.70	200	600	=	60
62:1	3	35	34	21.70	53.70	200	600	=	60
72:1	3	35	34	21.70	53.70	200	600	=	60
84:1	3	35	34	21.70	53.70	200	600	=	60
104:1	3	35	34	21.70	53.70	200	600	=	60
198:1	4	40	39	25.35	57.35	250	750	=	50
231:1	4	40	39	25.35	57.35	250	750	=	50
270:1	4	40	39	25.35	57.35	250	750	=	50
316:1	4	40	39	25.35	57.35	250	750	=	50
370:1	4	40	39	25.35	57.35	250	750	=	50
455:1	4	40	39	25.35	57.35	250	750	=	50
742:1	5	44	43	29.00	61.00	300	900	=	40
1,014:1	5	44	43	29.00	61.00	300	900	=	40
1,621:1	5	44	43	29.00	61.00	300	900	=	40
1,996:1	5	44	43	29.00	61.00	300	900	=	40

* 4:1 Ratio comes with 1.6mm dia. screw holes without internal threads. Self tapping M2 screws with 3mm engagement suggested.



