

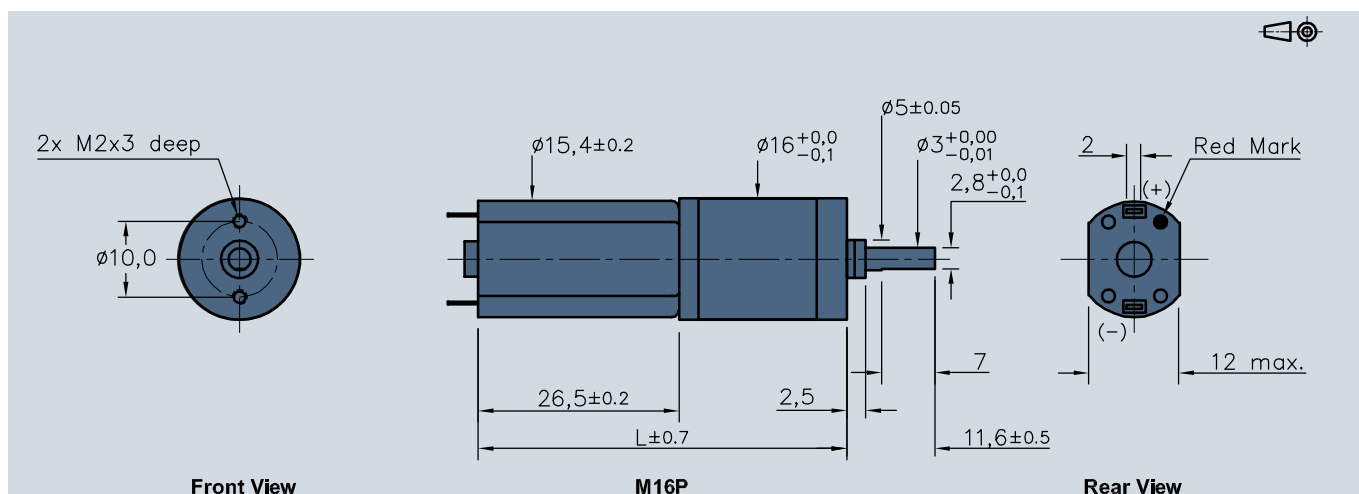
NEW**DC-Gearmotor****132 mNm****Series M16P**

	M16P	YSGT1	YSGT2	YSGT3	YSGT4	YSGT5	
Nominal voltage	U_N	3	6	9	12	24	Volt
Winding resistance	R	$\pm 12\%$	3,35	12	14,70	58	Ω
Output power	$P_2 \text{ max.}$		0,49	0,57	1,16	0,36	W
No-load speed (motor)	n_o	$\pm 12\%$	8 000	8 000	8 000	8 000	rpm
Speed constant	k_n		3 120	1 533	968	879	rpm/V
Back-EMF constant	k_E		0,32	0,65	1,03	1,14	mV/rpm
Torque constant	k_M		3,06	6,23	9,87	10,86	mNm/A
Current constant	k_I		0,327	0,160	0,101	0,092	A/mNm
Slope of n-M curve	$\Delta n/\Delta M$		2 918	2 568	1 324	3 560	rpm/mNm
Rotor inductance	L		1 100	4 100	8 500	13 400	mH
Rotor inertia	J		0,74	0,75	0,71	0,61	gcm ²

Bearings on output shaft	sintered bronze bearings
Housing material	powdered metal
Geartrain material	metal
Backlash, at no-load	$\leq 3^\circ$
Shaft load max.:	
– radial at (10 mm from bearing)	$\leq 4.9 \text{ N}$
– axial	$\leq 4.9 \text{ N}$
Shaft press fit force, max.	$\leq 14.7 \text{ N}$
Shaft play:	
– radial (on bearing output)	$\leq 0,05 \text{ mm}$
– axial	$\leq 0,25 \text{ mm}$
Operating temperature range	$-10 \dots +60 \text{ }^\circ\text{C}$

Specifications

reduction ratio (nominal)	output speed up to n_{max} rpm	weight g	length with motor L mm	output torque		direction of rotation (reversible)	efficiency %
				continuous operation M max. mNm	intermittent operation M max. mNm		
4 :1	1 250	37	41,55	2	6	=	80
14 :1	357	41	45,20	6	18	=	70
19 :1	263	41	45,20	8	24	=	70
29 :1	172	41	45,20	12	35	=	70
62 :1	81	45	48,85	22	65	=	60
72 :1	69	45	48,85	25	76	=	60
84 :1	60	45	48,85	29	88	=	60
104 :1	48	45	48,85	37	112	=	60
128 :1	39	45	48,85	45	135	=	60
157 :1	32	45	48,85	54	162	=	60
231 :1	22	49	52,50	69	206	=	50
316 :1	16	49	52,50	93	279	=	50
370 :1	14	49	52,50	108	324	=	50
455 :1	11	49	52,50	132	397	=	50



How to order a M16P

Part number	Ratio	Voltage	Gearhead bearing	Stocked items
M16P0004YSGT4	4:1	12	sleeve	X
M16P0014YSGT4	14:1	12	sleeve	X
M16P0019YSGT4	19:1	12	sleeve	X
M16P0029YSGT4	29:1	12	sleeve	X
M16P0062YSGT4	62:1	12	sleeve	X
M16P0072YSGT4	72:1	12	sleeve	X
M16P0084YSGT4	84:1	12	sleeve	X
M16P0104YSGT4	104:1	12	sleeve	X
M16P0128YSGT4	128:1	12	sleeve	X
M16P0157YSGT4	157:1	12	sleeve	X
M16P0231YSGT4	231:1	12	sleeve	X
M16P0316YSGT4	316:1	12	sleeve	X
M16P0370YSGT4	370:1	12	sleeve	X
M16P0455YSGT4	455:1	12	sleeve	X
M16P0004YSGT5	4:1	24	sleeve	X
M16P0014YSGT5	14:1	24	sleeve	X
M16P0019YSGT5	19:1	24	sleeve	X
M16P0029YSGT5	29:1	24	sleeve	X
M16P0062YSGT5	62:1	24	sleeve	X
M16P0072YSGT5	72:1	24	sleeve	X
M16P0084YSGT5	84:1	24	sleeve	X
M16P0104YSGT5	104:1	24	sleeve	X
M16P0128YSGT5	128:1	24	sleeve	X
M16P0157YSGT5	157:1	24	sleeve	X
M16P0231YSGT5	231:1	24	sleeve	X
M16P0316YSGT5	316:1	24	sleeve	X
M16P0370YSGT5	370:1	24	sleeve	X
M16P0455YSGT5	455:1	24	sleeve	X

Voltages 3, 6, 9 are not stocked