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FTB

Thin Profile DC-Micromotors

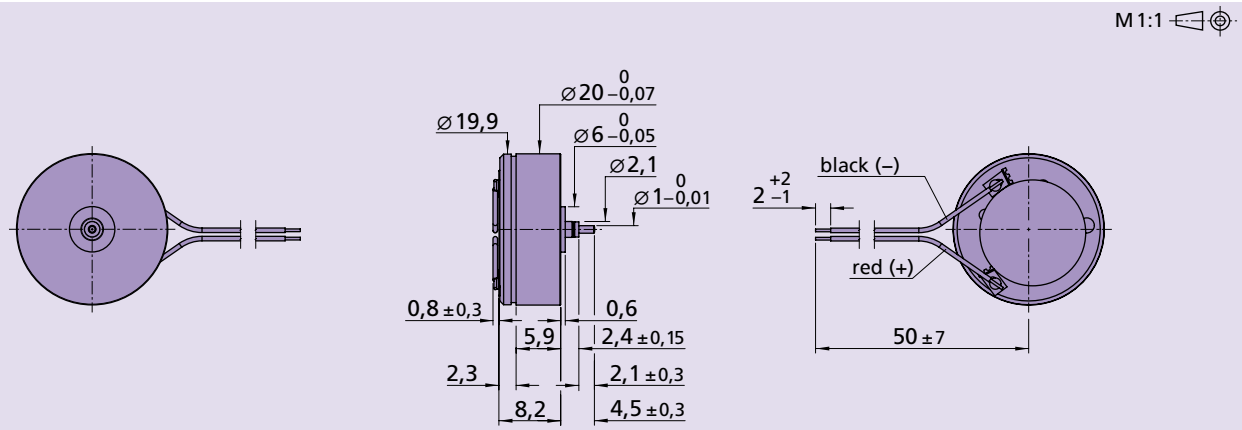
0,4 mNm

with flat ironless rotor

For combination with
Gearheads:
M12

Series 2008 ... SRG

	2008 K		003 SRG	006 SRG	012 SRG	
Nominal voltage	U_N		3	6	12	Volt
Terminal resistance	R		7	28	114	Ω
Output power	$P_{2\ max.}$		0,29	0,28	0,28	W
Efficiency	$\eta_{max.}$		65	57	55	%
No-load speed	n_o		6 500	7 000	6 100	rpm
No-load current (with shaft ø 0,8 mm)	I_o		0,016	0,013	0,007	A
Stall torque	M_H		1,72	1,55	1,72	mNm
Friction torque	M_R		0,07	0,10	0,12	mNm
Speed constant	k_n		2 252	1 242	544	rpm/V
Back-EMF constant	k_E		0,44	0,81	1,84	mV/rpm
Torque constant	k_M		4,24	7,69	17,54	mNm/A
Current constant	k_I		0,24	0,13	0,06	A/mNm
Slope of n-M curve	$\Delta n/\Delta M$		3 770	4 523	3 540	rpm/mNm
Rotor inductance	L		230	1 400	4 700	µH
Mechanical time constant	τ_m		18	22	17	ms
Rotor inertia	J		0,46	0,46	0,46	gcm²
Angular acceleration	$\alpha_{max.}$		37	34	37	$\cdot 10^3$rad/s²
Thermal resistance	$R_{th\,1}$ / $R_{th\,2}$	8,5 / 25				K/W
Thermal time constant	τ_{w1} / τ_{w2}	3,5 / 90				s
Operating temperature range:						
– motor		– 20 ... + 65				°C
– rotor, max. permissible		+ 80				°C
Shaft bearings		brass bearing				
Shaft load max.:						
– with shaft diameter		1				mm
– radial at 3000 rpm (3 mm from bearing)		1				N
– axial at 3000 rpm		0,2				N
– axial at standstill		10				N
Shaft play:						
– radial	≤	0,03				mm
– axial	≤	0,1				mm
Housing material		metal				
Weight		10				g
Direction of rotation		counterclockwise, viewed from the front face				
Recommended values - mathematically independent of each other						
Speed up to	$n_{e\ max.}$		6 000	6 000	6 000	rpm
Torque up to	$M_{e\ max.}$		0,4	0,4	0,4	mNm
Current up to (thermal limits)	$I_{e\ max.}$		0,10	0,05	0,03	A



2008 K

For notes on technical data and lifetime performance refer to "Technical Information".
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Distribución de Componentes Eléctricos y Electrónicos

Specifications subject to change without notice.