Thin Profile DC-Micromotors

with flat ironless rotor

0,09 mNm

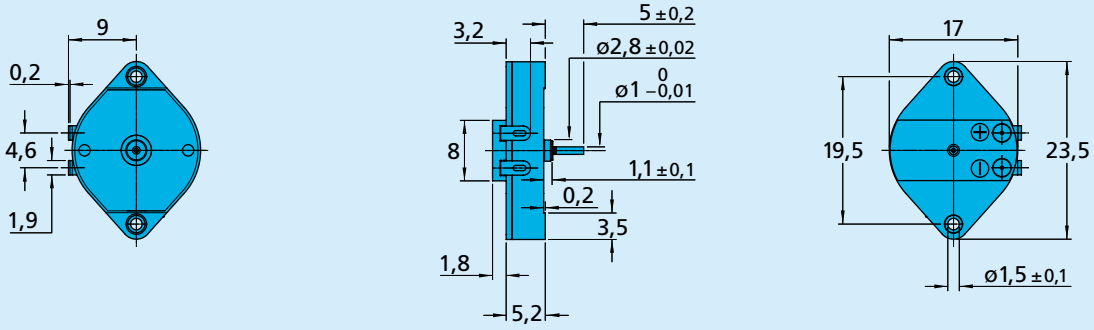
For combination with
Gearheads:
M13

Series 0130 ... SR

		0130 G	002 SR	003 SR	004 SR	006 SR	
Nominal voltage	U_N		2	3	4	6	Volt
Terminal resistance	R		16	26	54	133	Ω
Output power	$P_{2\ max.}$		0,036	0,058	0,046	0,034	W
Efficiency	$\eta_{max.}$		26	33	29	22	%
No-load speed	n_o		10 000	11 100	10 700	9 200	rpm
No-load current (with shaft ø 0,8 mm)	I_o		0,030	0,021	0,016	0,013	A
Stall torque	M_H		0,14	0,20	0,16	0,14	mNm
Friction torque	M_R		0,04	0,04	0,05	0,06	mNm
Speed constant	k_n		6 578	4 523	3 412	2 154	rpm/V
Back-EMF constant	k_E		0,15	0,22	0,29	0,46	mV/rpm
Torque constant	k_M		1,45	2,11	2,80	4,43	mNm/A
Current constant	k_I		0,69	0,47	0,36	0,23	A/mNm
Slope of n-M curve	$\Delta n/\Delta M$		72 520	55 705	65 832	64 624	rpm/mNm
Rotor inductance	L		440	1 100	1 400	3 200	µH
Mechanical time constant	τ_m		114	87	103	102	ms
Rotor inertia	J		0,15	0,15	0,15	0,15	gcm²
Angular acceleration	$\alpha_{max.}$		9	13	11	9	$\cdot 10^3$rad/s²
Thermal resistance	$R_{th\,1}$ / $R_{th\,2}$	14,5 / 27,7					K/W
Thermal time constant	τ_{w1} / τ_{w2}	2,8 / 72					s
Operating temperature range:							
– motor		– 20 ... + 65					°C
– rotor, max. permissible		+ 80					°C
Shaft bearings		plastic / brass bearing					
Shaft load max.:							
– with shaft diameter		0,6					mm
– radial at 3 000 rpm (3 mm from bearing)		0,5					N
– axial at 3 000 rpm		0,1					N
– axial at standstill		5					N
Shaft play:							
– radial	≤	0,03					mm
– axial	≤	0,1					mm
Housing material		plastic					
Weight		6,4					g
Direction of rotation		clockwise, viewed from the front face					
Recommended values - mathematically independent of each other							
Speed up to	$n_{e\ max.}$		10 000	10 000	10 000	10 000	rpm
Torque up to	$M_{e\ max.}$		0,09	0,09	0,09	0,09	mNm
Current up to (thermal limits)	$I_{e\ max.}$		0,08	0,07	0,05	0,03	A

Note: Brush plate is loose and is only held in place by magnetic force.

M 1:1



0130 G

For notes on technical data and lifetime performance refer to "Technical Information".
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Specifications subject to change without notice.