Brushless Flat DC-Micromotors
with integrated Speed Controller

3,12 mNm
1,6 W

2610 ... B SC

Values at 22°C and nominal voltage	2610 T		006 B SC	012 B SC	
Power supply electronic	U_P		4 ... 18	4 ... 18	V DC
Power supply motor	U_{mot}		1,7 ... 18	1,7 ... 18	V DC
Nominal voltage for motor	U_N		6	12	V
No-load speed (at U_N)	n_0		6 700	6 650	min^{-1}
Peak torque (S2 operation for max. 2s/1s)	$M_{max.}$		6	6	mNm
Torque constant	k_M		9,05	18,1	mNm/A
PWM switching frequency	f_{PWM}		96	96	kHz
Efficiency electronic	η		95	95	%
Standby current for electronic (at U_N)	I_{el}		0,02	0,02	A
Speed range (up to 12V / 18V)			400 ... 13 300	400 ... 10 000	min^{-1}
Shaft bearings		ball bearings, preloaded			
Shaft load max.:					
– with shaft diameter		1,5			mm
– radial at 3 000 min^{-1} (3 mm from mounting flange)		4			N
– axial at 3 000 min^{-1} (push only)		3,5			N
– axial at standstill (push only)		17,5			N
Shaft play:					
– radial		≤ 0,015			µm
– axial		= 0			µm
Operating temperature range		-25 ... +80			°C
Housing material		plastic			
Mass		20,1			g

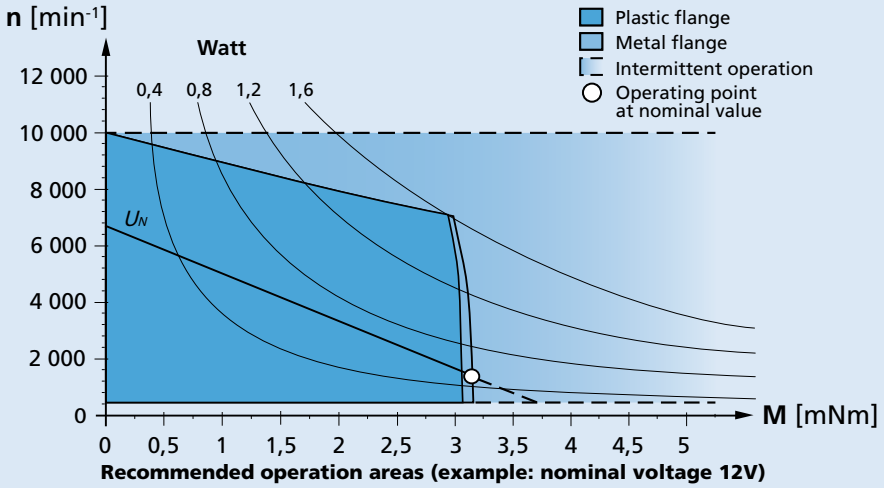
Rated values for continuous operation					
Rated torque	M_N		3,25	3,12	mNm
Rated current (thermal limit)	I_N		0,53	0,29	A
Rated speed	n_N		1 600	1 300	min^{-1}

Interface / range of functions	... SC
Configuration from Motion Manager 5.0	via USB Programming Adapter
Operating modes	Integrated speed control via PI controller and external set value specification; commutation via digital Hall sensors. Can optionally be operated in voltage controller mode or fixed speed mode.
Speed range	Digital Hall = from 400 min^{-1}
Additional functions	Integrated current limitating to protect against thermal overload. Intermittent operation (S2) with up to double the continuous current. Separate voltage supply for motor and electronics. Direction of rotation changeover through separate switching input; reading of speed signal via frequency output.

Note:
The display shows the range of possible operation points of the drives at a given ambient temperature of 22°C.

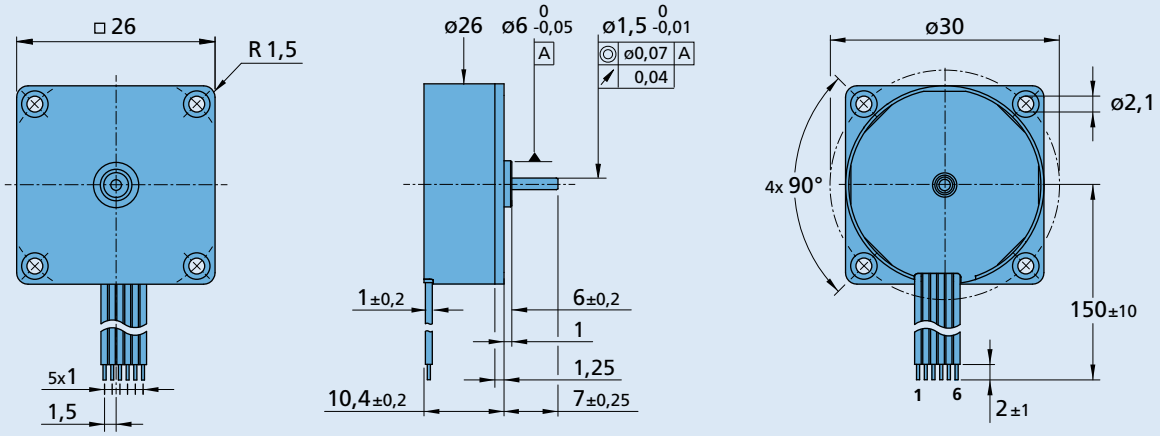
The diagram indicates the recommended speed in relation to the available torque at the output shaft.
It includes the assembly on a plastic- as well as on a metal flange (assembly method: IM B 5).

The nominal voltage linear slope describes the maximal achievable operating points at nominal voltage.
Any points of operation above this linear slope will require a supply voltage $U_{mot} > U_N$.



Recommended operation areas (example: nominal voltage 12V)

Dimensional drawing



2610 T ... B SC

Option, cable and connection information

Example product designation: **2610T012BSC-4257**

Option	Type	Description
4257	Connector	 AWG 28 / PVC ribbon cable with connector Picoblade

Connection

Name	Function	Inputs-outputs	Description
1	*UP*	power supply electronic	4 ... 18 V DC
2	*Umot*	power supply motor	1,7 ... 18 V DC
3	GND	ground	
4	*Unsoll*	input voltage	*Uin* = 0 ... 10 V | > 10 V ... *UP* » set speed value not defined
		input resistance set speed value	*Rin* ≥ 8,9 kΩ per 1 V , 1 000 min^{-1} *Uin* < 0,15 V » motor stops *Uin* > 0,3 V » motor starts
5	DIR	direction of rotation	to ground or level < 0,5 V » counterclockwise open or level > 3 V » clockwise
		input resistance	*Rin* ≥ 10 kΩ
6	FG	frequency output	max. *UP*; *Imax* = 15 mA; open collector with 22 kΩ pull-up resistor 6 lines per revolution

Standard cable
PVC ribbon cable 6 x AWG 28, 1 mm

Note: For details on the connection assignment, see device manual for the SCS.

Product combination

Precision Gearheads / Lead Screws	Encoders	Drive Electronics	Cables / Accessories
		Integrated	To view our large range of accessory parts, please refer to the "Accessories" chapter.