NEW

FAULHABER

Motion Control Systems

18 mNm

V3.0, 4-Quadrant PWM
with RS232 or CANopen interface

10,5 W

2232 ... BX4 IMC RS/CO

Values at 22°C and nominal voltage	2232 S		012 BX4 IMC ...	024 BX4 IMC ...	
Power supply electronic	U_P/U_B		6 ... 30	6 ... 30	V DC
Power supply motor[1]	U_{Mot}		6 ... 30	6 ... 30	V DC
Nominal voltage for motor	U_N		12	24	V
No-load speed (at U_N)	n_0		6 300	6 700	min^{-1}
Peak torque (S2 operation for max. 30s)	$M_{max.}$		36	36	mNm
Torque constant	k_M		17	32,4	mNm/A
PWM switching frequency	f_{PWM}		80	80	kHz
Efficiency electronic	η		95	95	%
Standby current for electronic (@ U_P=24V)	I_{el}		0,027	0,027	A
Speed range (up to 24V / 30V)			1 ... 13 000	1 ... 8 500	min^{-1}
Shaft bearings		ball bearings, preloaded			
Shaft load max.:					
– with shaft diameter		3			mm
– radial at 3 000 min^{-1} (5 mm from mounting flange)		20			N
– axial at 3 000 min^{-1} (push / pull)		2			N
– axial at standstill (push / pull)		20			N
Shaft play:					
– radial		≤ 0,015			mm
– axial		= 0			mm
Operating temperature range		-40 ... +100			°C
Housing material		stainless steel			
Mass		77			g

[1] Not available with option 7431 (common power supply)

Rated values for continuous operation					
Rated torque	M_N		18	18	mNm
Rated current (thermal limit)	I_N		1,16	0,62	A
Rated speed	n_N		3 500	4 000	min^{-1}

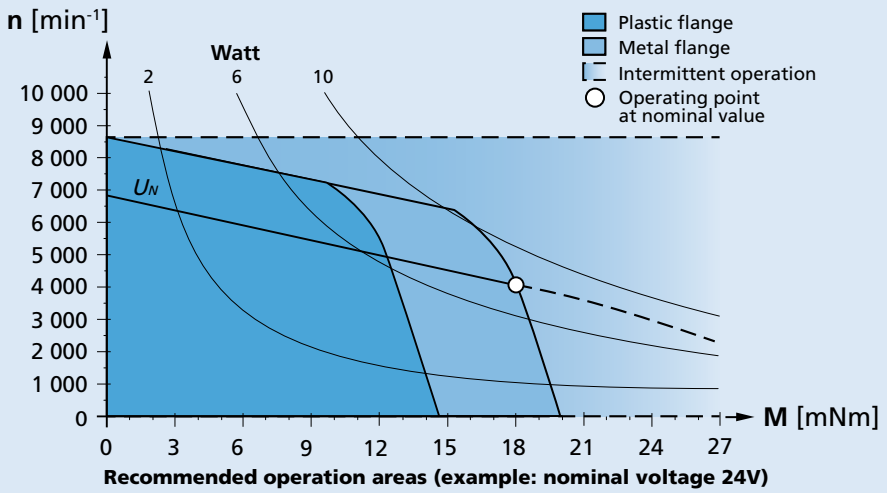
Note: Rated values are calculated with nominal voltage and at a 22°C ambient temperature. Mounted on metal flange.

Interface / range of functions	... RS	... CO
Configuration from Motion Manager 7	RS232	CANopen
Fieldbus	RS232	CANopen
Operating modes	PP, PV, PT, CSP, CSV, CST and homing acc. to IEC 61800-7-201 or IEC 61800-7-301 as well as position-, speed- and torque control via analog setpoint or voltage controller	
Speed range	see motor diagram	
Application programs	Max. 8 application programs (BASIC), one of which is an autostart function	
Additional functions	Touch-probe input, connection of a second incremental encoder	

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

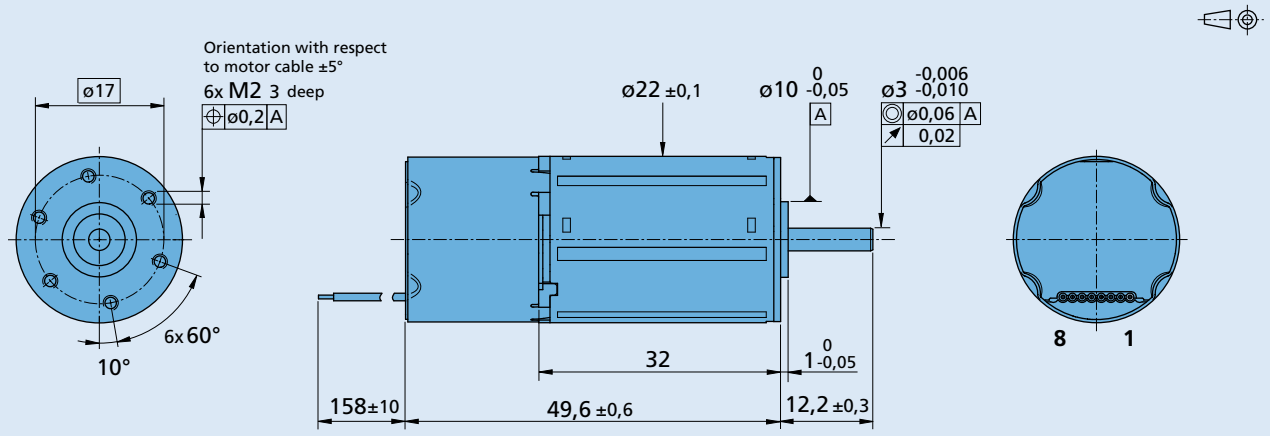
The diagram indicates the recommended speed in relation to the available torque at the output shaft.
It includes the assembly on a plastic- as well as on a metal flange (assembly method: IM B 5).

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 24V)

Dimensional drawing



2232 ... BX4 IMC RS/CO

Option, cable and connection information

Example product designation: **2232S024BX4 IMC CO 7431**

Option	Type	Description
3830	Connector 	AWG 26 / PVC ribbon cable with connector MOLEX Microfit 3.0, 43025-0800, recommended mating connector 43020-0800
7431	Supply	Common voltage supply for motor and electronics
7630	I/O	AnIn1 ±10V (without DigOut2)

Connection

Standard		Option: 7431	
No.	Function	No.	Function
1	U_P	1	AnIn2
2	U_{Mot}	2	U_B
3	GND	3	GND
4	DigIn1 / DigOut2 / AnIn1	4	DigIn1 / DigOut2 / AnIn1
5	DigIn2 / AGND	5	DigIn2 / AGND
6	DigIn3 / DigOut1	6	DigIn3 / DigOut1
7	RS232 RXD / CAN_L	7	RS232 RXD / CAN_L
8	RS232 TXD / CAN_H	8	RS232 TXD / CAN_H

Standard cable
PVC ribbon cable 8 x AWG 26, 1,27 mm

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

Product combination

Precision Gearheads / Lead Screws	Encoders	Drive Electronics	Cables / Accessories
22GPT 22/7 26A 22L ... ML 22L ... SB 22L ... PB		Integrated	To view our large range of accessory parts, please refer to the “Accessories” chapter.