

Motion Control Systems

V2.5, 4-Quadrant PWM
with RS232 or CANopen interface

71 mNm

73 W

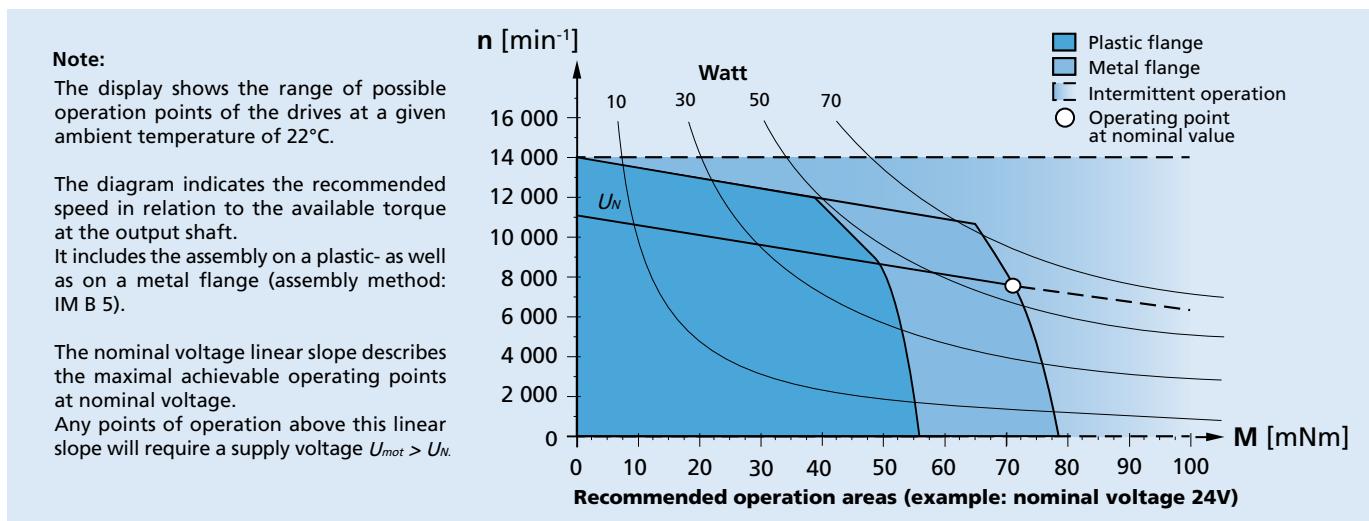
3564 ... B Cx

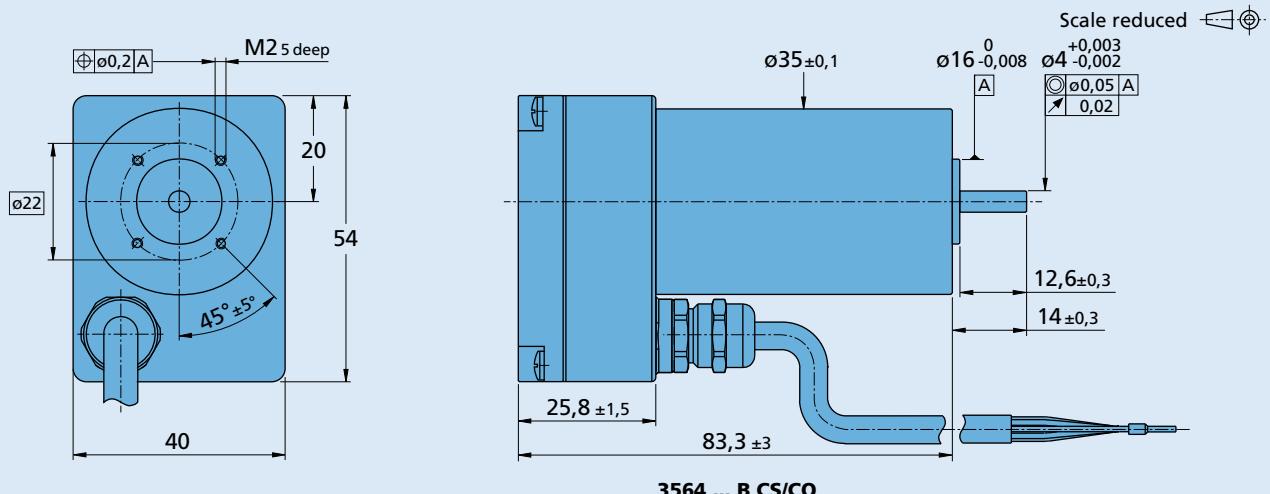
| Values at 22°C and nominal voltage | 3564 K | 024B Cx | |
|---|--|--------------|-------------------|
| Power supply electronic | U_B/U_{EL} | 12 ... 30 | V DC |
| Power supply motor ¹⁾ | $-/U_B$ | 0 ... 30 | V DC |
| Nominal voltage for motor | U_N | 24 | V |
| No-load speed (at U_N) | n_0 | 11 000 | min ⁻¹ |
| Peak torque (S2 operation for max. 3s) | $M_{max.}$ | 142 | mNm |
| Torque constant | k_M | 20,2 | mNm/A |
| PWM switching frequency | f_{PWM} | 78 | kHz |
| Efficiency electronic | η | 95 | % |
| Standby current for electronic (at $U_B=24V$) | I_{el} | 0,055 | A |
| Speed range (up to 30V) | | 1 ... 14 000 | min ⁻¹ |
| Shaft bearings | ball bearings, preloaded | | |
| Shaft load max.: | | | |
| - with shaft diameter | 4 | | mm |
| - radial at 3 000 min ⁻¹ (5 mm from mounting flange) | 112 | | N |
| - axial at 3 000 min ⁻¹ (push only) | 50 | | N |
| - axial at standstill (push only) | 131 | | N |
| Shaft play: | | | |
| - radial | $\leq 0,015$ | | mm |
| - axial | = 0 | | mm |
| Operating temperature range | -30 ... +85 | | °C |
| Housing material | motor: aluminium, black anodized; controller housing: zinc | | |
| Mass | 510 | | g |

¹⁾ Only available for option 2993 (separate power supply)

| Rated values for continuous operation | | | |
|---------------------------------------|-------|-------|-------------------|
| Rated torque | M_N | 71 | mNm |
| Rated current (thermal limit) | I_N | 3,75 | A |
| Rated speed | n_N | 7 700 | min ⁻¹ |

| Interface / range of functions | ... CS | ... CO | |
|---------------------------------------|--|---------|--|
| Configuration from Motion Manager 5.0 | RS232 | CANopen | |
| Fieldbus | RS232 | CANopen | |
| Operating modes (CS) | Position/speed/torque control via interface or analogue set value specification. Operation as servo amplifier in voltage controller mode. | | |
| Operating modes (CO) | Profile Position Mode (PP), Profile Velocity Mode (PV), Homing Mode. | | |
| Speed range | see motor diagram | | |
| Application programs, (CS) | Command sequences from movement and control commands can be placed directly into the controller as user programs. | | |
| Additional functions | Enables stand-alone operation without a connected communication interface. Overload protection for electronics and motor, self-protection from overheating, over-voltage protection in generator mode. | | |



Dimensional drawing

Option, cable and connection information

Example product designation: **3564K024BCS-2993**

| Option | Type | Description | Connection | |
|--------|--------|---|--|-------------------|
| | | | Wires | Function |
| 2993 | Supply | Separate voltage supply for motor and electronics | blue | GND |
| | | | pink | U_s |
| | | | brown | Analog input |
| | | | white | Fault output |
| | | | grey | Analog GND |
| | | | yellow | RS232 RXD / CAN_L |
| | | | green | RS232 TXD / CAN_H |
| | | | red | Connection No. 3 |
| | | | Standard cable PVC-cable, 8-conductors AWG 24, length 1 meter | |
| | | | Caution: Connect motor supply terminals to the correct polarity. Electronics are protected against polarity reversal by an internal fuse. In case of damage, this internal fuse can only be replaced at the factory. | |
| | | | Note: For details on the connection assignment, see device manual MCS. | |

Product combination

| Precision Gearheads / Lead Screws | Encoders | Drive Electronics | Cables / Accessories |
|---|----------|-------------------|--|
| 30/1 30/1 S 32/3 32GPT 32/3R 38/1 38/1 S 38/2 38/2 S 42GPT | | Integrated | To view our large range of accessory parts, please refer to the "Accessories" chapter. |