Data sheet for Absolute encoder

MLFB-Ordering data
6FX2001-5FP24

Client order no. :
Item no. :
Order no. :
Offer no. :
Consignment no. :
Project :
Remarks :

| Electrical data |  |
| :--- | :--- |
| Operating voltage Up | DC $10 \ldots 30 \mathrm{~V}$ |
| Max. power consumption | $100 \ldots 300 \mathrm{~mA}(2.5 \mathrm{~W})$ |
| Interface | PROFIBUS DP-V2 |
| Clock input | Differential line receiver according to <br> EIA Standard RS 485 |
| Data output | Differential line driver according to EIA <br> Standard RS 485 |
| Short-circuit strength | Yes |
| Transmission rate | 12 Mbit/s |
| LED for diagnostics | Yes (green/red) |
| Number of nodes | 99 |


| Mechanical data |  |
| :---: | :---: |
| Shaft version | Solid shaft |
| Shaft diameter | 6 mm |
| Shaft length | 10 mm |
| Angular acceleration, max. | $100000 \mathrm{rad} / \mathrm{s}^{2}$ |
| Moment of inertia of rotor | $0.00000190 \mathrm{kgm}^{2}$ |
| Vibration ( $55 . . .2000 \mathrm{~Hz}$ ), max. | $100 \mathrm{~m} / \mathrm{s}^{2}$ |
| Friction torque (at $20^{\circ} \mathrm{C}$ ) | < $=0.01 \mathrm{Nm}$ |
| Starting torque (at $20^{\circ} \mathrm{C}$ ) | < $=0.01 \mathrm{Nm}$ |
| Net weight | 0.5 kg |
| Speed max. |  |
| With $\pm 1$ bit accuracy | 5800 rpm |
| Max. permissible speed (mech.) | 6000 rpm |
| Load capacity |  |
| n <= 6000 rpm |  |
| - Axial | 40 N |
| - Radial at shaft end | 110 N |
| $\mathrm{n}>6000 \mathrm{rpm}$ |  |
| - Axial | 10 N |
| - Radial at shaft end | 20 N |
| Shock, max. |  |
| 2 ms | $2000 \mathrm{~m} / \mathrm{s}^{2}$ |
| 6 ms | $1000 \mathrm{~m} / \mathrm{s}^{2}$ |
| Degree of protection |  |
| Without shaft input | IP67 |
| With shaft input | IP64 |

## Electrical data

| Parameterizability |  | During operation | $-40 \ldots 8{ }^{\circ} \mathrm{C}$ |
| :---: | :---: | :---: | :---: |
| Preset | Yes | Standards |  |
| Counting direction | Yes | Compliance with standards | CE, cULus |
| Resolution per revolution | Any $1 . . .8192$ | EMC class filter | Tested to DIN EN 50081 and EN 50082 |
| Total resolution | Any $1 . . .8192 \times 16384$ |  |  |
| Speed signal | Yes |  |  |
| Limit switch | Yes, 2 pieces |  |  |
| Clock synchronism | Yes |  |  |
| Slave-to-slave communication | Yes |  |  |
| Accuracy | $\pm 79$ " with 8192 increments ( $\pm 1 / 2$ LSB) |  |  |

