## **SIEMENS**

## **Data sheet for Incremental encoder**

**MLFB-Ordering data** 

6FX2001-2EC50



Client order no. : Order no. : Offer no. : Remarks :

Item no. : Consignment no. : Project :

| Electrical data                             |   | Mechanical data                 |                 |
|---|---|---------------------------------|-----------------|
| Operating voltage Up                        | DC 5 V ± 10 %   | Shaft diameter                  | 6 mm            |
| Max. power consumption without load         | 150 mA  | Shaft length                    | 10 mm           |
|   |   | Angular acceleration, max.      | 100000 rad/s²   |
| Signal level                                | TTL (RS 422)  | Moment of inertia of rotor      | 0.00000145 kgm² |
| Resolution                                  | 2500 S/R  | Vibration (552000 Hz), max.     | 300 m/s²        |
| Accuracy                                    | 26 rad  | Friction torque (at 20°C), max. | 0.01 Nm         |
| Sampling frequency, max.                    | 300 kHz   | Starting torque (at 20°C), max. | 0.01 Nm         |
| Switching time (10 90 %)                    | <= 50 ns  | Net weight                      | 0.3 kg          |
|   | Rise / fall time t+/t- <=   | Max. admissible speed           | J               |
| Phase relation signal A to B                | 90°   | Electrical                      | 7200 rpm        |
| Edge clearance at 300 kHz                   | 0.45 μs   | Mechanical                      | 12000 rpm       |
| LED failure monitoring                      | High impedance driver   | Load capacity                   |                 |
| able length                                 |   | n <= 6000 rpm                   |                 |
| To the downstream electronics, ma           | <b>100</b> m  | - Axial                         | 40 N            |
| Ambient temp in operation                   |   | - Radial at shaft end           | 60 N            |
| ixed installation of flange outlet or cable |   | n > 6000 rpm                    |                 |
| -   | -40 100 °C  | - Axial                         | 10 N            |
|   |   | - Radial at shaft end           | 20 N            |
| lexible cable                               |   | Shock, max.                     |                 |
| - At Up = 5V ± 10%                          | -10 100 °C  | 2 ms                            | 2000 m/s²       |
|   |   | 6 ms                            | 1000 m/s²       |
| Standards                                   |   | Degree of protection            |                 |
|   | CE, cULus   | Without shaft input             | IP67            |
| EMC class filter                            | Tested according to the EMC guidelines<br>89/336/EEC and the rules of the EMC<br>guidelines (generic standards) | With shaft input                | IP64            |