## **SIEMENS**

## **Data sheet for Incremental encoder**

**MLFB-Ordering data** 

6FX2001-2CA50



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	500 S/R	Vibration (552000 Hz), max.	300 m/s²
Accuracy	130 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	9
Phase relation signal A to B	90°	Electrical	36000 rpm
Edge clearance at 300 kHz	0.45 μs	Mechanical	12000 rpm
LED failure monitoring	High impedance driver	Load capacity	
Cable length		n = 6000 rpm	
To the downstream electronics, max. 100 m		- Axial	10 N
Ambient temp in operation		- Radial at shaft end	20 N
Fixed installation of flange outlet or cable		n > 6000 rpm	
-	-40 100 °C	- Axial	40 N
		- Radial at shaft end	60 N
Flexible cable		Shock, max.	
- At Up = 5V ± 10%	-10 100 °C	2 ms	2000 m/s <sup>2</sup>
		6 ms	1000 m/s <sup>2</sup>
Standards		Degree of protection	
Compliance with standards	CE, cULus	Without shaft input	IP67
	Tested according to the EMC guidelines 89/336/EEC and the rules of the EMC	With shaft input	IP64

guidelines (generic standards)