SIEMENS

Data sheet for Incremental encoder

Ordering data

6FX2001-2GB50



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

Item no. :
Consignment no. :
Project :

Electrical data

Operating voltage Up	DC 5 V ± 10 %
Max. power consumption without	150 mA
Signal level	TTL (RS 422)
Resolution	1500 S/R
Accuracy	43 rad
Sampling frequency, max.	300 kHz
Switching time (10 ... 90 %)	<= 50 ns
	Rise / fall time t+/t- <=
Phase relation signal A to B	90°
Edge clearance at 300 kHz	0.45 µs
LED failure monitoring	High impedance driver

Cable length

To the downstream electronics,	100 m

Ambient temperature Operation

Fixed installation of flange outlet or cable

- At Up = 5V ± 10%	-40 ... 100 °C

Flexible cable

- At Up = 5V ± 10%	-10 ... 100 °C

Standards

Compliance with standards	CE, cULus
EMC class filter	Tested according to the EMC guidelines 89/336/EEC and the rules of the EMC guidelines (generic standards)

Mechanical data

Shaft diameter	6 mm
Shaft length	10 mm
Angular acceleration, max.	100000 rad/s²
Moment of inertia of rotor	0.00000145 kgm²
Vibration (55...2000 Hz), max.	300 m/s²
Friction torque (at 20 °C), max.	0.01 Nm
Starting torque (at 20 °C), max.	0.01 Nm
Net weight	0.3 kg

Speed max.

Max. permissible speed (elec.)	12000 rpm
Max. permissible speed (mech.)	12000 rpm

Load capacity

n ≤ 6000 rpm

- Axial	10 N
- Radial at shaft end	20 N

n > 6000 rpm

- Axial	40 N
- Radial at shaft end	60 N

Shock, max.

2 ms	2000 m/s²
6 ms	1000 m/s²

Degree of protection

Without shaft input	IP67
With shaft input	IP64

Technical data are subject to change! There may be discrepancies between calculated and rating plate values.