SIEMENS

Data sheet for Incremental encoder

MLFB-Ordering data **6FX2001-4NA50**

Figure similar

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

Item no. :
Consignment no. :
Project :

Electrical data

Operating voltage Up	DC 10 ... 30 V
Max. power consumption without	150 mA
Signal level	UH >= 21 V at IH = 20 mA at 24 V; UL <= 2,8 V at IL = 20 mA at 24 V
Resolution	500 S/R
Accuracy	130 rad
Sampling frequency, max.	300 kHz
Switching time (10 ... 90 %)	= 200 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,	300 m

Ambient temp in operation

Fixed installation of flange outlet or cable

- At Up = 10V ... 30V	-40 ... 100 °C

Flexible cable

- At Up = 10V ... 30V	-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	10 mm
Shaft length	20 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

Max. admissible speed

Electrical	36000 rpm
Mechanical	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