SIEMENS

Data sheet for Absolute encoder

Article No. : **6FX2001-5FP12**



Figure similar

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

Item no. :
Consignment no. :
Project :

Electrical data

Operating voltage Up	DC 10 ... 30 V
Interface	PROFIBUS DP-V2
Clock input	Differential line receiver according to EIA Standard RS 485
Data output	Differential line driver according to EIA Standard RS 485
Short-circuit strength	Yes
Transmission rate	12 Mbit/s
Cable length up to the subsequent electronics, max.	
Up to 93.75 kbit/s	1,200 m
Up to 1.5 Mbit/s	200 m
Connection	Terminal block with address selector switch and bus terminating resistor with removable cover and cable glands (3 units) , Radial
Resolution	13 bit
Telegram	According to PNO cncoder profile V4.1 Class1, Class 2, Class 3, standard telegram 81
Code type	
Sampling	Gray
Transmission	binary, PROFIBUS
Parameterizability	
Preset	Yes
Counting direction	Yes
Resolution per revolution	Any 1 ... 8192
Total resolution	Any 1 ... 8192
Speed signal	Yes
Limit switch	Yes
Clock synchronism	Yes
Slave-to-slave communication	Yes
Accuracy	± 79 " (± 1 LSB at 8192 steps)
Friction torque (at 20°C)	≤ .01
Starting torque (at 20°C)	≤ .01

Mechanical data

Speed max.	
With ± 1 LSB accuracy	5,800 rpm
Mechanical	12,000 rpm
Load capacity	
n ≤ 6000 rpm	
- Axial	40 N
- Radial at shaft end	110 N
n > 6000 rpm	
- Axial	10 N
- Radial at shaft end	20 N
Shaft diameter	6 mm
Shaft length	10 mm
Angular acceleration, max.	100,000 rad/s²
Rotor moment of inertia	0.0000019 kgm²
Vibration and shock	
Vibration (55...2000 Hz) according to EN 60068-2-6, max	100 m/s²
6 ms according to EN 60068-2-27, max	1,000 m/s²
Degree of protection	
At housing	IP67
At shaft input	IP64
Net weight	0.4 kg

Ambient temperature

During operation	-40 ... 85 °C

Standards

Compliance with standards	CE, cULus
EMC class filter	Tested to DIN EN 50081 and EN 50082