SIEMENS

Data sheet for Absolute encoder

Article No. : 6FX2001-5FN25



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	PROFINET IO with RT / IRT
Clock input	2 ports IRT
Data output	2 ports IRT
Short-circuit strength	Yes
Transmission rate	100 Mbit/s
Connection	2 x connector M12, 4-pin for PROFINET / EtherNet/IP Ports, 1 x connector M12, 4-pin for operating voltage, Radial
Resolution	30 bit
Telegram	According to PNO encoder profile V4.1 Class 1, Class 2, Class 3, Class 4 Standard frame 81 to 89, Siemens frames 860/862
Code type	
Sampling	Gray
Transmission	binary, PROFINET / EtherNet/IP
Parameterizability	
Preset	Yes
Counting direction	Yes
Resolution per revolution	Any 1 ... 8192
Total resolution	Any 1 ... 8192
Speed signal	Yes
Limit switch	No
Clock synchronism	Yes
Slave-to-slave communication	No
Accuracy	± 79 " (± 1 LSB at 8192 steps or (± 2 LSB at 65136 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	6,000 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	0.43 kg

Ambient temperature	
During operation	-40 ... 85 °C

Standards	
Compliance with standards	CE, cULus
EMC class filter	EMC Directive 2014/30/EC and regulations of EMC directives (generic standards)