

Data sheet for Absolute encoder

Article No. : 6FX2001-5QP24

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

Item no. :
Consignment no. :
Project :



Figure similar

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
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Resolution	27 bit
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Telegram	According to PNO cncoder profile V4.1 Class1, Class 2, Class 3, standard telegram 81
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Code type

Sampling	Gray
Transmission	binary, PROFIBUS

Parameterizability

Preset	Yes
Counting direction	Yes
Resolution per revolution	Any 1 ... 8192
Total resolution	Any 1 ... 8192 x 16384
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)	≤ 0.01
Starting torque (at 20°C)	≤ 0.01

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	10 mm
Shaft length	20 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

Without shaft input	IP67
With shaft input	IP64
Net weight	0.5 kg

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

Standards	
Compliance with standards	CE, cULus
EMC class filter	Tested in accordance with DIN EN 50081 and EN 50082