Encoder,6FX2001-5FP12

URL:https://www.sxplc.com/encoder-6fx2001-5fp12

Product data sheet

Electrical data

Operating voltage Up	DC 10 ... 30 V
Max. power consumption	100 ... 300 mA (2.5 W)
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
LED for diagnostics	Yes (green/red)
Number of nodes	99
Connection type	Terminal block with address selector switch and bus terminating resistor in removable cover with radial cable glands (3 units), Radial
Cable diameter	6.5 mm ... 9.0 mm, Tube dismantling possible without bus interruption
Resolution	13 bit, (8192 increments)
Telegram	According to PNO cncoder profile V4.1 Class1, Class 2, Class 3, standard telegram 81

Cable length up to the subsequent electronics, max.

Up to 93.75 kbit/s	1200 m
Up to 1.5 Mbit/s	200.0 m
Up to 12 Mbit/s	100.0 m

Code type

Sampling	Gray
Transmission	binary, PROFIBUS

Mechanical data

Shaft version	Solid shaft
Shaft diameter	6 mm
Shaft length	10 mm
Angular acceleration, max.	100000 rad/s²
Moment of inertia of rotor	0.00000190 kgm²
Vibration (55...2000 Hz), max.	100 m/s²
Friction torque (at 20°C)	<= 0.01 Nm
Starting torque (at 20°C)	<= 0.01 Nm
Net weight	0.4 kg

Speed max.

With ± 1 bit accuracy	5800 rpm
Max. permissible speed (mech.)	12000 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

Shock, max.

2 ms	2000 m/s²
6 ms	1000 m/s²

Degree of protection

Without shaft input	IP67
With shaft input	IP64