SIEMENS

Product data sheet 6FX2001-3GB02

product brand name	SIMODRIVE sensor
	SIMODRIVE (ACCESSORIES) INCR.ROTARY ENCODER W.1-V-SINUS 1024 PULSES, SYNCHRON. FLANGE, 6 MM SHAFT, VOLTAGE 5 V AXIAL FLANGE CONNECTOR



Fig. similar

Design of the interface	1V sin/cos
Measuring method / for position feedback	Incremental
Operating voltage VP at the encoder	5 V
Relative symmetric tolerance of the operating voltage	10 %
-3dB	180 kHz
-6dB	450 kHz
Current consumption without load / maximum	150 mA
Signal level	Sinusoidal 1 Vpp
Outputs protected against short circuit to 0 V	Yes
Phase position signal A to B	90°
Symmetric tolerance of the phase displacement angle between signal A and signal B	10°
Length of cable to subsequent electronics, max.	
•	150 m

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Resolution, max.	1024
Precision	63 "
Speed, max.	
• electric	26400 1/min
Speed, max.	
• mechanical	12000 1/min
Friction torque at 20°C, max.	0.01 N·m
Starting torque at 20°C / maximum	0.01 N·m
Shaft load capacity	
• at n > 6000 rpms	
• axially / minimum	10 N
• axially / maximum	40 N
• radially on shaft end	
• at n > 6000 rpms / minimum	20 N
• at n ≤ 6000 rpms / maximum	60 N
Angular acceleration / maximum	100000 rad/s²
Moment of inertia of the rotor	0.00000145 kg·m²
Vibration 55 to 2000 Hz according to DIN IEC 60068-2-6, max.	300 m/s²
Shock according to EN 60068-2-27	
• 2ms, max.	2000 m/s²
• 6ms, max.	1000 m/s²
IP degree of protection	
• without shaft input	IP67
• with shaft input	IP64
Ambient temperature	
• during operation	
• with flange socket or fixed installation cable, at	-40 … +100 °C
• during operation	
• with flexible installation cable, at /Vp = 5 V ± 10 %	-10 … +100 °C
Weight, approx.	0.3 kg
EMC	Tested according to the EMC guidelines 89/336/EEC and the rules of the EMC guidelines (generic standards)

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Approval, accord. to	CE, cULus
Type of flange	Synchro flange
Direction of connection opening	Axial
Design of the electrical connection	Flange socket

Further information

Information and download center for Industry Automation and Drives

Technical documentation (Motion Control)

Industry Mall (online ordering system)

Service & Support (FAQs, manuals, operating instructions, certificates, characteristics, ...)

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