

SIEMENS

Product data sheet

6FX2001-3GC50


Fig. similar

 INCREM. ENCODER WITH 1-V-SINUS 2500 P/R,
 SYNCHRON. FLANGE, 6 MM SHAFT,
 VOLTAGE 5 V AXIAL FLANGE CONNECTOR

product brand name	Measuring systems
Design of the interface	1V sin/cos
Measuring procedure / for position feedback	Incremental
Operating voltage VP at the encoder	5 V
Relative symmetric tolerance of the operating voltage	10 %
-3 dB, typ.	100 kHz
-6 dB, typ.	200 kHz
Current consumption without load	
• max.	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
Resolution	
• max.	2500
Precision	26 "
Speed / electric	
• max.	7200 1/min
Speed / mechanical / max.	12000 1/min
Friction torque at 20 °C / max.	0.01 N·m
Starting torque at 20 °C / max.	0.01 N·m
Shaft load capacity	
• at $n > 6000$ rpms	
• axially, max.	10 N
• radially on shaft end, max.	20 N
• at $n \leq 6000$ rpms	
• axially, max.	40 N
• radially on shaft end, max.	60 N
Outer diameter / of rotary encoder shaft	6 mm
Length of encoder shaft	10 mm
Angular acceleration / maximum	100000 rad/s ²
Moment of inertia of the rotor	0.00000145 kg·m ²
Vibration 55 to 2000 Hz according to DIN IEC 60068-2-6 / max.	300 m/s ²
Shock according to EN 60068-2-27	
• 2ms, max.	2000 m/s ²
• 6ms, max.	1000 m/s ²
Protection class IP	
• without shaft input	IP67
• with shaft input	IP64
Ambient temperature / during operation	
• with flange socket or fixed installation cable, at	
• $V_p = 5 \text{ V} \pm 10 \%$, min.	-40 °C
• $V_p = 5 \text{ V} \pm 10 \%$, max.	100 °C
• with flexible installation cable, at	
• $V_p = 5 \text{ V} \pm 10 \%$, min.	-10 °C
• $V_p = 5 \text{ V} \pm 10 \%$, max.	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)
Approval, accord. to	CE, cULus
Flange type	Synchro flange
Direction of connection opening	Axial
Design of the electrical connection	Flange socket

Further information

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[Industry Mall \(online ordering system\)](#)

[Service & Support \(FAQs, manuals, operating instructions, certificates, characteristics, ...\)](#)

last change:

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