

INCREM. ENCODER 6FX2001-3EC50 WITH 1-V-SINUS 2500 P/R,
SYNCHRON. FLANGE, 6 MM SHAFT, VOLTAGE 5 V RADIAL
FLANGE CONNECTOR



Figure similar

product brand name	Measuring systems
Design of the interface	1V sin/cos
Measuring procedure / for position feedback	Incremental
Operating voltage / of the rotary encoder / at DC	5 V
Relative symmetrical tolerance / of the operating voltage / of the rotary encoder / at DC	10 %
Limit frequency (-3 dB)	100 kHz
Limit frequency (-6 dB)	200 kHz
Consumed current / without load / maximum	150 mA
Standard for interfaces	Sinusoidal 1 Vpp
Property of the output / Short-circuit proof against 0 V	Yes
Phase displacement angle / between signal A and signal B	90°
Symmetrical tolerance of the phase displacement angle / between signal A and signal B	10°
Wire length • maximum	150 m
Incremental resolution	

• per revolution / maximum	2 500
Measurement deviation angle of rotation / of the incremental encoder	26"
Speed	
• with electrical rotation transmission / maximum	7 200 1/min
• maximum	12 000 1/min
Friction torque / at 20 °C / maximum	0.01 N·m
Starting torque / at 20 °C / maximum	0.01 N·m
Axial force / at shaft	
• with $n \leq 6000$ rpm / maximum	40 N
• with $n > 6000$ rpm / maximum	10 N
Cantilever force / at shaft extension	
• with $n \leq 6000$ rpm / maximum	60 N
• with $n > 6000$ rpm / maximum	20 N
Outer diameter / of rotary encoder shaft	6 mm
Length / of rotary encoder shaft	10 mm
Angular acceleration / maximum	100 000 rad/s ²
Moment of inertia / of rotor	0.0000015 kg·m ²
Vibrational acceleration / at 55 Hz ... 2 kHz / acc. to IEC 60068-2-6	300 m/s ²
Shock acceleration	
• limited to 2 ms / acc. to IEC 60068-2-27	2 000 m/s ²
• limited to 6 ms / acc. to IEC 60068-2-27	1 000 m/s ²
Protection class IP	
• without shaft input	IP67
• with shaft input	IP64
Ambient temperature	
• with supply voltage $5\text{ V} \pm 10\%$ / with installed cable / during operation	-40 ... +100
• with supply voltage $5\text{ V} \pm 10\%$ / with moving cable / during operation	-10 ... +100
Net weight	0.3 kg
EMI immunity	Tested according to the EMC guidelines 89/336/EEC and the rules of the EMC guidelines (generic standards)
Certificate of suitability	CE, cULus
Flange type	Synchro flange
Direction of connection opening	Radial
Type of electrical connection	Flange socket

Further information

Information und Download Center

https://www.automation.siemens.com/mcms/infocenter/content/en/Pages/order_form.aspx

Technical documentation

<http://w3.siemens.com/mcms/mc-solutions/en/motion-control/support/technical-documentation/Pages/technical-documentation.aspx>

Industry Mall

<https://eb.automation.siemens.com/mall/en/WW/Cataog/Product/6FX2001-3EC50/all>

Industry Online Support

<http://support.automation.siemens.com/WW/view/en/6FX2001-3EC50/all>

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