

INCREM. ENCODER 6FX2001-2HF00 WITH RS 422 (TTL), 5000 P/R SYNCHRO-FLANGE SHAFT 6MM OPERATING VOLTAGE: 10-30 V AXIAL FLANGE CONNECTOR



Figure similar

product brand name	Measuring systems
Design of the interface	TTL / RS 422
Measuring procedure / for position feedback	Incremental
Operating voltage / of the rotary encoder / at DC	10 ... 30
Scanning frequency / maximum	300 kHz
Consumed current / without load / maximum	150 mA
Standard for interfaces	TTL (RS 422)
Property of the output / Short-circuit proof against 0 V	Yes
Pulse duration / at 1 m connecting cable / with recommended input circuit / maximum / Note	Rise / fall time t+/t- <=
Pulse duration / at 1 m connecting cable / with recommended input circuit / maximum	50 ns
Phase displacement angle / between signal A and signal B	90°
Edge interval / between signal A and signal B	
• with scanning frequency 300 kHz / minimum	0.45 µs
Wire length	
• maximum	100 m
Failure monitoring type / for LED	High impedance driver
Incremental resolution	

<ul style="list-style-type: none"> <li>• per revolution / maximum</li> </ul>	5 000
Measurement deviation angle of rotation / of the incremental encoder	13°
Speed	
<ul style="list-style-type: none"> <li>• with electrical rotation transmission / maximum</li> <li>• maximum</li> </ul>	3 600 1/min 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	
<ul style="list-style-type: none"> <li>• with n ≤ 6000 rpm / maximum</li> <li>• with n &gt; 6000 rpm / maximum</li> </ul>	40 N 10 N
Cantilever force / at shaft extension	
<ul style="list-style-type: none"> <li>• with n ≤ 6000 rpm / maximum</li> <li>• with n &gt; 6000 rpm / maximum</li> </ul>	60 N 20 N
Outer diameter / of rotary encoder shaft	6 mm
Length / of rotary encoder shaft	10 mm
Angular acceleration / maximum	100 000 rad/s <sup>2</sup>
Moment of inertia / of rotor	0.0000015 kg·m <sup>2</sup>
Vibrational acceleration / at 55 Hz ... 2 kHz / acc. to IEC 60068-2-6	300 m/s <sup>2</sup>
Shock acceleration	
<ul style="list-style-type: none"> <li>• limited to 2 ms / acc. to IEC 60068-2-27</li> <li>• limited to 6 ms / acc. to IEC 60068-2-27</li> </ul>	2 000 m/s <sup>2</sup> 1 000 m/s <sup>2</sup>
Protection class IP	
<ul style="list-style-type: none"> <li>• without shaft input</li> <li>• with shaft input</li> </ul>	IP67 IP64
Ambient temperature	
<ul style="list-style-type: none"> <li>• with supply voltage 10 V ... 30 V / with installed cable / during operation</li> <li>• with supply voltage 10 V ... 30 V / with moving cable / during operation</li> </ul>	-40 ... +70 -10 ... +70
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	Axial
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](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/Catag/Product/6FX20012HF00/all>

**Industry Online Support**

<http://support.automation.siemens.com/WW/view/en/6FX20012HF00/all>

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