

ABSOLUTE VALUE ENCODER 6FX2001-5FE25 MULTITURN 25 BIT WITH ENDAT, OPERATING VOLTAGE 5 V, SYNCHRO-FLANGE SHAFT 6MM RADIAL FLANGE SOCKET



Figure similar

product brand name	Measuring systems
Measuring procedure / for position feedback	absolute
Manner of function / of absolute encoder	multiturn
Operating voltage / of the rotary encoder / at DC	5 V
Relative symmetrical tolerance / at DC / at 5 V	5 %
Consumed current / typical	200 mA
Design of the interface	EnDat
Design of input / for clock cycle	Differential line receiver according to EIA Standard RS 485
Design of encoder output	Differential line driver according to EIA Standard RS 485
Property of the output / Short-circuit proof	Yes
Clock frequency	100 kHz ... 2 MHz
Speed	
• for digital measuring accuracy +/- 1 bit / with electrical rotation transmission / maximum	5 000 1/min
• for digital measuring accuracy +/- 100 bit / with electrical rotation transmission / maximum	10 000 1/min
• maximum	10 000 1/min
Wire length	

• at 0 Hz ... 1 MHz / maximum	50 m
• at 0 Hz ... 300 kHz / maximum	150 m
• maximum	150 m
Digital resolution	25 bit; (8192 increments x 4096 rpms)
Telegram length	25 bit; According to EnDat specifications
Incremental track version	512 S/R, 1 Vpp
Type of coding • for sampling • for transmission	Gray binary
Measurement deviation angle of rotation / of absolute encoder	60"; (Incremental track)
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 $n > 6000$ rpm / maximum • with $n \leq 6000$ rpm / maximum	10 N 40 N
Cantilever force / at shaft extension • with $n > 6000$ rpm / maximum • with $n \leq 6000$ rpm / maximum	20 N 60 N
Rotary encoder shaft version	Solid shaft
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 • with solid shaft encoder	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 • limited to 6 ms / acc. to IEC 60068-2-27	2 000 m/s ² 1 000 m/s ²
Protection class IP • without shaft input • with shaft input	IP67 IP64
Ambient temperature / during operation	-40 ... +100
EMI immunity	Tested to DIN EN 50081 and EN 50082
Certificate of suitability	CE, cULus
Type of electrical connection	Flange socket
Direction of connection opening	Radial
Flange type	Synchro flange
Net weight	0.35 kg

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/6FX2001-5FE25/all>

Industry Online Support

<http://support.automation.siemens.com/WW/view/en/6FX2001-5FE25/all>

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