



Figure similar

product brand name	Measuring systems
Measuring procedure / for position feedback	Absolute
Manner of function / of absolute encoder	Singleturn
Operating voltage / of the rotary encoder / for DC	10 ... 30
Consumed current / typical	160 mA
Design of the interface	SSI
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 ... 1 MHz
Speed	
<ul style="list-style-type: none"> • for digital measuring accuracy +/- 1 bit / with electrical rotation transmission / maximum 	5 000 1/min
<ul style="list-style-type: none"> • for digital measuring accuracy +/- 100 bit / with electrical rotation transmission / maximum 	10 000 1/min
<ul style="list-style-type: none"> • maximum 	12 000 1/min
Cable length	
<ul style="list-style-type: none"> • at 0 Hz ... 1 MHz / maximum 	50 m
<ul style="list-style-type: none"> • at 0 Hz ... 300 kHz / maximum 	100 m
<ul style="list-style-type: none"> • at 0 Hz ... 100 kHz / maximum 	400 m
<ul style="list-style-type: none"> • maximum 	400 m
Digital resolution	13 bit; (8192 increments)
Telegram length	13 bit; Without parity
Type of coding	
<ul style="list-style-type: none"> • for sampling 	Gray
<ul style="list-style-type: none"> • for transmission 	Gray, fir-tree format

Product function	
<ul style="list-style-type: none"> • parameterizable preset • parameterizable counting direction 	Yes; Set to zero Yes
Measurement deviation angle of rotation / of absolute encoder	79"; (with 8192 increments)
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"> • with n > 6000 rpm / maximum • with n ≤ 6000 rpm / maximum 	10 N 40 N
Cantilever force / at shaft extension	
<ul style="list-style-type: none"> • with n > 6000 rpm / maximum • with n ≤ 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	
<ul style="list-style-type: none"> • with solid shaft encoder 	0.0000015 kg·m ²
Resistance against vibration / at 55 Hz ... 2 kHz / acc. to IEC 60068-2-6	300 m/s ²
Shock acceleration	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • without shaft input • with shaft input 	IP67 IP64
Ambient temperature / during operation	-40 ... +85
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/Catag/Product/6FX20015FS12/all>

Industry Online Support

<http://support.automation.siemens.com/WW/view/en/6FX20015FS12/all>

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