

ABS.VALUE ENCODER MULTITURN 27 BIT WITH PROFINET  
 OPERATE VOLTAGE 10-30V CLAMP FLANGE / SHAFT 10MM  
 CONNECTOR M12 RADIAL



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 / for DC	10 ... 30
Design of the interface	PROFINET IO mit RT / IRT
Design of input / for clock cycle	Differential line driver according to EIA Standard RS 485
Design of encoder output	PNO encoder profile
Property of the output / Short-circuit proof	Yes
Display version / for diagnostic function	Yes (green/red/yellow)
Transfer rate	100 Mbit/s
Speed	
<ul style="list-style-type: none"> <li>• for digital measuring accuracy +/- 1 bit / with electrical rotation transmission / maximum</li> </ul>	5 800 1/min
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	6 000 1/min
Cable length	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	100 m
Digital resolution	27 bit; (8192 increments x 16384 rpms)
Type of coding	
<ul style="list-style-type: none"> <li>• for sampling</li> </ul>	Gray
<ul style="list-style-type: none"> <li>• for transmission</li> </ul>	Binary, PROFINET
Product function	
<ul style="list-style-type: none"> <li>• parameterizable preset</li> </ul>	Yes; Any
<ul style="list-style-type: none"> <li>• parameterizable counting direction</li> </ul>	Yes
Measurement deviation angle of rotation / of absolute encoder	79"; with 8192 increments ( $\pm 1/2$ LSB)
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 &gt; 6000 rpm / maximum</li> <li>• with n ≤ 6000 rpm / maximum</li> </ul>	10 N 40 N
Cantilever force / at shaft extension <ul style="list-style-type: none"> <li>• with n &gt; 6000 rpm / maximum</li> <li>• with n ≤ 6000 rpm / maximum</li> </ul>	20 N 110 N
Rotary encoder shaft version	Solid shaft
Diameter / of rotary encoder shaft	10 mm
Length / of rotary encoder shaft	20 mm
Angular acceleration / maximum	100 000 rad/s <sup>2</sup>
Moment of inertia / of rotor <ul style="list-style-type: none"> <li>• with solid shaft encoder</li> </ul>	0.000003 kg·m <sup>2</sup>
Resistance against vibration / at 55 Hz ... 2 kHz / acc. to IEC 60068-2-6	100 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 / during operation	-40 ... +85
EMI immunity	Tested to DIN EN 50081 and EN 50082
Certificate of suitability	CE, cULus
Consumed current / minimum	130 mA
Consumed current / maximum	400 mA; (< 4 W)
Type of electrical connection	2 x connector M12, 4-pin for PROFINET Ports, 1 x connector M12, 4-pin for operating voltage
Telegram format	According to PNO encoder profile V4.1 Class1, Class 2, Class 3, Class 4, standard telegrams 81/82/83/84, Siemens telegram 860
Direction of connection opening	Radial
Measuring cycle	1 ... 100
Product function <ul style="list-style-type: none"> <li>• parameterizable resolution per revolution</li> <li>• parameterizable resolution per revolution / Note</li> <li>• parameterizable total resolution</li> <li>• parameterizable total resolution / Note</li> <li>• parameterizable speed signal</li> <li>• parameterizable limit switch</li> <li>• parameterizable isochronous mode</li> <li>• Slave-to-slave communication parameterizable</li> <li>• online parameterization</li> </ul>	Yes Any 1 ... 8192 Yes Any 1 ... 16384 Yes No Yes No Yes
Certificate of suitability / PI certificate	Yes

Profile / is supported	PNO encoder profile V4.1
Flange type	Clamping flange
Net weight	0.43 kg

#### 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/6FX20015QN25/all>

##### Industry Online Support

<http://support.automation.siemens.com/WW/view/en/6FX20015QN25/all>

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