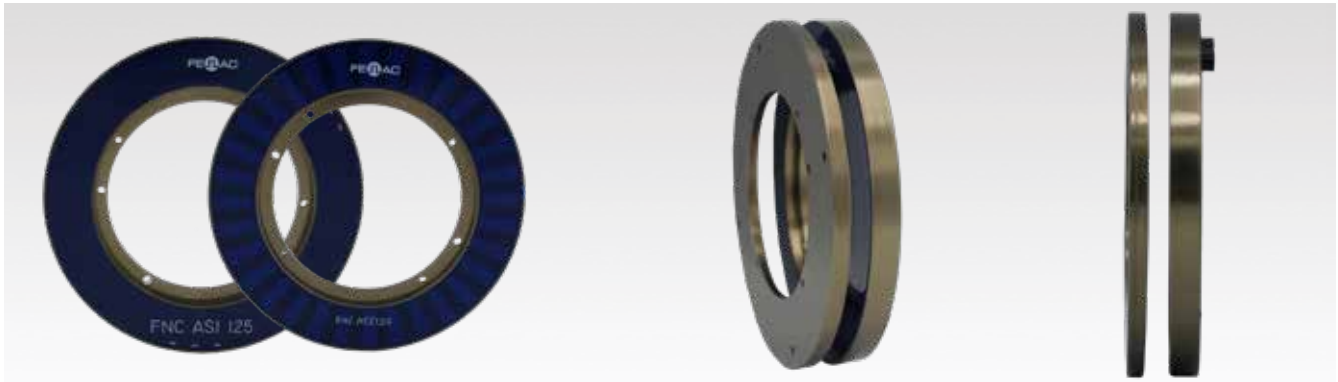


# Fenac Inductive Contactless Encoders



## FNC ASI125 Series

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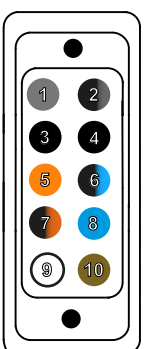


Technical data - Electrical Ratings	
Supply Voltage	5V or 6 - 36 VDC $\pm$ 5%
Interface	SSI or BISS
Protection	Overvoltage protection Short-circuit protection
Resolution (steps/turn)	up to 21 bit
Output frequency	up to 2 MHz for SSI up to 10 MHz for BISS
Code	Gray or binary
Output circuit	SSI data linedriver RS485
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	CE

- | Features   |
|--|
| <ul style="list-style-type: none"> <li>• Non contact inductive technology</li> <li>• High accuracy</li> <li>• For high reliability in extreme environments</li> <li>• Robust mechanical design</li> <li>• Thin design</li> </ul> |

Technical data - Mechanical Ratings	
Dimensions	Outer Diameter : 125 mm Inner Diameter : 75 mm
Mounting Type	Clamping or Screw
Materials	Anodized Aluminium
Protection DIN EN 60529	IP 67
Operating temperature	-40 ... +85°C

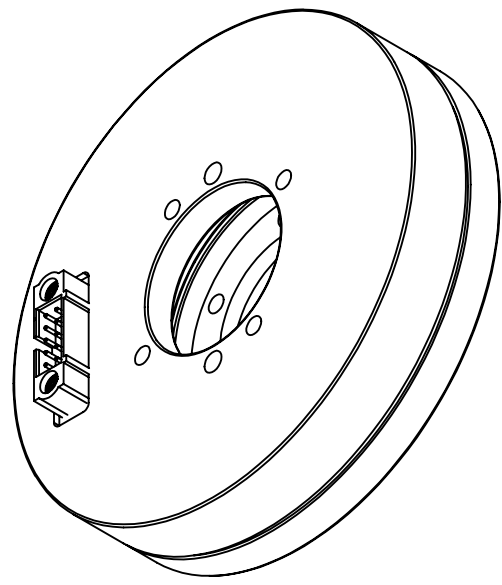
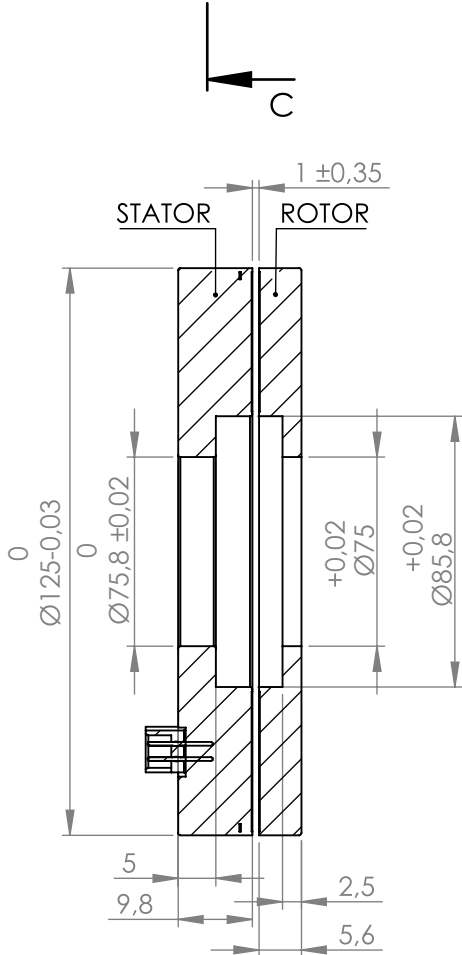
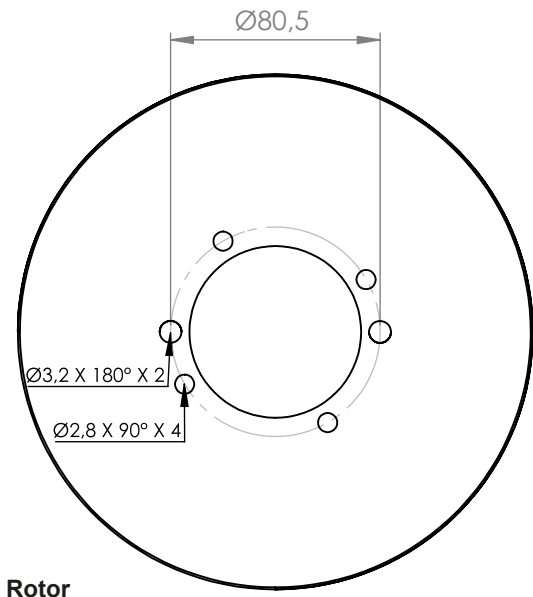
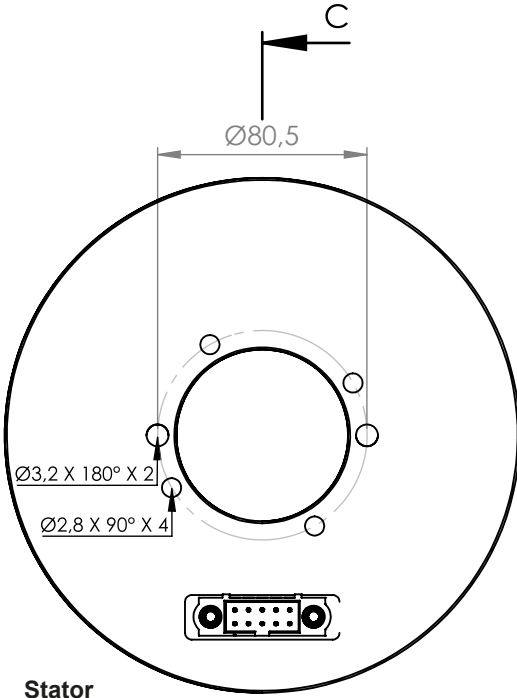
Cable / Connector Wiring		
Function	Connector	Color
+VB	pin 10	Brown
GND	pin 9	White
CLK+	pin 8	Blue
CLK-	pin 6	Blue-Black
DATA+	pin 5	Orange
DATA-	pin 7	Orange-Black
ZERO	pin 1	Gray
FACTORY ZERO	pin 2	Gray-Black



Pulse Diagram	
Clock frequency, f	50 ... 2000 kHz for SSI 50 ... 10.000 kHz for BISS
Code	Binary
Status and parity bit	On request
Monoflop time tm	20 $\mu$ s
Delay time td	<150 ns

**Mechanical Dimensions**

**Screw Mounting Stator - Screw Mounting Rotor Version**

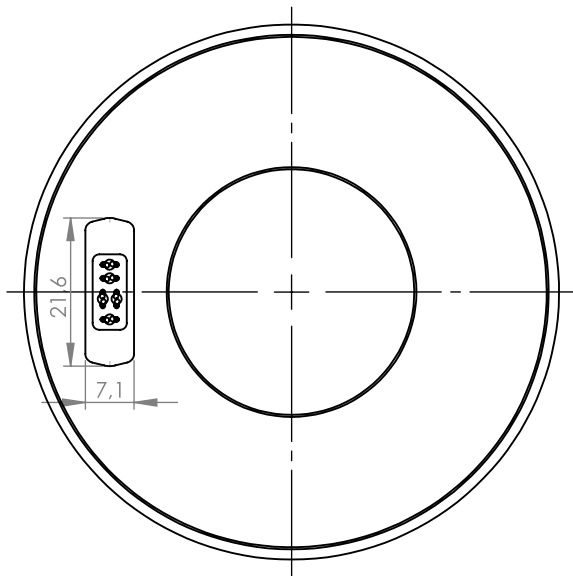


## FNC ASI125 Series

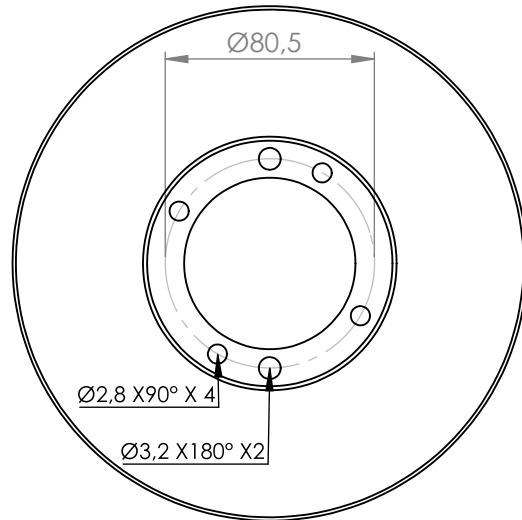
### Mechanical Dimensions

3

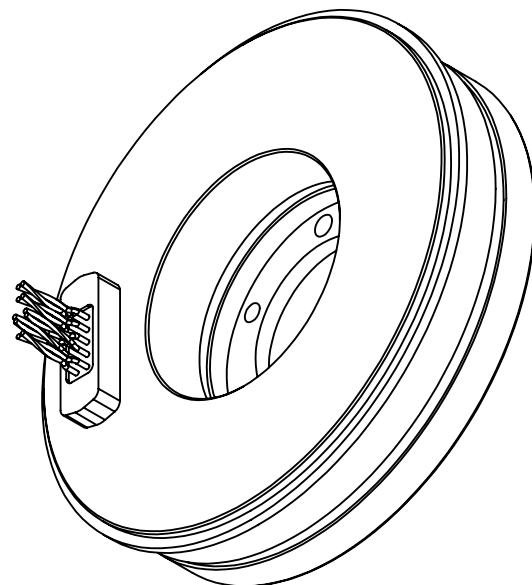
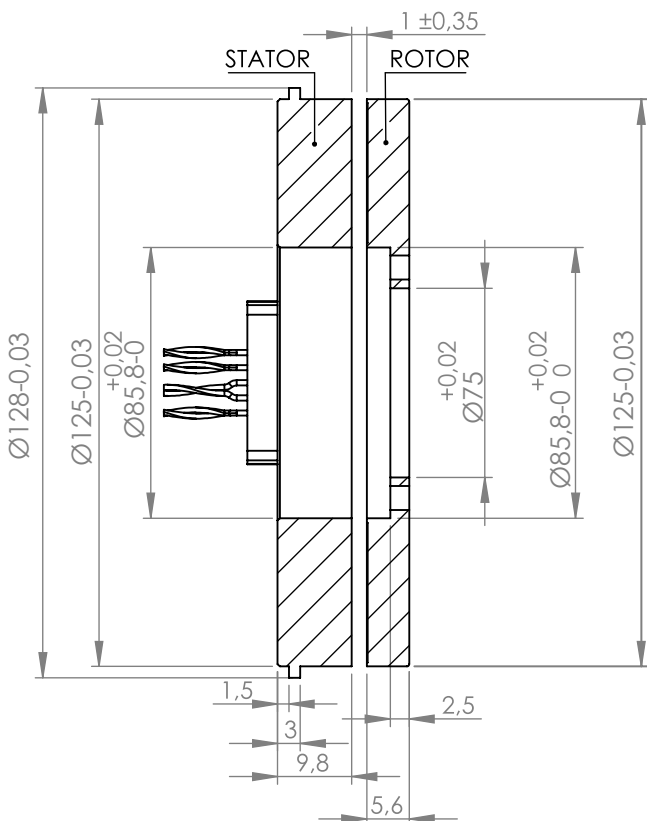
#### Servo Clamp Mounting Stator - Screw Mounting Rotor Version



Stator

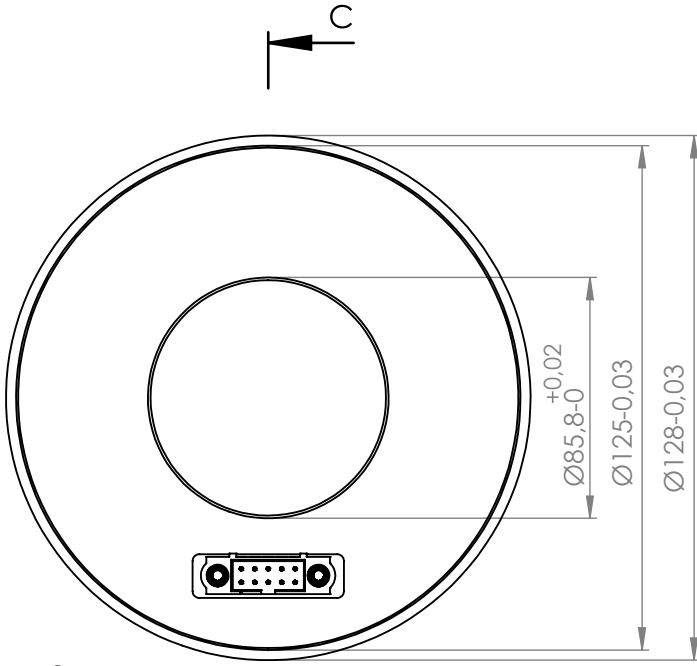


Rotor

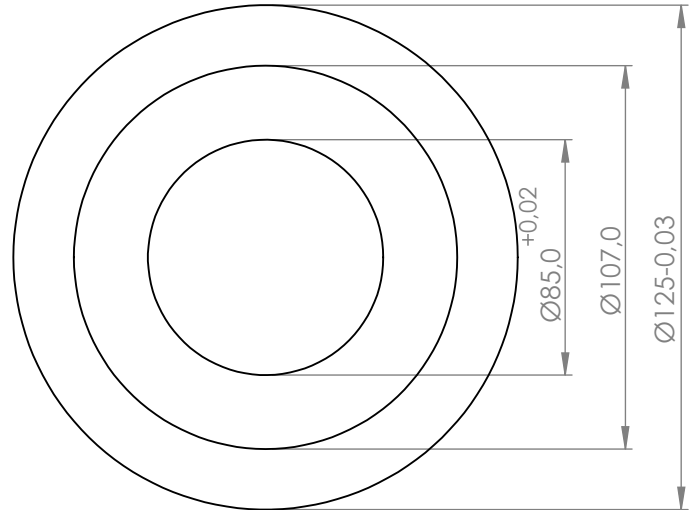


### Mechanical Dimensions

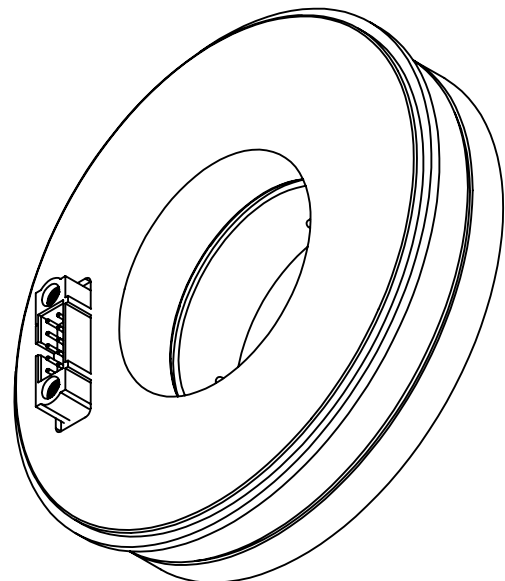
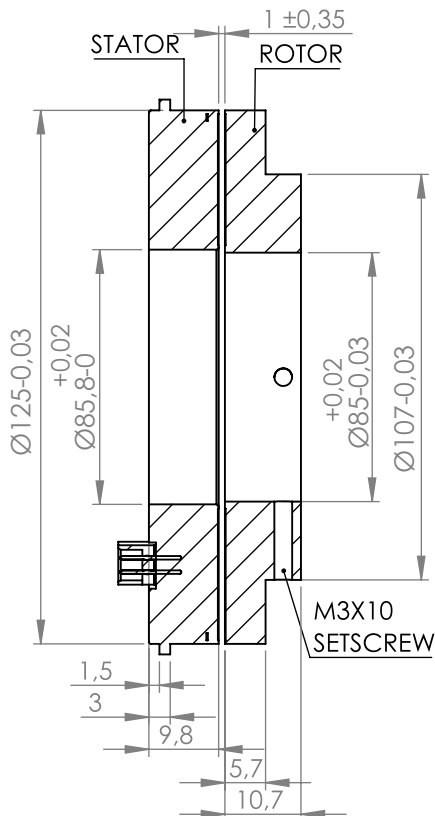
#### Servo Clamp Mounting Stator - Set-Screw Mounting Rotor Version



Stator



Rotor

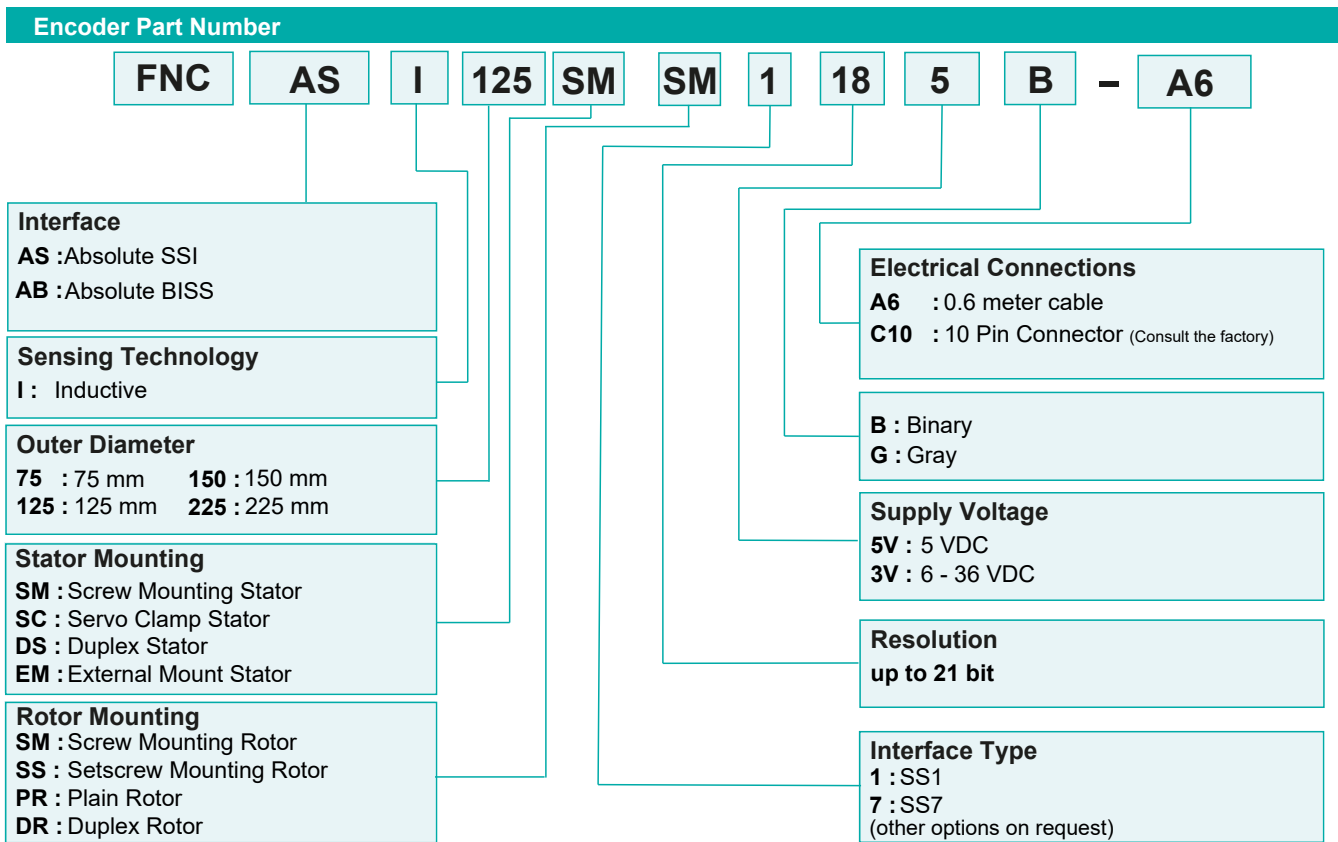


# Fenac Inductive Contactless Encoders



## FNC ASI125 Series

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**SSI (Synchronized Serial Interface) Product Options**

**SSI1 (n = 24)**

<b>D23</b>	<b>D22</b>	<b>D21</b>	<b>D20</b>	...	<b>D1</b>	<b>D0</b>
E	ZPD	PD				

**E** : Error Flag. Set to 1 when data is valid, otherwise 0  
**ZPD** : Zero Point Default. Set to 1 when the Zero Point is at Factory Default, otherwise 0  
**PD** : Binary position data. If resolution of device is less than 22 bits, then the MSBs of this field are set to 0. The LSB of this field is in D0. When PV is 0, PD[21:0] value is not defined.

**SSI3 (n = 16)**

<b>D15</b>	<b>D14</b>	<b>D13</b>	<b>D12</b>	...	<b>D1</b>	<b>D0</b>
PD [15:0]						

**PD** : Binary position data. When ERROR FLAG is 1, PD[15:0] value is not defined.

**SSI7 (n = 30)**

<b>D29...D24</b>	<b>D23...D2</b>	<b>D1</b>	<b>D0</b>
Z	PD[21:0]	P	A

**Z** : Data always 0.  
**PD** : Binary position data. If resolution of device is less than 22 bits, then the MSBs of this field are set to 0. The LSB of this field is in D2. When Alarm bit is 1, PD[21:0] value is not defined.  
**P** : Parity Bit 0 indicates an even number of 1's in data (D23-D2), 1 indicates an odd number of 1's in data.  
**A** : Alarm Bit - 0 indicates normal operation, 1 indicates error condition.