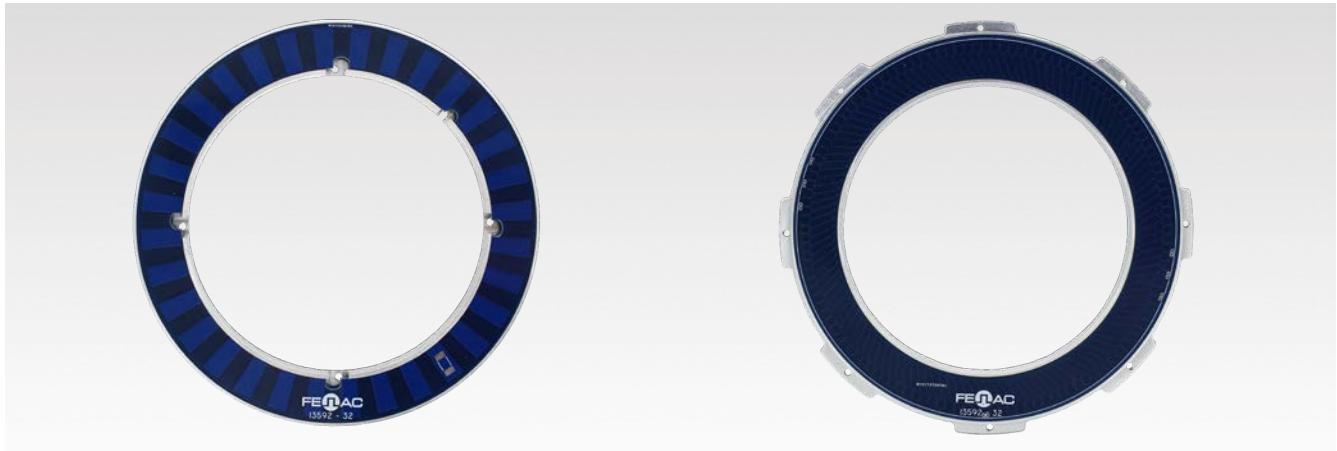


# Fenac Inductive Contactless Encoders



## FNC ASI 135 Series



### Technical data - Electrical Ratings

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

### Features

- Non contact inductive technology
- High accuracy
- For high reliability in extreme environments
- Robust mechanical design
- Thin design

### Technical data - Mechanical Ratings

|                         |   |
|-------------------------|---|
| Dimensions              | Outer Diameter : 135 mm<br>Inner Diameter : 92 mm |
| Mounting Type           | Clamping or Screw                                 |
| Mounting Gap            | 1,1 mm $\pm$ 0,1                                  |
| Materials               | Anodized Aluminium                                |
| Protection DIN EN 60529 | IP 67   |
| Operating temperature   | -40 ... +85°C                                     |
| Weight                  | Rotor : 30 g<br>Stator : 100 g                    |

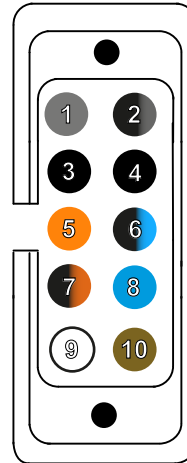
# Fenac Inductive Contactless Encoders



## FNC ASI 135 Series

### Cable Wiring

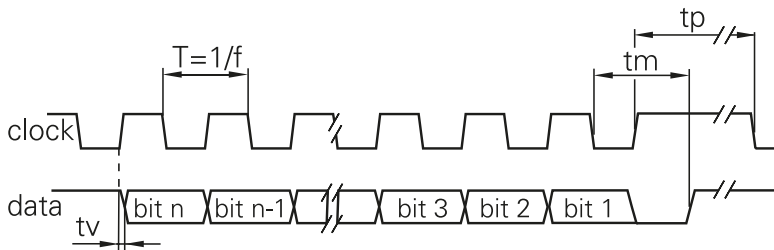
| Function       | Connector | Connector | Color        |
|----------------|-----------|-----------|--------------|
| +VB            |           | pin 10    | Brown        |
| GND            |           | pin 9     | White        |
| CLK+           |           | pin 8     | Blue         |
| CLK-    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



#### During operation;

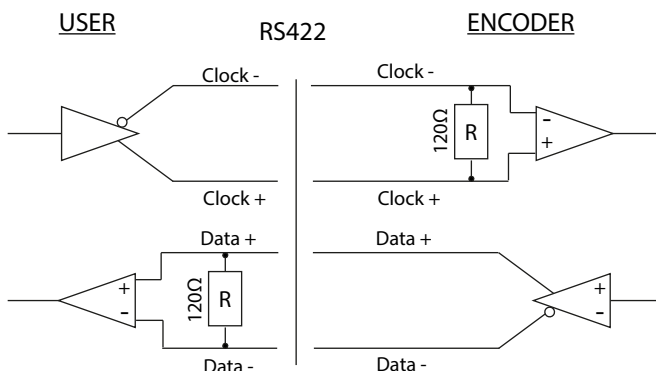
- \* : To set the Zero position, apply GND to Zero pin for more than 100msec.
- \*\* : To set the Factory Zero position to factory default, apply GND to Factory Zero pin for less then 1 second.
- \*\*\* : If these pins are not used, please connect to 5V with a pull-up resistor.

### Communication Interface



|                       |   |
|-----------------------|---|
| Clock frequency, f    | 100 ... 2000 kHz for SSI<br>100 ... 10.000 kHz for BISS |
| Code                  | Binary  |
| Status and parity bit | On request  |
| Monoflop time tm      | 20 μs   |
| Delay time tv         | <150 ns   |

### Communication Hardware





# Fenac Inductive Contactless Encoders

## FNC ASI 135 Series

### Encoder Part Number

**FNC AS I 135 SM SM 1 18 5V B - A6 A**

**Interface**  
**AS** : Absolute SSI  
**AB** : Absolute BiSS

**Sensing Technology**  
**I** : Inductive

**Outer Diameter**  
**37** : 37 mm      **135** : 135 mm  
**58** : 58 mm      **150** : 150 mm  
**75** : 75 mm      **200** : 200 mm  
**90** : 90 mm      **225** : 225 mm  
**100** : 100 mm    **250** : 250 mm  
**125** : 125 mm

**Stator Mounting**  
**SM** : Screw Mounting Stator  
**SC** : Servo Clamp Stator  
**DS** : Duplex Stator  
**EM** : External Mount Stator

**Rotor Mounting**  
**SM** : Screw Mounting Rotor  
**SS** : Setscrew Mounting Rotor  
**PR** : Plain Rotor  
**DR** : Duplex Rotor

**Surface finish**  
**A** : Anodized  
**S** : Standard  
**N** : Nickel coated

**Electrical Connections**  
**A6** : 0.6 meter cable  
**C10** : 10 Pin Connector (Consult the factory)

**B** : Binary

**Supply Voltage**  
**5V** : 5 VDC  
**3V** : 6 - 36 VDC

**Resolution**  
**up to 21 bit**

**SSI Interface Type**  
**1** : SSI1  
**2** : SSI2  
**3** : SSI3  
**7** : SSI7  
 (other options on request)

**BiSS Interface Type**  
**1** : BiSS-C