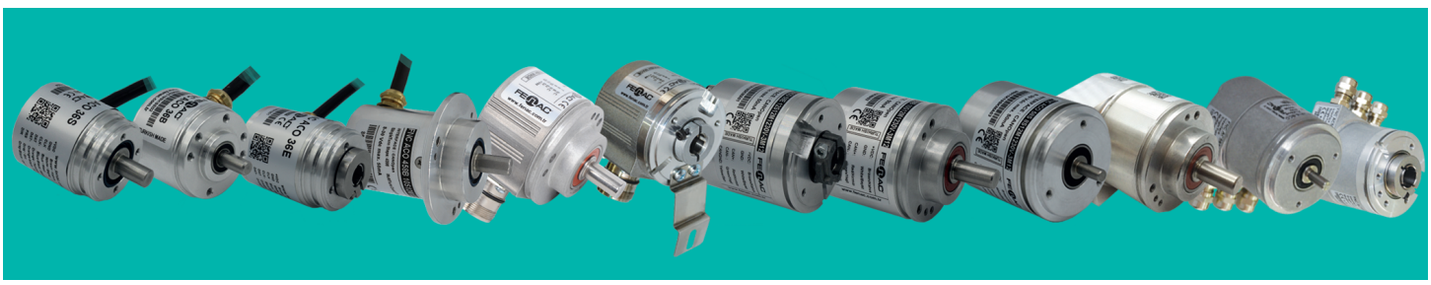
FENAC ACO SERIES ENCODER CONNECTION INSTRUCTION

CANBUS “Controller Area Network Bus”, is a widely used protocol in industrial areas. CANBUS utilizes multi-master working logic and gives equal priority to all units while communicating. During these processes, the system must comply with the transmission line to prevent conflict and error occurrence. The data is transferred sequentially when the communication line is found idle.



Attention should be paid to the following situations when installing the communication line for connection:

1. **Electrical equipment should be installed by experts.**
2. **Before working on the device, energy must be cut off.**
3. **EConnections should be checked before energizing.**
4. **Each connection in the communication line is called a node. All nodes (devices) in the CANopen communication line should be given a unique address ID. In case same ID is given to more than one device, communication may fail**

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5 **CAN communication line is a two-cable connection. It is advised to use twisted-pair cables to decrease the magnetic field effect significantly. Cable width can be selected between 0.22 mm2 and 0.6 mm2.**

6 **The length of the communication line is essential for communication speed selection. CANopen communication speed depends on the physical connection you will use, namely the cable length. The communication speed you can use decreases as the cable length increases. In addition, all devices on the line must be set to work with the same baud (bit) rate**

Bit Rate	Bus Length
1 Mbit/s	25 m
800 kbit/s	50 m
500 kbit/s	100 m
250 kbit/s	250 m
125 kbit/s	500 m
50 kbit/s	1000 m
20 kbit/s	2500 m
10 kbit/s	5000 m

7 **The communication speed should be increased depending on the number of devices on the line or if distance and speed are not suitable, the device sampling frequency should be reduced.**

- **up to 12 Fenac ACO series CANopen devices can be connected to the same communication line with 5ms sampling frequency at 125kbit/s bit rate.**

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