CAX4120H Module

CANBUS MODULE FOR CLOSED LOOP HYDRAULIC AXIS CONTROL WITH DIRECT SOLENOIDS CONTROL

CAX4120H is an open frame CanOpen protocol CanBus module for hydraulic axis to be mounted on a standard DIN rail.

By reading the axis position with an incremental optical encoder, or with a potentiometer, it can closed loop control the axis position, and directly drive the coils of a servfi valve or a quality proportional valve with enough current to generate the required flow rate.

In both cases (encoder, and potentiometric) the module direcly powers the transducer with a stabilized, short-circuit protected recerence voltage.

In specific applications more than one position transducer may be required. Four additional potentiometric transducers inputs are available on the module for that purpose.

The controlled axis is typically an hydraulic axis whose actuator can be a cylinder, a vane, or an hydraulic motor. In either case the module directly drives the two coils of a proportional or servo valve by setting the circulating current so to regulate the flow rate in the hydraulic circuit.

The module also has 2 general purpose analog outputs available to the PLC, for example to regulate the maximum pressure in the circuit.

6 groups of spring cage connectors are provided:

1. 3 points of which two are for 24 V power supply connection, and one is for ground connection;
2. 2 four indvidually exctractable points group with the following meaning:
   - Potentiometer power supply positive pole;
   - Differential voltage signal input negative pole / Current input negative pole
   - Differential voltage signal input positive pole / Current input positive pole / Potentiometric cursor
   - Potentiometer power supply negative pole
3. 2 four indvidually exctractable points group with the following meaning:
   - Potentiometer power supply positive pole;
   - Differential voltage signal input negative pole
   - Differential voltage signal input positive pole / Potentiometric cursor
   - Potentiometer power supply negative pole
4. 2 two points groups for the output signal. Each indvidually exctractable two point group has the following purpose:
   - Output signal, relative to the 0 V reference;
   - 0 V reference
5. 6 points arranged in to planes for connection the valve power coils. What is available follows:
   - 2 points for the positive direction coil;
   - 2 points for the negative direction coil,
   - 2 point for the load power supply.
6. 6 points for the CanBus line (input CAN_H, CAN_L, GND_CAN, and output CAN_H, CAN_L, GND_CAN)
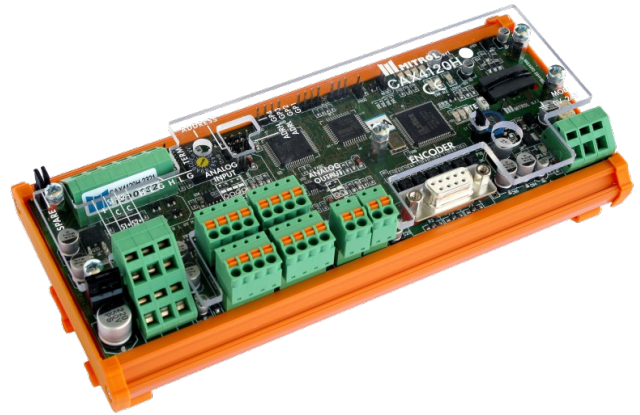
One D type female connector is available for encoder connection.