

Universal Off-Highway Control – TTC 110



TTC 110 – Great Processing Power for Hydraulic Applications

TTC 110 is an affordable high-performance electronic control unit for sensor/actuator management. It can be used, by means of many configurable I/Os, with different sensor and actuator types. This control unit without additional functional safety features is part of an extensive and compatible product family designed specifically for machines operating in vehicle- and mobile applications in rough environments and at extreme operating temperatures. Its robust die cast housing shields from electromagnetic disturbance and mechanical stress. A 40 MHz Freescale MPC555 integrated 32-bit microprocessor supplies the necessary processing power.

Ease of Programming

CoDeSys[®], which is one of the most common IEC 61131-3 programming systems that runs under Microsoft Windows[®], is used for programming the TTC 110. Several editors are supported, including the Instruction List Editor, the Sequential Function Chart Editor and the Function Block Diagram Editor. CoDeSys produces native machine code for the main processor of TTC 110. CoDeSys combines the power of familiar programming languages, such as C and Pascal, with the easy handling and operational functions of PLC programming systems.

System CPU

- Freescale MPC555 processor, 40 MHz, 448 kB int. Flash, 2 mB external Flash, 26 kB RAM (+512kB opt.)
- 16 kbit EEPROM

Power supply

- Supply voltage: 9 to 32 V
- Peak voltage: 45V_{max}
- Current consumption: 1 A_{max} at 9 V
- 1 x (10.5 V / 100 mA) sensor supply
- 2 x (5.0 V / 100 mA) sensor supply
- Board temperature, sensor supply and battery monitoring

Interfaces

- 1 x RS232
- 2 x CAN, 500 kbit/s

Inputs

- 8 x analog IN 0 to 5 V / 10 bit, I/O configured by software
- 12 x analog / digital IN 0 to 10 V / 10 bit
- 8 x digital IN (8 timer 10 Hz to 10.000 Hz)
- 5 x digital coding IN (one is 114)

Outputs

- 8 x digital OUT 2 A, PWM, current control loop, short-circuit and open load detection
- 16 x digital OUT 4 A, short-circuit and open load detection

Specifications

- Dimensions: 234 x 181 x 48 (in mm)
- Weight: 790 g
- Ambient temperature: -40 °C to +85 °C

Housing

- Aluminum die cast housing
- Splash-proof 154-pin connector
- Pressure adjusting with water barrier
- Housing fins for optimal temperature deduction

For further information, including price and availability, contact **Cervis Incorporated, North American Partner of TTControl**
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