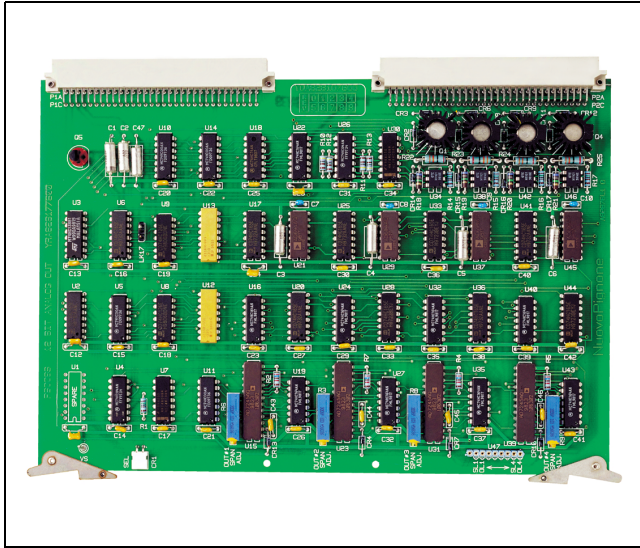


I/A Series® Remote Terminal Unit (RTU)

RTU 20 – 4 Analog Output Module



The 4 Analog Output module is a full-size electronic board in the I/A Series RTU 20 designed to provide 4 analog outputs, ranging from 0 to 20 mA, to drive analog actuators or control devices.

The input impedance of the connected field device can be up to 1000 ohm at 24 V dc.

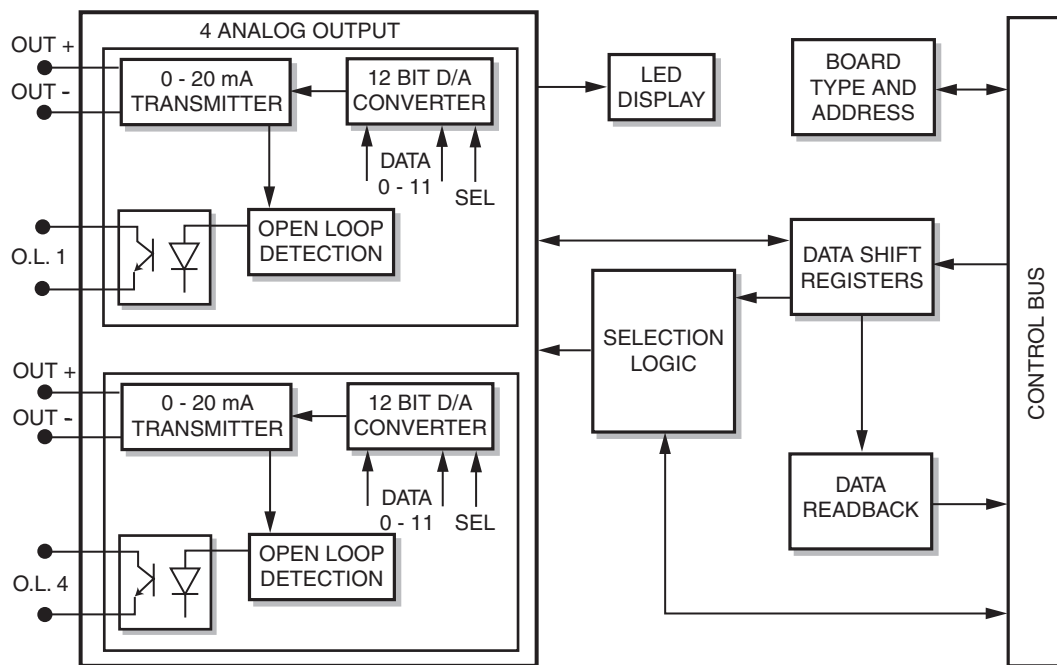
The module's main circuit is a 12-bit digital-to-analog converter (DAC) driving a non-isolated current transmitter.

The 12-bit DAC provides a resolution of 4096 counts, ensuring a minimum output step of 5 μ A per bit (maximum conversion error of 0.025%).

The 4 Analog Output module includes auxiliary circuits, equipped with open collector opto-couplers, providing contact alarm outputs when the connection to the driven control device/actuator is interrupted (open-circuit detection).

Several LEDs, located on the module's front edge, provide local fault indication and status, while an optional alphanumeric LCD display (mounted on the RTU cabinet) can monitor the analog output values, on request.

4 ANALOG OUTPUT MODULE – BLOCK DIAGRAM



SPECIFICATIONS

Outputs

4 non-isolated analog outputs

Maximum Power Requirements

+5 V dc/16 mA, +12 V dc/20 mA, +24 V dc/95 mA
(at full scale output)

Output Range

0 to 20 mA

Accuracy at -25°C or $+70^{\circ}\text{C}$

0.2%

Accuracy at $+25^{\circ}\text{C}$

0.1%

Application Data Format

Binary

Digital Converter Resolution

12 bits

Maximum Load Impedance

1000 Ω at 24 Vdc

Less Significant Bit (LSB)

5 μA

Operating Temperature

-25°C to $+70^{\circ}\text{C}$

Field Cable Connection

Removable screw-terminal blocks on dedicated terminal board connected to module's backplane

Diagnostics and Status

Select output LED indicators and open circuit alarm LEDs on module's front edge

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