

Allen-Bradley 1756 Series Service Manual

1756-OF8H

1. Description

Mfr. Part Number:

3. Product Information

Mfr. Part Number:

1756OF8H

Manufacturer: Allen-Bradley / Rockwell Automation

Description: Allen-Bradley 1756OF8H ControlLogix Analog Output HART Current/Voltage Module

Full Description: Allen-Bradley 1756OF8H ControlLogix Analog Output HART Current/Voltage Module, 8 Points (20 Pin) The 1756-OF8H is an analog output module that is part of Allen-Bradley's Logix controller platform. This module features Eight (8) voltage or current output channels and One (1) Highway Addressable Remote Transducer (HART) modem. Each channel is configurable for 0-20 mA and 4-20 mA output current signals while configurable voltage output signals are +/-10 VDC. This module has a technical specifications for 1756-OF8H

Manufacturer Rockwell Automation

Brand Allen-Bradley

Part Number/Catalog No. 1756-OF8H

Manufacturer Rockwell Automation

Series ControlLogix

Brand Allen-Bradley

Module Type Hart Analog Output Module

Series ControlLogix

Outputs 8 Differential

Module Type Analog output Module with HART capability

Input Current Range 0-20 or 4-20 milliamps

No. of Inputs Eight (8) output channels

Isolation Voltage 50 Volts Continuous

Output signal Current: 0-20 mA; 4-20 mA Voltage: +/-10VDC

Overvoltage Protection 24 Volts DC

Resolution 15-16 Bits

Enclosure Open

Accuracy Voltage: 0.1% of range Current: 0.5% of range

Removeable Terminal Blocks 1756-TBNH, 1756-TBSH

Data Format: Integer mode (left justified, 2 s complement) IEEE 32-bit floating point

Input conversion method Successive approximation

Output conversion method R-Ladder DAC, monotonicity with no missing codes

Removeable Terminal Block(s) 1756-TBNH, 1756-TBSH

Removable terminal block 1756-TBCH; 1756-TBSH

Current Draw 230 mA @ 5.1 VDC and 230 mA @ 24 VDC

Enclosure None

Open circuit detection time Current output only (output must be set to < 0.1 mA)

UPC 10612598345486

Overvoltage protection, max +/- 24 VDC Description

The Allen-Bradley 1756-OF8H is an analog output module from the ControlLogix controller platform. This module mainly features Eight (8) voltage or current output channels, configurable for 0-20 mA and 4-20 mA current output signals and +/-10VDC voltage output signals. The 1756-OF8H has a module resolution of 15-16bits on all signal ranges. It comes with internal Digital to Analog converter (DAC) using R-Ladder DAC, monotonicity with no missing codes conversion method with data format of Integer mode (left justified, 2 s complement) IEEE 32-bit floating-point. This module is installed to a 1756 ControlLogix chassis and occupies a single slot only. It can function as a local I/O module and remote I/O module component. For the termination of signal wires, this module comes with a removable terminal block (RTB). This RTB can be replaced with 1756-TBNH or 1756-TBSH with user-defined mechanical RTB keying. Applicable wire size when 1756-TBNH is used is 0.33-2.1 mm2 (22-14 AWG) for single-wire connection and 0.33...1.3 mm2 (22...16 AWG) for double wire connection. 1756-TBSH supports single wire connection only and is designed for wire 0.33...1.3 mm2 (22...16 AWG) wire size. The 1756-OF8H has a continuous isolation voltage rating of 50V. Module isolation is between output channels to backplane only. Each output channel does not come with individual isolation. Additionally, the module's open circuit detection time is available for current configuration only while the maximum overvoltage protection is +/- 24 VDC.

The 1756-OF8H ControlLogix Voltage/Current Analog Output Module by Allen-Bradley is an analog output module that has 8 voltage or current outputs with a single HART modem per module. It has a selectable voltage/current signal range of -10.4336-10.4336V and 0-21.2916mA. The 1756-OF8H has an overall output rating of +/- 10V or 0-20mA and a signal resolution of 15-16 bits for all ranges. It also has a backplane current draw of 230 mA @ 5.1 VDC and 230 mA @ 24 VDC, total backplane power of 6.54W. It has a thermal dissipation of 16.78 BTU/hr, and a power dissipation of 4.92W. The 1756-OF8H has an isolation voltage of 50V with basic insulation tested at 1500V AC for 60s between output channels and the backplane. The 1756-OF8H, unlike other Analog I/O modules, offers Open Circuit Detection and has a circuit detection time at a value that must be set below 0.1 mA. Its current settling time without HART is just below 23ms, and below 37ms with HART and its voltage settling time is 8.5ms to 95% with resistive loads. It has a calibration accuracy (without HART) of 0.1% (voltage) and 0.15% (current) and its standard calibration interval is about 12 months. The 1756-OF8H has an offset drift of 100 V/deg C. or 200nA/deg. C and the module has an overall module error of 0.15% (voltage) or 0.3% (current). It has a T4 North America, ATEX, and IEC temperature code, and has an open-style enclosure rating. The 1756-OF8H's operational temperature ranges between 0 deg. C and 60 deg. C at 5-95% non-condensing relative humidity.

www.oilautotech.com