

# Specifications

## Introduction

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## General Specifications – 1769-OF4

Attribute	1769-OF4
Dimensions (HxWxD), approx.	118 x 35 x 87 mm (4.65 x 1.38 x 3.43 in.) Height including mounting tabs is 138 mm (5.43 in.)
Shipping weight (with carton), approx.	280 g (0.61 lb)
Temperature, storage	-40...85 °C (-40...185 °F)
Temperature, operating	0...60 °C (32...140 °F)
Humidity, operating	5...95% noncondensing
Altitude, operating	2000 m (6561 ft)
Vibration, operating	10...500 Hz, 5 g, 0.030 in. peak-to-peak
Shock, operating	30 g, 11 ms panel mounted (20 g, 11 ms DIN rail mounted)
Shock, nonoperating	40 g panel mounted (30 g DIN rail mounted)
Bus current draw, max	120 mA @ 5V DC; 170 mA @ 24V DC
Heat dissipation	2.86 Total Watts (The Watts per point plus the minimum Watts with all points energized.)
Module OK indicator	On: module has power, has passed internal diagnostics, and is communicating over the bus  Off: Any of the above is not true
System power supply distance rating	The module may not be more than 8 modules away from the system power supply
Cable, recommended	Belden 8761 (shielded)
ESD immunity (IEC1000-4-2)	4 kV contact, 8 kV air, 4 kV indirect
Radiated immunity (IEC1000-4-3)	10V/m, 80...1000 MHz, 80% amplitude modulation
Fast transient burst (IEC1000-4-4)	2 kV, 5 kHz
Surge immunity (IEC1000-4-5)	1 kV galvanic gun
Conducted immunity (IEC1000-4-6)	10V, 0.15...80 MHz

Attribute	1769-OF4
Vendor I.D. code	1
Product type code	10
Product code	48
Input words	5
Output words	5
Configuration words	32

## Output Specifications – 1769-OF4

Attribute	1769-OF4
Analog normal operating ranges <sup>(1)</sup>	0...20 mA, 4...20 mA, ±10V DC, 0...10V DC, 0...5V DC, 1...5V DC
Full scale analog ranges <sup>(1)</sup>	0...21 mA, 3.2...21 mA, ±10.5V DC, -0.5...10.5V DC, -0.5...5.25V DC, 0.5...5.25V DC
Number of outputs	4 single-ended, voltage or current
Digital resolution across full range	15 bits plus sign unipolar and bipolar
Conversion rate (all channels) max	Interrupts not enabled: 2.5 ms Interrupts enabled: 3.8 ms
Step response to 63% <sup>(2)</sup>	2.9 ms
Resistive load	Current: 0...600 Ω (includes wire resistance) Voltage: 1 kΩ or greater
Inductive load, max.	0.1 mH (current loads), 1.0 μF (voltage loads)
Field Calibration	None required
Overall Accuracy <sup>(3)</sup>	0.5% full scale at 25 °C (77 °F)

(1) The over- or under-range flag will come on when either the High Clamp or the Low Clamp values are exceeded. When either range flag is set, the module clamps the corresponding channel's output to the High Clamp or the Low Clamp value. Unless latched, the flag automatically resets when directed to a value between the High Clamp and the Low Clamp values. The output channel value always returns to normal operation when directed to a value allowed by the High Clamp and Low Clamp values (even if latching of the Clamp status bits is enabled).

(2) Step response is the period of time between when the D/A converter was instructed to go from minimum to full range until the device is at 63% of full range.

(3) Includes offset, gain, drift, non-linearity, and repeatability error terms.