



**Allen-Bradley**  
by ROCKWELL AUTOMATION

Catalog #: 1762-IF20F2  Best Selling

MicroLogix 4 Point Analog Comb Module

Lifecycle status: Active Mature

## Technical Specifications

### Electrical

Resolution of the analogue inputs	12 Bit
Input, current	Yes
Input, voltage	Yes
Input, resistor	No
Input, resistance thermometer	No
Input, thermocouple	No
Input signal, configurable	Yes
Output, current	Yes
Output, voltage	Yes
Output signal configurable	Yes
Analogue inputs configurable	Yes
Analogue outputs configurable	Yes
Type of electric connection	Screw connection
Fast transient burst	IEC1000-4-4: 2kV, 5 kHz
Conducted immunity	IEC 1000-4-6: 10V, 0.15...80 MHz
Radiated immunity	IEC1000-4-3: 10 V/m, 80...1,000 MHz, 80% amplitude modulation, +900 MHz keyed carrier
Suitable for safety functions	No

<b>Surge immunity</b>	IEC1000-4-5: 1kV galvanic gun
<b>Module power LED</b>	On: indicates power is applied

## Environmental

<b>Operating temperature</b>	-20 °C
<b>ESD immunity</b>	EN 61000-4-2, 4 kV contact, 8 kV air, 4 kV indirect
<b>Operating altitude</b>	2000 m
<b>Storage temperature</b>	-40 °C
<b>Operating humidity</b>	5...95% noncondensing

## Input Specifications

<b>Common mode voltage range</b>	-27 to 27V
<b>A/D converter type</b>	Successive approximation
<b>Number of inputs</b>	2 differential (unipolar)
<b>Common mode rejection</b>	>55 dB at 50 and 60 Hz
<b>Input update time</b>	Typical: 2.5 ms
<b>Input impedance</b>	Voltage Terminal: 200 KΩ
<b>Current input protection</b>	-32 mA
<b>Voltage input protection</b>	-30 V
<b>Channel diagnostics</b>	Over or under range or open circuit condition by bit reporting for analog inputs

## Output Specifications

<b>Load range on voltage output</b>	>1KΩ
<b>Output update time</b>	Typical: 4.5 ms
<b>Number of outputs</b>	2 single-ended (unipolar)
<b>D/A converter type</b>	Resistor string
<b>Non-linearity</b>	±0.12% (in percent full scale)
<b>Typical overall accuracy</b>	±1.17% full scale @ -20...65 °C (Only applicable to Series B I/O modules.), ±0.5% full scale @ 25 °C
<b>Reactive load, voltage output</b>	<1 μF
<b>Reactive load, current output</b>	<0.1 mH
<b>Output protection</b>	-32 mA
<b>Open and short-circuit protection</b>	Continuous

<b>Resistive load on current output</b>	0...500 Ω (includes wire resistance)
<b>Output ripple range</b>	<±0.1% @ 0...500 Hz (referred to output range)

## General Specifications

<b>Analog normal operating range</b>	Voltage: 0...10V DC
<b>Bus current draw, max</b>	40 mA @ 5V DC, 105 mA @ 24V DC
<b>Full scale analog ranges</b>	Voltage: 0...10.5V DC
<b>Repeatability</b>	-0.12 to 0.12%
<b>Input and output group to system isolation</b>	30V AC/30V DC rated working voltage (N.E.C. Class 2 required)(IEC Class 2 reinforced insulation) type test: 500V AC or 707V DC for 1 minute

## Construction

<b>Height</b>	90 mm
<b>Width</b>	40 mm
<b>Depth</b>	87 mm
<b>Recommended cable</b>	Belden 8761(shielded), (For 1762-IT4, shielded thermocouple extension wire for the specific type of thermocouple you are using. Follow thermocouple manufacturer's recommendations.)

## Mechanical

<b>Weight</b>	Shipping: 240 g (0.53 lbs.) approximately (with cartoon)
<b>Vibration</b>	Operating: 5 g @ 10...500 Hz, 0.030 in. max. peak-to-peak
<b>Shock</b>	Operating: 30 g

## Common Specifications

<b>Hazardous environment class</b>	Hazardous Location, Class I, Division 2 Groups A, B, C, D (UL 1604, C-UL under CSA C22.2 No. 213)
<b>Radiated and conducted emissions</b>	EN50081-2: Class A

## Valid Input/Output Data Word Formats/Ranges for 1762-IF20F2

<b>RAW/Proportional data</b>	32,760 @ 0...10V DC, 32,760 @ 4...20 mA, 31,200 @ 4...20 mA, 6240 @ 4...20 mA
<b>Scaled-for-PID</b>	16,380 @ 0...10V DC, 16,380 @ 4...20 DC, 15,600 @ 4...20V DC, 3120 @ 4...20V DC
<b>Full Scale range</b>	10.5V DC @ 0...10V DC, 21.0 mA @ 4...20 mA, 20.0 mA @ 4...20 mA, 4.0 mA @ 4...20 mA

# Documentation

For all available documentation, please see the [literature results](#).



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