

Available 1769 I/O Modules

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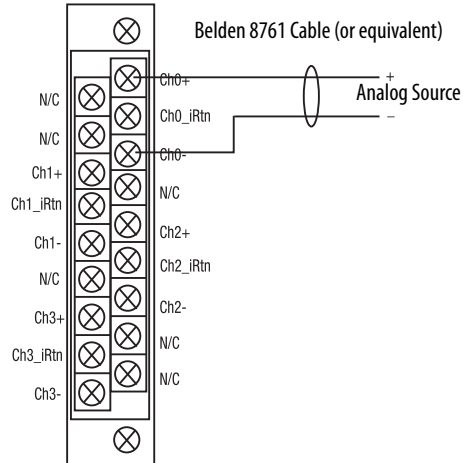
Table 1 - Environmental Specifications - 1769 I/O Modules

Attribute	1769-IA8I, 1769-IA16, 1769-IM12, 1769-OA8, 1769-OA16, 1769-IQ16, 1769-IQ16F, 1769-IQ32, 1769-IQ6XOW4, 1769-OB8, 1769-OB16, 1769-OB16P, 1769-OB32, 1769-OV16, 1769-OW8, 1769-OW8I, 1769-OW16 1769-IF4, 1769-IF4XOF2, 1769-IR6, 1769-IT6 1769-ARM, 1756-HSC	1769-IG16, 1769-IQ32T, 1769-OB32T, 1769-OG16, 1769-OV32T 1769-IF4I, 1769-IF8, 1769-IF16C, 1769-IF16V, 1769-OF2, 1769-OF4CI, 1769-OF4VI, 1769-OF8C, 1769-OF8V, 1769-IF4FXOF2F 1769-ASCII, 1769-BOOLEAN
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0...60 °C (32...140 °F)	0...60 °C (32...140 °F)
Temperature, storage IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)	-40...85 °C (-40...185 °F)	-40...85 °C (-40...185 °F)
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Nonoperating Damp Heat)	5...95% noncondensing	5...95% noncondensing
Vibration IEC 60068-2-6 (Test Fc, Operating)	Operating: 5 g @ 10...500 Hz Relay operating: 2 g	5 g @ 10...500 Hz
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	Panel mount 30 g DIN rail mount 20 g	Panel mount 30 g DIN rail mount 20 g
Shock, relay operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	Panel mount 7.5 g DIN rail mount 5 g	—
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	Panel mount 40 g DIN rail mount 30 g	Panel mount 40 g DIN rail mount 30 g

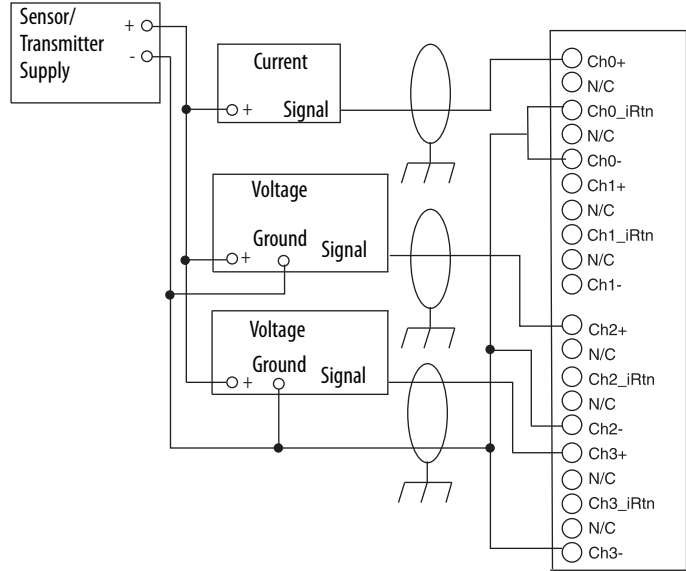
1769-IF4I

Compact voltage/current analog, individually isolated input module

1769-IF4I Differential Inputs



1769-IF4I Single-ended Sensor/Transmitter Inputs



1769-IF4I Mixed Transmitter Inputs

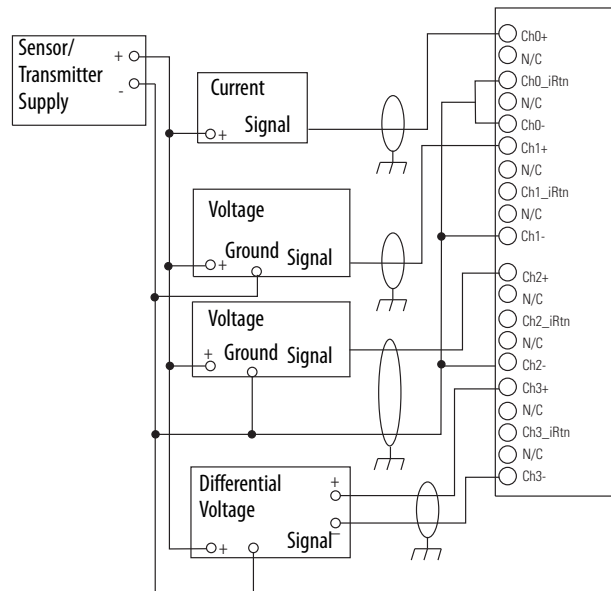


Table 9 - Technical Specifications - 1769-IF4I

Attribute	1769-IF4I
Inputs	4 isolated differential
Input range	±10V 0...10V 0...5V 1...5V 0...20 mA 4...20 mA
Full scale range ⁽¹⁾	±10.5V -0.5...10.5V -0.5...5.25V 0.5...5.25V 0...21 mA 3.2...21 mA
Bus current draw	5V DC, 140 mA 24V DC, 110 mA
Heat dissipation, max	3.0 W
Converter type	Delta Sigma
Resolution ⁽²⁾	16 bits (unipolar) 15 bits plus sign (bipolar)
Rated working voltage ⁽³⁾	30V AC/30V DC
Common mode voltage range ⁽⁴⁾	±10V DC max per channel
Common mode rejection	> 60 dB @ 50 and 60 Hz with the 10 Hz filter selected
Normal mode rejection ratio	-50 dB @ 50 and 60 Hz with the 10 Hz filter selected
Input impedance	Voltage: 1 MΩ Current: 249 Ω
Accuracy ⁽⁵⁾	Voltage: ±0.2% full scale @ 25 °C (77 °F) Current: ±0.35% full scale @ 25 °C (77 °F)
Accuracy drift with temperature	Voltage: ±0.003% per °C Current: ±0.0045% per °C
Nonlinearity	±0.03%
Repeatability ⁽⁶⁾	±0.03%
Module error	Voltage: ±0.3% Current: ±0.5%
Overload at input terminals, max ⁽⁷⁾	Voltage: ±24V DC continuous, 0.1 mA Current: ±28 mA continuous, ±7.6V DC
Isolation voltage	500V AC or 710V DC for 1 minute (qualification test), group to bus 30V AC/30V DC working voltage (IEC Class 2 reinforced insulation) 500V AC or 710V DC for 1 minute or 250V continuous (optical and magnetic), channel to rack and channel to channel
Weight, approx	300 g (0.65 lb)
Dimensions (HxWxD), approx	118 x 35 x 87 mm (4.65 x 1.38 x 3.43 in.) Height with mounting tabs 138 mm (5.43 in.)
Slot width	1
Module location	DIN rail or panel mount
Power supply	1769-PA2, 1769-PB2, 1769-PA4, 1769-PB4
Power supply distance rating	8 modules
Terminal screw torque	0.68 N•m (6 lb•in)
Retaining screw torque	0.46 N•m (4.1 lb•in)
Wire size	(22...14 AWG) solid (22...16 AWG) stranded
Wire type	Cu-90 °C (194 °F)
Replacement terminal block	1769-RTBN18 (1 per kit)

Table 9 - Technical Specifications - 1769-IF4I

Attribute	1769-IF4I
Replacement door label	1769-RL2 series B (2 per kit)
Replacement door	1769-RD (2 per kit)
Vendor ID code	1
Product type code	10
Product code	44
Enclosure type rating	None (open-style)

- (1) The over- or under-range flag comes on when the normal operating range (over/under) is exceeded. The module continues to convert the analog input up to the maximum full scale range. The flag automatically resets when within the normal operating range.
- (2) Resolution is dependent upon your filter selection. The maximum resolution is achieved with either the 50 or 60 Hz filter selected.
- (3) Rated working voltage is the maximum continuous voltage that can be applied at the input terminal, including the input signal and the value that floats above ground potential. For example, a 10V DC input signal and 20V DC potential above ground at the input terminal.
- (4) For proper operation, both the plus and minus input terminals must be within $\pm 10V$ DC of analog common.
- (5) Includes offset, gain, nonlinearity, and repeatability error terms.
- (6) Repeatability is the ability of the input module to register the same reading in successive measurements for the same input signal.
- (7) Damage can occur to the input circuit if this value is exceeded.

Table 10 - Response Speed - 1769-IF4I

Filter Frequency	Channel Update
28.5 Hz	108 ms
50 Hz	62 ms
60 Hz	52 ms
300 Hz	12 ms
360 Hz	10 ms

Table 11 - Certifications - 1769-IF4I

Certification ⁽¹⁾	1769-IF4I
c-UL	C-UL certified (under CSA C22.2 No. 142) UL 508 listed Class I, Division 2 Group A,B,C,D Hazardous Locations (UL 1604, C-UL under CSA C22.2 No. 213)
CE	CE compliant for all applicable directives
C-Tick	Australian Radiocommunications Act, compliant with: • AS/NZS CISPR 11; Industrial Enclosure

- (1) When marked. See the Product Certification link at <http://www.rockwellautomation.com/global/certification/overview.page> for Declarations of Conformity, Certificates, and other certification details.