Table 51 - Technical Specifications - 1769-IR6

Attribute	1769-IR6
Sensors supported	100, 200, 500, 1000 Ω Platinum 385 100, 200, 500, 1000 Ω Platinum 3916 120 Ω Nickel 672 120 Ω Nickel 618 10 Ω Nickel-iron 518
Current draw @ 5.1V	100 mA
Current draw @ 24V	35 mA
Heat dissipation, max	1.5 W
Converter type	Sigma Delta
Common mode voltage range	±10V DC max
Common mode rejection	110 dB @ 50 Hz with the 10 or 50 Hz filter selected 110 dB @ 60 Hz with the 10 or 60 Hz filter selected
Normal mode rejection ratio	70 dB @ 50 Hz with the 10 or 50 Hz filter selected 70 dB @ 60 Hz with the 10 or 60 Hz filter selected
Cable impedance, max	25 Ω
Input impedance	> 10 MΩ
Accuracy @ 25 °C (77 °F) (1) (50/60 Hz filter)	±0.5 °C (0.9 °F) for Pt 385 ±0.4 °C (0.72 °F) for Pt 3916 ±0.3 °C (0.54 °F) for Ni ±0.3 °C (0.54 °F) for NiFe ±0.8 °C (1.44 °F) for Cu ±0.15 Ω for 150 Ω range ±0.5 Ω for 500 Ω range ±1.0 Ω for 1000 Ω range ±1.5 Ω for 3000 Ω range
Accuracy @ 0…60 °C (32…140 °F) (1) (50/60 Hz filter)	±0.9 °C (1.62 °F) for Pt 385 ±0.8 °C (1.44 °F) for Pt 3916 ±0.5 °C (0.9 °F) for Ni ±0.5 °C (0.9 °F) for NiFe ±1.1 °C (1.98 °F) for Cu ±0.25 Ω for 150 Ω range ±0.8 Ω for 500 Ω range ±1.5 Ω for 1000 Ω range ±2.5 Ω for 3000 Ω range
Accuracy drift @ 0…60 °C (32…140 °F) (1)	±0.026 °C/°C (0.026 °F/°F) for Pt 385 ±0.023 °C/°C (0.023 °F/°F) for Pt 3916 ±0.012 °C/°C (0.012 °F/°F) for Ni\ ±0.015 °C/°C (0.015 °F/°F) for NiFe ±0.032 °C/°C (0.032 °F/°F) for Cu ±0.007 Ω/°C (±0.013Ω/°F) for 150 Ω ±0.023 Ω/°C (±0.041Ω/°F) for 500 Ω ±0.043 Ω/°C (±0.077Ω/°F) for 1000 Ω ±0.072 Ω/°C (±0.130Ω/°F) for 3000 Ω
Nonlinearity	±0.05%
Repeatability(2) (50/60 Hz filter)	±0.01 °C (0.018 °F) for Ni and NiFe ±0.2 °C (0.36 °F) for other RTD inputs ±0.04 Ω for 150 Ω resistances ±0.2 Ω for other resistances
Open circuit detection time(3)	6 ms…303 s
Isolation voltage	720V DC for 1 minute, optical and magnetic (qualification), channel to bus 30V AC/30V DC working voltage (IEC Class 2 reinforced insulation)
Weight, approx	276 g (0.61 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

Table 51 - Technical Specifications - 1769-IR6

Attribute	1769-IR6
Terminal screw torque	0.68 N•m (6 lb•in)
Retaining screw torque	0.46 N•m (4.1 lb•in)
Recommended cable	2-wire configuration: Belden 9501 or equivalent 3-wire configuration: Belden 9533 or equivalent 4-wire configuration: Belden 83503 or equivalent
Wire size	(22…14 AWG) solid (22…16 AWG) stranded
Wire type	Cu-90 °C (194 °F)
IEC input compatibility	Type 1+
Replacement terminal block	1769-RTBN18 (1 per kit)
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	37
Enclosure type rating	None (open-style)

(1) Accuracy is dependent upon the Analog/Digital converter output rate selection, excitation current selection, data format, and input noise.
(2) Repeatability is the ability of the input module to register the same reading in successive measurements for the same input signal.
(3) Open-circuit detection time is equal to channel update time.

Table 52 - RTD Accuracy and Temperature Drift - 1769-IR6

RTD Type		Scaled Accuracy Max 25 °C (77 °F) with Calibration	Scaled Accuracy Max 0…60 °C (32…140 °F) with Calibration)	Temperature Drift Max from 25 °C (77 °F) without Calibration
Copper 426	10 Ω	±0.6 °C (1.08 °F)	±1.1 °C (1.98 °F)	±0.032 °C/°C (0.032 °F/°F)
Nickel 618	120 Ω	±0.2 °C (±0.36 °F)	±0.4 °C (±0.72 °F)	±0.012 °C/°C (±0.012 °F/°F)
Nickel 672	120 Ω	±0.2 °C (±0.36 °F)	±0.4 °C (±0.72 °F)	±0.012 °C/°C (±0.012 °F/°F)
Nickel-Iron 518	604 Ω	±0.3 °C (±0.54 °F)	±0.5 °C (±0.9 °F)	±0.015 °C/°C (±0.015 °F/°F)
Platinum 385	100 Ω	±0.5 °C (±0.9 °F)	±0.9 °C (±1.62 °F)	±0.026 °C/°C (±0.026 °F/°F)
	200 Ω	±0.5 °C (±0.9 °F)	±0.9 °C (±1.62 °F)	±0.026 °C/°C (±0.026 °F/°F)
	500 Ω	±0.5 °C (±0.9 °F)	±0.9 °C (±1.62 °F)	±0.026 °C/°C (±0.026 °F/°F)
	1000 Ω	±0.5 °C (±0.9 °F)	±0.9 °C (±1.62 °F)	±0.026 °C/°C (±0.026 °F/°F)
Platinum 3916	100 Ω	±0.4 °C (±0.7 2°F)	±0.8 °C (±1.44 °F)	±0.023 °C/°C (±0.023 °F/°F)
	200 Ω	±0.4 °C (±0.72 °F)	±0.8 °C (±1.44 °F)	±0.023 °C/°C (±0.023 °F/°F)
	500 Ω	±0.4 °C (±0.72 °F)	±0.8 °C (±1.44 °F)	±0.023 °C/°C (±0.023 °F/°F)
	1000 Ω	±0.4 °C (±0.72 °F)	±0.8 °C (±1.44 °F)	±0.023 °C/°C (±0.023 °F/°F)

Table 53 - RTD Standards - 1769-IR6

RTD Type	α[3]	IEC-751 1983, Amend. 2 1995	DIN 43760 1987	SAMA[4] Standard RC21-4-1966	Japanese Industrial Standard JIS C1604-1989	Japanese Industrial Standard JIS C1604-1997	Minco[5]
100 Ω Pt	0.00385	X	X			X	
200 Ω Pt	0.00385	X	X			X	
500 Ω Pt	0.00385	X	X			X	
1000 Ω Pt	0.00385	X	X			X	
100 Ω Pt	0.03916				X		
200 Ω Pt	0.03916				X		

Table 53 - RTD Standards - 1769-IR6

RTD Type	α[3]	IEC-751 1983, Amend. 2 1995	DIN 43760 1987	SAMA[4] Standard RC21-4-1966	Japanese Industrial Standard JIS C1604-1989	Japanese Industrial Standard JIS C1604-1997	Minco[5]
500 Ω Pt	0.03916				X		
1000 Ω Pt	0.03916				X		
10 Ω Cu[1]	0.00426			X			
120 Ω Ni[2]	0.00618		X				
120 Ω Ni	0.00372						X
604 Ω NiFe	0.00518						X

(1) Actual value at 0 °C (32 °F) is 9.04 2 Ω per SAMA standard RC21-4-1966.
(2) Actual value at 0 °C (32 °F) is100 Ω per SAMA standard RC21-4-1966.
(3) α is the temperature coefficient of resistance, which is defined as the resistance change per ohm per °C.
(4) Scientific Apparatus Makers Association
(5) Minco Type "NA" (Nickel) and Minco Type "FA" (Nickel-Iron)

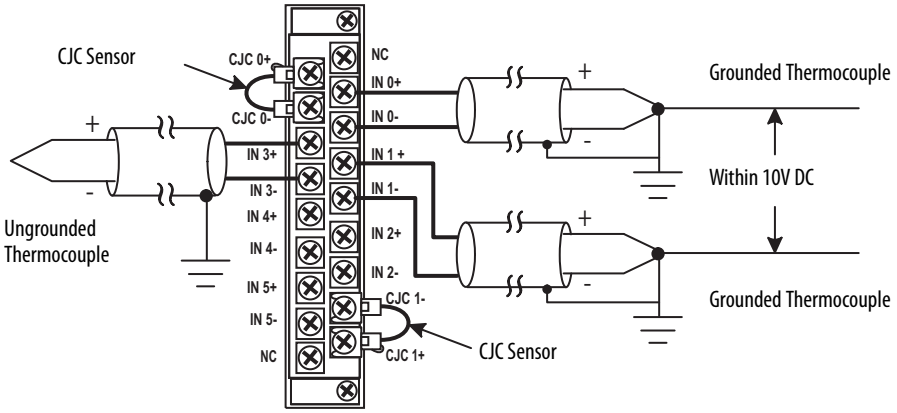
Table 54 - Certifications - 1769-IR6

Certification[1]	1769-IR6
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.

1769-IT6

Compact Thermocouple/mV input module



Thermocouple Type	°C Temperature Range	°F Temperature Range
J	-210…+1200 °C	-346…+2192 °F
K	-270…+1370 °C	-454…+2498 °F
T	-270…+400 °C	-454…+752 °F
E	-270…+1000 °C	-454…+1832 °F
R	0…+1768 °C	+32…+3214 °F
S	0…+1768 °C	+32…+3214 °F