Technical Data

Original Instructions

Allen-Bradley
by ROCKWELL AUTOMATION

1769 Compact I/O Modules Specifications

Catalog Numbers

Digital I/O Modules	1769-IA8I, 1769-IA8IK, 1769-IA16, 1769-IA16K, 1769-IM12, 1769-OA8, 1769-OA16, 1769-OA16K, 1769-IG16, 1769-IQ16, 1769-IQ16K, 1769-IQ16F, 1769-IQ32, 1769-IQ32K, 1769-IQ32T, 1769-IQ6XOW4, 1769-OB8, 1769-OB8K, 1769-OB16, 1769-OB16K, 1769-OB16P, 1769-OB32, 1769-OB32K, 1769-OB32T, 1769-OG16, 1769-OV16, 1769-OV32T
Contact I/O Modules	1769-OW8, 1769-OW8I, 1769-OW8IK, 1769-OW16, 1769-OW16K
Analog I/O Modules	1769-IF4, IF4K, 1769-IF4I, 1769-IF4XOF2, 1769-IF4XOF2K, 1769-IF4FXOF2F, 1769-IF8, 1769-IF8K, 1769-IF16C, 1769-IF16V, 1769-IR6, 1769-IT6, 1769-OF2, 1769-OF2K, 1769-OF4, 1769-OF4K, 1769-OF4CI, 1769-OF4VI, 1769-OF8C, 1769-OF8V
Specialty Modules	1769-ARM, 1769-ASCII, 1769-BOOLEAN, 1769-HSC, 1769-SM2
Accessories	1769-ECL, 1769-ECLK, 1769-ECR, 1769-ECRK, 1769-ECL, 1769-ECLK, 1769-ECR, 1769-ECRK, 1769-CLL1, 1769-CRR1, 1769-CRL1, 1769-CLL3, 1769-CRR3, 1769-CRL3

Topic	Page
Summary of Changes	2
I/O Module Overview	2
Environmental Specifications	2
Certifications	3
Place Compact I/O Modules	4
Digital I/O Modules	5
Contact I/O Modules	25
Analog I/O Modules	29
Specialty I/O Modules	53
Compact I/O Mounting Dimensions	61
Compact I/O Accessories	61
Wiring Systems	64
Additional Resources	65

The 1769 Compact I/O™ modules can be used in these applications:

- With a 1769 CompactLogix™ controller
- For expansion I/O in a MicroLogix™ 1500 controller assembly
- In an assembly with a 1769-ADN DeviceNet® adapter
- In an assembly with a 1769-AENTR Ethernet adapter

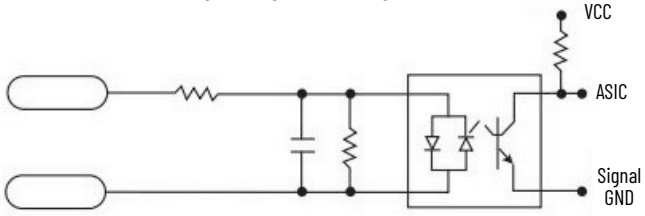
Unless connected to a MicroLogix 1500 base, each bank of I/O modules must include its own power supply.

Install the I/O modules on a panel with two mounting screws or on a DIN rail. The modules mechanically lock together with a tongue-and-groove design and have an integrated communication bus that is connected from module to module by a movable bus connector.

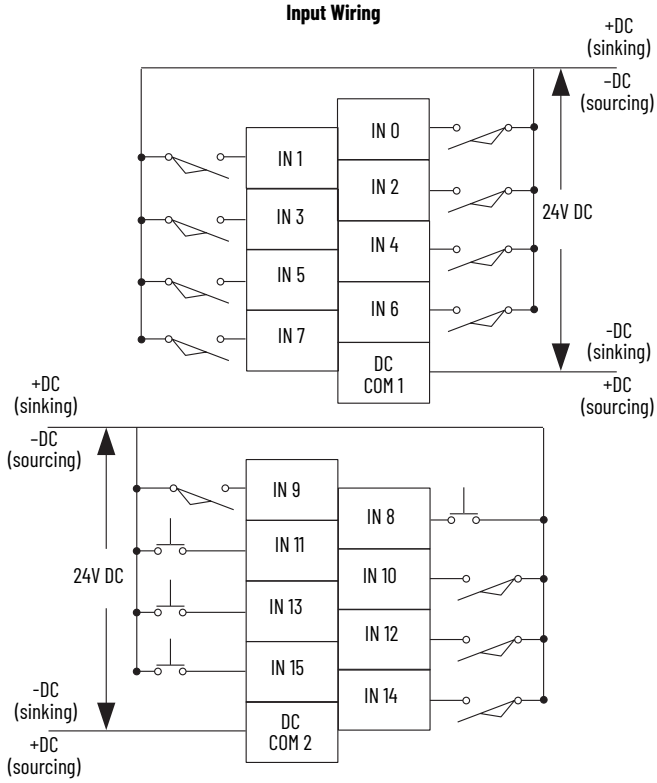
1769-IQ16, 1769-IQ16K

Compact 24V DC sink/source input module

Simplified Input Circuit Diagram



Input Wiring



Technical Specifications - 1769-IQ16, 1769-IQ16K

Attribute	1769-IQ16, 1769-IQ16K
Inputs	16 (8 points/group)
Voltage category	24V DC sink/source
Operating voltage range	10…30V DC @ 30 °C (86 °F) 10…26.4V DC @ 60 °C (140 °F)
Input delay, on	8 ms
Input delay, off	8 ms
Current draw @ 5.1V	115 mA
Heat dissipation, max	3.55 W
Off-state voltage, max	5V DC
Off-state current, max	1.5 mA
On-state voltage, min	10V DC
On-state current, min	2 mA
Inrush current, max	250 mA
Input impedance, nom	3 kW
Isolation voltage	Verified by one of these dielectric tests: 1200V AC for 1 s or 1697V DC for 1 s, input point to bus and group to group 75V DC working voltage (IEC Class II reinforced insulation)
Weight, approx	270 g (0.60 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)
IEC input compatibility	Type 1+
Replacement terminal block	1769-RTBN18 (1 per kit)
Replacement door label	1769-RL1 (2 per kit)
Replacement door	1769-RD (2 per kit)
Vendor ID code	1
Product type code	7
Product code	67
Enclosure type rating	None (open-style)

For **Environmental Specifications**, see page 2.

For **Certifications**, see page 3.