

Installation Instructions

Original Instructions



Allen-Bradley

by ROCKWELL AUTOMATION

FLEX I/O Power Supply Modules

Catalog Numbers 1794-PS13, 1794-PS13K, 1794-PS3, 1794-PS3K

Topic	Page
Summary of Changes	1
Overview	4
Install Your Power Supply Module	5
Connect Wiring for Your Power Supply Module	5
Diagnostic Indicator	7
Specifications	8
Additional Resources	11

Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Updated Certifications	9
Added Additional Resources	11



ATTENTION: Read this document and the documents listed in the Additional Resources section about installation, configuration and operation of this equipment before you install, configure, operate or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice. If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

注意：在安装、配置、操作和维护本产品前，请阅读本文档以及“其他资源”部分列出的有关设备安装、配置和操作的相应文档。除了所有适用规范、法律和标准的相关要求之外，用户还必须熟悉安装和接线说明。

安装、调整、投运、使用、组装、拆卸和维护等各项操作必须由经过适当训练的专业人员按照适用的操作规范实施。

如果未按照制造商指定的方式使用该设备，则可能会损害设备提供的保护。

ATENCIÓN: Antes de instalar, configurar, poner en funcionamiento o realizar el mantenimiento de este producto, lea este documento y los documentos listados en la sección Recursos adicionales acerca de la instalación, configuración y operación de este equipo. Los usuarios deben familiarizarse con las instrucciones de instalación y cableado y con los requisitos de todos los códigos, leyes y estándares vigentes. El personal debidamente capacitado debe realizar las actividades relacionadas a la instalación, ajustes, puesta en servicio, uso, ensamblaje, desensamblaje y mantenimiento de conformidad con el código de práctica aplicable. Si este equipo se usa de una manera no especificada por el fabricante, la protección provista por el equipo puede resultar afectada.

ATENÇÃO: Leia este e os demais documentos sobre instalação, configuração e operação do equipamento que estão na seção Recursos adicionais antes de instalar, configurar, operar ou manter este produto. Os usuários devem se familiarizar com as instruções de instalação e fiação além das especificações para todos os códigos, leis e normas aplicáveis.

É necessário que as atividades, incluindo instalação, ajustes, colocação em serviço, utilização, montagem, desmontagem e manutenção sejam realizadas por pessoal qualificado e especializado, de acordo com o código de prática aplicável.

Caso este equipamento seja utilizado de maneira não estabelecida pelo fabricante, a proteção fornecida pelo equipamento pode ficar prejudicada.

ВНИМАНИЕ: Перед тем как устанавливать, настраивать, эксплуатировать или обслуживать данное оборудование, прочитайте этот документ и документы, перечисленные в разделе «Дополнительные ресурсы». В этих документах изложены сведения об установке, настройке и эксплуатации данного оборудования. Пользователи обязаны ознакомиться с инструкциями по установке и прокладке соединений, а также с требованиями всех применимых норм, законов и стандартов.

Все действия, включая установку, наладку, ввод в эксплуатацию, использование, сборку, разборку и техническое обслуживание, должны выполняться обученным персоналом в соответствии с применимыми нормами и правилами.

Если оборудование используется не предусмотренным производителем образом, защита оборудования может быть нарушена.

Если оборудование устанавливается не предусмотренным производителем образом, защита оборудования может быть нарушена. Пользователи обязаны ознакомиться с инструкциями по установке и прокладке соединений, а также с требованиями всех применимых норм, законов и стандартов.

設置調整、運転の開始、使用、組立て、解体、保守を含む諸作業は、該当する実施規則に従って訓練を受けた適切な作業員が実行する必要があります。

本機器が製造メーカーにより指定されていない方法で使用されている場合、機器により提供されている保護が損なわれる恐れがあります。

ACHTUNG: Lesen Sie dieses Dokument und die im Abschnitt „Weitere Informationen“ aufgeführten Dokumente, die Informationen zu Installation, Konfiguration und Bedienung dieses Produkts enthalten, bevor Sie dieses Produkt installieren, konfigurieren, bedienen oder warten. Anwender müssen sich neben den Bestimmungen aller anwendbaren Vorschriften, Gesetze und Normen zusätzlich mit den Installations- und Verdrahtungsanweisungen vertraut machen.

Arbeiten im Rahmen der Installation, Anpassung, Inbetriebnahme, Verwendung, Montage, Demontage oder Instandhaltung dürfen nur durch ausreichend geschulte Mitarbeiter und in Übereinstimmung mit den anwendbaren Ausführungsvorschriften vorgenommen werden.

Wenn das Gerät in einer Weise verwendet wird, die vom Hersteller nicht vorgesehen ist, kann die Schutzfunktion beeinträchtigt sein.

ATTENTION : Lisez ce document et les documents listés dans la section Ressources complémentaires relatifs à l'installation, la configuration et le fonctionnement de cet équipement avant d'installer, configurer, utiliser ou entretenir ce produit. Les utilisateurs doivent se familiariser avec les instructions d'installation et de câblage en plus des exigences relatives aux codes, lois et normes en vigueur.

Les activités relatives à l'installation, le réglage, la mise en service, l'utilisation, l'assemblage, le démontage et l'entretien doivent être réalisées par des personnes formées selon le code de pratique en vigueur.

Si cet équipement est utilisé d'une façon qui n'a pas été définie par le fabricant, la protection fournie par l'équipement peut être compromise.

주의: 본 제품 설치, 설정, 작동 또는 유지 보수하기 전에 본 문서를 포함하여 설치, 설정 및 작동에 관한 참고 자료 섹션의 문서들을 반드시 읽고 숙지하십시오. 사용자는 모든 관련 규정, 법규 및 표준에서 요구하는 사항에 대해 반드시 설치 및 배선 지침을 숙지해야 합니다.

설치, 조정, 가동, 사용, 조립, 분해, 유지보수 등 모든 작업은 관련 규정에 따라 적절한 교육을 받은 사용자를 통해서만 수행해야 합니다.

본 장비를 제조사가 명시하지 않은 방법으로 사용하면 장비의 보호 기능이 손상될 수 있습니다.

ATTENZIONE Prima di installare, configurare ed utilizzare il prodotto, o effettuare interventi di manutenzione su di esso, leggere il presente documento ed i documenti elencati nella sezione "Altre risorse", riguardanti l'installazione, la configurazione ed il funzionamento dell'apparecchiatura. Gli utenti devono leggere e comprendere le istruzioni di installazione e cablaggio, oltre ai requisiti previsti dalle leggi, codici e standard applicabili.

Le attività come installazione, regolazioni, utilizzo, assemblaggio, disassemblaggio e manutenzione devono essere svolte da personale adeguatamente addestrato, nel rispetto delle procedure previste.

Qualora l'apparecchio venga utilizzato con modalità diverse da quanto previsto dal produttore, la sua funzione di protezione potrebbe venire compromessa.

DIKKAT: Bu ürünün kurulumu, yapilandırılması, işletilmesi veya bakımı öncesinde bu dokümanı ve bu ekipmanın kurulumu, yapilandırılması ve işletimi ile ilgili ilave Kaynaklar bölümünde yer listelenmiş dokümanları okuyun. Kullanıcılar yürürlükteki tüm yönetmelikler, yasalar ve standartların gereksinimlerine ek olarak kurulum ve kablolama talimatlarını da öğrenmek zorundadır.

Kurulum, ayarlama, hizmete alma, kullanma, parçaları birleştirme, parçaları sökme ve bakım gibi aktiviteler sadece uygun eğitimleri almış kişiler tarafından yürürlükteki uygulama yönetmeliklerine uygun şekilde yapılabilir.

Bu ekipman üretici tarafından belirlenmiş amacın dışında kullanılırsa, ekipman tarafından sağlanan koruma bozulabilir.

注意事項：在安装、設定、操作或維護本產品前，請先閱讀此文件以及列於「其他資源」章節中有關安裝、設定與操作此設備的文件。使用者必須熟悉安裝和配線指示，並符合所有法規、法律和標準要求。

包括安裝、調整、交付使用、使用、組裝、拆卸和維護等動作都必須交由已經過適當訓練的人員進行，以符合適用的實作法規。

如果將設備用於非製造商指定的用途時，可能會造成設備所提供的保護功能受損。

POZOR: Než začnete instalovat, konfigurovat či provozovat tento výrobek nebo provádět jeho údržbu, přečtěte si tento dokument a dokumenty uvedené v části Dodatečné zdroje ohledně instalace, konfigurace a provozu tohoto zařízení. Uživatelé se musejí vedle požadavků všech relevantních vyhlášek, zákonů a norem nutně seznámit také s pokyny pro instalaci a elektrické zapojení.

Činnosti zahrnující instalaci, nastavení, uvedení do provozu, užívání, montáž, demontáž a údržbu musí vykonávat vhodně proškolený personál v souladu s příslušnými prováděcími předpisy.

Pokud se toto zařízení používá způsobem neodpovídajícím specifikaci výrobce, může být narušena ochrana, kterou toto zařízení poskytuje.

UWAGA: Przed instalacją, konfiguracją, użytkowaniem lub konserwacją tego produktu należy przeczytać niniejszy dokument oraz wszystkie dokumenty wymienione w sekcji Dodatkowe źródła omawiające instalację, konfigurację i procedury użytkowania tego urządzenia. Użytkownicy mają obowiązek zapoznać się z instrukcjami dotyczącymi instalacji oraz oprzewodowania, jak również z obowiązującymi kodeksami, prawem i normami.

Działania obejmujące instalację, regulację, przekazanie do użytkowania, użytkowanie, montaż, demontaż oraz konserwację muszą być wykonywane przez odpowiednio przeszkolony personel zgodnie z obowiązującym kodeksem postępowania.

Jeśli urządzenie jest użytkowane w sposób inny niż określony przez producenta, zabezpieczenie zapewniane przez urządzenie może zostać ograniczone.

Obs! Läs detta dokument samt dokumentet, som står listat i avsnittet Övriga resurser, om installation, konfigurering och drift av denna utrustning innan du installerar, konfigurerar eller börjar använda eller utföra underhållsarbete på produkten. Användare måste bekanta sig med instruktioner för installation och kabeldragning, förutom krav enligt gällande koder, lagar och standarder.

Åtgärder som installation, justering, service, användning, montering, demontering och underhållsarbete måste utföras av personal med lämplig utbildning enligt lämpligt bruk.

Om denna utrustning används på ett sätt som inte anges av tillverkaren kan det hända att utrustningens skyddsanordningar försätts ur funktion.

LET OP: Lees dit document en de documenten die genoemd worden in de paragraaf Aanvullende informatie over de installatie, configuratie en bediening van deze apparatuur voordat u dit product installeert, configureert, bedient of onderhoudt. Gebruikers moeten zich vertrouwd maken met de installatie en de bedringsinstructies, naast de vereisten van alle toepasselijke regels, wetten en normen.

Activiteiten zoals het installeren, afstellen, in gebruik stellen, gebruiken, monteren, demonteren en het uitvoeren van onderhoud mogen uitsluitend worden uitgevoerd door hiervoor opgeleid personeel en in overeenstemming met de geldende praktijkregels.

Indien de apparatuur wordt gebruikt op een wijze die niet is gespecificeerd door de fabrikant, dan bestaat het gevaar dat de beveiliging van de apparatuur niet goed werkt.

Environment and Enclosure



This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC 60664-1), at altitudes up to 2000 m (6562 ft) without derating.

This equipment is not intended for use in residential environments and may not provide adequate protection to radio communication services in such environments.

This equipment is supplied as open-type equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The enclosure must have suitable flame-retardant properties to prevent or minimize the spread of flame, complying with a flame spread rating of 5VA or be approved for the application if nonmetallic. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

In addition to this publication, see the following:

- Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#), for additional installation requirements.
 - NEMA Standard 250 and IEC 60529, as applicable, for explanations of the degrees of protection provided by enclosures.
-

Preventing Electrostatic Discharge



ATTENTION: This equipment is sensitive to electrostatic discharge, which can cause internal damage and affect normal operation. Follow these guidelines when you handle this equipment:

- Touch a grounded object to discharge potential static.
 - Wear an approved grounding wriststrap.
 - Do not touch connectors or pins on component boards.
 - Do not touch circuit components inside the equipment.
 - Use a static-safe workstation, if available.
 - Store the equipment in appropriate static-safe packaging when not in use.
-



ATTENTION: This product is grounded through the DIN rail to chassis ground. Use zinc-plated chromate-passivated steel DIN rail to assure proper grounding. The use of other DIN rail materials (for example, aluminum or plastic) that can corrode, oxidize, or are poor conductors, can result in improper or intermittent grounding. Secure DIN rail to mounting surface approximately every 200 mm (7.8 in.) and use end-anchors appropriately. Be sure to ground the DIN rail properly. See the Industrial Automation Wiring and Grounding Guidelines, Rockwell Automation® publication [1770-4.1](#), for more information.



ATTENTION: Do not remove or replace a Terminal Base unit while power is applied. Interruption of the backplane can result in unintentional operation or machine motion.



ATTENTION:



- If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
 - Read this document and the documents listed in the Additional Resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.
 - Installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.
 - In case of malfunction or damage, no attempts at repair should be made. The module should be returned to the manufacturer for repair. Do not dismantle the module.
 - This equipment is certified for use only within the surrounding air temperature range of 0...55 °C (32...131 °F). The equipment must not be used outside of this range.
 - Use only a soft dry anti-static cloth to wipe down equipment. Do not use any cleaning agents.
-


Electrical Safety Consideration



ATTENTION: All wirings must comply with applicable electrical installation requirements (for example, N.E.C. article 501-4(b)).

North American Hazardous Location Approval

The Following Information Applies When Operating This Equipment In Hazardous Locations.	Informations sur l'utilisation de cet équipement en environnements dangereux.
<p>Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.</p>	<p>Les produits marqués "CL I, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.</p>
 <p>WARNING: Explosion Hazard -</p> <ul style="list-style-type: none"> Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous. Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product. Substitution of components may impair suitability for Class I Division 2. 	 <p>AVERTISSEMENT: Risque d'Explosion -</p> <ul style="list-style-type: none"> Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement. Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit. La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I Division 2.

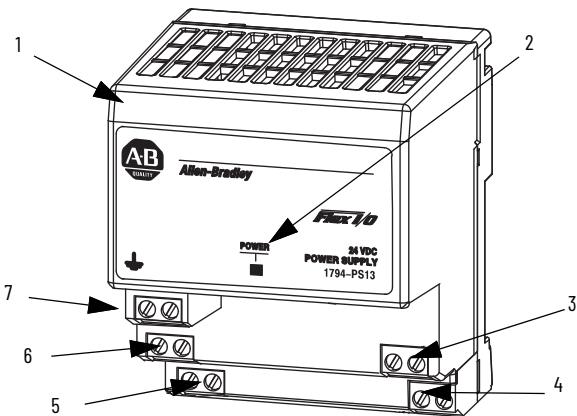
	<p>WARNING:</p> <ul style="list-style-type: none"> If you connect or disconnect wiring while the field-side power is on, an electric arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. If you insert or remove the module while backplane power is on, an electric arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. The module does not support "Removal and Insertion Under Power" (RIUP) capability. Do not connect or disconnect the module while power is applied. Be sure power is removed before proceeding. For Class I Division 2 applications, use only Class I Division 2 listed or recognized accessories and modules approved for use within the FLEX I/O platform.
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Overview

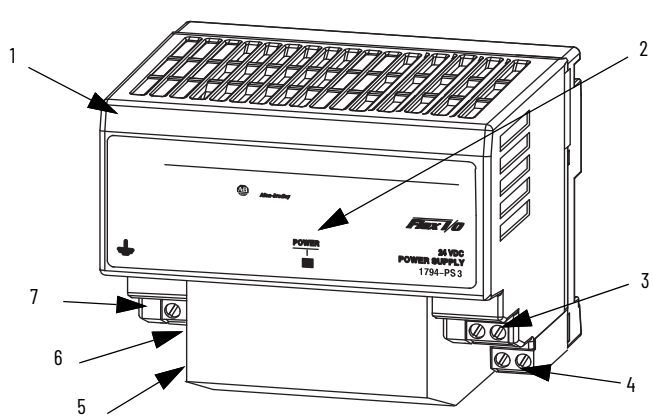
The 1794-PS13 and 1794-PS13K power supply modules provide sufficient 24V DC power to operate four adapters. Do not attempt to operate an entire FLEX™ I/O system with the 1794-PS13 or 1794-PS13K power supply module.

The 1794-PS3 and 1794-PS3K power supply modules provide sufficient 24V DC power to operate 10 adapters. You can use the 1794-PS3 or 1794-PS3K power supply module to operate an entire FLEX I/O system.

1794-PS13, 1794-PS13K



1794-PS3, 1794-PS3K

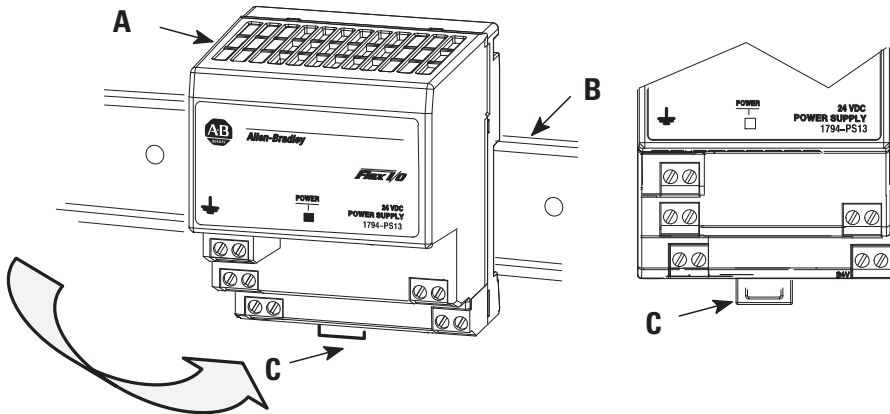


Component Identification

	Description		Description
1	Power supply module	5	120/230V AC power L1 connections
2	Indicator	6	120/230V AC common L2/N connections
3	24V DC common connections	7	150/230V AC ground
4	+24V DC connections		

Install Your Power Supply Module

1794-PS13 shown



ATTENTION: During mounting of all devices, be sure that all debris (metal chips, wire strands, and so on) is kept from falling into the module. Debris that falls into the module could cause damage on power up.

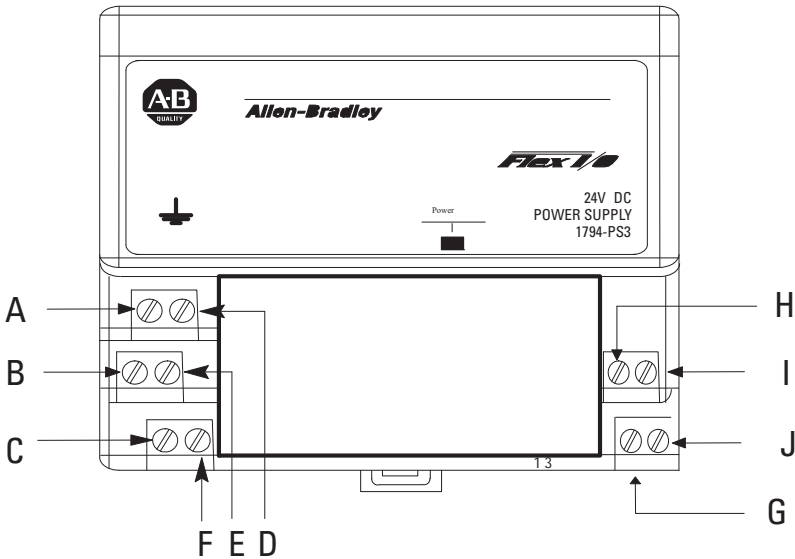
1. Hook the lip on the rear of the power supply module onto the top of the DIN rail, and rotate the power supply module onto the rail.
2. Press the power supply module down onto the DIN rail until flush. Locking tab C snaps into position and lock the power supply module to the DIN rail.
3. If the power supply module does not lock in place, use a screwdriver or similar device to move the locking tab down while pressing the power supply module flush onto the DIN rail. Release the locking tab to lock the power supply module in place. If necessary, push up on the locking tab to lock.
4. Connect the power supply wiring as shown in [Connect Wiring for Your Power Supply Module](#) below.

Mount the Power Supply on a Panel or Wall

To mount the power supply on a panel or wall, see the Panel Mounting Kit Cat. No. 1794-NM1 Technical Data, publication [1794-TD013](#).

Connect Wiring for Your Power Supply Module

1794-PS3 shown



Terminals A, B, and C are 120/230V AC supply terminals. Terminals D, E, and F are available to daisy chain this 120/230V AC power to other 1794-PS power supply modules. If applying 120/230V AC power to the power supply, you can also power the corresponding 120/230V AC modules in your FLEX I/O system.

IMPORTANT When wiring this power supply, torque terminal screws to 0.8 N•m (7 lb•in).

1. Connect the 120/230V AC power to the left side terminals on the connectors on the left side of the power supply module as follows:

Connect	To	To
AC ground	GND	A
120/230V AC common	L2/N	B
120/230V AC power	L1	C

2. Connect terminal G (+24V DC) to the +24V DC terminal on the first adapter.
3. Connect terminal H (+24V DC common) to the +24V DC common terminal on the first adapter.
4. Connections I and J are used to pass +24V DC power (G) and -24V common (H) to the next adapter in the series (if necessary).
5. Repeat [step 3](#) and [step 4](#) using terminals I and J for the second adapter.



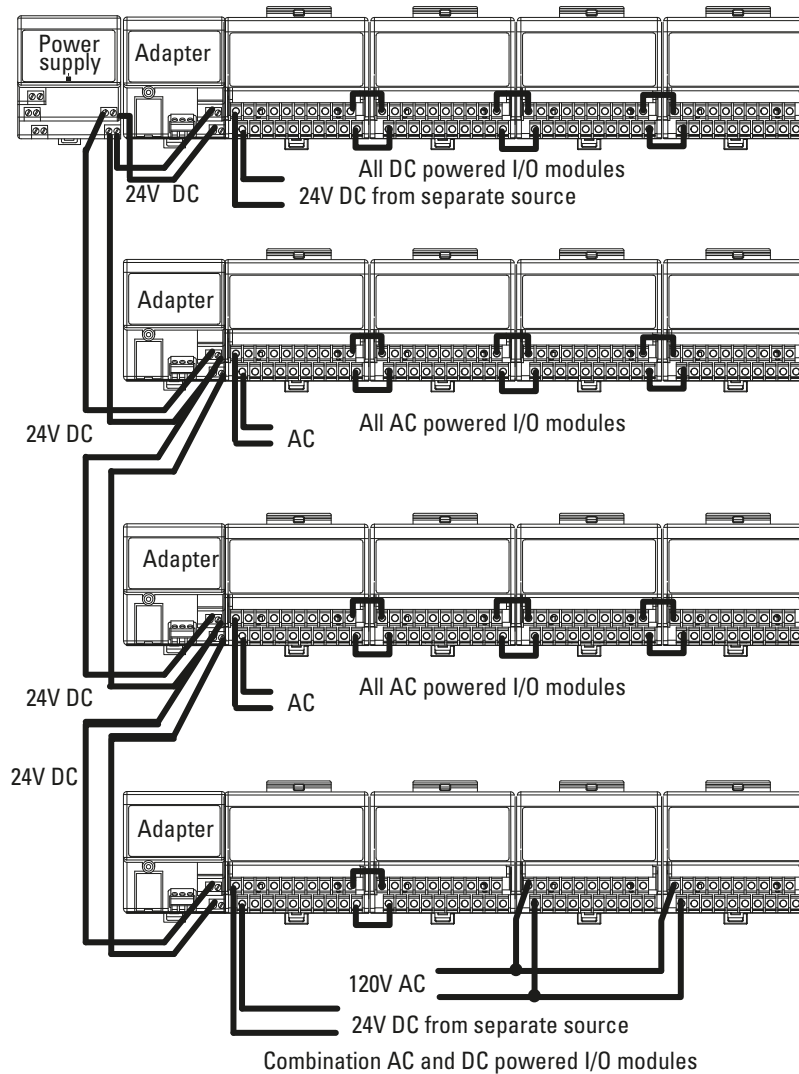
ATTENTION: The total length of wire for terminals H, I, J, and G must not exceed 3 m (9.8 ft). Exceeding the 3 m (9.8 ft) length can reduce noise immunity.

6. Connections D, E, and F are used to pass 120/230V AC power to adjacent FLEX I/O power supply modules, or to power any corresponding 120/230V AC modules in your FLEX I/O system.



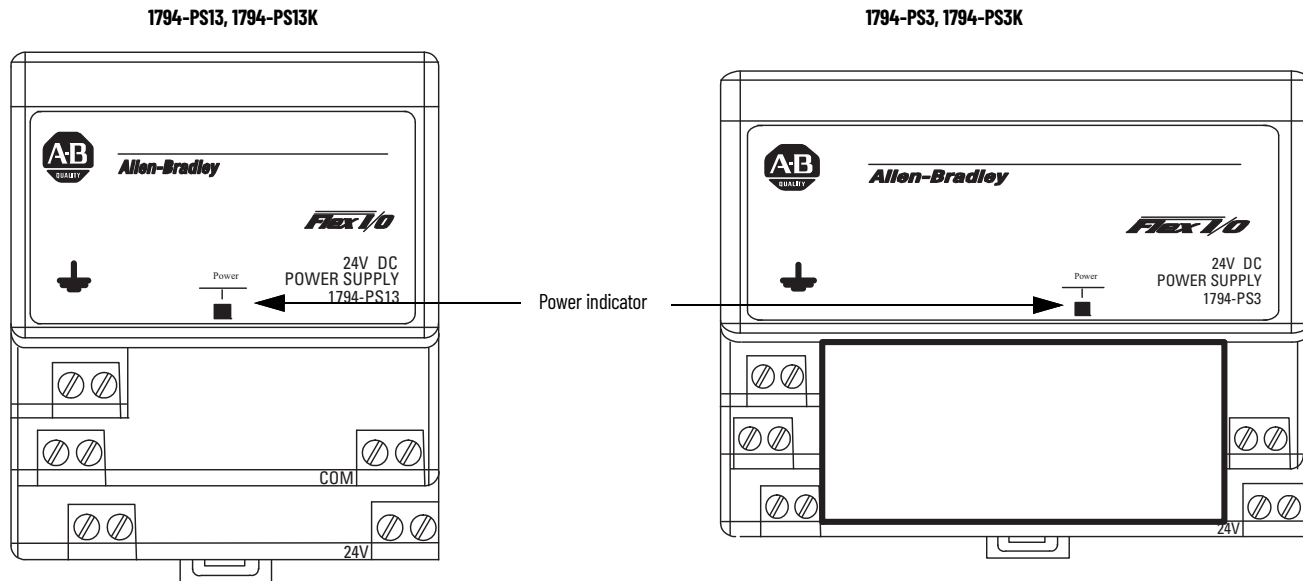
ATTENTION: Input and output wiring must be in accordance with Class I Division 2 wiring methods and in accordance with the authority having jurisdiction.

Example of Using a 1794-PS13 or 1794-PS13K Power Supply Module to Power 4 Adapters



Diagnostic Indicator

The power supply module has one indicator.



The power indicator is on (green) when voltage at the output is between 20.4V DC and 28V DC.

The power indicator is on (green) when voltage at the output is between 20.4V DC and 28V DC.

Diagnostic Indicator

Power Indicator	Description
On (green)	The output voltage is greater than 20.4V DC, but less than 28V DC.
Off	No power is applied to the power supply.
	The output voltage has exceeded 35V DC, and the overvoltage protection has shut down the unit.
	The output current is above 1.4 A - 1794-PS13, 1794-PS13K The output current is above 3.2 A - 1794-PS3, 1794-PS3K

Specifications

General Specifications

Attribute	1794-PS13, 1794-PS13K	1794-PS3, 1794-PS3K
Dimensions, approx. H x W x D	87 x 69 x 69 mm (3.4 x 2.7 x 2.7 in.)	87 x 94 x 69 mm (3.4 x 3.7 x 2.7 in.)
Enclosure type rating	None (open-style)	
Wire Size	0.34...2.5 mm ² (22...12 AWG) solid or stranded copper wire rated at 75 °C (167 °F), or greater, 1.2 mm (3/64 in.) insulation max	
Wiring category ⁽¹⁾	2 – on power ports	
North American temp code	T3C	T3
Terminal screw torque	0.8 N•m (7 lb•in)	

(1) Use this conductor category information for planning conductor routing as described in Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Input Specifications – 1794-PS13, 1794-PS13K, 1794-PS3, 1794-PS3K

Attribute	1794-PS13, 1794-PS13K	1794-PS3, 1794-PS3K
Nominal supply voltage	120V AC, 50/60 Hz; 0.62 A max 230V AC, 50/60 Hz; 0.42 A max	120V AC, 50/60 Hz; 1.7 A max 230V AC, 50/60 Hz; 1.1 A max
Voltage range	85...265V AC	
Frequency range	47...63 Hz	
Input current, max	0.7 A	1.9 A
Inrush current	40 A typical, 1 AC cycle @ V _{in} , 265V AC, 55 °C (131 °F)	
Interruption	The output stays within specification when input drops out for 1/2 cycle @ 47 Hz, 85V AC with max load.	

Output Specifications – 1794-PS13, 1794-PS13K, 1794-PS3, 1794-PS3K

Attribute	1794-PS13, 1794-PS13K	1794-PS3, 1794-PS3K
Nominal output	+24V DC	
Voltage range	20.4...27.6V DC (includes noise and 5% AC ripple)	
Output current, max	1.3 A	3 A (horizontal mounting) 2.8 A all other mountings (see Derating Curve for 1794-PS3 and 1794-PS3K)
Output power	31.2 W	72 W
Output ripple, max	1200 mV peak-to-peak	
Minimum load	0 mA	50 mA
Output surge	Sufficient to drive 4 adapters	Sufficient to drive 10 adapters
Overvoltage protection	The output is internally limited to 35V DC. Cycle power to re-energize.	
Leakage current, max	0.5 mA rms @ rated input and output	
Isolation voltage	Tested @ 2500V DC for 1 s	
Overcurrent protection, min	1.4 A	3.2 A
Thermal dissipation	23.9 BTU/hr	41.0 BTU/hr
Power dissipation, max	7 W	12 W

Environmental Specifications

Attribute	Value
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 °C ≤ Ta ≤ +55 °C (+32 °F ≤ Ta ≤ +131 °F)
Temperature, surrounding air, max	55 °C (131 °F)
Temperature, nonoperating	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)
Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5...95% noncondensing-condensing
Vibration	IEC60068-2-6 (Test Fc, Operating): 5 g @ 10...500 Hz
Shock, operating	IEC60068-2-27 (Test Ea, Unpackaged shock): 30 g
Shock, nonoperating	IEC60068-2-27 (Test Ea, Unpackaged shock) 50 g

Environmental Specifications (Continued)

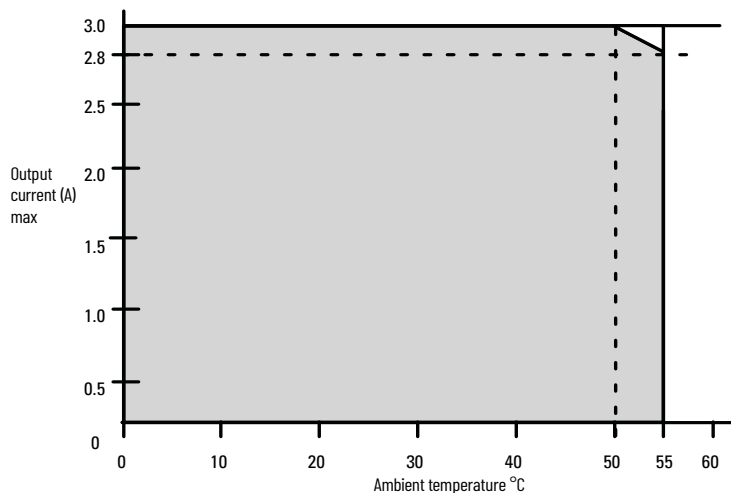
Attribute	Value
Emissions	IEC 61000-6-4
ESD immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80% AM from 80...2700 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100% AM @ 1890 MHz
EFT/B immunity	IEC 61000-4-4: ± 2 kV at 5 kHz on power ports
Surge transient immunity	IEC 61000-4-5: ± 1 kV line-line(DM) and ± 2 kV line-earth(CM) on power ports
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz
Voltage variation	IEC 61000-4-11: 30% dips for 1 period at 0° and 180° on AC supply ports 60% dips for 5 and 50 periods on AC supply ports ±10% fluctuations or 15 min on AC supply ports > 95% interruptions for 250 periods on AC supply ports

Certifications

Certifications (when product is marked) ⁽¹⁾	Value
c-UL-us	UL Listed for Class I Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E334470. UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E322657.
UK and CE	UK Statutory Instrument 2016 No. 1091 and European Union 2014/30/EU EMC Directive, compliant with: EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) UK Statutory Instrument 2016 No. 1101 and European Union 2014/35/EU LVD, compliant with: EN 61010-2-201; Control Equipment Safety Requirements UK Statutory Instrument 2012 No. 3032 and European Union 2011/65/EU RoHS, compliant with: EN IEC 63000; Technical Documentation
RCM	Australian Radiocommunications Act, compliant with: EN 61000-6-4; Industrial Emissions
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of Radio Waves Act, Clause 3
Morocco	Arrêté ministériel n° 6404-15 du 29 ramadan 1436 Arrêté ministériel n° 6404-15 du 1 er muharram 1437

(1) See the Product Certification link at rok.auto/certifications for Declarations of Conformity, Certificates, and other certification details.

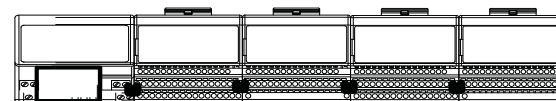
Derating Curve for 1794-PS3 and 1794-PS3K



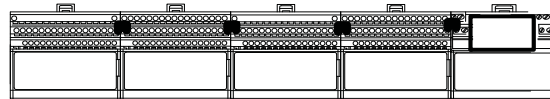
The area within the curve represents the safe operating range for the module under various conditions of user supplied 24V DC supply voltages and ambient temperatures.

- = Normal mounting safe operating range, (includes)
- = Other mounting positions (including inverted horizontal) safe operating range

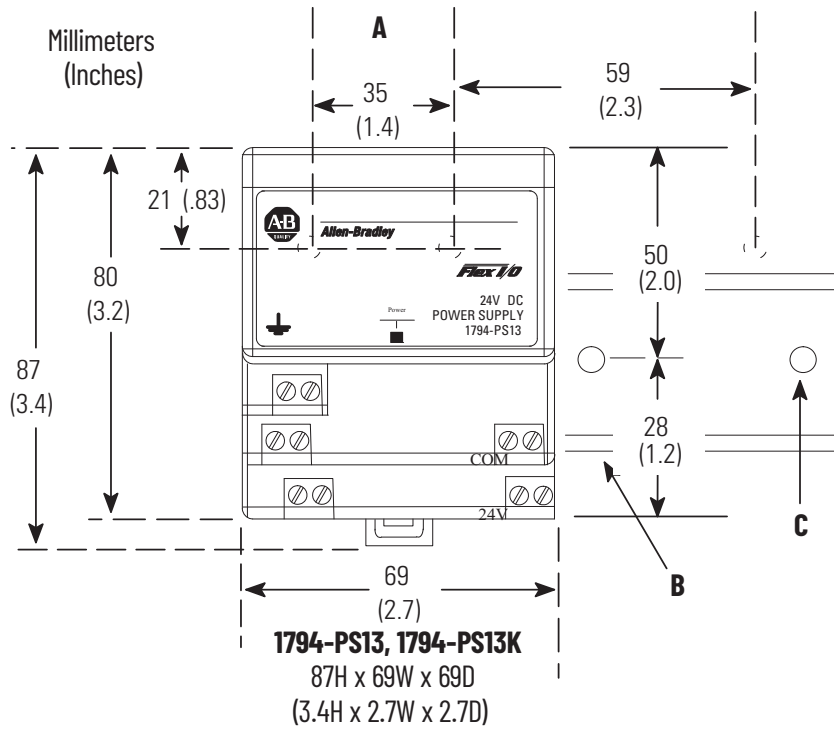
Normal mounting - Horizontal



Other mounting (including vertical and inverted horizontal mounting)

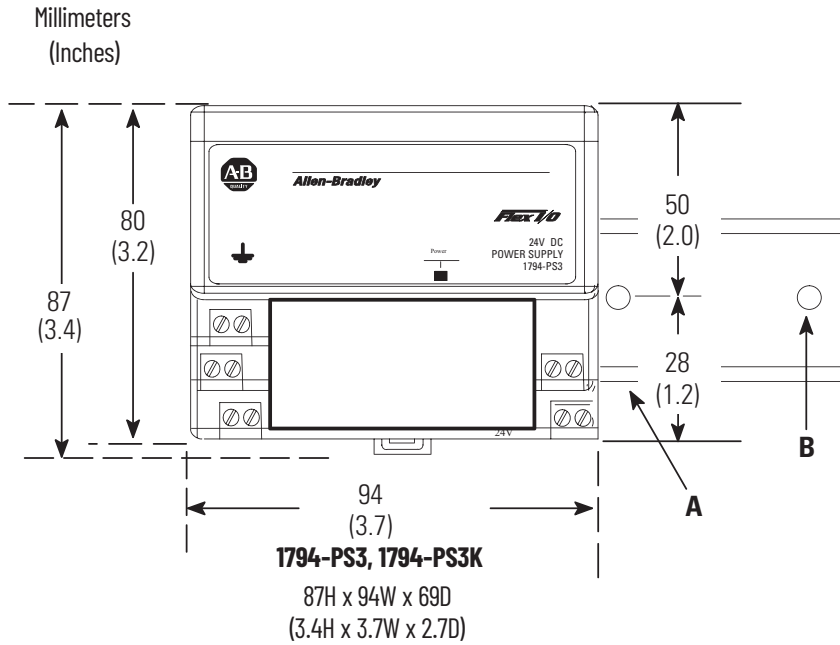


Mounting Dimensions – 1794-PS13, 1794-PS13K



- A** = Mounting hole dimensions for optional mouting kit
- B** = DIN rail
- C** = Secure DIN rail approximately every 200 mm (7.87 in.)

Mounting Dimensions – 1794-PS3, 1794-PS3K



- A** = DIN rail
- B** = Secure DIN rail approximately every 200 mm (7.87 in.)

Additional Resources

For more information on the products that are described in this publication, use these resources. You can view or download publications at rok.auto/literature.

Resource	Description
FLEX I/O and FLEX I/O-XT Selection Guide, publication 1794-S6002	Provides information on how to select FLEX I/O and FLEX I/O-XT™ adapters, terminal bases, I/O modules, and accessories.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	More information on proper wiring and grounding techniques.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, Knowledgebase, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	rok.auto/pcdc

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Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

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