

Signet 7300 Switching Power Supplies



Description

Signet 7300 Switching Power Supplies provide regulated output voltage in compact and lightweight plastic housings that can be DIN Rail or surface mounted. The series includes five different output capacities from 300 mA to 4.2 A (7.5W to 100W), all of which accept universal AC

line voltage input and meet worldwide standards for performance and safety. These units meet the power requirements for a single system, multiple Signet instruments or other devices requiring 24 VDC operation.

Features

- Regulated 24 VDC output voltage
- Five output capacities: 300 mA, 600 mA, 1.3 A, 2.1 A and 4.2 A
- DIN rail or surface mount
- Universal AC input (85 to 264 VAC)
- DC compatible input (105 to 370 VDC)
- Fused input
- Auto resetting output overcurrent protection
- Unique spring-up, finger-safe terminals
- Short-circuit protection
- Output voltage adjust (+/- 10%)
- Light-weight plastic housing

Applications

- Signet Instruments
- Electromagnetic Flow Sensors
- Suitable for Electric Actuated Valves, including Solenoid
- Suitable for powering passive outputs and relays

System Overview

7300 Switching Power Supplies					
Panel Mount Signet 8250, 8350, 8450, 8900 Instrument (sold separately)	Pipe, Tank, Wall Mount Signet 8250, 8350, 8450 Instrument (sold separately)	Integral Mount Signet 8250, 8350, 8450 Instrument (sold separately)	External Relay Signet 8059 (sold separately)	Electromagnetic Sensor Signet 2551 shown (sold separately)	8900 passive relays and outputs
Signet Universal Adapter Kit (3-8050) (sold separately)	Signet Integral Adapter Kit (3-8052) (sold separately)	Signet sensor (sold separately)	Signet sensor (sold separately)	Signet sensor (sold separately)	



E177168

Specifications

	7300-7524	7300-1524	7300-3024	7300-5024	7300-1024
Output Capacity	300 mA	600 mA	1.3 A	2.1 A	4.2 A

General

Operation Indicator	LED				
Dielectric Strength	Between input and output terminals: 3,000 VAC, 1 minute				
	Between input terminals and housing: 2,000 VAC, 1 minute				
	Between output terminals and housing: 500 VAC, 1 minute				
Insulation Resistance	Between input and output terminals/input terminals and housing: 100 MΩ min. (500 VDC megger)				
Termination	Spring-up, fingersafe terminals with captive M3.5 screws				
Materials	Housing: PPHOX (polyphenylene oxide)				
Mounting	DIN Rail or Surface Mount				
Dimensions (L/W/H)	75/45/70 mm	75/45/95 mm	75/90/95 mm	75/90/95 mm	75/145/95 mm
	2.9/1.7/2.7 in.	2.9/1.7/3.7 in.	2.9/3.5/3.7 in.	2.9/3.5/3.7 in.	2.9/5.7/3.7 in.
Package Dimensions (L/W/H)	108/82/51 mm	133/89/51 mm	133/95/89 mm	133/95/89 mm	209/101/89 mm
	4.25/3.25/2.0 in.	5.25/3.5/2.0 in.	5.25/3.75/3.5 in.	5.25/3.75/3.5 in.	8.25/4.0/3.5 in.

Input

Input Voltage	100 to 240 VAC nominal (85 to 264 VAC), ±10% regulated, 50/60 Hz (47 to 63 Hz)				
Input Current (typical)	0.17 A @ 100 VAC	0.3 A @ 100 VAC	0.68 A @ 100 VAC	1.15 A @ 100 VAC	2.5 A @ 100 VAC
Internal Fuse Rating	2 A	2 A	3.15 A	3.15 A	4 A
Inrush Current	50 A maximum (at cold start at 200 VAC)				
Leakage Current (at no load)	0.75 mA maximum (60 Hz, measured in conformance with UL, CSA, VDE)				
Typical Efficiency	75% at 24 V	79% at 24 V	75% at 24 V	79% at 24 V	85% at 24 V
Overvoltage Protection	Outputs turn off at 105% (typical)				

Output

Voltage & Current Ratings	24 V, 0.3 A	24 V, 0.6 A	24 V, 1.3 A	24 V, 2.1 A	24 V, 4.2 A
Voltage Adjustments	± 10% (V.ADJ screw on top)				
Output Holding Time	20 minutes maximum (at full rated input and output)				
Rise Time	200 minutes maximum (at full rated input and output)				
Fluctuation due to Input Voltage change	0.4% maximum				
Fluctuation due to Load Change	1.5% maximum				
Fluctuation due to Ambient Temperature Change	0.05% maximum				
Ripple Voltage	2% peak to peak maximum (including noise)				
Overload Protection	120% typical (Zener-limiting)		120% typical, auto reset		

Shipping Weight	.40 lb (.18 kg)	.48 lb (.22 kg)	.92 lb (.42 kg)	.98 lb (.44 kg)	1.54 lb (.70 kg)
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Environmental

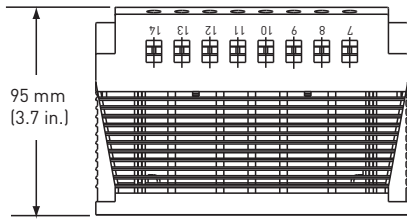
Operating Temperature	-10 °C to 60 °C (14 °F to 140 °F) - see derating curves
Storage Temperature	-30 °C to 85 °C (-22 °F to 185 °F)
Operating Humidity	20% to 90% relative humidity (no condensation)
Vibration Resistance	45m/s ² , 10 to 55 Hz, 2 hours on each of 3 axes
Shock Resistance	294 m/s ² , 3 shocks in each of 6 directions

Standards and Approvals

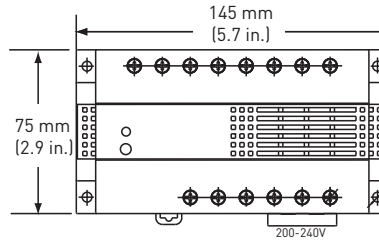
- CE, UL, UL508 Listed

Dimensions

7300-1024



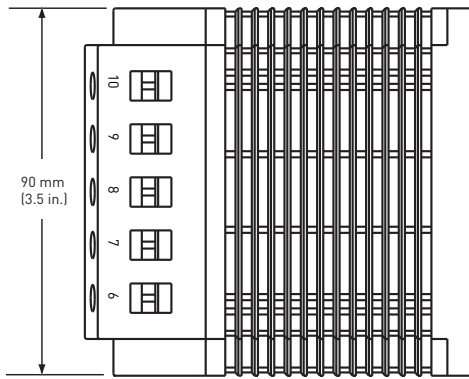
Front View



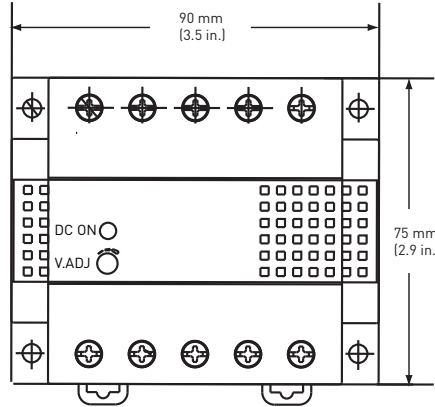
Side View

7300-3024

7300-5024

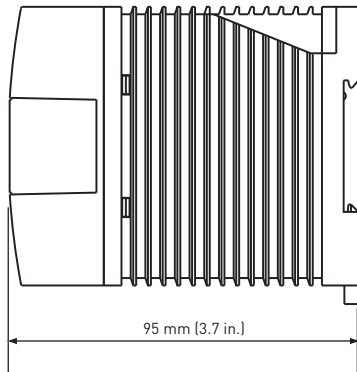


Front View

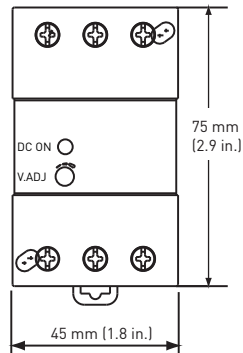


Side View

7300-1524

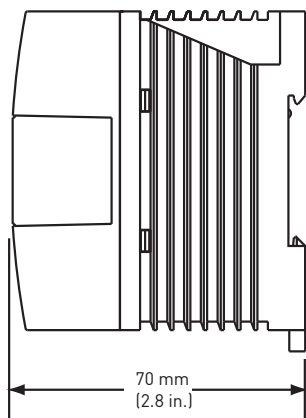


Front View

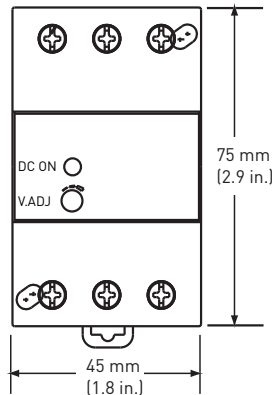


Side View

7300-7524



Front View



Side View

Ordering Information

Part Number	
7300	24 VDC Power Supply
	Power and Input Current Options - Choose One
-7524	7.5W, 300 mA
-1524	15W, 600 mA
-3024	30W, 1.3 A
-5024	50W, 2.1 A
-1024	100W, 4.2 A
7300	-3024 Example Part Number

Mfr. Part No.	Description	Mfr. Part No.	Description
7300-7524	159 000 687	7300-5024	159 000 690
7300-1524	159 000 688	7300-1024	159 000 691
7300-3024	159 000 689		

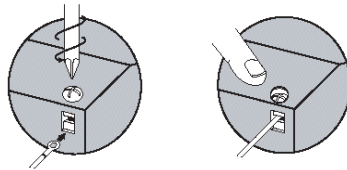
Accessories and Replacement Parts

DIN rail, in one meter lengths (1000 mm), and DIN rail clips are available. The standard packaging of these power supplies are to be fastened to DIN rails, and accessory clips will keep the supplies from sliding if the rail itself is mounted vertically, for example. Contact the factory for more details.

Mfr. Part No.	Code	Description
6205-0002	159 000 858	1-meter length DIN Rail
6205-0003	159 000 859	End clip for DIN Rail

Installation

The innovative terminals on these Signet power supplies use a special spring-loaded screw. This makes installation as easy as pushing down and turning with a screwdriver. Installation time is cut in half since the screws do not need to be backed out to install wiring. The screws are held captive once installed and are 100% finger-safe. Screw terminals accept bare wire or ring or fork connectors.



- 1) Insert the wire connector into the slot on the side of the power supply.
- 2) Using a Phillips screwdriver, push down and turn the screw.