



Signet 7310 Switching Power Supplies provide regulated output voltage in compact and lightweight plastic housings for DIN Rail mounting. The series includes five different output capacities from 0.42A to 4A (10W to 96W), 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

- Universal AC input/Full range
- Protections: Short circuit/Overload/Over voltage
- Cooling by free air convection
- Install on DIN rail TS-35/7.5 or 15
- NEC class 2 / LPS compliant
- Built in DC OK active signal
- LED indicator for power on
- No load power consumption < 1W for 7310-7024 and < 0.75W for others
- 100% full load burn-in test



## Compatibility

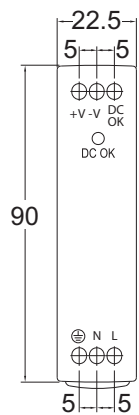
- Signet Instruments
- Electromagnetic Flow Sensors
- Suitable for Electric Actuated Valves, including Solenoid
- Suitable for powering passive outputs and relays

# Specifications

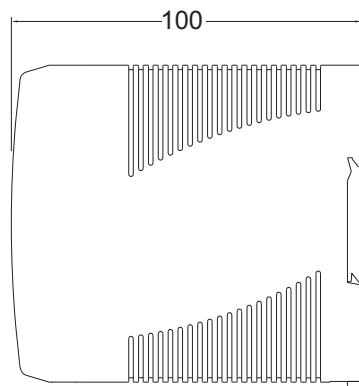
	7310-1024	7310-2024	7310-4024	7310-6024	7310-7024
<b>Output</b>					
DC Voltage	24V				
Rated Current	0.42A	1.0A	1.7A	2.5A	4.0A
Current Range	0 ~ 0.42A	0 ~ 1A	0 ~ 1.7A	0 ~ 2.5A	0 ~ 4A
Rated Power	10W	24W	40.8W	60W	96W
Ripple & Noise (max.) Note.2	150mVp-p				
Voltage Adj. Range	N/A	21.6 ~ 26.4V	24 ~ 30V		
Voltage Tolerance Note.3	±2.0%				±1.0%
Line Regulation	±1.0%				
Load Regulation	±2.0%				±1.0%
Setup, Rise Time Note.5	500ms, 30ms/230VAC, 1000ms, 30ms/115VAC at full load		500ms, 30ms/230VAC 500ms, 30ms/115VAC at full load		3000ms, 50ms/ 230VAC 3000ms, 50ms/115VAC at full load
Hold Up Time (Typ.)	120ms/230VAC, 25ms/115VAC at full load		50ms/230VAC 20ms/115VAC at full load		
<b>Input</b>					
Voltage Range	85 ~ 264VAC, 120 ~ 370VDC				
Frequency Range	47 ~ 63Hz				
Efficiency (Typ.)	84%		88%	88%	86%
AC Current (Typ.)	0.33A/115VAC 0.21A/230VAC	0.55A/115VAC 0.35A/230VAC	1.1A/115VAC 0.7A/230VAC	1.8A/115VAC 1A/230VAC	1.3A/115VAC 0.8A/230VAC
Inrush Current (Typ.)	Cold Start 35A/115VAC 70A/230VAC	Cold Start 20A/115VAC 40A/230VAC	Cold Start 30A/115VAC 60A/230VAC		
Leakage Current	<1mA / 240VAC				
<b>Protection</b>					
Overload	Above 105% rated output power	105 ~ 160% rated output power	105 ~ 150% rated output power		
Protection type	Hiccup mode, recovers automatically after fault condition is removed	Constant current limiting, recovers automatically after fault condition is removed			
Over Voltage	27.6 ~ 32.4V	27.6 ~ 32.4V	31.2 ~ 36V		
Protection type	Shut down o/p voltage, repower on to recover				
<b>Function</b>					
DC OK Active Signal (max.)	18 ~ 27V / 20mA	18 ~ 27V / 20mA	Relay contact rating(max.): 30V/1A resistive		

## Dimensions

**7310-1024**  
**7310-2024**

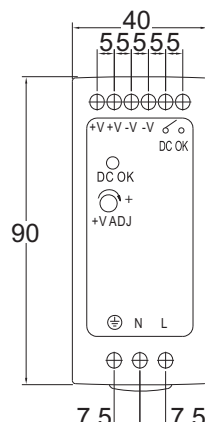


Front View

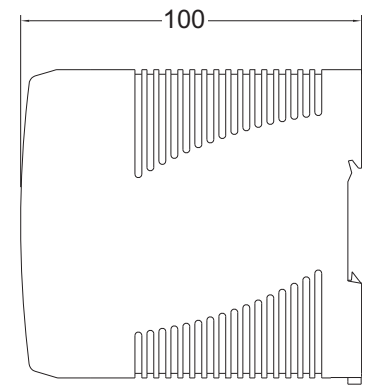


Side View

**7310-4024**  
**7310-6024**



Front View



Side View

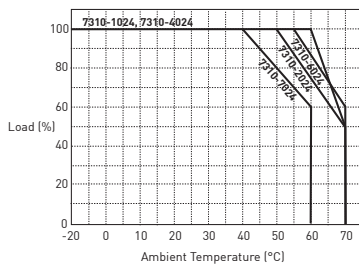
# Specifications (continued)

	7310-1024	7310-2024	7310-4024	7310-6024	7310-7024
<b>Environment</b>					
Working Temperature	-20 ~ +70 °C (Refer to output load Derating Curve)				10 ~ +60 °C (Refer to output load Derating Curve)
Working Humidity	20 ~ 90% RH non-condensing				
Storage Temp., Humidity	-40 ~ +85 °C, 10 ~ 95% RH				
Temp. Coefficient	±0.03%/ °C (0~50 °C)				
Vibration	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6				
<b>Safety and EMC (Note 4)</b>					
Safety Standards	UL508, TUV EN60950-1 approved, NEC class 2 / LPS compliant	UL508, UL60950-1, TUV EN60950-1 approved			UL508, TUV EN60950-1 approved
Withstand Voltage	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC		I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC		I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100MΩ 500VDC / 25 °C / 70% RH	I/P-O/P, I/P-FG, O/P-FG:100MΩ /500VDC	I/P-O/P, I/P-FG, O/P-FG:>100MΩ / 500VDC / 25 °C / 70% RH	I/P-O/P, I/P-FG, O/P-FG:>100MΩ / 500VDC / 25 °C / 70% RH	I/P-O/P, I/P-FG, O/P-FG:>100Ω / 500VDC / 25 °C / 70% RH
EMC Emission	Compliance to EN55011, EN55022 (CISPR22), EN61204-3 Class B, EN61000-3-2,-3				
EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-1, EN61204-3, light industry level, criteria A				
<b>Others</b>					
MTBF	584K hrs min MIL-HDBK-217F (25 °C)	236.9K hrs min MIL-HDBK-217F (25 °C)	301.7K hrs min MIL-HDBK-217F (25 °C)	299.2K hrs min MIL-HDBK-217F (25 °C)]	346K hrs min MIL-HDBK-217F (25 °C)]
Dimension	22.5*90*100mm (W*H*D)	22.5*90*100mm (W*H*D)	40*90*100mm (W*H*D)		55*90*100mm (W*H*D)
Packing	0.17Kg; 72pcs/ 13.2Kg/0.91CUFT	0.19Kg; 72pcs/ 14.7Kg /0.91CUFT	0.3Kg; 42pcs/ 13.6Kg/0.82CUFT	0.33Kg; 42pcs/ 14.8Kg/0.82CUFT	0.42Kg; 30pcs /13.6Kg/0.82CUFT

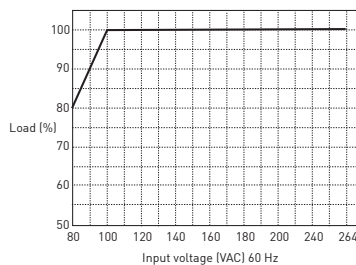
**Note**

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 °C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
5. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.

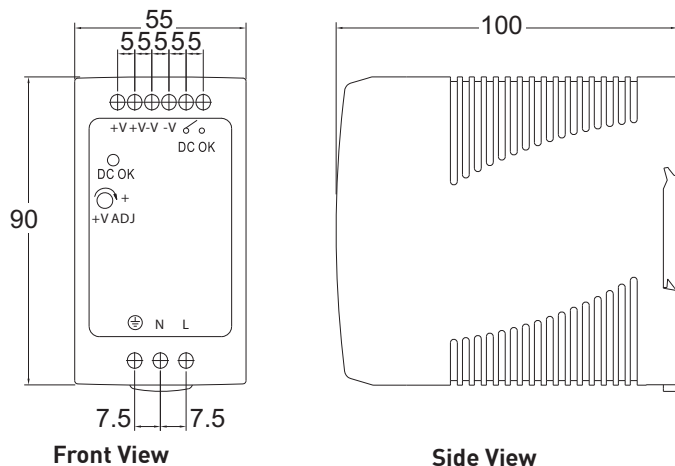
**Derating Curve**



**Output Derating Vs. Input Voltage**

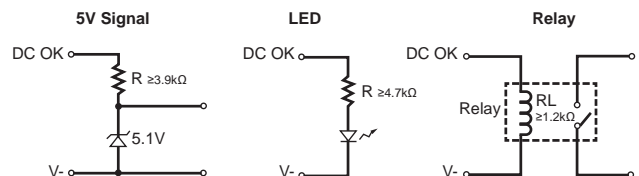


**7310-7024**



**Application of DC OK Active Signal**

**7310-1024, 7310-2024**



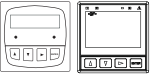
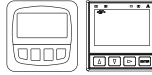
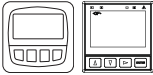
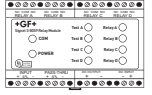
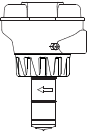
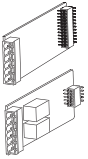
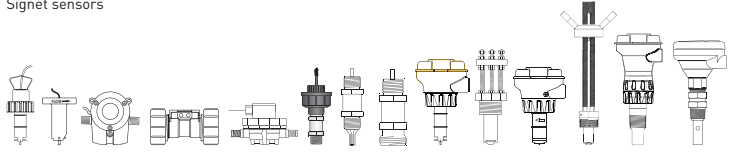
**DC OK Relay Contact**

**7310-4024, 7310-6024, 7310-7024**

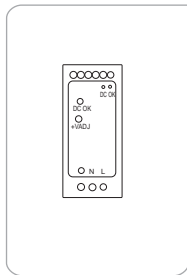
Contact close	PSU turns on/DC okay
Contact open	PSU turns off/DC fail
Contact ratings (max.)	30V/1A resistive load

7310 Switching Power Supplies



Panel Mount	Field Mount - Pipe, Tank, Wall	Integral Mount	External Relay	Electromagnetic Sensor	Passive Relays and Outputs
Signet Instruments 8350 8450 8900 9900 	Signet Instruments 8350 8450 8900 9900 with 8050 Universal Mount Kit 	Signet Instruments 8350 8450 8900 9900 with 8052 Integral Mount Kit 	Signet 8059 External Relay Modules 	Signet Sensors 2551 2552 	Signet 8900 Multi-Parameter Controller  All sold separately
Signet sensors 					

## Ordering Information



Mfr. Part No.	Code	Voltage and Current Output Options
7310-1024	<b>159 873 004</b>	24 VDC Power Supply, 10W, 0.42 A
7310-2024	<b>159 873 005</b>	24 VDC Power Supply, 24W, 1.0 A
7310-4024	<b>159 873 006</b>	24 VDC Power Supply, 40W, 1.7 A
7310-6024	<b>159 873 007</b>	24 VDC Power Supply, 60W, 2.5 A
7310-7024	<b>159 873 008</b>	24 VDC Power Supply, 96W, 4.0 A

## Accessories and Replacement Parts

DIN rail in one meter (1000 mm) lengths, 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	<b>159 000 858</b>	1-meter length DIN Rail
6205-0003	<b>159 000 859</b>	End clip for DIN Rail