

## SERIES: SWI6D-N | DESCRIPTION: AC-DC POWER SUPPLY

### FEATURES

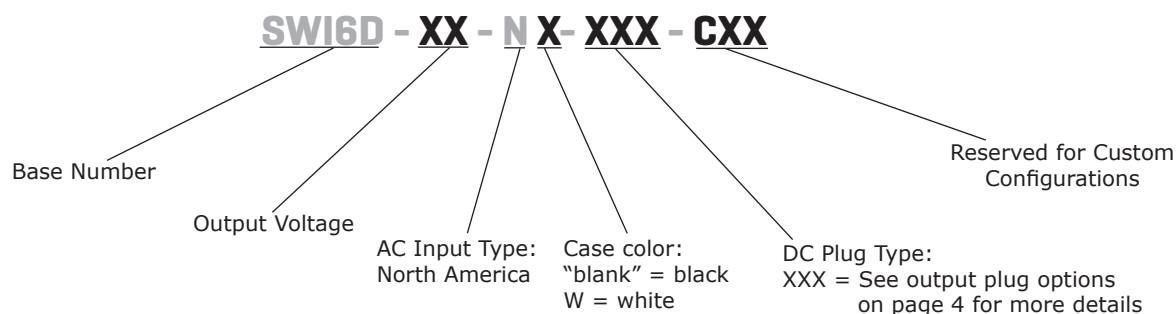
- up to 6 W continuous power
- DoE Level VI efficiency
- no load power consumption < 0.1 W
- universal input voltage range
- over current and short circuit protections
- UL/cUL and CE safety approval
- certified to IEC 62368-1
- custom designs available



| MODEL       | input voltage range (Vac) | input frequency range (Hz) | output voltage nom (Vdc) | output current max (A) | output power max (W) | ripple and noise <sup>1</sup> max (mVp-p) | efficiency level <sup>2</sup> typ (%) |
|-------------|---------------------------|----------------------------|--------------------------|------------------------|----------------------|-------------------------------------------|---------------------------------------|
| SWI6D-5-N   | 90 ~ 264                  | 47 ~ 63                    | 5.0                      | 1.0                    | 5.0                  | 100                                       | 73.62                                 |
| SWI6D-5B-N  | 90 ~ 264                  | 47 ~ 63                    | 5.0                      | 1.2                    | 6.0                  | 120                                       | 75.18                                 |
| SWI6D-5.9-N | 90 ~ 264                  | 47 ~ 63                    | 5.9                      | 1.0                    | 5.9                  | 120                                       | 75.05                                 |
| SWI6D-7.5-N | 90 ~ 264                  | 47 ~ 63                    | 7.5                      | 0.8                    | 6.0                  | 120                                       | 78.88                                 |
| SWI6D-9-N   | 90 ~ 264                  | 47 ~ 63                    | 9.0                      | 0.66                   | 5.94                 | 150                                       | 78.97                                 |
| SWI6D-12-N  | 90 ~ 264                  | 47 ~ 63                    | 12.0                     | 0.5                    | 6.0                  | 200                                       | 78.88                                 |

Notes: 1. At full load, nominal AC input voltage, 25°C, 20 MHz bandwidth oscilloscope, output terminated with 0.1 µF ceramic and 10 µF aluminum electrolytic capacitors.  
2. Average efficiency is measured at 115V/60Hz and 230V/60Hz, 25%, 50%, 75%, and 100% load.

### PART NUMBER KEY



## INPUT

| parameter                 | conditions/description   | min | typ     | max  | units |
|---------------------------|--------------------------|-----|---------|------|-------|
| voltage                   |                          | 90  | 100~240 | 264  | Vac   |
| frequency                 |                          | 47  | 50~60   | 63   | Hz    |
| current                   | at nominal input voltage |     |         | 0.18 | A     |
| leakage current           |                          |     |         | 0.25 | mA    |
| no load power consumption |                          |     |         | 0.1  | W     |

## OUTPUT

| parameter       | conditions/description               | min | typ | max | units |
|-----------------|--------------------------------------|-----|-----|-----|-------|
| line regulation |                                      |     | ±5  |     | %     |
| load regulation |                                      |     | ±5  |     | %     |
| start-up time   | at nominal input voltage & full load |     |     | 4   | s     |
| rise time       |                                      |     |     | 50  | ms    |
| hold-up time    | at nominal input voltage & full load | 8   |     |     | ms    |

## PROTECTIONS

| parameter                | conditions/description | min | typ | max | units |
|--------------------------|------------------------|-----|-----|-----|-------|
| over current protection  | auto recovery          |     |     |     |       |
| short circuit protection | auto recovery          |     |     |     |       |

## SAFETY & COMPLIANCE

| parameter         | conditions/description                                                                          | min     | typ   | max | units |
|-------------------|-------------------------------------------------------------------------------------------------|---------|-------|-----|-------|
| isolation voltage | input to output for 1 minute, 5 mA max                                                          |         | 3,000 |     | Vac   |
| safety approvals  | certified to 62368-1: IEC<br>UL/cUL                                                             |         |       |     |       |
| EMI/EMC           | EN 55032 Class B<br>FCC PART 15 Class B                                                         |         |       |     |       |
| ESD               | IEC 61000-4-2: air: ± 8 kV, contact: ± 4 kV, perf. Criteria B                                   |         |       |     |       |
| radiated immunity | IEC 61000-4-3: frequency: 80 ~ 1000 MHz, field strength: 3 V/m, 80% AM (1kHz), perf. Criteria B |         |       |     |       |
| EFT/burst         | IEC 61000-4-4: 1.0 kV on input AC power ports, perf. Criteria B                                 |         |       |     |       |
| surge             | IEC 61000-4-5: line to line: ± 1kV (peak), line to earth: ±2 kV                                 |         |       |     |       |
| MTBF              | as per Telcordia SR-332 (Issue 3),<br>at full load, 25°C                                        | 300,000 |       |     | hours |
| RoHS              | yes                                                                                             |         |       |     |       |

## ENVIRONMENTAL

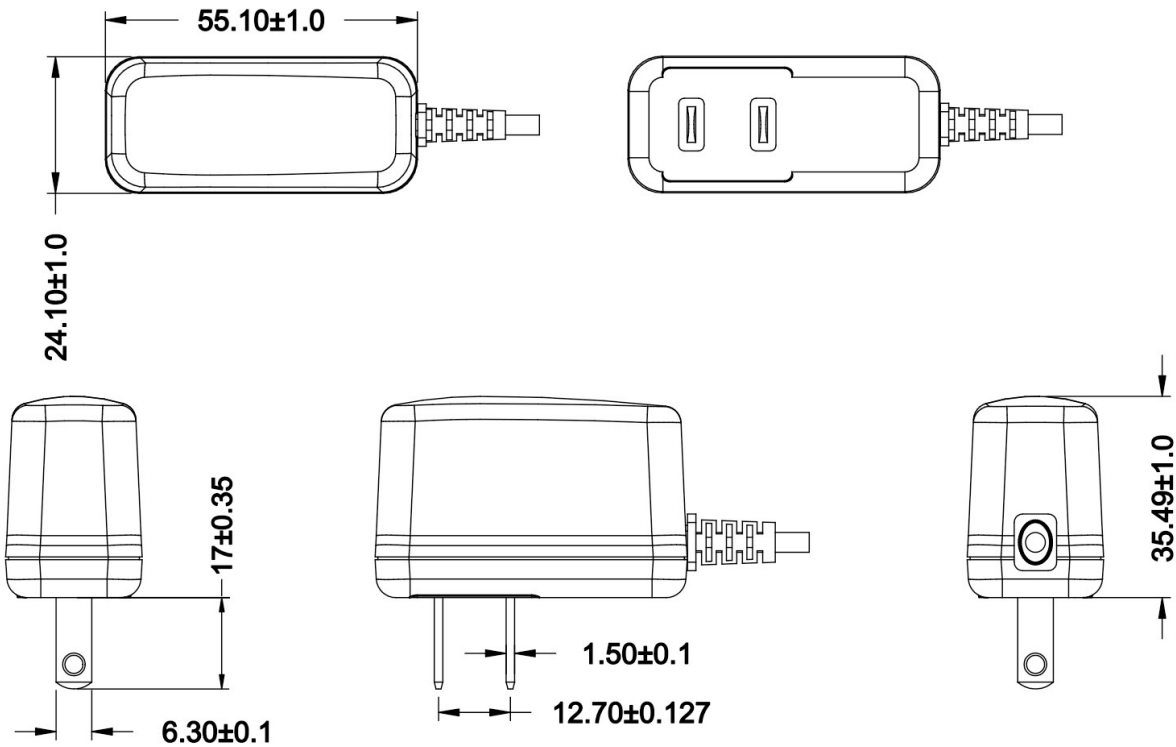
| parameter             | conditions/description | min | typ | max | units |
|-----------------------|------------------------|-----|-----|-----|-------|
| operating temperature |                        | 0   |     | 50  | °C    |
| storage temperature   |                        | -25 |     | 80  | °C    |
| operating humidity    | non-condensing         | 10  |     | 90  | %     |
| storage humidity      | non-condensing         | 10  |     | 90  | %     |

MECHANICAL

| parameter  | conditions/description | min | typ | max | units |
|------------|------------------------|-----|-----|-----|-------|
| dimensions | 55.1 x 24.1 x 35.49    |     |     |     | mm    |
| inlet plug | North America          |     |     |     |       |
| weight     |                        |     | 70  |     | g     |

MECHANICAL DRAWING

units: mm



DC CORD

units: mm

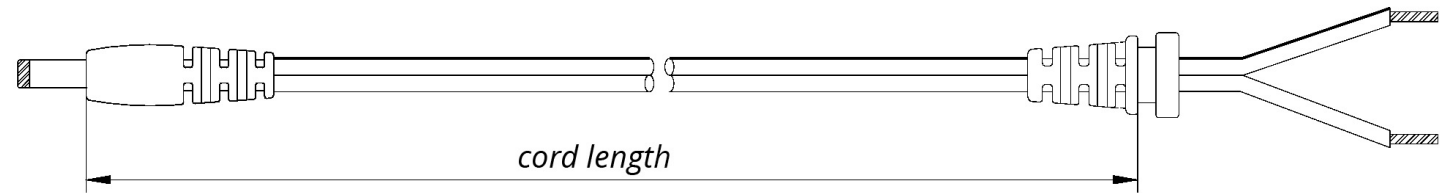


Table 1

| MODEL NO.   | CABLE          | CORD LENGTH  |
|-------------|----------------|--------------|
| SWI6D-5-N   | UL2468, 24 AWG | 1,500 mm ±80 |
| SWI6D-5B-N  | UL2468, 22 AWG | 1,500 mm ±80 |
| SWI6D-5.9-N | UL2468, 24 AWG | 1,500 mm ±80 |
| SWI6D-7.5-N | UL2468, 22 AWG | 1,500 mm ±80 |
| SWI6D-9-N   | UL2468, 24 AWG | 1,500 mm ±80 |
| SWI6D-12-N  | UL2468, 24 AWG | 1,500 mm ±80 |

DC PLUG TYPE PART NUMBER KEY

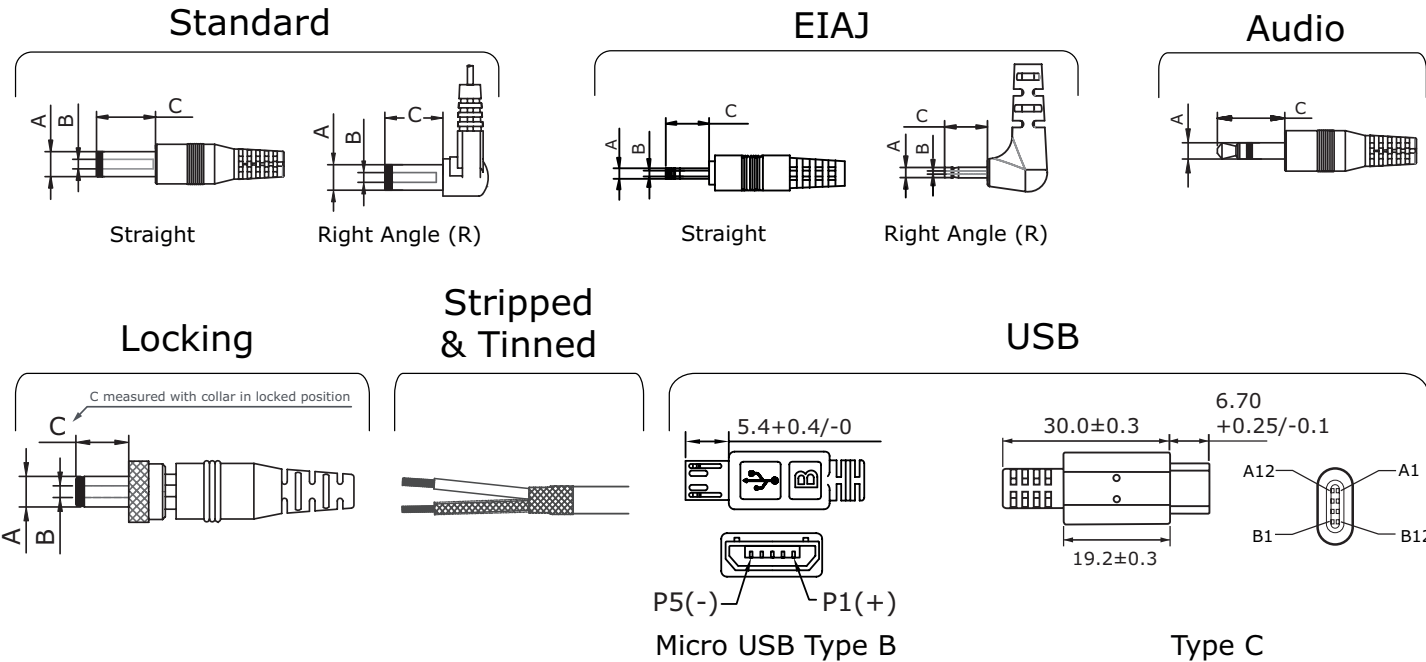
**Plug Polarity:**  
P = Center Positive  
N = Center Negative

**Plug Code:**  
X = Choose a code from the options below

**Plug Angle:**  
"blank" = Straight  
R = Right Angle

| Plug Polarity |             | Code            |                      | Dimensions (mm)  |      |     | Plug Angle |       |
|---------------|-------------|-----------------|----------------------|------------------|------|-----|------------|-------|
| Center Pos.   | Center Neg. | Option          | Type                 | A                | B    | C   | Straight   | Right |
| N/A           | N/A         | P1 <sup>1</sup> | Audio                | 3.5              | N/A  | 14  | •          | N/A   |
| •             | •           | 5               | Standard             | 5.5              | 2.1  | 9.5 | •          | •     |
| •             | •           | 6               | Standard             | 5.5              | 2.5  | 9.5 | •          | •     |
| •             | •           | 7               | Standard             | 3.5              | 1.35 | 9.5 | •          | •     |
| •             | •           | 8               | Standard             | 3.8              | 1.35 | 9.5 | •          | •     |
| •             | •           | 9               | Standard             | 3.8              | 1.05 | 9.5 | •          | •     |
| •             | •           | 10              | Locking <sup>2</sup> | 5.5              | 2.1  | 9.5 | •          | N/A   |
| •             | •           | 11              | Locking <sup>2</sup> | 5.5              | 2.5  | 9.5 | •          | N/A   |
| •             | •           | 12              | EIAJ-1               | 2.35             | 0.7  | 9.5 | •          | •     |
| •             | •           | 13              | EIAJ-2               | 4.0              | 1.7  | 9.5 | •          | •     |
| •             | •           | 14              | EIAJ-3               | 4.75             | 1.7  | 9.5 | •          | •     |
| N/A           | N/A         | ST              | Stripped & Tinned    |                  |      |     | N/A        | N/A   |
| N/A           | N/A         | M               | USB                  | Micro USB Type B |      |     | •          | N/A   |
| N/A           | N/A         | C               | USB                  | USB Type C       |      |     | •          | N/A   |

Note: 1. Tip positive  
2. Maximum insertion depth is 10mm  
3. Contact CUI for additional plug options



REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 10/06/2025 |

The revision history provided is for informational purposes only and is believed to be accurate.



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a bel group

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This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) this device must accept any interference received, including interference that may cause undesired operation.

CUI offers a one (1) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.