

YSC12 SERIES  
12W



Features

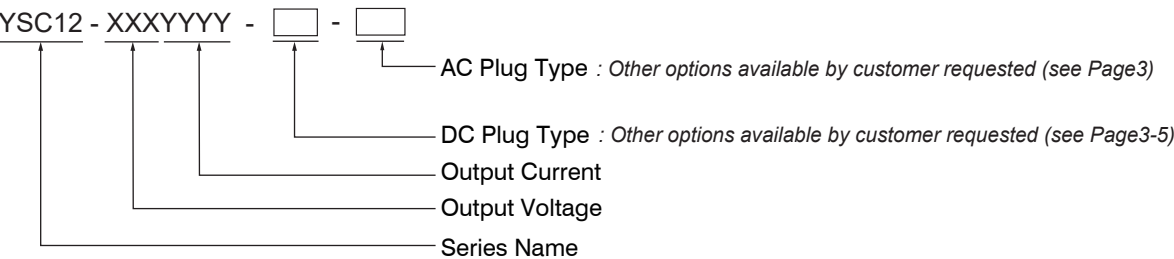
- IP67
- Energy efficiency level VI
- Class II Power Supply
- 3 Years Warranty
- Universal AC input/Full range
- No load power consumption < 0.1W
- Protections: Short Circuit /Over Load / Over Voltage
- -20~+70℃wide range working temperature

Applications

- Office Facilities
- Industrial Equipments
- Consumer Electronic Devices
- Telecommunication Devices

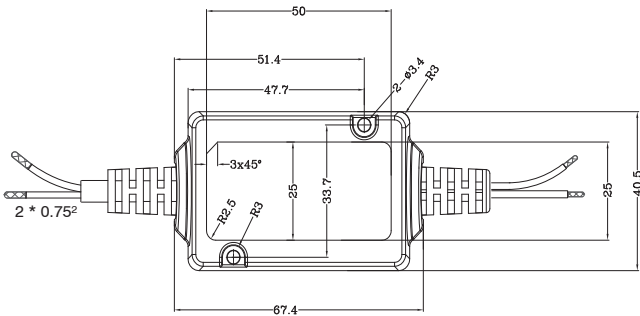
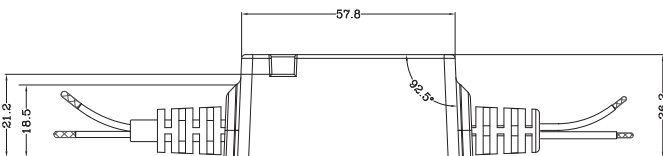


Model Description



Dimensions and installation

Standard Model



|                   |                    |
|-------------------|--------------------|
| Standard AC Cable | 200mm PVC 2*0.5mm² |
| Standard DC Cable | 200mm UL2468       |
| 5 ~ 9V            | 22AWG              |
| 12 ~ 24V          | 24AWG              |

## Specification

| Model      | Order P/N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | YSC12-0502400<br>- □ - □                                                          | YSC12-0901330<br>- □ - □ | YSC12-1201000<br>- □ - □ | YSC12-1500800<br>- □ - □                                                     | YSC12-2400500<br>- □ - □ |  |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------|--------------------------|------------------------------------------------------------------------------|--------------------------|--|
|            | Safety Model No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | YSC12-0502400                                                                     | YSC12-0901330            | YSC12-1201000            | YSC12-1500800                                                                | YSC12-2400500            |  |
| Output     | DC Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5V                                                                                | 9V                       | 12V                      | 15V                                                                          | 24V                      |  |
|            | Rated Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.4A                                                                              | 1.33A                    | 1A                       | 0.8A                                                                         | 0.5A                     |  |
|            | Rated Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12W                                                                               | 12W                      | 12W                      | 12W                                                                          | 12W                      |  |
|            | Ripple & Noise(max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 300mVp-p                                                                          | 100mVp-p                 | 150mVp-p                 | 150mVp-p                                                                     | 200mVp-p                 |  |
|            | Voltage Tolerance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±5%                                                                               | ±5%                      | ±5%                      | ±5%                                                                          | ±5%                      |  |
|            | Line Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±3%                                                                               | ±3%                      | ±3%                      | ±3%                                                                          | ±3%                      |  |
|            | Load Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±5%                                                                               | ±5%                      | ±5%                      | ±5%                                                                          | ±5%                      |  |
|            | Setup,Rise,Hold up Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3.0s,40ms,80ms/230VAC(at full load)                                               |                          |                          | 3.0s,40ms,12ms/115VAC(at full load)                                          |                          |  |
| Input      | Rated Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 100-240VAC                                                                        |                          |                          |                                                                              |                          |  |
|            | Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 85-264VAC                                                                         |                          |                          |                                                                              |                          |  |
|            | Frequency Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50/60Hz                                                                           |                          |                          |                                                                              |                          |  |
|            | AC Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.4A/115VAC                                                                       |                          | 0.2A/230VAC              |                                                                              |                          |  |
|            | Inrush Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cold Start 60A/200us at 230VAC 50Hz                                               |                          |                          | Cold Start 40A/200us at 115VAC 50Hz                                          |                          |  |
|            | Leakage Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <0.25mA/230VAC                                                                    |                          |                          |                                                                              |                          |  |
|            | Efficiency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 83%                                                                               | 83.5%                    | 83%                      | 84%                                                                          | 84.5%                    |  |
|            | No Load Power Consumption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <0.21W                                                                            |                          |                          |                                                                              |                          |  |
| Protection | Over Load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 105~150%<br>Hiccup mode, recovers automatically after fault condition is removed. |                          |                          |                                                                              |                          |  |
|            | Short Circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Shut down o/p voltage, re-power on to recover.                                    |                          |                          |                                                                              |                          |  |
|            | Over Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 120~180%<br>Shut down o/p voltage, re-power on to recover.                        |                          |                          |                                                                              |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                   |                          |                          |                                                                              |                          |  |
| Ambient    | Working TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -20 ~ +70 ℃ (Please refer to "Derating Curve" section)                            |                          |                          |                                                                              |                          |  |
|            | Working Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 20 ~ 95%RH Non-condensing                                                         |                          |                          |                                                                              |                          |  |
|            | Storage TEMP. Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -40 ~ +85 ℃, 10 ~ 95%RH Non-condensing                                            |                          |                          |                                                                              |                          |  |
|            | TEMP. Coefficient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±0.03%/(0 ~ 40 ℃)                                                                 |                          |                          |                                                                              |                          |  |
|            | Vibration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes           |                          |                          |                                                                              |                          |  |
| Safety     | Safety Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EN 60335-1, EN 62368-1, UL 62368, BS EN 60335-1                                   |                          |                          |                                                                              |                          |  |
|            | Withstand Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | I/P-O/P: 3KVAC/1min                                                               |                          |                          |                                                                              |                          |  |
|            | Isolation Resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I/P-O/P:100M Ohms / 500VDC / 25 ℃ / 70% RH                                        |                          |                          |                                                                              |                          |  |
| EMC        | EMC Emission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Parameter                                                                         | Standard                 |                          | Test Level                                                                   |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conducted                                                                         | EN55032(CISPR32)         |                          | CLASS B                                                                      |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Radiated                                                                          | EN55032(CISPR32)         |                          | CLASS B                                                                      |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Harmonic Current                                                                  | EN61000-3-2              |                          | CLASS B                                                                      |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Voltage flicker                                                                   | EN61000-3-3              |                          | CLASS B                                                                      |                          |  |
|            | EMC Immunity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Parameter                                                                         | Standard                 |                          | Test Level                                                                   |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ESD                                                                               | EN61000-4-2              |                          | Level 3, 8KV air, criteria A                                                 |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Radiated Susceptibility                                                           | EN61000-4-3              |                          | Level 3, criteria A                                                          |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EFT/Burest                                                                        | EN61000-4-4              |                          | Level 3, criteria A                                                          |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Surge                                                                             | EN61000-4-5              |                          | Level 4, 2KV/L-N, criteria A                                                 |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conducted                                                                         | EN61000-4-6              |                          | Level 3, criteria A                                                          |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Magnetic Field                                                                    | EN61000-4-8              |                          | Level 4, criteria A                                                          |                          |  |
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Voltage Dips and interruptions                                                    | EN61000-4-11             |                          | > 95% dip 0.5 periods, 30% dip 25 periods,<br>>95% interruptions 250 periods |                          |  |
| Others     | Packing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 100g/pcs; 40.5 x 26 x 30 cm; 100pcs/carton                                        |                          |                          |                                                                              |                          |  |
|            | Dimension (LxWxH)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 67.4 x 40.5 x 26.2 mm                                                             |                          |                          |                                                                              |                          |  |
|            | Plug and Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | See page 3~5; Other type available by customer requested                          |                          |                          |                                                                              |                          |  |
|            | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 584.6Khrs min. MIL-HDBK-217F(25 ℃)                                                |                          |                          |                                                                              |                          |  |
| Note       | 1. Tolerance: includes set up tolerance, line regulation and load regulation.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3.Line regulation is measured from low line to high line at rated load.<br>4.Load regulation is measured from 0% to 100% rated load.<br>5. All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 ℃ of ambient temperature.<br>6. De-rating may be needed under low input voltages. Please refer to "Static Characteristic" sections for details.<br>7. The power supply is considered as a component that will be operated in combination with final equipment.Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. |                                                                                   |                          |                          |                                                                              |                          |  |

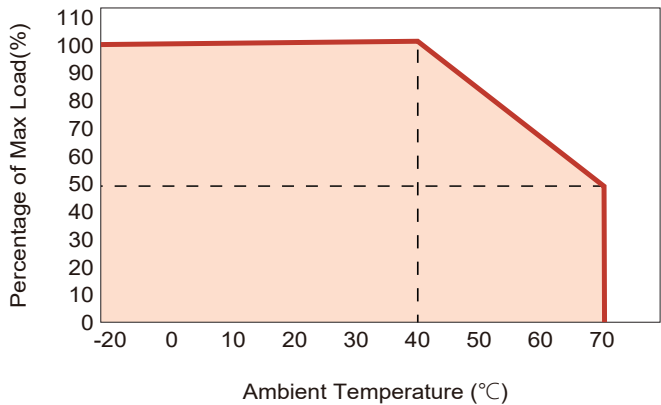
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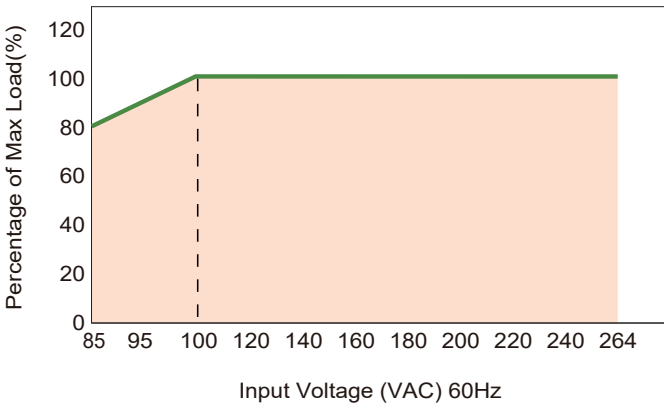
## 12W

### Feature Curves

1. Derating Curve



2. Static Characteristics



### Input Plug Type

Standard Model : by customer

| by customer                      | Pin Assignment                                                                                                             |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <br>Length of Land L1 by request | YJ's standard length, L: 30 mm, L1: 5 mm<br>NOTE: The wire color is for reference only, please refer to the actual product |

Custom-made Model : EU/US/AU/UK

| EU | US | AU | UK |
|----|----|----|----|
|    |    |    |    |

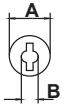
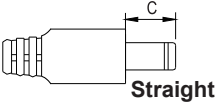
### DC Output Plug (Option)

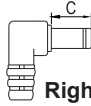
Standard Model : by customer

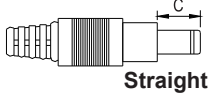
| by customer                      | Pin Assignment                                                                                                             |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <br>Length of Land L1 by request | YJ's standard length, L: 30 mm, L1: 5 mm<br>NOTE: The wire color is for reference only, please refer to the actual product |

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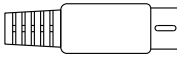
DC Output Plug (Option)

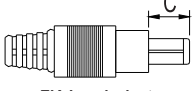
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|-------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Tuning Fork Style |  |  |  |
| Type No.          | A                                                                                 | B                                                                                 | C                                                                                 |
|                   | OD                                                                                | ID                                                                                | L                                                                                 |
| D1I               | 5.5                                                                               | 2.1                                                                               | 9.5                                                                               |
| D1J               | 5.5                                                                               | 2.1                                                                               | 11.0                                                                              |
| D1L               | 5.5                                                                               | 2.5                                                                               | 9.5                                                                               |
| D1M               | 5.5                                                                               | 2.5                                                                               | 11.0                                                                              |

|                   |                                                                                     |                                                                                     |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Tuning Fork Style |  |  |  |
| Type No.          | A                                                                                   | B                                                                                   | C                                                                                   |
|                   | OD                                                                                  | ID                                                                                  | L                                                                                   |
| D1IR              | 5.5                                                                                 | 2.1                                                                                 | 9.5                                                                                 |
| D1JR              | 5.5                                                                                 | 2.1                                                                                 | 11.0                                                                                |
| D1LR              | 5.5                                                                                 | 2.5                                                                                 | 9.5                                                                                 |
| D1MR              | 5.5                                                                                 | 2.5                                                                                 | 11.0                                                                                |

|              |                                                                                     |                                                                                     |                                                                                     |
|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Barrel Style |  |  |  |
| Type No.     | A                                                                                   | B                                                                                   | C                                                                                   |
|              | OD                                                                                  | ID                                                                                  | L                                                                                   |
| D2I          | 5.5                                                                                 | 2.1                                                                                 | 9.5                                                                                 |
| D2J          | 5.5                                                                                 | 2.1                                                                                 | 11.0                                                                                |
| D2L          | 5.5                                                                                 | 2.5                                                                                 | 9.5                                                                                 |
| D2M          | 5.5                                                                                 | 2.5                                                                                 | 11.0                                                                                |

|              |                                                                                       |                                                                                       |                                                                                       |
|--------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Barrel Style |  |  |  |
| Type No.     | A                                                                                     | B                                                                                     | C                                                                                     |
|              | OD                                                                                    | ID                                                                                    | L                                                                                     |
| D2IR         | 5.5                                                                                   | 2.1                                                                                   | 9.5                                                                                   |
| D2JR         | 5.5                                                                                   | 2.1                                                                                   | 11.0                                                                                  |
| D2LR         | 5.5                                                                                   | 2.5                                                                                   | 9.5                                                                                   |
| D2MR         | 5.5                                                                                   | 2.5                                                                                   | 11.0                                                                                  |

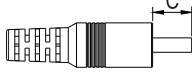
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|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Barrel Style |  |  |  |
| Type No.     | Pin Assignment                                                                      |                                                                                     |                                                                                     |
|              | PIN No.                                                                             | Output                                                                              |                                                                                     |
| M1B          | 1                                                                                   | -Vo                                                                                 |                                                                                     |
|              | 2                                                                                   | -Vo                                                                                 |                                                                                     |
|              | 3                                                                                   | +Vo                                                                                 |                                                                                     |
|              | 4                                                                                   | -Vo                                                                                 |                                                                                     |
|              | 5                                                                                   | +Vo                                                                                 |                                                                                     |

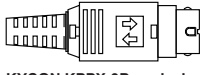
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|------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Center Pin Style |  |  |  |
| Type No.         | A                                                                                     | B                                                                                     | C                                                                                     |
|                  | OD                                                                                    | ID                                                                                    | L                                                                                     |
| D4A              | 5.5                                                                                   | 3.4                                                                                   | 11.0                                                                                  |
| D4B              | 6.5                                                                                   | 4.4                                                                                   | 11.0                                                                                  |
| D4C              | 7.4                                                                                   | 5.1                                                                                   | 11.0                                                                                  |
|                  |                                                                                       |                                                                                       | D                                                                                     |
|                  |                                                                                       |                                                                                       | Center Pin                                                                            |

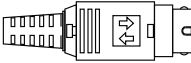
# YSC12 SERIES

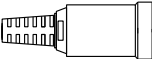
## 12W

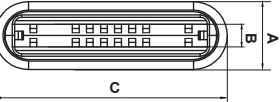
### DC Output Plug (Option)

| <b>Tuning Fork Style</b> |  |  |  |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                          |                                                                                   | EIAJ equivalent                                                                   |                                                                                   |
| Type No.                 | A                                                                                 | B                                                                                 | C                                                                                 |
|                          | OD                                                                                | ID                                                                                | L                                                                                 |
| D3A                      | 2.35                                                                              | 0.7                                                                               | 11.0                                                                              |
| D3B                      | 4.0                                                                               | 1.7                                                                               | 11.0                                                                              |
| D3C                      | 4.75                                                                              | 1.7                                                                               | 11.0                                                                              |

|                                    |                                                                                                                                                                                                                                                                                         |        |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| MIN.Din<br>3Pin with<br>Lock(male) |   <br>KYCON KPPX-3P equivalent |        |
| Type No.                           | Pin Assignment                                                                                                                                                                                                                                                                          |        |
|                                    | PIN No.                                                                                                                                                                                                                                                                                 | Output |
| M6B                                | 1                                                                                                                                                                                                                                                                                       | +Vo    |
|                                    | 2                                                                                                                                                                                                                                                                                       | -Vo    |
|                                    | 3                                                                                                                                                                                                                                                                                       | +Vo    |

|                                    |                                                                                     |                                                                                     |                                                                                     |                          |
|------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------|
| MIN.Din<br>4Pin with<br>Lock(male) |  |  |  | KYCON KPPX-4P equivalent |
| Type No.                           | Pin Assignment                                                                      |                                                                                     |                                                                                     |                          |
|                                    | PIN No.                                                                             |                                                                                     | Output                                                                              |                          |
| M7B                                | 1                                                                                   |                                                                                     | +Vo                                                                                 |                          |
|                                    | 2                                                                                   |                                                                                     | -Vo                                                                                 |                          |
|                                    | 3                                                                                   |                                                                                     | -Vo                                                                                 |                          |
|                                    | 4                                                                                   |                                                                                     | +Vo                                                                                 |                          |

|                                      |                                                                                       |                                                                                       |                                                                                       |                             |
|--------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------|
| MIN.Din<br>4Pin with<br>Lock(female) |  |  |  | KYCON KPJX-CM-4S equivalent |
| Type No.                             | Pin Assignment                                                                        |                                                                                       |                                                                                       |                             |
|                                      | PIN No.                                                                               |                                                                                       | Output                                                                                |                             |
| M7BF                                 | 1                                                                                     |                                                                                       | +Vo                                                                                   |                             |
|                                      | 2                                                                                     |                                                                                       | -Vo                                                                                   |                             |
|                                      | 3                                                                                     |                                                                                       | -Vo                                                                                   |                             |
|                                      | 4                                                                                     |                                                                                       | +Vo                                                                                   |                             |

| <b>Type-C</b> |  |  |  |
|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|               |                                                                                     |                                                                                     |                                                                                     |
| Type No.      | A                                                                                   | B                                                                                   | C                                                                                   |
|               | OD                                                                                  | ID                                                                                  | L                                                                                   |
| C1            | 2.4                                                                                 | 1.3                                                                                 | 8.25                                                                                |