

YSC120 SERIES  
120W



CE RoHS VI

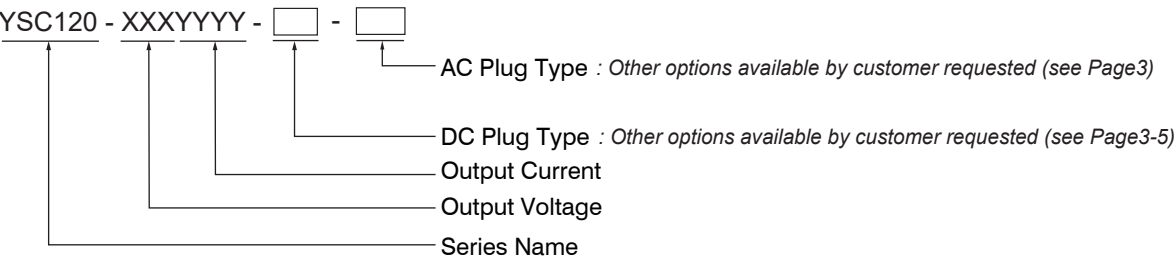
Features

- IP67
- Energy efficiency level VI
- Class II Power Supply
- 3 Years Warranty
- Universal AC input/Full range
- No load power consumption < 0.21W
- Protections: Short Circuit /Over Load / Over Voltage
- -20~+70℃wide range working temperature

Applications

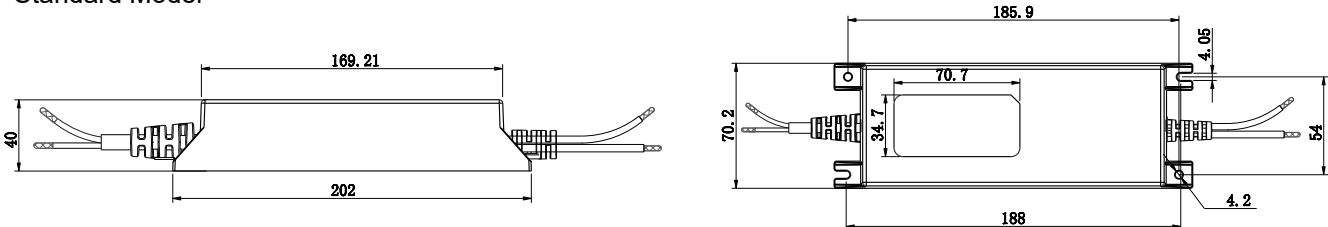
- Office Facilities
- Industrial Equipments
- Consumer Electronic Devices
- Telecommunication Devices
- Security Alarm System

Model Description



Dimensions and installation

Standard Model



|                   |                                          |
|-------------------|------------------------------------------|
| Standard AC Cable | 200mm PVC 2*0.5mm²                       |
| Standard DC Cable | 200mm UL2464<br>(Option: UL2468, UL1185) |
| 9 ~ 15V           | 18AWG                                    |
| 24V               | 20AWG                                    |
| 36V               | 22AWG                                    |

## Specification

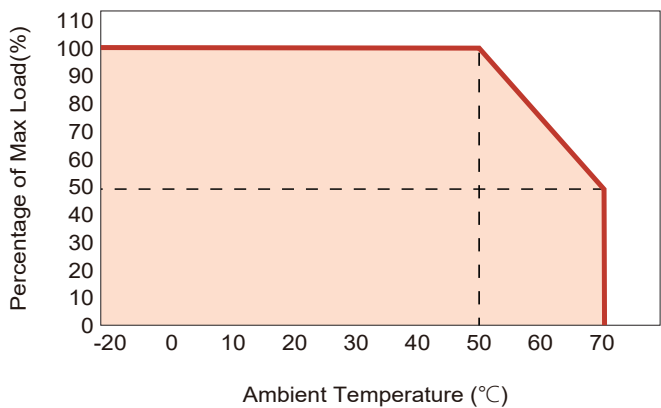
| Model      | Order P/N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | YSC120-0906000<br>- □ - □                                                         | YSC120-1206000<br>- □ - □ | YSC120-1506000<br>- □ - □ | YSC120-2405000<br>- □ - □                                                    | YSC120-3603330<br>- □ - □ |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------|---------------------------|------------------------------------------------------------------------------|---------------------------|
|            | Safety Model No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | YSC120-0906000                                                                    | YSC120-1206000            | YSC120-1506000            | YSC120-2405000                                                               | YSC120-3603330            |
| Output     | DC Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 9V                                                                                | 12V                       | 15V                       | 24V                                                                          | 36V                       |
|            | Rated Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 6A                                                                                | 6A                        | 6A                        | 5A                                                                           | 3.33A                     |
|            | Rated Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 54W                                                                               | 72W                       | 90W                       | 120W                                                                         | 120W                      |
|            | Ripple & Noise(max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100mVp-p                                                                          | 150mVp-p                  | 150mVp-p                  | 200mVp-p                                                                     | 300mVp-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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.5s,30ms,120ms/230VAC(at full load)                                              |                           |                           | 1.0s,30ms,25ms/115VAC(at full load)                                          |                           |
| Input      | Rated Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 220-240VAC                                                                        |                           |                           |                                                                              |                           |
|            | Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 200-265VAC                                                                        |                           |                           |                                                                              |                           |
|            | Frequency Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50/60Hz                                                                           |                           |                           |                                                                              |                           |
|            | AC Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1.3A/115VAC                                                                       |                           | 0.6A/230VAC               |                                                                              |                           |
|            | Inrush Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cold Start 60A/200us at 230VAC 50Hz                                               |                           |                           | Cold Start 40A/200us at 115VAC 50Hz                                          |                           |
|            | Leakage Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <0.25mA/230VAC                                                                    |                           |                           |                                                                              |                           |
|            | Efficiency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 89%                                                                               | 89.5%                     | 89%                       | 90%                                                                          | 91%                       |
|            | 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 61558                                                                          |                           |                           |                                                                              |                           |
|            | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 390g/pcs; 42.5 x 23 x 16 cm; 10pcs/carton                                         |                           |                           |                                                                              |                           |
|            | Dimension (LxWxH)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 202 x 70.2 x 40 mm                                                                |                           |                           |                                                                              |                           |
|            | Plug and Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | See page 3~5; Other type available by customer requested                          |                           |                           |                                                                              |                           |
|            | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 256.6Khrs 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. |                                                                                   |                           |                           |                                                                              |                           |

File last modification time: 2025-2-25

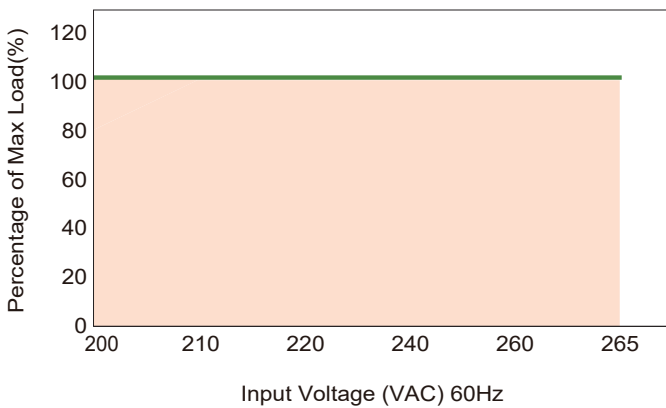
YSC120 SERIES  
120W

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)

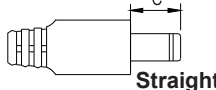
Standard Model : by customer

| 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 |

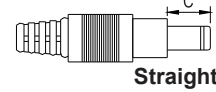
# YSC120 SERIES

## 120W

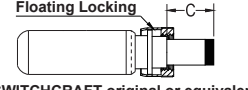
### DC Output Plug (Option)

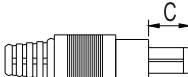
| Tuning Fork Style |  |  |  |
|-------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                   |                                                                                   |                                                                                   | Straight                                                                          |
| 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 |  |  |  |
|-------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                   |                                                                                     |                                                                                     | Right-angled                                                                        |
| 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 |  |  |  |
|--------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|              |                                                                                     |                                                                                     | Straight                                                                            |
| 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 |  |  |  |
|--------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|              |                                                                                       |                                                                                       | Right-angled                                                                          |
| 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                                                                                  |

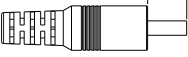
| Lock Style |  |  |  |
|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|            |                                                                                     |                                                                                     | Floating Locking<br>SWITCHCRAFT original or equivalent                              |
| Type No.   | A                                                                                   | B                                                                                   | C                                                                                   |
|            | OD                                                                                  | ID                                                                                  | L                                                                                   |
| D2S(S761K) | 5.53                                                                                | 2.03                                                                                | 12.06                                                                               |
| D2K(761K)  | 5.53                                                                                | 2.54                                                                                | 12.06                                                                               |
| D2C(S760K) | 5.53                                                                                | 2.03                                                                                | 9.52                                                                                |
| D2D(760K)  | 5.53                                                                                | 2.54                                                                                | 9.52                                                                                |

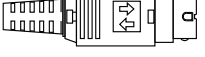
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|------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------|
| Center Pin Style |  |  |  | EIAJ equivalent |
| Type No.         | A                                                                                     | B                                                                                     | C                                                                                     | D               |
|                  | OD                                                                                    | ID                                                                                    | L                                                                                     | Center Pin      |
| D4A              | 5.5                                                                                   | 3.4                                                                                   | 11.0                                                                                  | 1.0             |
| D4B              | 6.5                                                                                   | 4.4                                                                                   | 11.0                                                                                  | 1.4             |
| D4C              | 7.4                                                                                   | 5.1                                                                                   | 11.0                                                                                  | 0.6             |

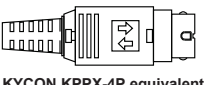
YSC120 SERIES

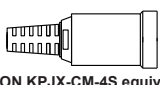
120W

DC Output Plug (Option)

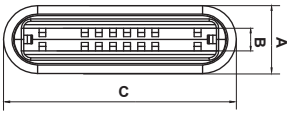
|                   |                                                                                   |                                                                                   |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Tuning Fork Style |  |  |  |
| 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 3Pin with Lock(male) |  |  |  |
| Type No.                     | Pin Assignment                                                                      |                                                                                     |                                                                                     |
|                              | PIN No.                                                                             | Output                                                                              |                                                                                     |
| M6B                          | 1                                                                                   | +Vo                                                                                 |                                                                                     |
|                              | 2                                                                                   | -Vo                                                                                 |                                                                                     |
|                              | 3                                                                                   | +Vo                                                                                 |                                                                                     |

|                              |                                                                                     |                                                                                     |                                                                                     |
|------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| MIN.Din 4Pin with Lock(male) |  |  |  |
| Type No.                     | Pin Assignment                                                                      |                                                                                     |                                                                                     |
|                              | PIN No.                                                                             | Output                                                                              |                                                                                     |
| M7B                          | 1                                                                                   | +Vo                                                                                 |                                                                                     |
|                              | 2                                                                                   | -Vo                                                                                 |                                                                                     |
|                              | 3                                                                                   | -Vo                                                                                 |                                                                                     |
|                              | 4                                                                                   | +Vo                                                                                 |                                                                                     |

|                                |                                                                                       |                                                                                       |                                                                                       |
|--------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| MIN.Din 4Pin with Lock(female) |  |  |  |
| Type No.                       | Pin Assignment                                                                        |                                                                                       |                                                                                       |
|                                | PIN No.                                                                               | Output                                                                                |                                                                                       |
| M7BF                           | 1                                                                                     | +Vo                                                                                   |                                                                                       |
|                                | 2                                                                                     | -Vo                                                                                   |                                                                                       |
|                                | 3                                                                                     | -Vo                                                                                   |                                                                                       |
|                                | 4                                                                                     | +Vo                                                                                   |                                                                                       |

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

|          |                                                                                       |                                                                                       |                                                                                       |
|----------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Type-C   |  |  |  |
| Type No. | A                                                                                     | B                                                                                     | C                                                                                     |
|          | OD                                                                                    | ID                                                                                    | L                                                                                     |
| C1       | 2.4                                                                                   | 1.3                                                                                   | 8.25                                                                                  |