# **BH3899 SERIES**

BH3899 series provides a 38.1mm through-bore for routing of hydraulic or pneumatic lines or hydraulic or pneumatic rotating shaft installation, and a compact 99mm outside diameter, features long life, fiber brush contact technology for ultimate performance in manychallenging applications. BH3899 series are standard, off-the-shelf products, Color-coded lead wires are used onboth the stator and rotor for simplified electrical connections. It can transmit signal (2A), 10A, multiple 10A current when 360° degree free rotating.

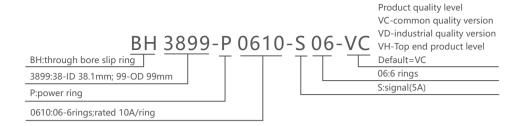
### **Product images**



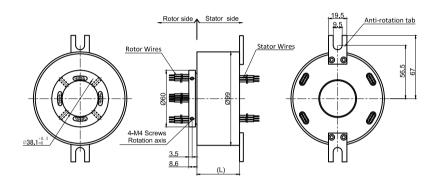
#### The pictures are for reference only

As the signal pathway increases or the combination of light and electricity results in changes in the appearance and size of the product, the actual product shall prevail.

# Part# Explanation



### **Dimensions**



### BH3899 Series Parts# List

| Part#            | 10A | Signal or 5A | Length-L (mm) |  |  |
|------------------|-----|--------------|---------------|--|--|
| BH3899-S02       | 0   | 2            | 31.6          |  |  |
| BH3899-P0210     | 2   | 0            | 31.6          |  |  |
| BH3899-S03       | 0   | 3            | 35            |  |  |
| BH3899-P0310     | 3   | 0            | 35            |  |  |
| BH3899-S06       | 0   | 6            | 45.2          |  |  |
| BH3899-P0210-S04 | 2   | 4            | 45.2          |  |  |
| BH3899-P0410-S02 | 4   | 2            | 45.2          |  |  |
| BH3899-P0610     | 6   | 0            | 45.2          |  |  |
| BH3899-S12       | 0   | 12           | 65.6          |  |  |
| BH3899-P0210-S10 | 2   | 10           | 65.6          |  |  |
| BH3899-P0310-S09 | 3   | 9            | 65.6          |  |  |
| BH3899-P0610-S06 | 6   | 6            | 65.6          |  |  |
| BH3899-P0810-S04 | 8   | 4            | 65.6          |  |  |
| BH3899-P1010-S02 | 10  | 2            | 65.6          |  |  |
| BH3899-P1210     | 12  | 0            | 65.6          |  |  |
| BH3899-S18       | 0   | 18           | 86            |  |  |
| BH3899-P0210-S16 | 2   | 16           | 86            |  |  |
| BH3899-P0410-S14 | 4   | 14           | 86            |  |  |
| BH3899-P0610-S12 | 6   | 12           | 86            |  |  |
| BH3899-P0810-S10 | 8   | 10           | 86            |  |  |
| BH3899-P1010-S08 | 10  | 8            | 86            |  |  |
| BH3899-P1210-S06 | 12  | 6            | 86            |  |  |
| BH3899-P1410-S04 | 14  | 4            | 86            |  |  |
|                  |     |              |               |  |  |

### BH3899 Series Parts# List

| Part#            | 10A | Signal or 5A | Length-L (mm) |  |  |
|------------------|-----|--------------|---------------|--|--|
| BH3899-P1610-S02 | 16  | 2            | 86            |  |  |
| BH3899-S24       | 0   | 24           | 106.4         |  |  |
| BH3899-P0410-S20 | 4   | 20           | 106.4         |  |  |
| BH3899-P0610-S18 | 6   | 18           | 106.4         |  |  |
| BH3899-P1210-S12 | 12  | 12           | 106.4         |  |  |
| BH3899-P1810-S06 | 18  | 6            | 106.4         |  |  |
| BH3899-P2410     | 24  | 0            | 106.4         |  |  |
| BH3899-S30       | 0   | 30           | 126.8         |  |  |
| BH3899-P0610-S24 | 6   | 24           | 126.8         |  |  |
| BH3899-P1210-S18 | 12  | 18           | 126.8         |  |  |
| BH3899-P1810-S12 | 18  | 12           | 126.8         |  |  |
| BH3899-P2410-S06 | 24  | 6            | 126.8         |  |  |
| BH3899-P3010     | 30  | 0            | 126.8         |  |  |
| BH3899-S36       | 0   | 36           | 150.2         |  |  |
| BH3899-P0610-S30 | 6   | 30           | 150.2         |  |  |
| BH3899-P1210-S24 | 12  | 24           | 150.2         |  |  |
| BH3899-P3610     | 36  | 0            | 150.2         |  |  |
| BH3899-S42       | 0   | 42           | 170.6         |  |  |
| BH3899-P0610-S36 | 6   | 36           | 170.6         |  |  |
| BH3899-P1210-S30 | 12  | 30           | 170.6         |  |  |
| BH3899-S48       | 0   | 48           | 193.2         |  |  |
| BH3899-P0610-S42 | 6   | 42           | 193.2         |  |  |
| BH3899-P0910-S39 | 9   | 39           | 193.2         |  |  |
| BH3899-P1210-S36 | 12  | 36           | 193.2         |  |  |
| BH3899-P1810-S30 | 18  | 30           | 193.2         |  |  |
| BH3899-P2410-S24 | 24  | 24           | 193.2         |  |  |
| BH3899-S60       | 0   | 60           | 234           |  |  |
| BH3899-P0610-S54 | 6   | 54           | 234           |  |  |
| BH3899-P0910-S51 | 9   | 51           | 234           |  |  |
| BH3899-P1210-S48 | 12  | 48           | 234           |  |  |
| BH3899-S72       | 0   | 72           | 277.8         |  |  |

Note: N channels 10A rings parallel can be used as 1 channel N\*10A current. For example: 2 rings 10A parallel could be used as 1 wires 20A. 10A,5A (signal) can combine freely in any way.It can be customized based on standard slip ring,please contact customer service for more detmails.

# **Electrical parameters**

| Project               | Power                      | Signal         |
|-----------------------|----------------------------|----------------|
| Rated Voltage         | 0~690VAC/VDC               | 0~440VAC/VDC   |
| Insulation Resistance | ≥1000MΩ/1000VDC            | ≥1000MΩ/500VDC |
| Lead Wires            | AWG16#Teflon               | AWG22#Teflon   |
| Lead Length           | Standard 300mm(adjustable) |                |
| Insulation Strength   | 1000VAC@50Hz, 60s          |                |
| Electrical Noise      | <0.01Ω                     |                |

#### Mechanical Data

| Project             | Value                                 |  |  |  |  |
|---------------------|---------------------------------------|--|--|--|--|
| Working Life        | See Product Quality Level Table       |  |  |  |  |
| Rotating Speed      | See Product Quality Level Table       |  |  |  |  |
| Working Temperature | -30°C~80°C                            |  |  |  |  |
| Operating Humidity  | 0~85% RH                              |  |  |  |  |
| Contact Material    | See Product Quality Level Table       |  |  |  |  |
| Housing Material    | Aluminium Alloy / Engineering plastic |  |  |  |  |
| Torque              | 0.1N.m, +0.03N.m/6rings               |  |  |  |  |
| Protection Grade    | lp51                                  |  |  |  |  |

### **Product Quality Level Table**

| Products Level Code | Max Rotating Speed | Working Life     | <b>Contact Material</b> |
|---------------------|--------------------|------------------|-------------------------|
| VC                  | 250RPM             | 20 Million Revs  | Precious Metal          |
| VD                  | 600RPM             | 80 Million Revs  | Gold-plated             |
| VH                  | 1000RPM            | 150 Million Revs | Gold-Gold               |

#### Lead Wires Color Code

| Ring  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Color | BLK | RED | YEL | GRN | BLU | WHT | BLK | RED | YEL | GRN | BLU | WHT |

<sup>(6</sup> wires for 1 group color, from 7-12, repeat the same color as 1...6, indicated with number code pipe)

### **Options For Custom Slip Ring**

Note: Below special demands can be customized. According, the delivery date will be extended 3 to 15 days; also the cost will be increased 30% to 50%. Most of our basic parts are standard and modular, which can save the cost and lead time

- 1. Cable exit way and cable length can be customized for both rotor and stator.
- 2. Because of the structure limitation, length/height/OD can be customized on your request.
- 3. Support current or signal up to 200 rings.
- 4. Aviation plug, terminal and heat-shrink tube are optional.
- 5. Hybrid slip ring for Yaskawa/Panasonic/Siemens servo control signal, power line and encoder line.
- 6. Support mixed high speed data transmission (including Ethernet, USB, RS232, RS485, Profibus, CanBUS, CANOPEN, DeviceNET, CC-LINK, ProfiNET, EtherCAT, etc.)
- 7. Can combine temperature control signal with thermocouple signal.
- 8. Special environment can be customized, such as quakeproof, high temperature, etc.
- 9. Hybrid Pneumatic/hydraulic and electric slip ring can be mixed.
- 10. High temperature can up to 500 degrees.
- 11. High pressure can up to 110KV
- 12. Rotating speed can up to 10000RPM
- 13. Maximum current can up to 5000 amperes.1Military grade
- 14. Optional for underwater IP65, Ip68.
- 15. Optional for stainless steel housing

Technical support: Info@orbinexus.com