

# M12 Circular Connector

Part Number :

**M12-05-A-S-4-S-L**

Client Order no.:

Item no. :

Order no. :

Consignment no. :

Offer no. :

Project :

Remarks :



| Basic Information   |                              |
|---------------------|------------------------------|
| Connector Series:   | M12 Field Wireable Connector |
| Connector Gender:   | Female                       |
| Orientation:        | Straight                     |
| Connector Coding:   | A Coded                      |
| Number of Contacts: | 5 Pin                        |

| Materials and Plating |                   |
|-----------------------|-------------------|
| Shell Material:       | Brass             |
| Shell Plating:        | Nickel-plated     |
| Insulation Material:  | Polyamide 66 GF25 |
| Contact Material:     | CuSn              |
| Contact Plating:      | Au                |

| Electrical Performance |                 |
|------------------------|-----------------|
| Rated Voltage:         | 60V             |
| Rated Current:         | 4A              |
| Insulation Resistance: | ≥100 MΩ         |
| Contact Resistance:    | < 10 mΩ         |
| Standard:              | IEC 61076-2-101 |
| Shielding Performance: | Shielded        |

| Mechanical Performance |                                                     |
|------------------------|-----------------------------------------------------|
| Coupling method:       | Threaded Coupling                                   |
| Threaded Size:         | M12x1                                               |
| Mount Method           | Cable Type                                          |
| Mount Feature          | Not Applicable                                      |
| Contact Termination    | Screw Joint                                         |
| Cable Od               | Not Applicable                                      |
| Thread Aperture        | Not Applicable                                      |
| Durability             | ≥500 cycles                                         |
| Wire Gauge             | 0.14/0.25/0.34/0.5mm <sup>2</sup> /(26/24/22/20AWG) |

| Environmental Performance |               |
|---------------------------|---------------|
| Temperature Range:        | -25°C to 85°C |
| Ip Rating:                | IP67          |

M12 Connector Part Number Breakout

|                                                                  |   |    |    |   |   |   |   |   |   |
|------------------------------------------------------------------|---|----|----|---|---|---|---|---|---|
|                                                                  | M | 12 | 03 | A | P | 1 | S | F | W |
| Series                                                           |   |    |    |   |   |   |   |   |   |
| Thread Diameter                                                  |   |    |    |   |   |   |   |   |   |
| Number of Contacts: 03/04/05/08/12                               |   |    |    |   |   |   |   |   |   |
| A: A-coded B: B-coded D: D-coded                                 |   |    |    |   |   |   |   |   |   |
| P: Pin S: Socket                                                 |   |    |    |   |   |   |   |   |   |
| 1: PCB 2:Soldering 3:Plastic screw-joint<br>4: Metal screw-joint |   |    |    |   |   |   |   |   |   |
| S: Straight R: Right angle H: Flange                             |   |    |    |   |   |   |   |   |   |
| F: Front Mount B: Backend Mount                                  |   |    |    |   |   |   |   |   |   |
| Wire                                                             |   |    |    |   |   |   |   |   |   |

Learn more about this connector on [Metabee's M series connector catalog](#).

**M12 Connector Pinout and Wiring Diagram**

| Pins | A                                                                                   | B                                                                                 | C                                                                                 | D                                                                                 | X                                                                                  | Y                                                                                  | S                                                                                 | T                                                                                  | K                                                                                   | L                                                                                   | M                                                                                   |
|------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 2    |    |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                    |  |  |  |  |  |
| 3    |    |                                                                                   |  |                                                                                   |                                                                                    |                                                                                    |  |  |  |  |  |
| 4    |    |  |  |  |                                                                                    |                                                                                    |  |  |  |  |  |
| 5    |    |  |  |                                                                                   |                                                                                    |                                                                                    |                                                                                   |                                                                                    |  |  |  |
| 6    |    |                                                                                   |  |                                                                                   |                                                                                    |   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |  |
| 8    |   |                                                                                   |                                                                                   |                                                                                   |  |  |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| 12   |  |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                    |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
| 17   |  |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                    |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |

| 芯位<br>Pins | 线芯颜色<br>Wire core color |
|------------|-------------------------|
| 2芯(Pins)   |                         |
| 1          | BN                      |
| 2          | -                       |
| 3          | BU                      |

| 芯位<br>Pins | 线芯颜色<br>Wire core color |
|------------|-------------------------|
| 3芯(Pins)   |                         |
| 1          | BN                      |
| 2          | -                       |
| 3          | BU                      |
| 4          | BK                      |

| 芯位<br>Pins | 线芯颜色<br>Wire core color |  |                      |  |                      |  |
|------------|-------------------------|--|----------------------|--|----------------------|--|
|            | 4芯A编码(4 Pins A-Code)    |  | 4芯B编码(4 Pins B-Code) |  | 4芯D编码(4 Pins D-Code) |  |
| 1          | BN                      |  | BN                   |  | YE                   |  |
| 2          | WH                      |  | WH                   |  | WH                   |  |
| 3          | BU                      |  | BU                   |  | OG                   |  |
| 4          | BK                      |  | BK                   |  | BU                   |  |

| 芯位<br>Pins           | 线芯颜色<br>Wire core color |
|----------------------|-------------------------|
| 5芯A编码(5 Pins A-Code) |                         |
| 1                    | BN                      |
| 2                    | WH                      |
| 3                    | BU                      |
| 4                    | BK                      |
| 5                    | GY                      |
| 5芯B编码(5 Pins B-Code) |                         |
|                      | BN                      |
|                      | WH                      |
|                      | BU                      |
|                      | BK                      |
|                      | GY                      |

| 芯位<br>Pins | 线芯颜色<br>Wire core color |
|------------|-------------------------|
| 6芯(Pins)   |                         |
| 1          | BN                      |
| 2          | WH                      |
| 3          | BU                      |
| 4          | BK                      |
| 5          | -                       |
| 6          | GY                      |
| 7          | RD                      |

| 芯位<br>Pins | 线芯颜色<br>Wire core color |
|------------|-------------------------|
| 8芯(Pins)   |                         |
| 1          | WH                      |
| 2          | BN                      |
| 3          | GN                      |
| 4          | YE                      |
| 5          | GY                      |
| 6          | PK                      |
| 7          | BU                      |
| 8          | RD                      |

| 芯位<br>Pins | 线芯颜色<br>Wire core color |
|------------|-------------------------|
| 12芯(Pins)  |                         |
| 1          | BN                      |
| 2          | BU                      |
| 3          | WH                      |
| 4          | GN                      |
| 5          | PK                      |
| 6          | YE                      |
| 7          | BK                      |
| 8          | GY                      |
| 9          | RD                      |
| 10         | VT                      |
| 11         | OG                      |
| 12         | LTGN                    |

| 芯位<br>Pins | 线芯颜色<br>Wire core color |
|------------|-------------------------|
| 17芯(Pins)  |                         |
| 1          | BN                      |
| 2          | BU                      |
| 3          | WH                      |
| 4          | GN                      |
| 5          | PK                      |
| 6          | YE                      |
| 7          | BK                      |
| 8          | GY                      |
| 9          | RD                      |
| 10         | VT                      |
| 11         | OG                      |
| 12         | LTGN                    |
| 13         | LTBU                    |
| 14         | BKWH                    |
| 15         | BNWH                    |
| 16         | RDWH                    |
| 17         | BUWH                    |

# Thanks!

Our team of passionate experts brings a wealth of experience to the table, ready to collaborate with you and unlock your full potential. By joining forces, we can create innovative solutions and achieve remarkable things.



## CONTACT US

**Phone:** +86 159 2624 1606

**E-mail:** [sales@metabeeai.com](mailto:sales@metabeeai.com)

**Web:** [metabeeai.com](http://metabeeai.com) & [metabee.com](http://metabee.com)

**Address:** Room 708, 7th Floor, Building 2, No. 489, Guanghuadong Third Road,  
Qinyang District, Chengdu, Sichuan, China