



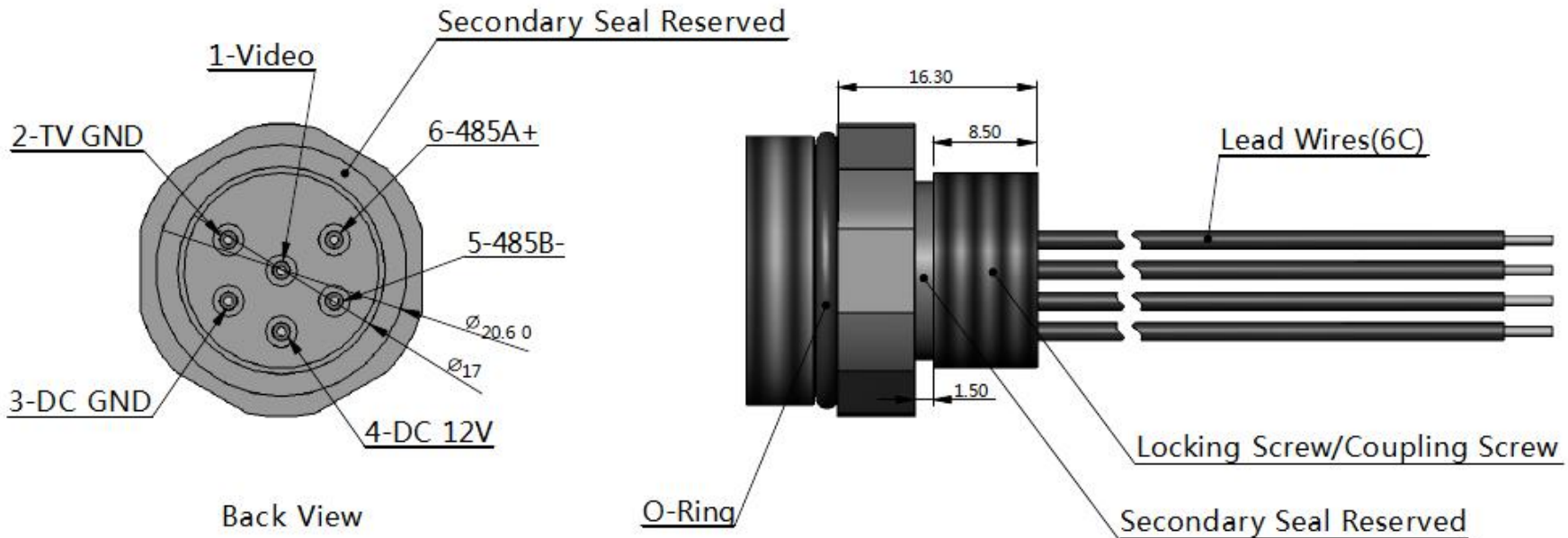
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# Shaanxi Granfoo Industrial Co., Ltd.

## What's including

1. Underwater Pan& Tilt CCTV Inspection Camera GLF-UDC-MH360
2. Evaluation Control Board(GC01KK10default)
3. Dedicated Slip Connector with Lead Wires(PTFE UL1332-6 AWG Cable: Approx 300mm)

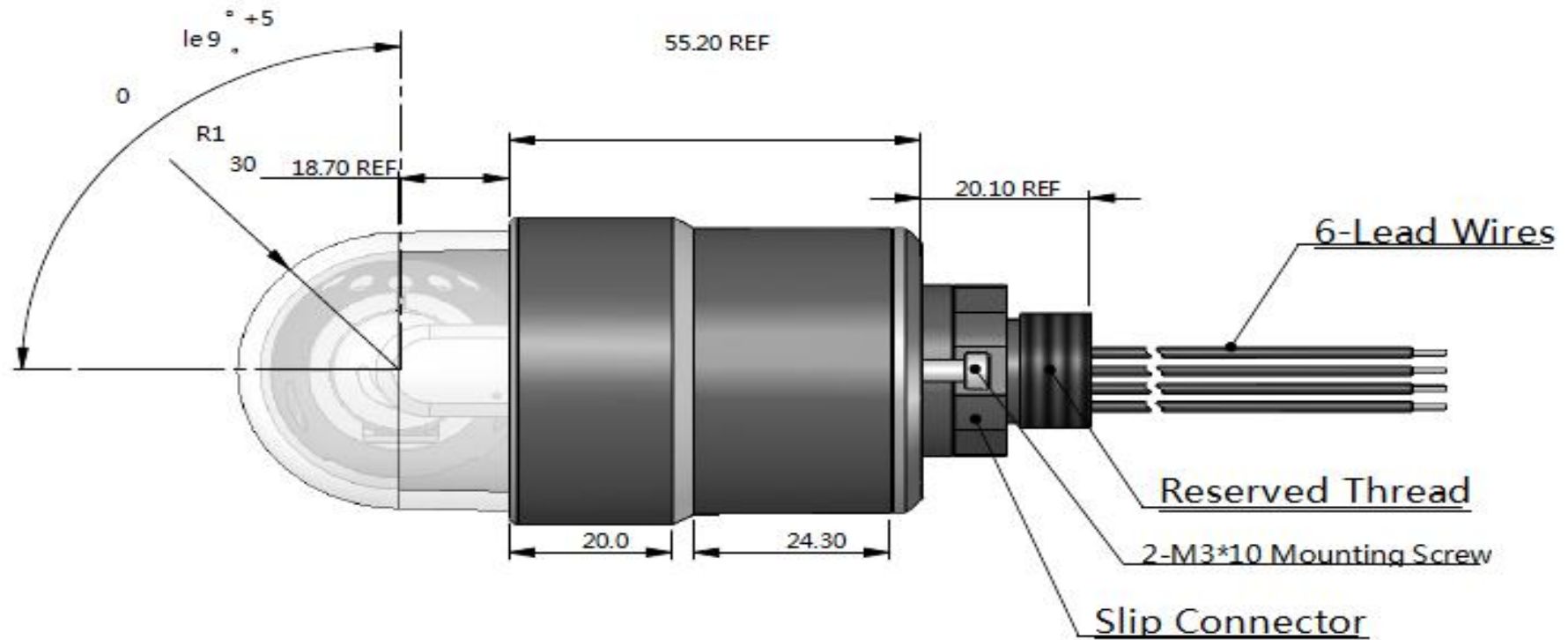




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## Specifications

|              |                                             |
|--------------|---------------------------------------------|
| Model        | <b>GLF-UDC-MH360</b>                        |
| Image sensor | 1/3 "SONY EXview HAD COMS                   |
| Resolution   | 1.3 megixel                                 |
| Video format | PAL(Default)/ NTSC(Optional)                |
| S/N ratio    | >52dB(Min)/ (AGC Off)                       |
| Video output | 1.0Vp - p composite video signal at 75 ohms |

Add: Rm311, No.A building of SOHO, Zhangba 1st road, High-Tech Zone, Xian City, Shaanxi, CN.  
Email: info@granfoo-cn.com

Tel: 0086-29-68780868



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| <b>OPTICAL</b>                |                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lens                          | 6.0mm Cone Lens(Default) / F2.0                                                                                                                                                                                                                                                                                                                                                                  |
| Angles of view                | Approx. 44°(D)& 34°(H) in Air                                                                                                                                                                                                                                                                                                                                                                    |
| Scanning radius(visibility)   | Approx. 5000mm underwater (Light Max)<br><i>Testing Condition: Underwater Visibility &gt; 5m</i>                                                                                                                                                                                                                                                                                                 |
| Operating radius(optimal)     | Approx.40mm~8000mm(Recommended) underwater                                                                                                                                                                                                                                                                                                                                                       |
| Minimum object distance       | Approx.40mm(Underwater)                                                                                                                                                                                                                                                                                                                                                                          |
| NOTE                          | The viewing distance is mainly affected by the factor of underwater visibility, so the focal point may be change.                                                                                                                                                                                                                                                                                |
| Optical dome                  | 32X HD Optical Dome(glass)                                                                                                                                                                                                                                                                                                                                                                       |
| Focus                         | Electric focusing(by key)                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ELECTRICAL</b>             |                                                                                                                                                                                                                                                                                                                                                                                                  |
| Camera power supply           | 12Vdc~16Vdc(+10%)/1500mA(Please match right control board according to selected transmission media and control distance)                                                                                                                                                                                                                                                                         |
| Power consumption             | 9W(Max)                                                                                                                                                                                                                                                                                                                                                                                          |
| Integrated auxiliary lighting | 6pcs ultra bright(Approx60LM/ pcs) white LED's (50 000 hours lifetime) , adjustable(Level 10)                                                                                                                                                                                                                                                                                                    |
| <b>MECHANICAL</b>             |                                                                                                                                                                                                                                                                                                                                                                                                  |
| Dimensions                    | Body housing OD43mm<br>Head OD 45mm (Max.)<br>Length Approx.125.60mm (Inc. Slip connector)                                                                                                                                                                                                                                                                                                       |
| Motion Core                   | All Metals Parts (Aluminum ) Made by CNC.                                                                                                                                                                                                                                                                                                                                                        |
| Tilt Motion                   | 90° on each side of the camera (Reciprocating motion). (3 Velocity& Step Model Preset, Lower, Medium and Higher, Dynamic switch). Attainable Tilt Velocity (Max.): 36/s (*), Attainable Resolution (Min): 1.5° (*), Reliability: 39000Hr Continuous run (*).<br>Endless in both directions. (3 Velocity& Step Model Preset, Lower, Medium and Higher, Dynamic switch). Attainable Pan Velocity ( |
| Pan Motion                    | Max.): 20/s (*), Attainable Resolution (Min): 1.5° (*), Reliability: 39000Hr Continuous run (*).                                                                                                                                                                                                                                                                                                 |

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|                                                       |                                                                                                                                                                                                                                                                                                              |
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| Weight                                                | Approx. 235g in air (Inc. Slip Connector and lead wires)<br>Approx. 130g in water (Inc. Slip Connector and lead wires)                                                                                                                                                                                       |
| Operating temperature:                                | - 15° / +55° (Recommended)                                                                                                                                                                                                                                                                                   |
| Storage temperature:                                  | - 40° / +80°                                                                                                                                                                                                                                                                                                 |
| Connector                                             | Dedicated Underwater Slip Connector(OH: SUS316)                                                                                                                                                                                                                                                              |
| Leading wire                                          | 300mm(default, Optional), manual welding                                                                                                                                                                                                                                                                     |
| AWG                                                   | PTFE 22 - 6.AWG                                                                                                                                                                                                                                                                                              |
| OH construction:                                      | Stainless steel housing(SUS316),End cap (SUS316),Hemispherical Dome(Optical PC/PMMA)                                                                                                                                                                                                                         |
| Water tightness:                                      | IP68 & Safety depth rating: 300m.)<br>Underwater Operating Time: Unlimited (Immersion).                                                                                                                                                                                                                      |
| Sealing material                                      | O - Ring+ Special Sealant(ROHS)+ PTFE sealing Film                                                                                                                                                                                                                                                           |
| TRANSMISSION MEDIA<br>transmission distance ≤<br>350m | ( “Distance” Refers to the length from the head to the master control unit )<br>Link to the control unit by underwater composite signal cable ( customized), also recommend special underwater Cat5e/6 UTP as a minimum and match a pair of passive transceiver use (Lower Cost& restrain the interferences) |
| <b>Control Platforms</b>                              |                                                                                                                                                                                                                                                                                                              |
| Evaluation Control Board (ECB)                        | PN: GC01KK - 10S(Default)                                                                                                                                                                                                                                                                                    |
| Type                                                  | Evaluating& Testing                                                                                                                                                                                                                                                                                          |
| Power                                                 | 12Vdc ± 10%/1.5A                                                                                                                                                                                                                                                                                             |

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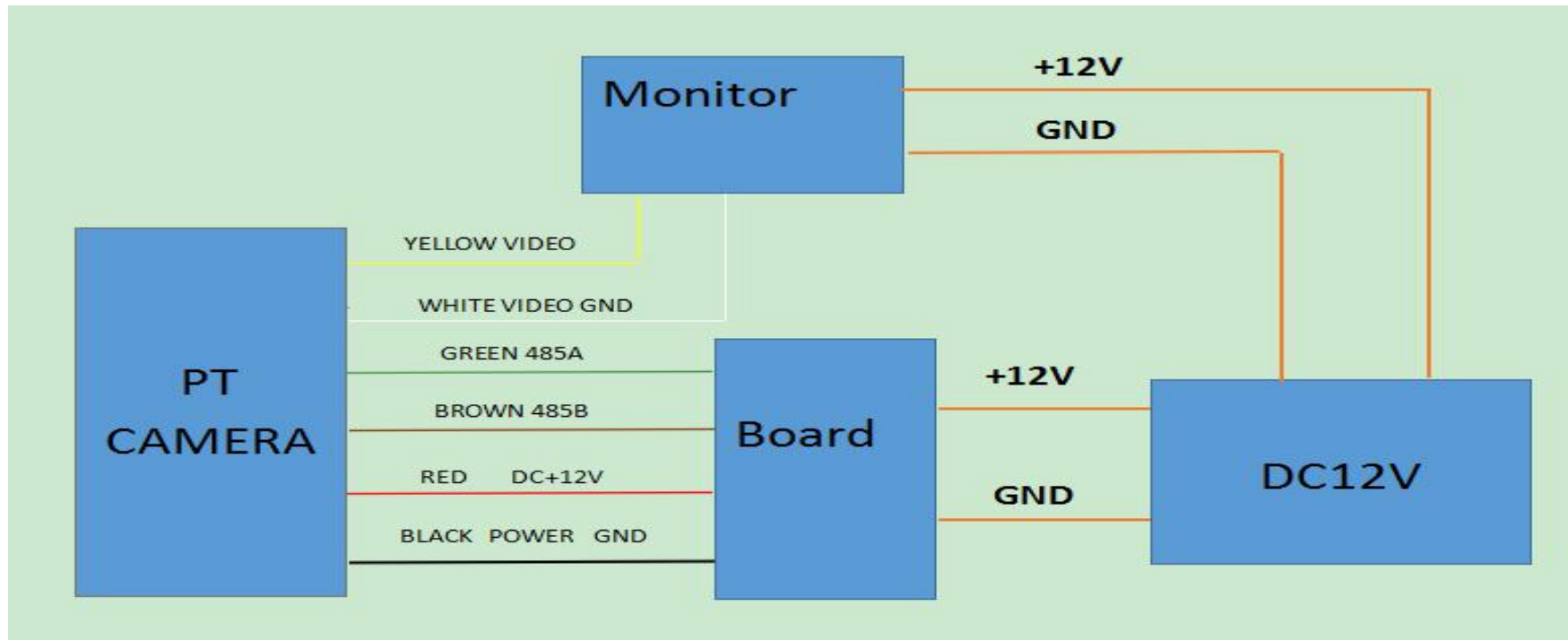
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### Functions

- Pan Operation [Step(Short press) / Multistep(Long press)]/ Reversing
- Tilt Operation [Step(Short press) / Multistep(Long press)]
- One - Push Autoscan Activated/ Off
- Various Velocity Setting/ Dynamic Switching
- Various Step Setting/ Dynamic Switching
- Light Adjustment(Level 10)
- Save mode

### Connecting

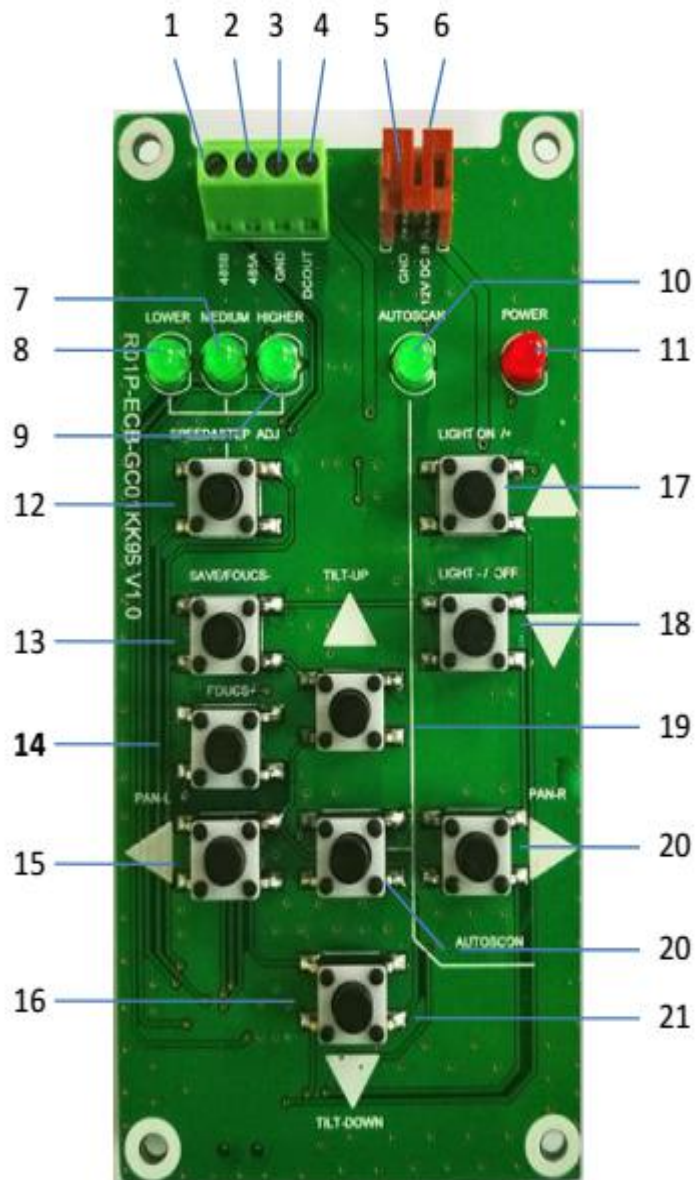




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|    |                                                                                                                          |
|----|--------------------------------------------------------------------------------------------------------------------------|
| 1  | 485B                                                                                                                     |
| 2  | 485A                                                                                                                     |
| 3  | POWER GND OUTPUT                                                                                                         |
| 4  | POWER +12V OUTPUT                                                                                                        |
| 5  | POWER GND INPUT                                                                                                          |
| 6  | POWER +12V INPUT                                                                                                         |
| 7  | MEDIUM SPEED INDICATOR LIGHT                                                                                             |
| 8  | LOW SPEED INDICATOR LIGHT                                                                                                |
| 9  | HIGH SPEED INDICATOR LIGHT                                                                                               |
| 10 | AUTOMATIC CRUISE INDICATOR LIGHT                                                                                         |
| 11 | POWER INDICATOR LIGHT                                                                                                    |
| 12 | PAN/TILE ADJUST THE SPEED ,<br>Default is medium speed .Each button press the speed changed cycle by low - medium - high |
| 13 | SAVE/FOCUSING —<br>3601/3602 is the save bottom before poweroff status ;3603 is cocusing minus                           |
| 14 | FOCUSING +                                                                                                               |



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|           |                                                                                                                |
|-----------|----------------------------------------------------------------------------------------------------------------|
| <b>15</b> | <b>PAN Clockwise moving bottom .Click for single-step movement, long press for continuous movement</b>         |
| <b>16</b> | <b>TILT Counterclockwise moving bottom .Click for single-step movement, long press for continuous movement</b> |
| <b>17</b> | <b>Brightness increase bottom, each press the brightness increases one level</b>                               |
| <b>18</b> | <b>Brightness decrease bottom, each press the brightness decreases one level</b>                               |
| <b>19</b> | <b>TILT Clockwise moving bottom .Click for single-step movement, long press for continuous movement</b>        |
| <b>20</b> | <b>PAN Counterclockwise moving bottom .Click for single-step movement, long press for continuous movement</b>  |
| <b>21</b> | <b>Automatic cruise bottom ,each press continue or stop</b>                                                    |

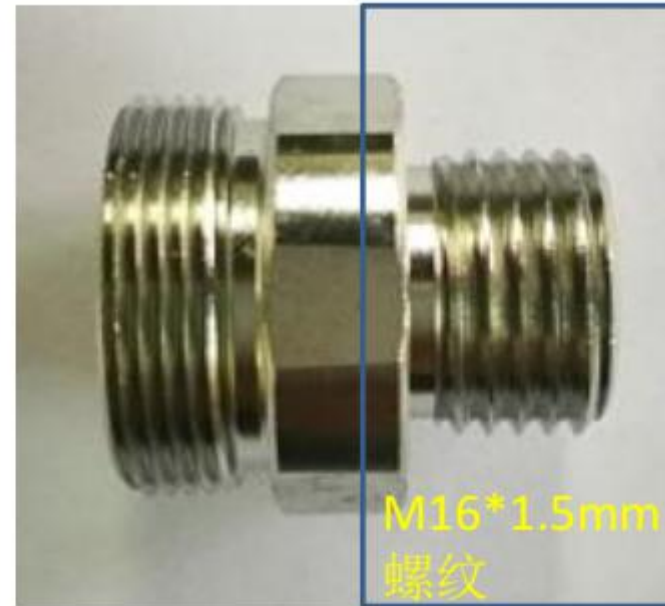
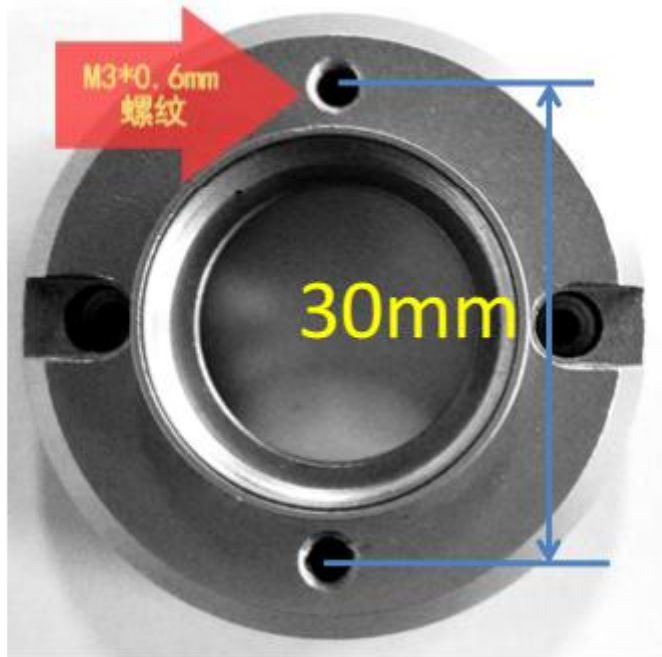


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## About fixed installation (two methods )





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## Product Show



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